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EMAIL TRANSMISSION

TO:	Andrew Muir	EMAIL:	[redacted]
ORGANISATION:	Lithgow City Council	DATE:	2 May 2018
COPY:	Hy-Tec, DPE, LCC	REFERENCE:	652

NO. OF PAGES (including attachments): 5

SUBJECT: Austen Quarry Modification 1 – Response to LCC Submission

☐ ***Confidential*** ■ ***Please Reply*** ■ ***For Follow-up*** ☐ ***Urgent*** ☐ ***For your information***

Greetings Andrew,

Following my discussion with [redacted] this morning, I have provided an overview of Hy-Tec's response to the Lithgow City Council (Council) submission regarding the proposed modifications to Development Consent SSD 6084. It would be appreciated if you could review these responses and provide further comment that may be reviewed and reflected in the formal *Response to Submissions* document that will be submitted to the Department of Planning and Environment.

Driver Conduct

In the submission Council notes an historic complaint regarding early arrival and queueing of heavy vehicles at the gates of the Quarry. Hy-Tec is aware of this complaint and discussed the concerns with the complainant at the time it was made. As a direct result of this complaint, Hy-Tec updated its Driver's Code of Conduct (which is signed by all drivers) to restrict all drivers from queuing at the Quarry entrance gate (on Jenolan Caves Road). Failure to comply with the Driver's Code of Conduct can result in disciplinary actions and if the issue is not resolved may result in a driver being banned from the Quarry.

To further limit the possibility of queueing on Jenolan Caves Road, a Hy-Tec employee opens the gates to the Quarry approximately half an hour prior to the commencement of operations. Hy-Tec has made an area available for trucks to park and wait within the Quarry before the weighbridge is open. The SAP software used by Hy-Tec to manage product despatch does not permit drivers to receive a ticket for product loading until the designated time for commencement (currently 5:00am) and will not permit trucks to leave after closing (currently 10:00pm Monday to Friday and 3:00pm Saturday). This system ensures that Hy-Tec maintains its commitments regarding operating hours, while the designated parking area avoids the need for drivers to queue at the Quarry entrance gate on Jenolan Caves Road.

Road Noise at Glenroy Bridge and the Glenroy Property

The Council submission refers to the requirement that noise at the Glenroy Bridge must be managed by all drivers and that there is no certainty of avoidance or implications for breaches of the traffic management plan. Council also requests that monitoring occur at the Glenroy property. Hy-Tec acknowledges the comments, however notes Jenolan Caves Road is a State road approved for 24-hour use over 7 days each week by heavy

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vehicles. At the proposed average daily traffic levels, the Hy-Tec contribution to total traffic on Jenolan Caves Road would only be approximately 26.8% of total traffic (based on traffic levels recorded on Jenolan Caves Road in February/March 2017).

The comment that there is no certainty of noise avoidance is correct, mostly because the road is approved for heavy vehicle transportation activities 24hrs each day over 7 days each week. The road is an important link to the Great Western Highway and is used by a significant number of other companies for transportation as well as tourist buses to Jenolan Caves and vehicles traffic to access Oberon and other villages.

The comments from Council fail to acknowledge the significant mitigation measures that have already been implemented by Hy-Tec in response to consultation with the owners of the Glenroy Property. It is also noted that the owners of the Glenroy Property have indicated their satisfaction with the measures. Hy-Tec commissioned long term (unattended) noise monitoring at the property with the results indicating that the road noise assessment criteria are satisfied at this location and that the implementation of a reduced speed at this location for Hy-Tec product trucks has reduced noise levels at this location when compared to all other vehicles on that section of the road.

Hy-Tec considers that the mitigation measures implemented and proposed for the Glenroy Property reduce noise levels generated by vehicles crossing the bridge and also provide mitigation to reduce the noise experienced at the residence (the family residence is 185m from Jenolan Caves Road and Glenroy Bridge). These measures are designed to mitigate the potential impact of noise generated by **all traffic** on Glenroy Bridge, not just that generated by Quarry-related heavy vehicles.

Hy-Tec considers that the proposed modification to operating hours for product loading and despatch are acceptable, with justification of the modification as follows.

- The road noise impact assessment for the proposed modifications concluded that the change in road traffic noise resulting from the change to operating hours and traffic levels would be negligible (<0.1dB(A)) between the Quarry entrance and the Great Western Highway over .
- Jenolan Caves Road is a State road approved for 24-hour heavy vehicle use. Hy-Tec's operations are consistent with this classification and Hy-Tec vehicles are not the only vehicles using the road and crossing the Glenroy Bridge. Based on the results of traffic surveys undertaken in February/March 2017, Hy-Tec trucks are approximately 17.5% of all midweek traffic on Jenolan Caves Road.
- The EPA submission notes that the Authority is satisfied that there would be no significant impacts on noise beyond the Site boundary.
- The RMS has recently resurfaced the Glenroy Bridge (February 2018) as a component of ongoing maintenance of Jenolan Caves Road. This has improved noise impacts at the Glenroy Property from vehicles travelling across the Glenroy Bridge.
- Hy-Tec has directed all drivers to implement a 40km/hr speed limit for all Quarry-related trucks at the approach to and on Glenroy Bridge to reduce the short-term noise levels that result from vehicles crossing the bridge.
- The recommended speed limit for Quarry-related trucks at the approach to and on Glenroy Bridge is implemented through the Quarry site-specific driver induction that all contracted drivers are required to sign and abide by. If drivers fail to meet the requirements they face disciplinary action and may be banned from the site.
- Hy-Tec funded an upgrade to approaches to the northern and southern sides of the Glenroy Bridge in late 2012 to remove general depressions between the bridge deck and its approaches that were contributing to impact noise as vehicles entered onto and departed from the bridge.

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- Hy-Tec has worked in conjunction with the owners of the Glenroy Property to plant 50 trees that, once grown, would act as a tree screen and reduce noise levels experienced at the Glenroy Property.
- Hy-Tec is also currently discussing installation of noise shutters at the family residence which would further mitigate noise impacts from all vehicles on Jenolan Caves Road, not just the Quarry-related vehicles.
- Hy-Tec has recently commissioned a campaign of noise monitoring at the Glenroy Property that indicated that noise impacts from Quarry-related heavy vehicles is less than other vehicles on the road, confirming the success of Hy-Tec's implemented mitigation measures.
- Noise monitoring at the Glenroy Property would continue for the life of the Quarry operation in accordance with the approved Noise Management Plan.

Finally, it is considered that the benefits of commencing truck despatch activities from 4:00am outweigh the potential impacts because of the following.

- Truck journeys commencing at 4:00am are likely to be up to one and a half hours less than when they commence later in the day. This has benefits for traffic congestion generally, time between breaks for drivers, diesel consumption, carbon emissions and the cost-efficiency of truck maintenance.
- All transport activities are contracted externally by Hy-Tec and commencing product despatch earlier in the day and avoiding traffic delays where possible, allows drivers to more effectively run their businesses and to maximise the number of journeys during busy periods. A large percentage of the contractors and drivers are living and operating their businesses from within the Lithgow City local government area.
- Increasing available hours for product despatch activities provides greater flexibility to Hy-Tec's operations and its contractors, while allowing for better planning for product despatch activities.

Tree Planting at the Glenroy Property

Council has requested that Hy-Tec provide a landscaping plan for the tree planting at the Glenroy Property. 50 trees were planted at the Glenroy Property on 23 April 2018. The location of trees was agreed and directed by the landowner. Given that the tree planting has occurred at the direction of the landowner, a landscaping plan is not considered necessary.

The owners of the Glenroy Property also suggested tree screening of the operational areas of the Quarry and 30 trees have been planted on bund walls between the Quarry and Jenolan Caves Road to better screen these areas from the road. It should be noted that the Quarry is not visible from the residence at the Glenroy Property.

Letter from Rosemary Barber

It is noted that the landowners of the Glenroy Property provided a letter to the Council, dated 6 March 2018 that was included with the submission provided by Council. In this letter, the landowners raised the following concerns regarding the proposed modifications.

- The area is prime beef producing country, a beautiful bird area and attractive to tourists, visitors and residents.
- Other quarries in Lithgow do not start operating until 7:00am.
- Jenolan Caves Road was not built for heavy truck use.

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- Glenroy Bridge was not built for heavy truck use.
- Potential impacts to the Glenroy camping area.

It should be noted that these concerns were not raised during consultation with Hy-Tec representatives who had met with the landowners on 3 March 2018 (three days earlier). A brief response to these issues is provided below.

- The existing approved operation of the Austen Quarry does not impact the ability of landowners in the Lithgow City local government area to use their properties for agricultural purposes. This would not change under the proposed modifications as no additional land is required for the proposed ongoing activities.
- The proposed modifications represent a net reduction in vegetation clearing and result in negligible change to road noise. Therefore, it is likely that impacts to birdlife in the local area would be improved under the proposed modifications and the appreciation of birdlife for local residents would not change.
- The proposed modification would not change the attractiveness of the local area to tourists, visitors and residents as there would be negligible changes to air quality, noise, water resources or visual amenity. This was confirmed in the submission from the EPA that notes the following

  The EPA has reviewed the SEE for the proposed modifications and considers that the proposed expansion at the premises will not lead to any significant impacts on air, water or noise beyond the site boundary.
- Hy-Tec is not aware of the other quarries in the Lithgow area that limit their operating hours as described in the letter. However, it is important to note that the limits placed on any operation should be specific and relevant to that operation. The submission from the Division of Resources and Geoscience notes the significance and strategic location of resources at the Austen Quarry in relation to Sydney. The intention of the modification is to improve the management of transportation activities and to maintain the efficient supply of aggregates to the Sydney market. Commencing product despatch activities from 4:00am would improve the management of transportation operations, reduction in fuel use and hence reduced carbon emissions, while also improving opportunities for employment of local transport contractors. The SoEE assessed potential changes to road traffic noise and sleep disturbance incorporating the earlier starting time and concluded that the change in road traffic noise levels generated by Quarry-related trucks under the proposed modifications would be negligible (<0.1dB(A)) between the Quarry entrance and the Great Western Highway for both the night time (10pm to 7am) and daytime (7am to 10pm) periods. It is important that the operating limits imposed on the Austen Quarry are relevant to that operation and the assessed environmental impacts.
- As noted previously, Jenolan Caves Road (including the Glenroy Bridge) is a State road that is approved for 24-hour use by heavy vehicles such as those used for the Austen Quarry. Hy-Tec has been operating at Austen Quarry for over 13 years with minimal impact to the road surface. Regardless, as a State-managed road, the maintenance of Jenolan Caves Road and the Glenroy Bridge are the responsibility of RMS. It is noted that RMS resurfaced the approaches and crossing of the Glenroy Bridge on 8 February 2018 as well as other locations along Jenolan Caves Road as part of its ongoing maintenance program for the road.
- The landowners expressed their concern regarding potential impacts for users of the Glenroy camping ground. However, it should be noted that Hy-Tec is not the only road user in this location and that trucks and passenger vehicles cross the bridge throughout the night (Hy-Tec trucks are limited to the approved operating hours). The mitigation measures agreed with the

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landowners, most of which have been implemented, would further mitigate noise impacts for campers in this location. As described previously, a recent noise monitoring campaign has demonstrated that the noise generated by Quarry-related product delivery during the currently approved transport hours is generally lower than that generated by other vehicles on the road, principally due to the recently implemented direction from Quarry management to reduce the speed of Quarry-related heavy vehicles at this location and the fact that there are fewer Quarry vehicles than other traffic. In addition, it was predicted that the change in road traffic noise levels resulting from the proposed modifications would be negligible (<0.1dB(A)) for both daytime and night time periods based on trucks travelling at the currently approved speed limit (80km/hr).

I trust the above satisfactorily addresses Council's concerns regarding the proposed modifications. Hy-Tec has investigated all reasonable and feasible mitigation at the Glenroy Property and proceeded to implement most of the proposed mitigation measures at this location, to the satisfaction of the landowner.

It would be appreciated if you could respond to the above response so that we can provide the Department of Planning and Environment with an update these matters to inform assessment of the proposed modifications. If you have any questions on the response, please feel free to contact me in the RWC Brooklyn office or alternatively contact Darryl Thiedeke or David Cilento of Hy-Tec.

Regards,

[redacted]

Nick Warren
Senior Environmental Consultant

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4.15 PLANNING REPORT - DEVELOPMENT ASSESSMENT REPORT DA067/18 – INSTALLATION OF TOILET BLOCK DAINTREE LANE WALLERAWANG

PROPOSAL

The proposal involves the installation of an Exeloo Jupiter toilet block that includes one single unisex ambulant and a single unisex accessible toilet and baby change table off Daintree Lane Wallerawang.

SUMMARY

To advise Council of the submission of Development Application 067/18 for Lithgow City Council for the installation of a new toilet block off Daintree Lane Wallerawang.

The application is recommended for approval subject to conditions.

LOCATION OF THE PROPOSAL

Legal Description : Lot 101, DP 773811
Property Address : 36/40 Main Street
Wallerawang

ZONING:

The land is zoned B2 Business Local Centre in the Lithgow Local Environmental Plan 2014.

PERMISSIBILITY:

The development is considered permissible in accordance with the Lithgow Local Environmental Plan 2014.

POLICY IMPLICATIONS (OTHER THAN DCP's)

Council's Policy 7.6 – Development Applications on Council owned land are required to be referred to Council for consideration and determination and that no aspect of the development be dealt with under delegated authority. Given Council's ownership of this land the proposal is reported to Council for determination.

FINANCIAL IMPLICATIONS (eg Section 94)

The project is funded through the 2017/18 Operational Plan but this is not applicable to the assessment of the development application.

LEGAL IMPLICATIONS

In determining a development application, a consent authority is required to take into consideration the matters of relevance under Section 4.15 of the Environmental Planning and Assessment Act 1979. These matters for consideration are as follows:

Any Environmental Planning Instrument

Consider SEPPs, REPs & LEPs. RELEVANT Provisions of LEP (eg permissibility, development standards, heritage listing, advertising requirements of another authority who administers a SEPP or REP). Is a SEPP1 objection required?

SEPP: The State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 applies to this land. This plan requires all development to have a neutral or beneficial effect on water quality. The proposal is in accordance with the SEPP and NorBE assessment has been satisfied.

LEP Zone B2 Business Local Centre: The development is classified as a community facility under the Lithgow Local Environment Plan and therefore the proposal is permitted with development consent.

Any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority
If applicable, is the development consistent with the objectives of the draft instrument?

Not applicable

Any Development Control Plan
Is the proposal consistent with the DCP? If not, is a variance warranted and has it been justified?

Not applicable.

Any planning agreement that has been entered into under Section 93F, or any draft planning agreement that a developer has offered to enter into under Section 93F?

Not applicable.

Any matters prescribed by the regulations that apply to the land
Refer to clause 92, 93, & 94 of the Regulation. If a DA for demolition, the provisions of AS 2601-1991; The Demolition of Structures. Fire Safety considerations – DA that does not seek the rebuilding, alteration, enlargement or extension of the building. Consent Authority may require buildings to be upgraded – DA comprising the rebuilding, alteration enlargement or extension, take into consideration whether it is appropriate to require the building to be brought into conformity with the BCA.

The proposal involves installation of a new building that will comply with relevant standards and the BCA.

The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality
The proposal is for a new building to be used as a public facility. The installation is fitted with electronic controlled door locking and can be preset for nightime lockup. It will provide an important facility that will be accessible for persons with disabilities. No such facilities are available in the location.

The Suitability of the site for the development
See above

Heritage Act 1977
If the proposal is a state listed item then an assessment by Heritage Council will be required and maybe a Section 60 application. This is to be addressed under this Act.

Not applicable.

Mine Subsidence Compensation Act 1961
Not applicable.

Any submissions made in accordance with this Act or the Regulations
If relevant, consider public and authority submissions. Do submissions relate to valid Planning issues?

The proposal was not required to be notified.

The public interest
The proposal seeks to improve the level of amenity and functionality of existing infrastructure and therefore is in the public interest.

Building Surveyor's Comments
The proposed Class 10a building, has a finished floor level that will facilitate access by persons with disabilities and will be able to withstand the relevant snow load calculated under AS 1170.3. The building proposal satisfies the Deemed-to-Satisfy provisions of BCA 2016.

CONCLUSION / RECOMMENDATION

The development application meets the objectives under Section 4.15 of the Environmental Planning & Assessment Act 1979 and Council's policies therefore approval is recommended subject to the following conditions:

1. That the development be carried out in accordance with the application, accompanying information, plans submitted with the application and any further information provided during the process unless otherwise amended by the following conditions.

2. All exposed earthworks and disturbed areas shall have suitable sediment control measures in place **prior** to the commencement of construction to prevent soil erosion and the transport of sediment off the site during rainfall and runoff. The sediment control measures shall be continually monitored and maintained for the duration of construction and for six months after completion. All disturbed areas shall be revegetated with native vegetation endemic to the area.

3. An appropriate fence preventing public access to the site shall be erected for the duration of Construction works

4. To ensure structural integrity, the maintenance of minimum health standards, the management of the buildings surrounds and the protection of the environment, compliance

certificates are to be issued at significant stages throughout the construction period. These stages are:

a) Slab base and reinforcement steel prior to placement of concrete
b) All external sewer drainage.
c) Stormwater drainage between building and discharge point (drainage pipes, soakage pits and the like) prior to covering.
d) Completion of the development and sign off to all conditions of the consent prior to occupation and use.

At each inspection, erosion and sediment control measures and site management will be inspected.

Note: forty-eight (48) hours notice shall be given to Council prior to inspections.

5. All work on site shall only occur between the following hours:

Monday to Friday	7.00am to 6.00pm
Saturday	8.00am to 1.00pm
Sunday and public holidays	No work

6. That the proposed rainwater drains are connected to the existing rainwater disposal system.
7. That existing plumbing and drainage fixtures affected by the building works are modified or relocated in accordance with the requirements of the Council.
8. All plumbing and drainage work is to be carried out by a licensed plumber and drainer.

Report prepared by:…….. Supervisor:…….

Dated:…… Dated:……

PROPOSED TOILET BLOCK
Lot 101 DP 773811
37
46
42
44
DAINTREE LANE
MAIN ST
36*40
36*40
31
34
32
30
Proposed Toilet
Block
(4m x 2.5m)

PARKS & LEISURE AUSTRALIA NSW/ACT

2018 REGIONAL AWARDS OF EXCELLENCE

Strategic Planning Award

HIGH COMMENDATION

Farmers Creek Precinct Masterplan

Gondwana Consulting

Les Munn
President
Parks and Leisure Australia NSW/ACT

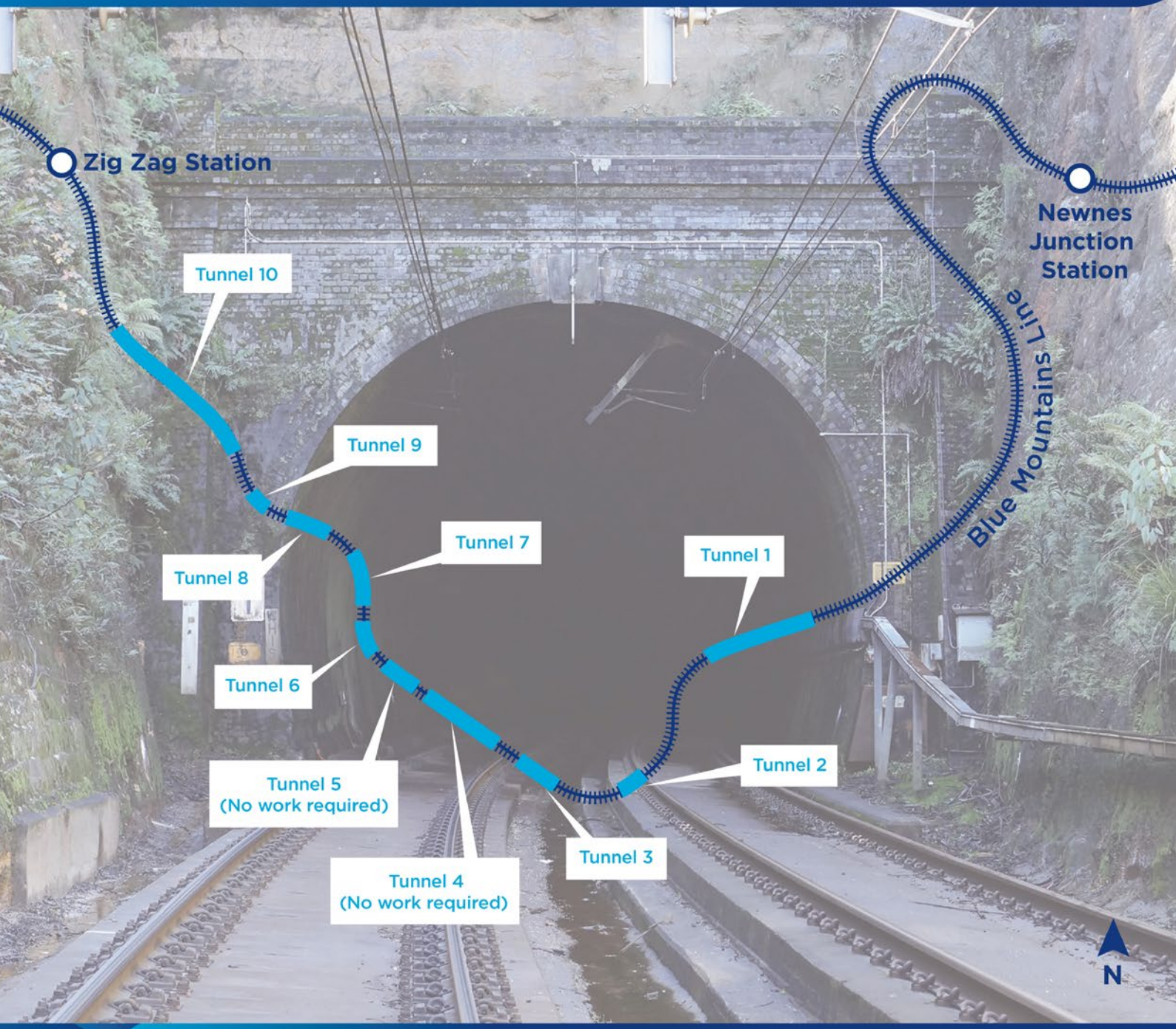
Erosion on Austen & Butta Land. Land owned by Bradford on left.

Erosion on Council Road reserve adjacent bridge

NSW GOVERNMENT

New Intercity Fleet Ten Tunnels Deviation Modifications

Determination Report



April 2018

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Glossary and abbreviations

Term	Meaning
CEMP	Construction Environmental Management Plan
CMS	Conservation Management Strategy
Contractor	The Contractor for the Proposed Activity would be appointed by TfNSW to undertake the detailed design and construction of the Proposed Activity.
Determination Report	This document – a report prepared by TfNSW to assess and address certain matters to allow for a determination of the Proposed Activity under, and in accordance with, Part 5 Division 5.1 of the EP&A Act.
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000* (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
Infrastructure SEPP	*State Environmental Planning Policy (Infrastructure) 2007* (NSW)
IPART	Independent Pricing and Regulatory Tribunal
LEP	Local Environmental Plan
LGA	Local Government Area
NES	Matters of 'National Environmental Significance' under the EPBC Act
OEH	NSW Office of Environment and Heritage
Proposed Activity	The construction and operation of the Ten Tunnels Deviation Modifications
REF	Review of Environmental Factors
Section 60 Approval	Refers to the Section 60 Approval issued for the Proposed Activity under the *Heritage Act 1977* by the Heritage Council on the 29 March 2018 (included at Appendix C).
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
TfNSW	Transport for NSW
TMP	Traffic Management Plan

Definitions

Term	Meaning
Carriages/cars	Individual pieces of rolling stock designed to carry passengers.
Concept design	The concept design is the preliminary design presented in this REF, which would be refined by the Contractor (should the Project proceed) to a design suitable for construction (subject to TfNSW acceptance).
Curtilage	The boundary of the relevant heritage listing (i.e. the area of land surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance).
Detailed design	Detailed design broadly refers to the process that the Contractor undertakes (should the Project proceed) to refine the concept design to a design suitable for construction (subject to TfNSW acceptance).
Determination	TfNSW is a determining authority for projects which require assessment under Part 5 Division 5.1 of the EP&A Act and must undertake this role in accordance with section 5.5 (previously section 111). To make a determination, TfNSW will prepare a report to document the consideration of the relevant legislative requirements and the potential environmental impacts of the project and determine whether these impacts are likely to be significant. TfNSW may also impose conditions of approval, as part of the determination.
Feasible	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given project constraints such as safety and maintenance requirements.
New Intercity Fleet	The New Intercity Fleet is a new fleet of trains that will replace the existing intercity fleet and will service the Central Coast and Newcastle, Blue Mountains and South Coast Lines.
Noise sensitive receiver	In addition to residential dwellings, noise sensitive receivers include, but are not limited to, hotels, entertainment venues, pre-schools and day care facilities, educational institutions (e.g. schools, TAFE colleges), health care facilities (e.g. nursing homes, hospitals), recording studios and places of worship/religious facilities (e.g. churches).
NSW TrainLink	From 1 July 2013, NSW Trains (NSW TrainLink) became the new provider of intercity, regional and interstate rail and coach services for customers travelling longer distances.
Out of hours works	Defined as works *outside* standard construction hours (i.e. outside of 7am to 6pm Monday to Friday, 8am to 1pm Saturday).
Portal	The portal refers to the arched entrances and exits to each of the tunnels. The terms ‘towards Lithgow’ or ‘towards Sydney’ denote location and orientation.
Project	The construction and operation of the New Intercity Fleet – Ten Tunnels Deviation Modifications.

Term	Meaning
Project site	The rail corridor between the eastern portal of Tunnel 1 (Sydney end) to the western portal of Tunnel 10 (Lithgow end) and temporary construction compounds (between Tunnel 2 and Tunnel 3, at the end of Tunnel 9 and approximately 500 metres east of the Sydney end of Tunnel 1).
Proponent	A person or body proposing to carry out an activity under Part 5 Division 5.1 of the EP&A Act – in this instance, TfNSW.
Routine rail possession	Possession is the term used by railway building/maintenance contractors to indicate that they have taken possession of the track (usually a block of track) for a specified period, so that no trains operate for a specified time. This is necessary to ensure the safety of workers and rail users. Routine rail possessions are scheduled closures that would occur regardless of the Proposed Activity.
Reasonable	Selecting reasonable measures from those that are feasible involves making a judgment to determine whether the overall benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.
Sensitive receivers	Land uses which are sensitive to potential noise, air and visual impacts, such as residential dwellings, schools and hospitals.
Sydney Trains	From 1 July 2013, Sydney Trains replaced CityRail as the provider of metropolitan train services for Sydney.
Ten Tunnels Deviation	The Ten Tunnels Deviation is the section of railway track between Newnes Junction Station and Zig Zag Station on the Blue Mountains Line. The deviation comprises ten heritage-listed tunnels of varying lengths and the associated rail corridor in between.
Train sets	A series of train carriages/cars that are linked together for a particular service.
V-Set	A class of electric passenger train that is part of the existing intercity fleet that operates on the Central Coast & Newcastle Line and Blue Mountains Line.
XPT	Short for ‘express passenger train’. The XPT fleet is used by NSW TrainLink for regional and interstate services.

Executive summary

Overview of Proposed Activity

Transport for NSW (TfNSW) is responsible for improving the customer experience of transport services, transport policy and regulation, planning and program administration, procuring transport services, and infrastructure and freight.

TfNSW is the Proponent for the Ten Tunnels Deviation Modifications (the 'Proposed Activity'), which is part of the New Intercity Fleet program.

The Proposed Activity would involve minor modifications to sections of the lining of eight tunnels in the Ten Tunnels Deviation and minor modifications to ancillary infrastructure extending from the eastern portal of Tunnel 1 (Sydney end) to the western portal of Tunnel 10 (Lithgow end) to facilitate the introduction of the new trains which are wider and longer than the existing V-Set trains.

Proposed modifications to accommodate the New Intercity Fleet from Springwood to Lithgow outside of the Ten Tunnels Deviation were previously developed by TfNSW and were subject to a separate environmental impact assessment process[1].

AECOM Australia Pty Ltd (AECOM) on behalf of TfNSW (as the Proponent for the Proposed Activity) has prepared a Review of Environmental Factors (REF) that details the scope of works and environmental impacts associated with the Proposed Activity. The REF was prepared in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

Modifications to the Proposed Activity

No modifications have been made to the Proposed Activity since the REF was prepared, however modifications may be considered during the detailed design phase.

Should design modifications be required as a result of the detailed design process, these modifications would be assessed to determine consistency with the Approved Project, including the potential significance of impacts on the environment. Additional mitigation measures and/or consultation would be undertaken where necessary.

Purpose of this report

The purpose of this Determination Report is for TfNSW, as the Proponent of the Ten Tunnels Deviation Modifications, to comply with its obligations under Part 5 Division 5.1 of the EP&A Act and determine whether or not to proceed with the Proposed Activity. TfNSW must make a determination in accordance with the provisions of Part 5 Division 5.1 of the EP&A Act.

Conclusion

Based on the assessments in the REF and a review of the submissions received from the community and stakeholders, it is recommended that the Proposed Activity be approved, subject to the mitigation measures included in the REF and the proposed Conditions of Approval. TfNSW will continue to liaise with the community and other stakeholders as the Proposed Activity progresses through detailed design and into the construction phase.

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[1] https://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-springwood-to-lithgow-rail-corridor

1 Introduction

1.1 Background

TfNSW is the NSW Government's lead public transport agency with responsibility for ensuring that planning and policy are fully integrated across all modes of transport in NSW. It manages a multi-billion dollar budget allocation for train, bus, ferry, light rail and taxi services and related infrastructure in NSW.

TfNSW is responsible for improving the customer experience of transport services, transport policy and regulation, planning and program administration, procuring transport services, infrastructure and freight.

In May 2014, the NSW Government announced that it would deliver a New Intercity Fleet to replace the trains carrying customers from Sydney to the Central Coast, Newcastle, the Blue Mountains and the South Coast. The introduction of the New Intercity Fleet would replace the older electric train fleets currently used to provide intercity services.

The New Intercity Fleet will:

- provide a more consistent and improved level of customer service for intercity customers
- facilitate the replacement of two electric train sets currently in operation
- reduce the costs of intercity operations.

Modifications to sections of the lining of eight tunnels in the Ten Tunnels Deviation and minor modifications to ancillary infrastructure extending from the eastern portal of Tunnel 1 (Sydney end) to the western portal of Tunnel 10 (Lithgow end) are required to facilitate the introduction of the new trains which are wider and longer than the existing V-Set trains (see Figure 1-1).

Modifications to the Blue Mountains Line are required to be completed prior to the introduction of the New Intercity Fleet rolling stock. The modifications will be completed to meet the delivery schedule of the New Intercity Fleet. New trains will start operating on the Blue Mountains Line to Mount Victoria in mid-2020, followed by Lithgow a few months later.

TfNSW is the Proponent for the Ten Tunnels Deviation Modifications (referred to as the 'Proposed Activity' for the purposes of this report).

1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) has been prepared for the Proposed Activity in accordance with sections 111 and 112 then in force (now sections 5.5 and 5.7 as of 1 March 2018) of the *Environmental Planning and Assessment 1979* (EP&A Act), and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The REF takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposed Activity. The REF is included in Appendix A**.**

The Ten Tunnels Deviation Modifications REF was placed on public display from Tuesday 6 February to Tuesday 27 February 2018, with 17 submissions received. Issues raised in these submissions are addressed in Chapter 2 of this report.

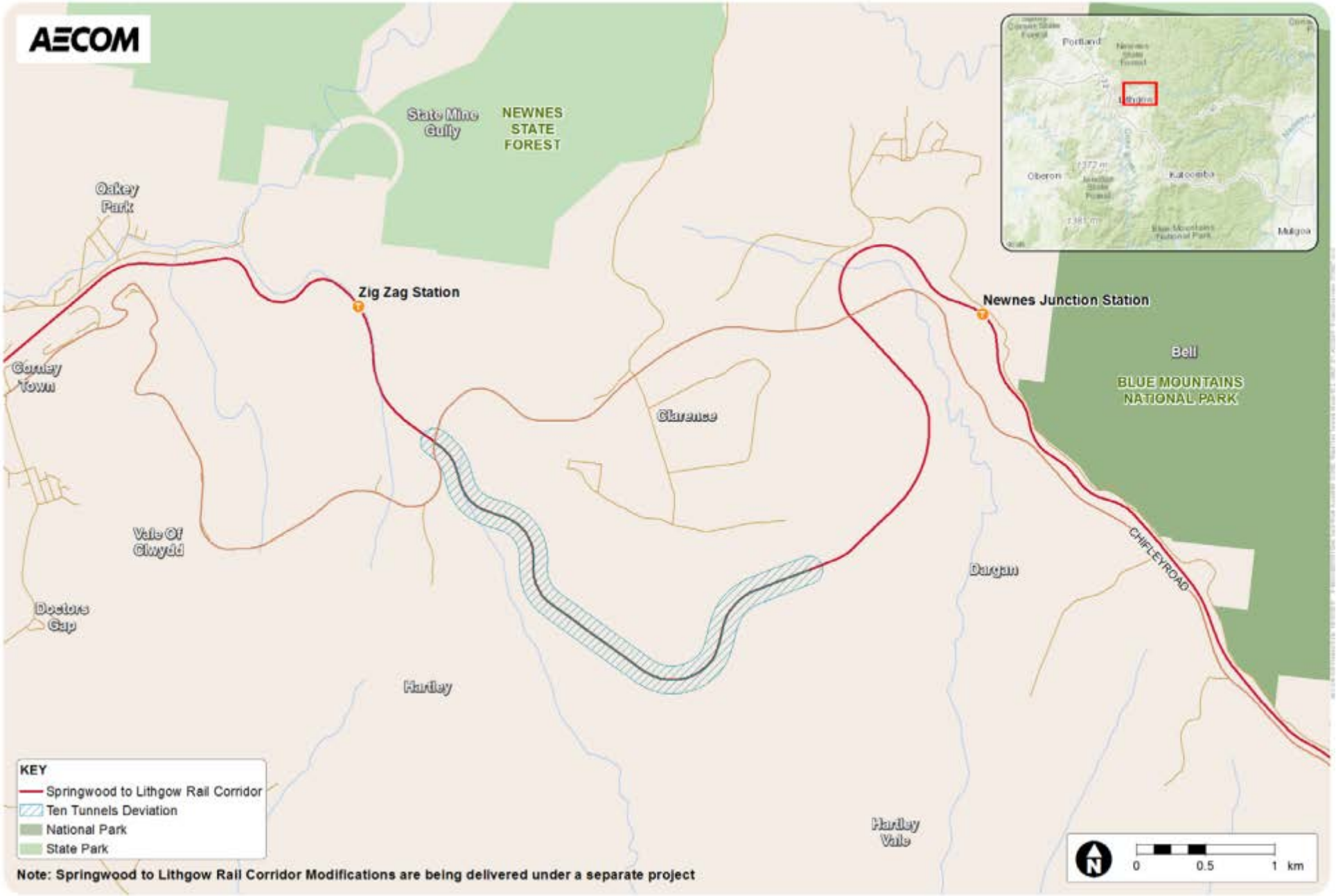

Figure 1-1 Regional context of the Project site

1.3 Determination Report

Prior to proceeding with the Proposed Activity, the Secretary for TfNSW must make a determination in accordance with Part 5 Division 5.1 of the EP&A Act (refer to Figure 1-2).

Figure 1-2: Planning approval process

The purpose of this Determination Report is to address the following to allow for a determination of the Proposed Activity:

- assess the environmental impacts with respect to the Proposed Activity, which are detailed in the environmental impact assessment (and any proposed modifications, as detailed and assessed in this Determination Report)
- identify mitigation measures to minimise potential environmental impacts
- determine whether potential environmental impacts are likely to be significant
- address whether the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) apply to the Proposed Activity.

This report has been prepared having regard to, among other things, the objectives of TfNSW under the *Transport Administration Act 1988*:

a) to plan for a transport system that meets the needs and expectations of the public

b) to promote economic development and investment

c) to provide integration at the decision-making level across all public transport modes

d) to promote greater efficiency in the delivery of transport infrastructure projects

e) to promote the safe and reliable delivery of public transport and freight services.

1.4 Description of the Proposed Activity in the REF

The Proposed Activity would involve minor modifications to sections of the lining of eight tunnels in the Ten Tunnels Deviation and minor modifications to ancillary infrastructure extending from the eastern portal of Tunnel 1 (Sydney end) to the western portal of Tunnel 10 (Lithgow end) to accommodate the operation of the new trains which are wider and longer than the existing V-Set trains.

An overview of the Proposed Activity, which is the subject of the Ten Tunnels Deviation Modifications REF, is provided in the Executive Summary with full details set out in Chapter 3 of the REF.

Construction is expected to commence in 2018 and take around two years to complete.

The need for, and benefits of the Proposed Activity are outlined in Chapter 2 of the REF.

1.4.1 Working hours

Given the tunnels are located within an active operating rail environment, construction work would need to be undertaken during pre-existing and scheduled rail possessions (typically 48 hours over a weekend where no trains are permitted to operate), and would involve out of hours works and extended shutdowns (typically the five days either side of a weekend possession).

The shutdown periods would generally take place between the hours of 9:45am and 6:15pm in order to allow diesel passenger trains (such as the XPT and regional services) and freight services to operate outside of these times. Replacement buses would be provided for intercity customers during weekend possessions and extended shutdown periods.

It is anticipated that the Project would utilise the following types of rail possessions and shutdown periods for the works:

- scheduled weekend routine rail possession and scheduled five-day shutdown on either side (extending for 12 days in total)

- scheduled weekend routine rail possession and scheduled five-day shutdown on either side with an additional three-day shutdown arranged at the end (extending for 15 days in total)
- scheduled weekend routine rail possession with an additional shutdown period for five days either side (i.e. additional five-day shutdowns on either side of scheduled weekend possessions would be arranged to allow construction teams to undertake works more efficiently)
- scheduled weekend routine rail possessions
- scheduled four or five day possessions.

A combination of six to eight of these types of possessions would be utilised to undertake the works. The final possession and extended shutdown requirements are still being developed (in consultation with Sydney Trains, NSW TrainLink and relevant industry stakeholders), and are also subject to detailed design and development of the contractor's construction methodology.

Additional approvals may be required from TfNSW for out of hours works, and the affected community would be notified in accordance with the TfNSW *Construction Noise and Vibration Strategy* (TfNSW, 2018a).

2 Consultation and assessment of submissions

2.1 REF public display

The Ten Tunnels Deviation Modifications REF was placed on public display from Tuesday 6 February to Tuesday 27 February 2018 at six locations, as well as on the Transport for NSW website[2] and the NSW Government Have Your Say website[3].

Community consultation activities undertaken during the public display period included:

- community information sessions held on:
  - 9 and 10 February 2018 at the Lithgow Valley Plaza, Lithgow
  - 13 and 17 February 2018 at the Mount Victoria Public Hall / Mount Vic Flicks, Mount Victoria
- distribution of a Project update to the local community and to the broader community and rail customers, outlining the Project and inviting feedback on the REF
- installation of posters promoting the community information sessions at stations between Blackheath and Lithgow
- public display of the REF at the following six locations: Blue Mountains City Council in Katoomba and Springwood, Mount Victoria Station, Lithgow City Council, Lithgow Library and Learning Centre and at the TfNSW reception in Chatswood
- placement of advertisements in the *Blue Mountains Gazette* on 31 January and 7 February 2018 and the *Lithgow Mercury* on 30 January and 6 February 2018
- information on the TfNSW website
- a letter to Lithgow City Council and Blue Mountains City Council outlining the scope of the Proposed Activity, information on where to view the REF and specialist studies on the TfNSW website, along with details on how to make a submission.

2.2 REF submissions

A total of 17 submissions were received by TfNSW, including a submission from Lithgow City Council. Submissions included feedback on a range of issues in relation to the Proposed Activity. The key issues raised in submissions were:

- concern regarding impacts to the heritage value of the Ten Tunnels Deviation
- decision to purchase the trains from overseas
- features of the New Intercity Fleet, particularly:
  - seating configuration
  - final carriage configuration
  - provision of a vestibule to separate seating from the train doors (for temperature regulation).

[2] https://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-ten-tunnels
[3] http://www.haveyoursay.nsw.gov.au

2.3 Consideration and response to submissions

2.3.1 Community submissions

A summary of all issues raised and associated responses is provided in Table 1.

Table 1 Responses to community submissions

No.	Submission no.	Issue/s raised	TfNSW response
1	**General**		
1.1	004; 010; 014; 015	Support for the Proposed Activity.	Noted.
1.2	005	Request for more regular services to Bathurst.	Consideration of more regular services to other destinations, including Bathurst, has not been considered as part of the Proposed Activity. The New Intercity Fleet will operate on the existing electrified network and therefore will not travel beyond Lithgow to Bathurst.
2	**Scope of work**		
2.1	007	Concern that modifications have not taken into account future-proofing and design life to avoid additional works in the future.	The New Intercity Fleet has been designed in response to a number of design life criteria in accordance with the Asset Standards Authority standards. The modifications would allow the Blue Mountains Line to be consistent with the existing electrified rail network. Modifications to the Ten Tunnels Deviation have been designed to minimise impacts to these heritage listed tunnels.
3	**Construction timing**		
3.1	006; 008	Concern regarding the length of construction given the extent of works.	The final construction timing would be confirmed by the Contractor during construction planning. Given that the tunnels are located within an active operating rail environment, construction work would need to be undertaken during pre-existing and scheduled rail possessions (typically 48 hours over a weekend where no trains are permitted to operate), and would involve out of hours works and extended shutdowns (typically the five days either side of a weekend possession) (see Section 1.4.1 for more details). The use of pre-existing and scheduled rail possessions minimises disruption to the operating rail line. Work would be undertaken in rail possessions over a two year timeframe rather than two years of continuous construction.

No.	Submission no.	Issue/s raised	TfNSW response
4	**Community and stakeholder consultation**		
4.1	005; 011	Concern that the opinions and submissions from residents of the Blue Mountains have not been listened to.	Submissions made as part of the consultation process for the Proposed Activity as well as other New Intercity Fleet projects have been documented, addressed and responded to as part of each project's respective Determination Report.
5	**Non-Indigenous heritage**		
5.1	001; 002; 013	Concern that the Proposed Activity will impact the heritage values of the Ten Tunnels Deviation.	TfNSW understands the importance of protecting heritage items. Potential impacts to the heritage listed Ten Tunnels Deviation has been assessed as part of the heritage assessment prepared in accordance with relevant legislation and guidelines. Refer to Section 6.1 of the REF for a summary of the heritage assessments. The Ten Tunnels Deviation Modifications Statement of Heritage Impact can also be accessed online at the Project website[4]. TfNSW has obtained approval under the *Heritage Act 1977* from the Heritage Council for the Proposed Activity (see Appendix C). Designs for the tunnel modifications have been, and will continue, to be developed in collaboration with qualified heritage specialists to minimise heritage impacts (see Conditions 22 to 27).
6	**Traffic and transport**		
6.1	006	Concern regarding the extent of disruption to existing service during modification works.	As described in Section 3.2.3 of the REF, disruption to travel as a result of the Proposed Activity would be largely limited to routine possession periods when trains will already not be operating. It is anticipated that between six to eight routine rail possessions would be utilised over the two-year construction period (prior to the New Intercity Fleet entering into service on the Blue Mountains Line). Replacement buses would be provided at this time to minimise disruption for customers. Notification would be provided to the community, local residents and local businesses to inform them in advance of changes to services.

[4] https://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-ten-tunnels

No.	Submission no.	Issue/s raised	TfNSW response
6.2	007	Request for notification regarding proposed construction works in advance.	Transport for NSW is committed to consulting with the community. In accordance with the Conditions of Approval – Condition 8, we will provide notifications to the community, local residents and businesses to advise of upcoming construction work prior to work starting.
7	**New Intercity Fleet program**		
7.1	005; 011	Concern that the cost of purchasing the New Intercity Fleet and undertaking the Proposed Activity would be better spent on other things (e.g. National Parks).	To enhance NSW rail passenger services, both the NSW Future Transport Strategy 2056 (TfNSW, 2018b) and Sydney's Rail Future: Modernising Sydney's Trains (State of NSW, 2012), identified the need to upgrade the intercity train fleet. The current intercity fleet trains are some of the oldest trains in the electric fleet and are approaching the end of their lifetime. They would need significant levels of maintenance and refurbishment to remain operational beyond 2019.
7.2	012	Concern that the cost of purchasing the New Intercity Fleet and undertaking the Proposed Activity will result in fare increases for customers.	The decision to raise, lower or keep fares the same would continue to be made by the New South Wales Government based on recommendations from the Independent Pricing and Regulatory Tribunal (IPART).
7.3	001; 002; 004; 011; 013; 017	Concern with not using local manufacturers and workers for the fleet.	TfNSW worked with Australian and overseas train manufacturers to identify the most suitable train design for the New Intercity Fleet. The tender evaluation selected an international consortium as the preferred supplier (all four tenderers proposed international design, manufacture and delivery). The successful consortium, which includes the Australian company UGL Rail, offered the best value for money. UGL Rail will be responsible for the maintenance of the fleet for the first 15 years of the project. Overseas manufacturing ensures the best value, best possible service and having the new trains on the tracks faster. Designing, building and fitting out the New Intercity Fleet overseas represents a saving of around 25 per cent. These savings will be invested in other infrastructure and services.

No.	Submission no.	Issue/s raised	TfNSW response
7.4	001; 011; 017	Concern that wider trains have been selected, which require modifications to the Blue Mountains Line (including the Ten Tunnels Deviation), over trains that already fit the current rail network.	TfNSW worked with Australian and overseas train manufacturers to identify the most suitable train design. This design is based on a proven platform and technology. The proposed tunnel modifications are similar to work completed to allow for the introduction of the interurban V-Set trains in the 1970s.
7.5	004	Concern with what happens should the Proposed Activity not be approved.	Under a 'do nothing' option, the tunnels would not be modified. This option was not progressed, as without modifications to the tunnels, the New Intercity Fleet would not meet the necessary clearances to safely travel through the Ten Tunnels Deviation to Lithgow. This would not meet the objectives of the Project to provide a new passenger train across the electrified intercity network through to Lithgow, and so was discounted.
7.6	006	Request to provide a free day of transport upon roll out of new trains to build support from community.	NSW TrainLink will be working on community engagement activities to encourage people to experience the new trains, however a commitment to any specific initiative at the moment cannot be made at this point in time. This suggestion would be considered as plans are put together.
7.7	015	Request to know the budget / approved cost for the Blue Mountains Line works.	The upgrade of the Blue Mountains Line is subject to a tender process and the budget will not be released to ensure taxpayers receive the best value for money.

No.	Submission no.	Issue/s raised	TfNSW response
8	**New Intercity Fleet features**		
8.1	001; 003; 005; 006; 009: 013; 015; 017	Issue with the fixed direction of train seats and/or the face to face seating arrangement.	The New Intercity Fleet is being designed with the comfort of the customer in mind. Customer feedback indicated that comfort was a key priority. Qualitative customer research conducted in 2015 included questions about customers preferred seating configurations, which has resulted in a design with the majority of seating not facing other passengers. The New Intercity Fleet layout of seating will be similar to that of the Tangara trains. Rows of seats in the middle of the carriage will be back-to-back, with seats at either end of the saloon facing each other to cater for families and groups travelling together. Reversible seating could only have been accommodated by significantly compromising on comfort and seating amenities. Reversible seating takes up more space than fixed seating and would have reduced the number of seats available for customers. Power for charging mobile devices at the seat and tray tables would not have been possible without fixed seating.
8.2	003; 012	Request for a diagram of the interior layout for train carriages.	The internal layout of the trains including the positioning of baggage storage is yet to be finalised. TfNSW will continue to work with customers and stakeholders to refine the design of the trains.
8.3	013;	Request for improved and/or additional luggage space on trains.	The New Intercity Fleet is being designed through a consultation process with customers. As a result of this consultation, dedicated space for luggage and bicycle racks, extra space for wheelchairs and prams, accessible toilets and baby changing facilities will be provided. The internal layout of the trains including the positioning of baggage storage is yet to be finalised. TfNSW will continue to work with customers and stakeholders to refine the design of the trains.

No.	Submission no.	Issue/s raised	TfNSW response
8.4	009; 017	Request for a vestibule to separate the main carriage from train doors (for temperature regulation and noise).	The vestibules on the current V-Set trains do not meet accessibility requirements. The New Intercity Fleet is being designed to meet accessibility requirements in line with the Disability Standards for Accessible Public Transport and for this reason will not have vestibules. The New Intercity Fleet will have modern air conditioning to ensure a regulated temperature in all parts of the train.
8.5	003	Concern that wheelchair seating would be within the carriage ends near the doors without protection (i.e. vestibule) from the elements.	The New Intercity Fleet is being designed to meet accessibility requirements in line with the *Disability Standards for Accessible Public Transport 2002* with wheelchair and accessible seating provided. The New Intercity Fleet will have modern air conditioning to ensure a regulated temperature in all parts of the train.
8.6	013; 017	Request for seats to be cushioned and comfortable due to long duration of train rides.	The New Intercity Fleet is being designed with the comfort of the customer in mind. The wider seating will provide a more comfortable journey for the customer through the use of fabric-covered, high-backed cushioned seats with arm rests and more space. TfNSW will continue to work with customers and stakeholders to finalise the seat design of the New Intercity Fleet.
8.7	001; 013;	Concern that cup holders, chargers and/or tray tables are unnecessary as seat direction and comfort is more important.	Customer feedback identified other features to help deliver increased comfort including charging stations for mobile devices, tray tables and cup holders, dedicated luggage, pram and bicycle space, accessible toilets and space for wheelchairs. Comfortable two by two seating has been designed for a longer journey time and feature wider, fabric covered, high-backed cushioned seats with arm rests and more space.
8.8	005; 017	Issue with seating configuration being two by two as opposed to two and three.	The feedback from our customers was that the current three by two seating configuration on the Oscar trains was not comfortable, especially during longer journeys. Therefore, TfNSW has selected a two by two seating configuration with much more comfortable seats and allowing each seat to incorporate a tray table, cup holder and charging stations for mobile devices. The two by two seating has been designed including wider, fabric covered, high-backed cushioned seats with arm rests and more space.

3 Other stakeholder submissions

Issues raised by other stakeholders are provided below in Table 2 for Lithgow City Council.

Table 2 Responses to Submission from Lithgow City Council

Issue no.	Issue/s raised	TfNSW response
1	**General**	
1.1	Council has reviewed the REF and it appears that the environmental and amenity impacts are acceptable. Council supports any works being carried out in accordance with planned possessions and looks forward to the commencement of operations of the New Intercity Fleet.	Noted.

3.1 Future consultation

Should TfNSW proceed with the Proposed Activity, consultation activities would continue, including consultation with Lithgow City Council. In addition, TfNSW would notify residents, businesses and community members in the lead up to and during construction. The consultation activities would help to ensure that:

- local council and other stakeholders are kept informed during the detailed design process and construction
- the community and stakeholders are notified in advance of any upcoming works, including changes to pedestrian or traffic access arrangements and out of hours construction activities
- accurate and accessible information is made available
- a timely response is given to issues and concerns raised by the community
- feedback from the community is encouraged.

The Transport for NSW email address[5] and Infoline (1800 684 490) would continue to be available during the construction phase, along with a 24-hour construction complaints number. Targeted consultation methods, such as use of letters, notifications, signage and verbal communications, would continue to occur. The Transport for NSW website[6] would also include updates on the progress of construction.

[5] projects@transport.nsw.gov.au
[6] http://www.transport.nsw.gov.au/projects/intercity-fleet

4 Consideration of the environmental impacts

Environmental Planning and Assessment Act 1979

The REF addresses the requirements of section 111 (section 5.5 as of 1 March 2018) of the EP&A Act. In considering the Proposed Activity, all matters affecting or likely to affect the environment are addressed in the REF and the Determination Report and associated documentation.

In accordance with the checklist of matters pursuant to clause 228(3) of the EP&A Regulation, an assessment is provided in Chapter 6 of the REF and Appendix B of the REF.

In respect of the Proposed Activity an assessment has been carried out regarding potential impacts on critical habitat, threatened species, populations or ecological communities or their habitats, under section 112 (section 5.7 from 1 March 2018) of the EP&A Act.

The likely significance of the environmental impacts of the Proposed Activity has been assessed in accordance with the then NSW Department of Planning's 1995 best practice guideline *Is an EIS Required?*[7] It is concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Accordingly, an environmental impact statement under Part 5 Division 5.2 of the EP&A Act is not required.

Environment Protection and Biodiversity Conservation Act 1999

As part of the consideration of the Proposed Activity, all matters of national environmental significance (NES) and any impacts on Commonwealth land for the purposes of the EPBC Act have been assessed. In relation to NES matters, this evaluation has been undertaken in accordance with Commonwealth Administrative Guidelines on determining whether an action has, will have, or is likely to have a significant impact. A summary of the evaluation is provided in Chapter 6 and Appendix A of the REF.

It is considered that the Proposed Activity described in the REF is not likely to have a significant impact on any Commonwealth land and is not likely to have a significant impact on any matters of NES.

Heritage Act NSW 1977

The Ten Tunnels Deviation (subject to the Proposed Activity) is listed on the RailCorp Section 170 Heritage and Conservation Register, the heritage schedule of the *Lithgow Local Environmental Plan 2015* and the State Heritage Register.

The potential heritage impacts of the Proposed Activity have been assessed in a Statement of Heritage Impact and are summarised in Section 6.1 of the REF. The works would be undertaken in accordance with the approvals and associated conditions issued by the Office of Environment and Heritage (Heritage Council) under section 60 of the *Heritage Act 1977,* dated 29 March 2018 (refer Appendix C).

[7] Refer to the National Library of Australia's 'Trove' website http://trove.nla.gov.au/work/7003034?selectedversion=NBD11474648

5 Conditions of Approval

If approved, the Proposed Activity would proceed subject to the Conditions of Approval included at Appendix B.

6 Conclusion

Having regard to the assessment in the REF, consideration of the submissions received, it can be concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Consequently, an environmental impact statement is not required to be prepared under Part 5 Division 5.2 of the EP&A Act.

It is also considered that the Proposed Activity does not trigger any approvals under Part 3 of the EPBC Act.

The environmental impact assessment (REF and Determination Report) is recommended to be approved subject to the proposed mitigation and environmental management measures included in the Conditions of Approval (refer Appendix B).

References

Construction Noise and Vibration Strategy (TfNSW, 2018a)

Future Transport Strategy 2056 (TfNSW, 2018b)

Sydney's Rail Future: Modernising Sydney's Trains (State of NSW, 2012)

Environmental Impact Assessment Determination

Ten Tunnels Deviation Modifications

APPROVAL

I, LOUISE SUREDA, as delegate of the Secretary, TfNSW:

1. Have examined and considered the Proposed Activity in the New Intercity Fleet Ten Tunnels Deviation Modifications Review of Environmental Factors (February, 2018) and the New Intercity Fleet Ten Tunnels Deviation Modifications Determination Report (April, 2018) in accordance with section 5.5 of the *Environmental Planning and Assessment Act 1979.*

2. Determine on behalf of TfNSW (the Proponent) that the Proposed Activity may be carried out in accordance with the Conditions of Approval in this Determination Report, consistent with the Proposed Activity described in the consistent Review of Environmental Factors (February, 2018) as amended by this Determination Report.

Louise Sureda
Director, Planning and Environment
Infrastructure and Services Division
Transport for NSW
Date: 20·4·18.

Appendix A Review of Environmental Factors

Please refer to the TfNSW website to access the New Intercity Fleet Ten Tunnels Deviation Modifications REF:

https://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-ten-tunnels

Appendix B Conditions of Approval

CONDITIONS OF APPROVAL

Ten Tunnels Deviation Modifications

Note: these conditions of approval must be read in conjunction with the final mitigation measures in the Ten Tunnels Deviation Modifications Review of Environmental Factors.

Schedule of acronyms and definitions used:

Acronym	Definition
ADEIA	TfNSW Associate Director Environmental Impact Assessment (or nominated delegate)
ADEM	TfNSW Associate Director Environmental Management (or nominated delegate)
ADSPD	TfNSW Associate Director Sustainability, Planning and Development (or nominated delegate)
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CLP	Community Liaison Plan
dBA	Decibels (A-weighted scale)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPL	Environment Protection Licence issued by the Environmental Protection Authority under the *Protection of the Environment Operations Act 1997*
EMS	Environmental Management System
ISO	International Standards Organisation
OEH	NSW Office of Environment and Heritage
OOHWP	Out of Hours Works Protocol
PCSR	Pre-Construction Sustainability Report
PECM	Pre-Construction Environmental Compliance Matrix
POCR	Pre-Operational Compliance Report
RBL	Rating Background Level
REF	Review of Environmental Factors
TfNSW	Transport for NSW
TMP	Traffic Management Plan

Term	Definition
Construction	Includes all work in respect of the Proposed Activity, other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, or other activities determined by the TfNSW ADEM to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction compounds (in accordance with this approval), or minor clearing (except where threatened species, populations or ecological communities would be affected).
Contamination	The presence in, on or under land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
Emergency Work	Includes works to avoid loss of life, damage to external property, utilities and infrastructure, prevent immediate harm to the environment, contamination of land or damage to a heritage (indigenous or non-indigenous) item.
Environmental Impact Assessment (EIA)	The documents listed in Condition 1 of this approval.
Feasible	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given Proposed Activity constraints such as safety and maintenance requirements.
Noise Sensitive Receiver	In addition to residential dwellings, noise sensitive receivers include, but are not limited to, hotels, entertainment venues, pre-schools and day care facilities, educational institutions (e.g. schools, TAFE colleges), health care facilities (e.g. nursing homes, hospitals), recording studios and places of worship/religious facilities (e.g. churches).
(the) Project	The construction and operation of the Ten Tunnels Deviation Modifications as described in the Environmental Impact Assessment.
Proponent	A person or body proposing to carry out an activity under Part 5 Division 5.1 of the EP&A Act – in the case of the Proposed Activity, TfNSW.
Reasonable and feasible	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.

Condition number	Type
	General
1	**Terms of Approval** The Project shall be carried out generally in accordance with the environmental impact assessment (EIA) for this Project, which comprises the following documents: a) *Ten Tunnels Deviation Modifications – Review of Environmental Factors*, (AECOM, February 2018) b) *Ten Tunnels Deviation Modifications – Determination Report*, (AECOM, April 2018). In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.
2	**Project Modifications** Any modification to the Project as approved in the EIA would be subject to further assessment. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been minimised. The assessment shall be subject to approval under delegated authority by TfNSW. The Proponent shall comply with any additional requirements from the assessment of the Project modification.
3	**Statutory Requirements** These conditions do not relieve the Proponent of the obligation to obtain all other licences, permits, approvals and land owner consents from all relevant authorities and land owners as required under any other legislation for the Project. The Proponent shall comply with the terms and conditions of such licences, permits, approvals and permissions.
4	**Pre-construction Environmental Compliance Matrix** A pre-construction environmental compliance matrix (PECM) for the Project (or such stages of the Project as agreed to by the Associate Director Environmental Management (ADEM) shall be prepared detailing compliance with all relevant conditions and mitigation measures prior to commencement of construction. The PECM shall also include details of approvals, licences and permits required to be obtained under any other legislation for the Project. A copy of the PECM shall be submitted to the ADEM for approval, at least 21 days prior to commencement of construction of the Project (or within such time as otherwise agreed to by the ADEM).
5	**Construction Environmental Compliance Report** A Construction Environmental Compliance Report (CECR) for the Project shall be prepared which addresses the following matters: a) compliance with the construction environmental management plan (CEMP) and these conditions b) compliance with TfNSW's *NSW Sustainable Design Guidelines - Version 3.0* compliance checklist (7TP-FT-249) c) compliance with any approvals or licences issued by relevant authorities for construction of the Project d) implementation and effectiveness of environmental controls (the assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP) e) environmental monitoring results, presented as a results summary and analysis f) details of the percentage of waste diverted from landfill and the percentage of spoil beneficially reused g) number and details of any complaints, including summary of main areas of complaint, actions taken, responses given and intended strategies to reduce recurring complaints

Condition number	Type
	(subject to privacy protection) h) details of any review and amendments to the CEMP resulting from construction during the reporting period i) any other matter as requested by the ADEM. A copy of each CECR shall be submitted to the ADEM for approval. The first CECR shall report on the first six months of construction and be submitted within 21 days of expiry of that period (or at any other time interval agreed to by the ADEM). CECRs shall be submitted no later than six months after the date of submission of the preceding CECR (or at other such periods as requested by the ADEM) for the duration of construction.
6	**Pre-operation Compliance Report** A Pre-operation Compliance Report (POCR) for the Project shall be prepared, prior to commencement of operation of the Project. The POCR shall detail compliance with all conditions of approval, licences and permits required to be obtained under any other legislation for the Project. A copy of the POCR shall be submitted to the ADEM for approval at least one month prior to the scheduled operation of the Project (or such time as otherwise agreed to by the ADEM).
	Communications
7	**Community Liaison Plan** A Community Liaison Plan (CLP) shall be prepared and implemented. The purpose of the CLP is to engage with government agencies, relevant councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies and businesses). The CLP shall comply with the obligations of these conditions and should include, but not necessarily be limited to: a) details of the protocols and procedures for disseminating information and liaising with the community and other key stakeholders about construction activities (including timing and staging) and any associated impacts during the construction period b) stakeholder and issues identification and analysis c) procedures for dealing with complaints or disputes and response requirements, including advertising the 24 hour construction response line number d) details (including a program) of training for all employees, contractors and sub-contractors on the requirements of the CLP. The CLP shall be prepared to the satisfaction of the Director Community Engagement prior to the commencement of construction and implemented, reviewed and revised as appropriate during construction of the Project.
8	**Community Notification and Liaison** The local community shall be advised of any activities related to the Project with the potential to impact upon them. Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour construction response line number. Construction-specific impacts including information on traffic changes, access changes, detours, services disruptions, public transport changes, high noise generating work activities and work required outside the nominated working hours shall be advised to the local community at least seven days prior to such works being undertaken or other period as agreed to by the Director Community Engagement or as required by the Environment Protection Authority (EPA) (where an Environment Protection Licence (EPL) is in effect).

Condition number	Type
9	**Website** The Proponent shall provide electronic information (or details of where hard copies of this information may be accessed by members of the public) related to the Project, on dedicated pages within its existing website, including: a) a copy of the documents referred to under Condition 1 of this approval b) a list of environmental management reports that are publicly available c) 24 hour contact telephone number for information and complaints. All documents uploaded to the website must be compliant with the Web Content Accessibility Guidelines 2.0.
10	**Complaints Management** The Proponent shall set up a 24 hour construction response line number. Details of all complaints received during construction are to be recorded on a complaints register. A verbal response to phone enquiries on what action is proposed to be undertaken is to be provided to the complainant within two hours during all times construction is being undertaken and within 24 hours during non-construction times (unless the complainant agrees otherwise). A verbal response to written complaints (email/letter) should be provided within 48 hours of receipt of the communication. A detailed written response is to be provided to the complainant within seven calendar days for verbal and/or written complaints. Information on all complaints received during the previous 24 hours shall be forwarded to the TfNSW Community Engagement Manager and the TfNSW Environment and Planning Manager each working day.
	Environmental Management
11	**Construction Environmental Management Plan** A Construction Environmental Management Plan (CEMP) shall be prepared prior to commencement of construction which addresses the following matters, as a minimum: a) traffic and pedestrian management (in consultation with the relevant roads authority) b) noise and vibration management c) water and soil management d) air quality management (including dust suppression) e) indigenous and non-indigenous heritage management f) flora and fauna management g) storage and use of hazardous materials h) contaminated land management (including acid sulphate soils) i) weed management j) waste management k) bushfire risk l) sustainability m) environmental incident reporting and management procedures n) non-compliance and corrective/preventative action procedures. The CEMP shall: i) comply with the Conditions of Approval, conditions of any licences, permits or other approvals issued by government authorities for the Project, all relevant legislation and regulations, and accepted best practice management ii) comply with the relevant requirements of *Guideline for Preparation of Environmental*

Condition number	Type
	Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004) iii) include an Environmental Policy. The Proponent shall: 1. consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP 2. submit a copy of the CEMP to the ADEM for approval at least 21 days prior to the commencement of construction (or within such time as otherwise agreed to by the ADEM) 3. review and update the CEMP at regular intervals, and in response to any actions identified as part of Project audits 4. ensure updates to the CEMP are made within seven days of the completion of the review or receipt of actions identified by any audit of the document, and be submitted to the ADEM for approval. The CEMP must be approved by the ADEM prior to the commencement of construction work associated with the Project.
12	**Environment Personnel** Suitably qualified and experienced environmental management personnel shall be available and be responsible for implementing the environmental objectives for the Project, including undertaking regular site inspections, preparation of environmental documentation and ensuring the Project meets the requirements of the Environmental Management System (EMS). Details of the environmental personnel, including relevant experience, defined responsibilities and resource allocation throughout the project (including time to be spent on-site/off-site) are to be submitted for the approval of the ADEM, at least 21 days prior to commencement of construction of the Project (or within such time as otherwise agreed to by the ADEM). Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the ADEM.
13	**Environmental Controls Map** An environmental controls map (ECM) shall be prepared in accordance with the TfNSW *Guide to Environmental Controls Map* (3TP-SD-015) prior to the commencement of construction for implementation for the duration of construction, and may be prepared in stages as set out in the CEMP. A copy of the ECM must be submitted to the ADEM for approval, at least 21 days prior to commencement of construction of the Project (or within such time as otherwise agreed by the ADEM). The ECM shall be prepared as a map – suitably enlarged (e.g. A3 size or larger) for mounting on the wall of a site office and included in site inductions, supported by relevant written information. Updates to the ECM shall be made within seven days of the completion of the review or receipt of actions identified by any audit of the document, and submitted to the ADEM for approval.

Condition number	Type
	Hours of Work
14	**Standard Construction Hours** Construction activities shall be restricted to the hours of 7.00am to 6.00pm (Monday to Friday); 8.00am to 1.00pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours: a) any works which do not cause noise emissions to be more than 5 dBA higher than the rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers b) out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP) c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as agreed by the ADEM d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm (Emergency Work will require valid justification in writing which is to be endorsed by the ADEM) e) any other work as agreed by the ADEM (or nominated delegate) and considered essential to the Project, or as approved by the EPA (where an EPL is in effect).
15	**High Noise Generating Activities** Rock breaking or hammering, jack hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel and any other activities which result in impulsive or tonal noise generation shall not be undertaken for more than three hours, without a minimum one hour respite period unless otherwise agreed to by the ADEM, or as approved by the EPA (where relevant to the issuing of an EPL).
	Noise and Vibration
16	**Construction Noise and Vibration** Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW's *Construction Noise and Vibration Strategy* (7TP-ST-157) and the EPA's *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). The mitigation measures shall include, but not be limited to: a) details of construction activities and an indicative schedule for construction works b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the EIA) d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints e) an Out Of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 14 of this approval, including a risk assessment process which deems the out of hours activities to be of low, medium or high environmental risk, is to be developed. All out of hours works are subject to approval by the ADEM, or as approved by the EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with TfNSW's *Construction Noise and Vibration Strategy* (7TP-ST-157) f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, clearly indicating the frequency of monitoring, the locations at which monitoring shall take place, recording and reporting of monitoring results and if any exceedance is detected, the manner in which any non-compliance

Condition number	Type
	shall be rectified.
17	**Vibration Criteria** Vibration resulting from construction and received at any structure outside of the Project shall be limited to: a) for structural damage vibration – German Standard DIN 4150:Part 3 – 1999*: Structural Vibration in Buildings: Effects on Structures* and British Standard BS 7385-2:1993 *Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz)* b) for human exposure to vibration – the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006) which includes British Standard BS 7385-2:1993 *Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz).* These limits apply unless otherwise approved by the ADEM through the CEMP.
18	**Non-Tonal Reversing Beepers** Non-tonal reversing beepers (or an equivalent mechanism) shall be fitted and used on all construction vehicles and mobile plant regularly used on site (i.e. greater than one day) and for any out of hours work.
	Contamination and Hazardous Materials
19	**Unidentified Contamination** If previously unidentified contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance relevant EPA guidelines, including *Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011). A copy of any contamination report must be submitted to the ADEM for review for a minimum period of seven days. The ADEM shall determine whether consultation with the relevant council and/or EPA is required prior to continuation of construction works within the affected area.
20	**Storage and Use of Hazardous Materials** Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, TfNSW's *Chemical Storage and Spill Response Guidelines* (9TP-SD-066) and Australian and ISO standards. These measures shall include: a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks b) spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits are to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits are to be kept in close proximity to potential discharge points in support of preventative controls c) all hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks d) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.

Condition number	Type
	Soils and water
21	**Erosion and Sediment Control** Soil and water management measures shall be prepared and implemented as part of the CEMP for the mitigation of water quality and hydrology impacts during construction of the Project. The management measures shall be prepared in accordance with *Managing Urban Stormwater: Soils and Construction - Volume 1,* 4th Edition (Landcom, 2004).
	Heritage Management
22	**Indigenous and Non-Indigenous Heritage** If previously unidentified Indigenous or non-Indigenous heritage/archaeological items are uncovered during construction works, the procedures contained in the TfNSW *Unexpected Heritage Finds Guideline* (3TP-SD-115) shall be followed and all works in the vicinity of the find shall cease. The TfNSW Environment and Planning Manager shall be immediately notified to co-ordinate a response, which may include seeking appropriate advice from a suitably qualified and experienced heritage consultant (in consultation with the Heritage Division, OEH where appropriate). Works in the vicinity of the find shall not re-commence until clearance has been received from TfNSW and/or the heritage consultant.
23	**Protection of State Heritage Items** Design and construction of the Project within the curtilage of the Ten Tunnels Deviation must be undertaken in accordance with the conditions of approval granted under section 60 of the NSW *Heritage Act 1977* dated 29 March 2018 (refer Appendix C) and recommendations made in the New Intercity Fleet Great Zig Zag Railway Deviation Tunnels Modifications Statement of Heritage Impact (Artefact Heritage, January 2018) (available on the New Intercity Fleet project website[8]). In the event of any inconsistency between the a) *Ten Tunnels Deviation Modifications – Determination Report*, (AECOM, April 2018), b) conditions of the Section 60 Approval, and c) New Intercity Fleet Great Zig Zag Railway Deviation Tunnels Modifications Statement of Heritage Impact (Artefact Heritage, January 2018); the most stringent standard will prevail to the extent of the inconsistency. For the avoidance of doubt the *Ten Tunnels Deviation Modifications – Determination Report*, (AECOM, April 2018) includes the Conditions of Approval pertaining to the determination under Part 5 Division 5.1 of the EP&A Act.
24	**Archival Recording** Photographic archival recording of the Ten Tunnels Deviation, including portal entrances and existing cable route and trough within Tunnel 3, shall be undertaken in accordance with the following guidelines prior to its disturbance or removal (excluding investigations to develop the detailed design): a) *How to prepare archival records of heritage items* (NSW Heritage Office 1998) b) *Photographic recording of heritage items using film or digital capture* (NSW Heritage Office 2006). A copy of the archival recording shall be placed in Lithgow Library (157 Main Street, Lithgow) so that a complete record of the portals and tunnel walls are available for public

[8] https://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-ten-tunnels

Condition number	Type
	access. A copy is also to be provided to the Sydney Trains Heritage Team. Prior to commencement of works, consideration shall be given to exploring options of conducting a video recording of the Great Zig Zag Railway deviation tunnels. This would be from the point of view of the driver, and be achieved by mounting a camera to the front of a train or work vehicle.
25	**Independent Heritage Consultant** A suitably qualified and experienced Heritage Consultant (HC) who is independent of the Contractor's design and construction personnel and approved by the ADEIA prior to the commencement of detailed design, shall undertake the following. a) provide input into, and review of, the design and construction of the Project to ensure that the design and construction are sympathetic to the heritage values of the Project and surrounding areas to the greatest extent practicable. The HC will have responsibility for: 1. considering and advising the Proponent and Contractor on heritage matters relating to the detailed design of the Project; 2. reviewing the design submissions and providing input into detailed design development; 3. providing input into site heritage inductions; and 4. inspecting the works to ensure the design and construction impacts on heritage fabric are consistent with the provisions of these Conditions of Approval, the CEMP and any other heritage approvals.
26	**Management of Heritage during Detailed Design and Construction** In addition to Condition 23, the design and construction of the Project shall be undertaken with regard to the recommendations of the heritage assessment prepared for the Ten Tunnels Deviation and the mitigation measures in the REF. Detailed design shall also be undertaken in consultation with the Sydney Trains Heritage Team and the Contractor must demonstrate how the comments have been considered in the design.
27	**Vibration Impacts to Heritage Structures** For vibration-intensive activities which occur within the safe working distance for cosmetic damage, management methods to mitigate these impacts would include, as a minimum: (a) use of less vibration-intensive methods of construction or equipment where reasonable and feasible to reduce annoyance and potential for cosmetic damage. A report shall be prepared documenting the investigation of less vibration-intensive methods, preferred construction methodology, proposed mitigation measures and monitoring strategy. The report shall be reviewed and endorsed by a suitably qualified vibration specialist and the mitigation measures, monitoring strategy and any recommendations of the vibration specialist shall be incorporated into the CEMP. A copy of the report and the vibration specialist's review and endorsement shall be submitted to the ADEM with the CEMP. (b) all equipment would be maintained and operated in an efficient manner, in accordance with manufacturer's specifications, to reduce the potential for adverse vibration impacts. (c) a structural engineer would oversee vibration-intensive activities, including undertaking regular inspections, to monitor for potential impacts to the integrity of the brickwork surrounding the working area. (d) condition surveys of sensitive heritage structures would also be carried out before construction works commence.

Condition number	Type
	Flora and Fauna
28	**Removal of Trees or Vegetation** Separate approval, in accordance with TfNSW's *Removal or Trimming of Vegetation Application* (9TP-FT-078), is required for the trimming, cutting, pruning or removal of trees or vegetation where the impact has not already been identified in the EIA for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the conditions of that approval.
	Sustainability
29	**Sustainability Officer** A suitably qualified and experienced Sustainability Officer shall be appointed, who is responsible for implementing sustainability objectives for the Project. Details of the sustainability officer, including defined responsibilities, duration and resource allocation throughout the appointment, are to be submitted to for the approval of the Associate Director Sustainability, Planning and Development (ADSPD) prior to preparation of the Pre-construction Sustainability Report (PCSR) (or within such time as otherwise agreed to by the ADSPD). Any adjustments to sustainability resource allocations are to be approved by the ADSPD.
30	**Pre-construction Sustainability Report** Prior to commencement of construction, a pre-construction sustainability report (PCSR) shall be prepared to the satisfaction of the ADSPD. The Report shall include the following minimum components: (a) a completed electronic checklist demonstrating compliance with TfNSW's *NSW Sustainable Design Guidelines – Version 3.0* (7TP-ST-114) (b) a statement outlining the Proponent's own corporate sustainability obligations, goals, targets, in house tools, etc. (c) a documented process to identify and progress innovation initiatives on the Project as appropriate. Areas of innovation that have been confirmed, and those subject to ongoing evaluation for implementation on the Project, are to be identified. The Proponent shall submit a copy of the PCSR to the ADSPD for approval, at least 14 days prior to the commencement of construction (or within such time as otherwise agreed to by the ADSPD).
	Traffic and Access
31	**Traffic Management Plan** A construction traffic management plan (TMP) shall be prepared as part of the CEMP which addresses, as a minimum, the following: (a) identifying traffic management requirements during construction (b) ensuring adequate road signage at construction work sites to inform motorists of the work site ahead to ensure that the risk of road accidents and disruption to surrounding land uses is minimised (c) ensuring adequate sight lines to allow for safe entry and exit from the site (d) managing staff travel to and from the site (e) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses (f) measures to manage traffic flows around the area affected by the Project, including as required regulatory and direction signposting, line marking and variable message signs and all other traffic control devices necessary for the implementation of the TMP

Condition number	Type
	(g) where practicable, avoid delivery of construction material during peak commuter travel periods The Proponent shall consult with the relevant roads authority during preparation of the TMP, as required and obtain any approvals as required under the *Roads Act 1993*. The performance of all Project traffic arrangements must be monitored during construction.
32	**Road Condition Reports** Prior to construction commencement, the Proponent shall prepare road condition surveys and reports on the condition of roads affected by construction. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear shall be repaired at the Proponent's expense.
33	**Road Safety Audit** A Road Safety Audit shall be undertaken as part of the detailed design process and on completion of construction. The Road Safety Audit would include specific assessment of: (a) sight distances for vehicles and mitigation measures proposed (b) assessment of the relevant intersections and mitigation measures proposed The Road Safety Audit is to be submitted to and accepted by TfNSW.
	Additional Conditions
34	**Graffiti and Advertising** Hoardings, site sheds and offices, fencing, acoustic walls around the perimeter of the site, and any structures built or installed as part of the Proposed Activity are to be maintained free of graffiti and advertising not authorised by the Proponent during the construction period. Graffiti and unauthorised advertising will be removed or covered within the following timeframes: (a) offensive graffiti will be removed or concealed within 24 hours (b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week (c) graffiti that is neither offensive or highly visible will be removed or concealed within a month (d) any unauthorised advertising material will be removed or concealed within 24 hours.

END OF CONDITIONS

Appendix C Section 60 Heritage Act Consent and Conditions of Approval

Heritage Council of New South Wales

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File No: SF17/50387
Ref: DOC18/31192

Mr Ben Groth
Associate Director, Environmental Impact Assessment
Transport of New South Wales (TfNSW)
Level 5, Tower A Zenith Centre 821 Pacific Highway
CHATSWOOD NSW 2067

Via Email: Ben.Groth@transport.nsw.gov.au
Cc: Natalie Green Natalie.Green@transport.nsw.gov.au
Natalie Moore Natalie.Moore2@transport.nsw.gov.au

Dear Mr Groth

APPLICATION UNDER S60 OF THE *HERITAGE ACT 1977*
GREAT ZIG ZAG RAILWAY DEVIATION TUNNELS, STATE HERITAGE REGISTER Nº 01037
GREAT ZIG ZAG RAILWAY AND RESERVES, STATE HERITAGE REGISTER Nº 00542

Proposal: The proposed works include localised tunnel notching, rock bolting, geotechnical investigations, reconstruction of concrete tunnel wall lining (if required), replacement of lighting shields, replacement of an existing cable tray in tunnel 3, installation of signage and temporary works to enable construction

Section 60 Application No: S60/2018/008, received 29 January 2018
Information received with the application: As per Condition No. 1
Additional information requested: No

As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above Section 60 application. Pursuant to section 63 of the *Heritage Act 1977,* approval is granted subject to the following conditions.

1. **All work shall comply with the information contained within:**

   a. **Architectural Drawings prepared for Transport for NSW, as listed in the table below:**

Dwg No	Dwg Title	Date	Rev
Project Name: New Intercity Fleet Enabling Works: Ten Tunnels Deviation			
FIGURE 1	OVERVIEW	16/01/18	0
FIGURE 2	TUNNEL 1 PROPOSED WORKS	16/01/18	0
FIGURE 3	TUNNEL 2 PROPOSED WORKS	16/01/18	0
FIGURE 4	TUNNEL 3 & 4 PROPOSED WORKS	16/01/18	0
FIGURE 5	TUNNEL 4 PROPOSED WORKS	16/01/18	0
FIGURE 6	TUNNEL 5 & 6 PROPOSED WORKS	16/01/18	0
FIGURE 7	TUNNEL 7 PROPOSED WORKS	16/01/18	0

FIGURE 8	TUNNEL 8 & 9 PROPOSED WORKS	16/01/18	0
FIGURE 9	TUNNEL 10 PROPOSED WORKS	16/01/18	0
FIGURE 10	TUNNEL 10 PROPOSED WORKS	16/01/18	0
NIF-101002-GHD-CV-10200	STRUCTURAL - TUNNEL LINING MODIFICATION. TREATMENT SCHEDULE	12/01/18	A1
NIF-101002-GHD-CV-10205	STRUCTURAL - TUNNEL LINING MODIFICATION. TYPICAL TUNNEL CROSS SECTION	12/01/18	A1
NIF-101002-GHD-CV-10210	STRUCTURAL - TUNNEL LINING MODIFICATION. TREATMENT DETAILS	12/01/18	A1
NIF-101002-GHD-CV-10215	STRUCTURAL - TUNNEL LINING MODIFICATION. TREATMENT DETAILS	12/01/18	A1

EXCEPT AS AMENDED by the conditions of this approval:

PROPOSED WORKS

2. The following items are to be submitted for approval by the Heritage Council or delegate prior to the commencement of each component of the work

a) Detailed design and methodology for the proposed geotechnical investigations. Details should include methodology, locations, size and depth of geotechnical boreholes. Works should minimise penetration into original fabric as much as possible.

b) Detailed design and methodology of the proposed notching to the lining of tunnels, including details on how works will alter the profile of tunnels. Works must consider maintaining current historic details and features where possible.

c) Details on how the modified tunnel walls will be treated/sealed after notching has occurred. Treatment should considerer minimising damage to fabric and visual impacts.

d) Detailed design and methodology of tunnel wall reconstruction, where required. The methodology must include details on how significant infrastructure will be protected during the works.

e) An updated heritage impact assessment must accompany additional details provided for condition 2 (a-d).

Reason: The details requested were not supplied during the assessment of the application. The assessment and management of these details is considered essential to obtain a good heritage outcome.

SPECIALIST TRADESPERSONS

3. All work shall be carried out by suitably qualified tradespersons with practical experience in conservation and restoration of similar heritage structures, methods and materials.

Reason: To ensure construction, conservation and repair of significant fabric follows best heritage practice.

HERITAGE CONSULTANT

4. A suitably qualified and experienced heritage consultant must be nominated for this project. The nominated heritage consultant must provide input into

the detailed design and supervise the works to minimise impacts to heritage values. The nominated heritage consultant must be involved prior to in the selection of appropriate tradespersons, and must be satisfied that all work has been carried out in accordance with the conditions of this consent.

Reason: The nomination of a heritage consultant is required to ensure the selection of fittings and materials and the implementation of the works are overseen by an appropriately qualified professional experienced with heritage buildings

SITE PROTECTION

5. **Significant elements are to be adequately protected during the works from potential damage. Protection systems must ensure historic fabric is not damaged or removed.**

Reason: To ensure that significant fabric is not damaged during the works.

PHOTOGRAPHIC ARCHIVAL RECORDING

6. **A photographic archival recording of the for the Great Zig Zag Railway deviation tunnels must be prepared prior to and after the commencement of works, in accordance with the NSW Heritage Division publications *How to prepare archival records of heritage items* and *Photographic Recording of Heritage Items using Film or Digital Capture*. The original copy of the archival record must be deposited with the Heritage Division, Office of Environment and Heritage, and an additional copy provided to the Lithgow City Council.**

Reason: To ensure that the tunnels are properly documented prior to their modification and that copies of the archival recordings are kept with the relevant authorities and to ensure that the original copies of significant documents are retained for future reference.

3D MODEL

7. **A 3D model recording of the Great Zig Zag Railway deviation tunnels must be prepared using detailed scanning technology. An appropriate format of the 3D model must be deposited with the Heritage Division, Office of Environment and Heritage.**

Reason: To ensure an accurate high-fidelity model of the tunnels for archiving and future resource into materials and construction techniques.

UNEXPECTED HISTORICAL ARCHAEOLOGICAL RELICS

8. **The Applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.**

Reason: To ensure appropriate action is taken to protect potential archaeology.

COMPLIANCE

9. **The Applicant and the nominated Heritage Consultant may be required to participate in random audits of Heritage Council approvals to confirm compliance with conditions of consent at any time.**

Reason: To ensure completion of the works in accordance with the approved plans and to improve the approvals process through a better understanding of the implementation of conditions of approval.

DURATION OF APPROVAL

10. This approval shall be void if the activity to which it refers is not substantially commenced within five years after the date of the approval, or within the period of consent specified in any relevant development consent granted under the *Environmental Planning and Assessment Act 1979*, whichever occurs first.

Reason: To comply with legislation.

ADVICE

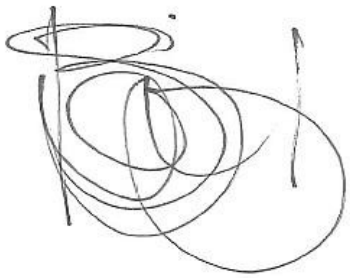
Your attention is drawn towards the powers of entry and inspection under s.148 of the *Heritage Act 1977* for authorised persons. If entry and inspection are required, reasonable notice will be provided as per the Act. The owner could voluntarily agree to allow non-authorised persons, such as Heritage Division (Office of Environment and Heritage) staff who are acting in a supporting role to the authorised persons, to enter their property for the purpose of inspection. Owners may also voluntarily grant permission to take photograph, take samples or request records.

Reason: Section 148 of the Heritage Act 1977*, allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.*

It should be noted that an approval under the *Heritage Act 1977* is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

If you have any questions regarding the above matter please contact Alexander Timms, Senior Heritage Officer at the Heritage Division, Office of Environment and Heritage, on telephone (02) 8837 6067 or at Alexander.Timms@environment.nsw.gov

Yours sincerely



Sarah Jane Brazil
Senior Team Leader, Major Projects
Heritage Division
Office of Environment and Heritage
As Delegate of the Heritage Council of NSW

29 March 2018

April 2018

NSW GOVERNMENT

New Intercity Fleet
Ten Tunnels Deviation Modifications

The NSW Government is delivering a New Intercity Fleet to replace the trains carrying customers from Sydney to the Central Coast, Newcastle, Blue Mountains and the South Coast.

Planning approval

Minor modifications to the Ten Tunnels Deviation (between Newnes Junction Station and Zig Zag Station) are needed to enable through services to Lithgow on the new trains.

The tunnel modifications are similar to work completed to allow for the introduction of the interurban V-set trains in the 1970's.

The Project includes:

- minor modifications to sections of the lining of eight of the tunnels (called 'notching'). The deepest notching would be approximately 130 millimetres
- the installation of rock bolts and replacement of lighting shields.

A Review of Environmental Factors was prepared and community feedback invited from 6 February to 27 February 2018. We would like to thank the community for their feedback, which will help further develop the project.

Feedback received has been considered as part of the planning approval process and has been responded to in a Determination Report which is now available to view at **transport.nsw.gov.au/projects/current-projects/new-intercity-fleet-program-ten-tunnels**

The new state-of-the-art trains will replace the ageing V-Sets to provide customers with a more comfortable and reliable journey.

The trains will feature wider, more spacious seats with arm rests, charging facilities for mobile devices, two by two seating for extra room and comfort, dedicated spaces for luggage, prams, bicycles and wheelchairs, improved accessibility including accessible toilets, tray tables with cup holders, improved customer information through digital information screens and announcements, CCTV and help points and modern air conditioning.

Our approach

It has always been our intention to carry out some modifications to the rail infrastructure so that we can run these trains across the intercity network and deliver our customers the comfort they deserve. These modifications are a part of the overall project to deliver the new trains.

The approach taken for the Ten Tunnels Deviation reflects the improvement of safety standards in relation to both track and train.

Through detailed studies and engineering, the Transport for NSW Assets Standards Authority has developed a standard to specifically cater for the design and maintenance of this track, and the design and operation of the new trains.

This will allow for the New Intercity Fleet to operate safely on this section of the Blue Mountains Line.

For more information call **1800 684 490**
Email **projects@transport.nsw.gov.au** or visit **transport.nsw.gov.au/projects**
For urgent enquiries or complaints regarding construction activities, please call 24 hours **1800 775 465**

Next steps

A contract will soon be awarded for the detailed design and construction of the project.

Construction is expected to start in late 2018 and take approximately two years to complete.

The majority of construction work would be undertaken during pre-existing and scheduled Sydney Trains trackwork weekends/shutdown periods to ensure the safety of customers and staff and to minimise disruption.

As all construction activities would be undertaken within the tunnels, any noise or environmental impacts would be minimal.

Every effort would be made to minimise any construction impacts to the local community. We will keep the community and customers informed prior to any activities taking place.

Delivering the new fleet

A new fleet of trains for long distance, intercity services from Sydney to the Central Coast, Newcastle, the Blue Mountains and the South Coast is on the way.

Safety, comfort and accessibility are the priority.

We've been able to incorporate comfortable two by two seating. Each seat will have tray tables and cup holders, as well as the ability to charge mobile devices.

There will also be dedicated luggage and bicycle racks, extra space for wheelchairs and prams, accessible toilets and baby changing facilities.

The layout of seating will be similar to that of the Tangara trains. Rows of seats in the middle of the carriage will be back-to-back, with the seats at either end of the saloon facing each other to cater for families and groups travelling together.

The first trains in the New Intercity Fleet will begin services late next year on the Central Coast and Newcastle Line and the rest of the fleet will progressively follow.

Artist's impression of the New Intercity Fleet. This is representative of the preliminary design and subject to change during detailed design activities.

Contact us

If you would like to speak with the project team please call **1800 684 490** or email us at **projects@transport.nsw.gov.au**. We will continue to keep the community informed about upcoming activities through regular updates.

This document contains important information about public transport projects in your area. If you require the services of an interpreter, please contact the Translating and Interpreting Service on **131 450** and ask them to call Transport for NSW on **(02) 9200 0200**. The interpreter will then assist you with translation.

To:	LITHGOW CITY COUNCIL
Date:	16 MAY 2018
From:	Ben Eastwood (NSW Environment Leader)
Subject:	**Wallerawang Power Station: Progressive Capping Strategy - briefing note**

Background

- EnergyAustralia has been undertaking Decommissioning, Demolition and Repurposing (DDR) works at the Wallerawang power station since its closure in 2014.
- This includes the planning for the closure and rehabilitation of the Wallerawang ash repositories known as Kerosene Vale Ash Repository (KVAR) and Sawyers Swamp Creek Ash Dam (SSCAD). The Wallerawang ash repositories cover approximately 150 ha of land and represent one of the biggest environmental liabilities in the Lithgow Shire. The purpose of this project is to enable the best management of these environmental liabilities.
- A shortfall of capping material to stabilise the Wallerawang ash repositories has been identified in the order of 2.3 million tonnes. This material is not available at the Wallerawang Power Station site.
- Suitable capping material is available from Sydney infrastructure projects (Westconnex & Northconnex) for a limited time, which would meet this shortfall and support the closure and rehabilitation of the Wallerawang ash repositories.
- The current Westconnex Project is scheduled for completion by November 2018 and has material that would be suitable for capping the Wallerawang Ash Repositories.
- EnergyAustralia submitted a Project Application to the NSW Department of Planning in January 2018 to import suitable material to cap the Wallerawang Ash Repositories. The Supporting Environmental Assessment has been placed on public exhibition from 23 March 2018 to 9 April 2018 inclusive at the Lithgow City Council Chambers.
- Six submissions were received from Government agencies, two from local Government agencies (LCC & BMCC) and one submission from the Blue Mountains Conservation Society. There were no submissions from individuals or groups in the Lithgow LGA opposing the Project.

Existing Approvals

- The SSCAD was approved and constructed in the late 1970's and pre-dates the NSW *Environmental Planning and Assessment Act 1979*. SSCAD is a prescribed dam listed under schedule 1 of the *Dams Safety Act 1978*.
- KVAR operates in accordance with Project Approval 07_0005 granted by the then Minister for Planning on 26 November 2008 under Part 3A of the *NSW Environmental Planning and Assessment Act 1979*. Progressive capping and rehabilitation is an approved activity under the current Project Approval.
- EnergyAustralia NSW is authorised to source and use ENM and VENM from the Lithgow and Bathurst Local Government Areas under its existing Environmental Protection licence 766. Unfortunately, there is insufficient volume available, at this time, from these LGA's. We understand Council too have had to source material externally for landfill capping.

Case Study - Sydney Infrastructure Projects (WestConnex and NorthConnex)

The WestConnex Project will:

- Extend the M4 in twin underground tunnels between Homebush and Haberfield.
- Will build new M5 tunnels to double capacity between St Peters and Kingsgrove.
- Join these underground routes together via the M4–M5 Link tunnel.
- Provide a western bypass of the Sydney CBD and provide connections to the future Western Harbour Tunnel, Beaches Link and F6 extension.

The NorthConnex project was approved by the NSW Minister for Planning on 13 January 2015 and tunnelling started in April 2016. The project will be complete in late 2019. About 21 kilometres of tunnelling is being carried out for NorthConnex. The two main nine-kilometre tunnels will carry motorists between the M1 Pacific Motorway and the Hills M2 Motorway and additional tunnels are being excavated for on and off ramps.

	Status Complete as at May 2018	**Remaining ENM/VENM approved for Disposal as at May 2018**	**Completion Date (material available)**
WestConnex			
M4 Widening	100%	0	n/a
King Georges Rd Interchange Upgrade	100%	0	n/a
M4 East	75%	2.4 mil m^3	Nov 18
New M5	55%	3.3 mil m^3	Nov 19
M4-M5 Link	35%	4.0 mil m^3	Oct 22
NorthConnex			
Tunnel, M1 Pacific Motorway Widening	22%	2.3 mil m^3	Dec 19

- ENM and VENM from the WestConnex and NorthConnex Projects is transported via 32-ton road registered truck and dog vehicles. Rail connection is not provided.
- The WestConnex Project has four locations where ENM and VENM is collected for transport and disposal. These collection points are located along the WestConnex corridor in the suburbs of St Peters, Arncliffe, Bexley and Kingsgrove.
- Up to 200 trucks are currently removing ENM and VENM from the WestConnex Project for disposal at receiving facilities throughout the broader Sydney metropolitan area.
- Material is subsidised by the WestConnex and NorthConnex Projects to cover the cost of loading and transport of material by road.
- It is understood that ENM and VENM is being used in new residential areas primarily in Western Sydney.
- The Lithgow City Council has recently used ENM and VENM from the WestConnex Project for a short period of time, with up to 60 truckloads per day maximum. The ENM and VENM has been used in landfill and to cap existing waste facilities in the Lithgow Local Government Area.

Material Quality

The quality of material proposed to be used for capping purposes will be limited to ENM and VENM. These materials are defined under the NSW EPA Waste Classification Guideline dated 2014 , and are essentially excavated natural materials.

Excavated Natural Material (ENM) is classified in accordance with the NSW EPA Excavated Natural Material Order 2014 and can be applied to land in accordance with the NSW EPA Excavated Natural Material Exemption 2014. Resource recovery orders and exemptions minimise the quantity of material entering landfills and encourage the reuse and recycling of material at other sites.

Virgin Excavated Natural Material (VENM) is defined in the Protection of the *Environment Operations Act 1997* as "natural material (such as clay, gravel, sand, soil or rock fines) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities.

Material Classification

The use of ENM and VENM is subject to strict monitoring and tracking requirements outlined under the EPA Waste Classification Guideline. The supplier of ENM and VENM is required to analyse the material to confirm it meets the relevant criteria under the EPA Waste Classification Guideline. This is typically carried out by independent third-party soil and land contamination specialists which prepare a report to confirm the material meets the ENM or VENM criteria. Testing is required to be repeated every 10,000 ton to confirm the material continues to meet the ENM or VENM criteria.

Vehicle Monitoring and security

Following the testing of the material to confirm it meets the ENM or VENM criteria the material is tracked by load from its point of origin to its final destination. The producer (e.g. WestConnex) and receiver of the material (EnergyAustralia NSW) is responsible for recording and tracking each truck load of material that is delivered. This is achieved by using reputable licenced contractors, detailed tracking forms that confirm the materials origin, how and by whom it was transported and where it was deposited. Each step in the process is required to be signed by the relevant responsible person. This allows for a very transparent and trackable transport process. In addition to this, online GPS tracking units will be fitted to vehicles were practicable

An advantage that the Capping Project has at the Wallerawang Power Station is that the site has a single point of access and 24hr security. The Wallerawang ash repositories are not accessible by the public. As such each load coming into the site can be closely monitored and recorded.

In addition, EnergyAustralia NSW would implement additional material sampling and analysis to ensure delivered material was consistent with the quality outlined in the reports provided by the supplier.

Project Description (volume, duration, truck numbers)

The Project comprises the following key components:

- Sourcing suitable capping material from any available location in NSW.
- Using only material classified as Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM) as defined by the EPA Waste Classification Guideline dated 2014.
- Up to a maximum of 100 loads per day would be transported along the Great Western Highway and Castlereagh Highways.
- EnergyAustralia NSW proposes to reduce the number of truck loads from the original 150 as proposed in its application down to a maximum number of 100 truckloads per day. On average, it is likely that 70 loads would be achieved over an extended period.
- Access to the Ash Repositories would be via the existing heavy vehicle access point on the Castlereagh Highway into the Wallerawang Power Station.
- No Council roads would be used to transport material coming from the Sydney infrastructure Projects. Roads and Maritime Services have been supportive of this initiative.
- The Project is likely to take 12-18 months, depending on availability of material, truck numbers and proposed capping depth.
- Local trucks and haulage transports will be utilised where possible to create local employment opportunities.
- The variation of the Project volume, duration and truck loads is summarised in **Table 1**.

- **Table 1: Indicative Capping volume**

	300 mm capping thickness	500 mm capping thickness	750 mm capping thickness
Kerosene Vale Ash Emplacement (m^3)	180,000	300,000	450,000
Sawyer Swamp Creek Ash Dam (m^3)	540,000	550,000	720,000
Totals (m^3)	720,000	850,000	1,170,000
Total (tonnes)	1,400,000	1,600,000	2,200,000
Days haulage	440	500	690
Years haulage	1.2	1.4	1.9

*assumes 32-ton truck and dog capacity
** assumes 100 trucks per day (incl. weekends)

The Project is dependent on a number of variables, these include:

- Access to and availability of bulk ENM and VENM from the Sydney based infrastructure Projects. The material from Sydney is not guaranteed and EnergyAustralia does not have exclusive access to the ENM and VENM from these Projects.
- Availability of trucks to transport the material. A reduced number of trucks will increase the duration of the Project.
- Weather conditions, as wet days will delay loading trucks at the designated loading bays in Sydney.

- Expectations of capping depth by regulators and the community. An increased capping depth will increase the volume of material required and duration of the Project to meet these expectations.

Rail Transport

EnergyAustralia NSW has considered a number of alternative options to the Project including sourcing material locally and using rail. The LCC in its submission requested that rail be considered as the preferred mode of transport of capping material for the Project. Some of the positives and negatives of rail transport are outlined in **Table 2**.

Table 2 Positives and negatives of transporting capping material by rail.

Positives of rail transport	Negatives of rail transport
• Rail would provide for the bulk haulage of capping material.	• Would require higher capital investment to construct suitable infrastructure to accommodate the delivery of a large volume of material.
• Trucks would not have to pass through the Blue Mountains City Council Local Government Area. Trucks would still be required to operate in the Lithgow LGA.	• Required infrastructure to be constructed would include: o A rail unloader facility; o Material handling plant and storage area; o Upgrades to local roads and intersections as required
• Impacts from trucks movements on the Great Western Highway and Castlereagh Highways would be reduced. Reduced impacts would include: o Less maintenance costs; and o Reduced traffic congestion.	• Preliminary assessments indicate that the subsidies provided by the WestConnex Project would not cover the cost of transporting the material by rail as it does for road transport
	• Specialist rail logistics coordinators would be required to manage rail transport arrangements and access.
	• Trucks would be required to transport material from the unloader facility to the ash repository in the Lithgow Local Government Area.
	• Upgrades to local roads and intersections would be required to accommodate the increased truck movements in the Lithgow Local Government Area.
	• An increase in truck movements would be required for short periods on a campaign basis when material was available.
	• EnergyAustralia NSW does not have access to rail network capacity for the transport of this material on the Blue Mountains Line.

	This would take time and delay access to the material which is available now.
	• There is no certainty on the availability of the capping material as EnergyAustralia NSW does not have exclusive access to it. Using trains would require certainty on the material being available when required.
	• It is more economically efficient to transport the material by truck than rail based on the approval conditions of the WestConnex project.
	• Rail loading and unloading in Sydney and locally will cause two sets of truck movements at either ends of the projects.

Conclusion

EnergyAustralia NSW is seeking the support of LCC and councillors to ensure the Wallerawang Ash Repositories can be capped and rehabilitated to provide for an improved environmental outcome for the Lithgow LGA. We believe we have a unique opportunity to create a beneficial reuse of material and develop an environmental improvement for the area.

Figure 1

C1
D2
EXISTING ASBESTOS
C
D1
SSCAD
B
D
A
KVAR UNCAPPED STAGE 2A
KVAR CAPPED
KVAR STAGE 2B
D3
ASBESTOS OPTION 5
DEMOLITION LANDFILL

Explanatory Note- DA 269/17

Objectives of the Planning Agreement

To provide a material benefit to be used for or applied towards a public purpose.

Nature of the Planning Agreement

- $6,000 per allotment to go towards community facilities and public open space.

Effect of the Planning Agreement

The effect of the Planning Agreement will be to allow for the provision of facilities for public use within the Lithgow Local Government Area.

Merits of the Planning Agreement

- The proposed development is for a subdivision of land from 1 allotment into 11 residential allotments and one public reserve. This will result in an increase in demand for public facilities.

- In the assessment of the merits of the development, Council must consider the social impacts of the proposal on the immediate locality and on the wider community, and ensure through whichever means are available for community facilities and infrastructure to be provided which will address this matter.

- The provision of community facilities and infrastructure is the main outcome derived from the development and operation of this Planning Agreement.

Promotion of Council's Charter

Council has a vision for the Lithgow area to be recognised as a desirable place to live and visit and a viable place in which to invest. The provision of community facilities and infrastructure will assist in promoting this vision.

Planning Purpose

The Planning purpose of the Planning Agreement is:

- In compliance with the Environmental and Planning Assessment Act and Regulations.

- In compliance with the public interest of the development, being to provide facilities which may be of benefit towards a public purpose.

- To enhance the positive social impact of the development on the locality.

Capital Works Program

Once funds from the Planning Agreement have been collected Council begins planning for their expenditure through incorporation into the capital works program.

As agreed this day:_____

Lemdean PTY Limited:_____

Lithgow City Council:_____

Between LITHGOW CITY COUNCIL AND LEMDEAN PTY LIMITED

PLANNING AGREEMENT

Parties

Lithgow City Council of 180 Mort Street Lithgow, New South Wales, 2790 (**Council**)

and

Lemdean Pty Limited, Po Box 3002, Lithgow NSW 2790. (**Developer**).

Background

(For Development Applications)

A. On, 5 October 2017, the Developer made a Development Application to the Council for Development Consent for subdivision of 1 lot into 11.
B. That Development Application was accompanied by an offer by the Developer to enter into this Agreement to make Development Contributions towards Public Facilities and Infrastructure if that Development consent was granted.

Operative provisions

1 Planning agreement under the Act

The Parties agree that this Agreement is a planning agreement governed by Subdivision 2 of Division 6 of Part 4 of the Act.

2 Application of this Agreement

This application applies to Lot 14 DP 1202238, 7 Bowen Chase, South Bowenfels for a subdivision of 1 lot into 11.

3 Operation of this Agreement

This Agreement takes effect on the date of execution. All contributions must be paid prior to the release of a subdivision certificate for each stage of the development.

4 Definitions and interpretation

4.1 In this Agreement the following definitions apply:

Act means the *Environmental Planning and Assessment Act 1979* (NSW).

Dealing, in relation to the Land, means, without limitation, selling, transferring, assigning, mortgaging, charging, encumbering or otherwise dealing with the Land.

Development means that associated with DA269/17 for a subdivision of land from 1 lot into 11.

Development Application has the same meaning as in the Act.

Development Consent has the same meaning as in the Act.

Development Contribution means a monetary contribution, the dedication of land free of cost or the provision of a material public benefit.

GST has the same meaning as in the GST Law.

GST Law has the meaning given to that term in *A New Tax System (Goods and Services Tax) Act 1999* (Cth) and any other Act or regulation relating to the imposition or administration of the GST.

Land means Lot 14 DP 1202238, 7 Bowen Chase, South Bowenfels NSW 2790.

Party means a party to this agreement, including their successors and assigns.

Regulation means the *Environmental Planning and Assessment Regulation 2000*.

4.2 In the interpretation of this Agreement, the following provisions apply unless the context otherwise requires:

(a) Headings are inserted for convenience only and do not affect the interpretation of this Agreement.

(b) A reference in this Agreement to a business day means a day other than a Saturday or Sunday on which banks are open for business generally in Sydney.

(c) If the day on which any act, matter or thing is to be done under this Agreement is not a business day, the act, matter or thing must be done on the next business day.

(d) A reference in this Agreement to dollars or $ means Australian dollars and all amounts payable under this Agreement are payable in Australian dollars.

(e) A reference in this Agreement to any law, legislation or legislative provision includes any statutory modification, amendment or re-enactment, and any subordinate legislation or regulations issued under that legislation or legislative provision.

(f) A reference in this Agreement to any agreement, deed or document is to that agreement, deed or document as amended, notated, supplemented or replaced.

(g) A reference to a clause, part, schedule or attachment is a reference to a clause, part, schedule or attachment of or to this Agreement.

(h) An expression importing a natural person includes any company, trust, partnership, joint venture, association, body corporate or governmental agency.

(i) Where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.

(j) A word which denotes the singular denotes the plural, a word which denotes the plural denotes the singular, and a reference to any gender denotes the other genders.

(k) References to the word 'include' or 'including' are to be construed without limitation.

(l) A reference to this Agreement includes the agreement recorded in this Agreement.

(m) A reference to a party to this Agreement includes a reference to the servants, agents and contractors of the party, and the party's successors and assigns.

(n) Any schedules and attachments form part of this Agreement.

5 Development Contributions to be made under this Agreement

5.1 The Developer shall pay to Council an amount of $6,000 per allotment to go towards community facilities and open space.

6 Application of the Development Contributions

6.1 Payments or provision of material public benefits must be made prior to the issue of each stages subdivision certificate.

7 Application of s94 and s94A of the Act to the Development

Sections 94 and 94A do not otherwise apply to the development.

8 Registration of this Agreement

This Agreement will not be registered as provided for in s93H of the Act as its provisions are to be finalised prior to the issue of any occupation certificate.

9 Review of this Agreement

This agreement shall not be reviewed except with the approval of both parties.

10 Dispute Resolution

Should a dispute arise as part of this agreement that cannot be resolved between the parties then the parties may engage an independent mediator to be funded by the parties to assist in resolving the dispute. If the dispute is not resolved by mediation then before either party has recourse to litigation, the party must submit the dispute to expert appraisal. If the parties do not agree upon an independent expert, either may request the Secretary General of the Australian Commercial Disputes Centre to nominate an expert.

11 Enforcement

If this agreement is not honoured prior to any request for the issue of any subdivision certificate then the parties agree that enforcement shall mean any subdivision certificate will not be released.

12 Notices

12.1 Any notice, consent, information, application or request that must or may be given or made to a Party under this Agreement is only given or made if it is in writing and sent in one of the following ways:

(a) Delivered or posted to that Party at its address set out below.

(b) Faxed to that Party at its fax number set out below.

(c) Emailed to that Party at its email address set out below.

Council

Attention: Andrew Muir

Address: 180 Mort Street, Lithgow, NSW 2790

Phone Number: 02 6354 9999

Fax Number: 02 63512927

Email: andrew.muir@lithgow.nsw.gov.au

Developer

Attention: Todd Dean

Lemdean Pty Limited

Address: PO Box 3002, Bowenfels NSW 2790

Phone Number: 0419483582

Email: toddean@bigpond.com

12.2 If a Party gives the other Party 3 business days notice of a change of its address or fax number, any notice, consent, information, application or request is only given or made by that other Party if it is delivered, posted or faxed to the latest address or fax number.

12.3 Any notice, consent, information, application or request is to be treated as given or made at the following time:

(a) If it is delivered, when it is left at the relevant address.

(b) If it is sent by post, 2 business days after it is posted.

(c) If it is sent by fax, as soon as the sender receives from the sender's fax machine a report of an error free transmission to the correct fax number.

12.4 If any notice, consent, information, application or request is delivered, or an error free transmission report in relation to it is received, on a day that is not a business day, or if on a business day, after 4.30pm on that day in the place of the Party to whom it is sent, it is to be treated as having been given or made at the beginning of the next business day.

13 Approvals and consent

Except as otherwise set out in this Agreement, and subject to any statutory obligations, a Party may give or withhold an approval or consent to be given under this Agreement in that Party's absolute discretion and subject to any conditions determined by the Party. A Party is not obliged to give its reasons for giving or withholding consent or for giving consent subject to conditions.

14 Assignment and Dealings

The parties agree that this agreement shall not be assigned to any other party. Should the developer intend to sell, transfer or otherwise dispose of the property the subject of the agreement then the developer hereby agrees to honour the terms of the agreement prior to such sale, transfer or disposition.

15 Costs

Any incidental costs associated with this agreement shall be borne by the developer.

16 Entire agreement

This Agreement contains everything to which the Parties have agreed in relation to the matters it deals with. No Party can rely on an earlier document, or anything said or done by another Party, or by a director, officer, agent or employee of that Party, before this Agreement was executed, except as permitted by law.

17 Further acts

Each Party must promptly execute all documents and do all things that another Party from time to time reasonably requests to affect, perfect or complete this Agreement and all transactions incidental to it.

18 Governing law and jurisdiction

This Agreement is governed by the law of New South Wales. The Parties submit to the non-exclusive jurisdiction of its courts and courts of appeal from them. The Parties will not object to the exercise of jurisdiction by those courts on any basis.

19 Joint and individual liability and benefits

Except as otherwise set out in this Agreement, any agreement, covenant, representation or warranty under this Agreement by 2 or more persons binds them jointly and each of them individually, and any benefit in favour of 2 or more persons is for the benefit of them jointly and each of them individually.

20 No fetter

Nothing in this Agreement shall be construed as requiring Council to do anything that would cause it to be in breach of any of its obligations at law, and without limitation, nothing shall be construed as limiting or fettering in any way the exercise of any statutory discretion or duty.

21 Representations and warranties

The Parties represent and warrant that they have power to enter into this Agreement and comply with their obligations under the Agreement and that entry into this Agreement will not result in the breach of any law.

22 Severability

If a clause or part of a clause of this Agreement can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way. If any clause or part of a clause is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Agreement, but the rest of this Agreement is not affected.

23 Modification

No modification of this Agreement will be of any force or effect unless it is in writing and signed by the Parties to this Agreement.

24 Waiver

The fact that a Party fails to do, or delays in doing, something the Party is entitled to do under this Agreement, does not amount to a waiver of any obligation of, or breach of obligation by, another Party. A waiver by a Party is only effective if it is in writing. A written waiver by a Party is only effective in relation to the particular obligation or breach in respect of which it is given. It is not to be taken as an implied waiver of any other obligation or breach or as an implied waiver of that obligation or breach in relation to any other occasion.

Execution

Dated:

Executed as an Agreement:

Lemdean Pty Limited _____

Lithgow City Council _____

DEVELOPMENT ASSESSMENT REPORT – DA217/17 - PROPOSED RESTAURANT AND KITCHEN WITH OUTDOOR SEATING & AMENITIES, LOT 56 DP 791926, MAGPIE HOLLOW ROAD SOUTH BOWENFELS NSW 2790

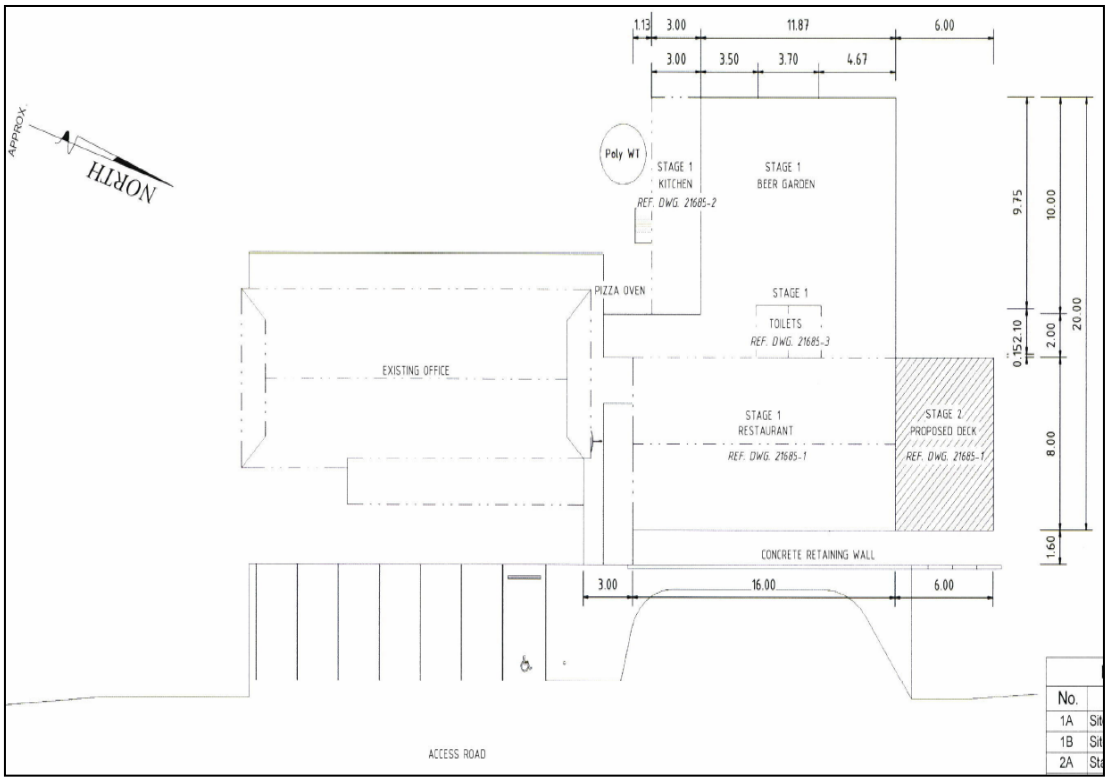
1. PROPOSAL

Council is in receipt of a Development Application DA217/17 for a restaurant and kitchen, deck, beer garden, outdoor seating and amenities on land known as Lot 56 DP 791926, Lake Lyell Recreation Park, Magpie Hollow Road, South Bowenfels.

Council recently approved a sheltered area and retaining walls as per DA190/16. The current development proposes to change the use of the sheltered area that was used as a seating area, to be a restaurant and kitchen. The development proposes to enclose the sheltered area to include windows and doors and to also construct a deck and beer garden.

The development is proposed to be adjacent to the existing office building. The restaurant is proposed to have a capacity of approximately 90 people with a beer garden to the side of the restaurant. The beer garden would be ancillary to the restaurant and would comprise an unroofed area of 120m^2.

The development is proposed to be undertaken in 2 stages. The first stage consists of the restaurant and the second stage consisting of the deck on the northern elevation. See below site plan of the proposal:



The proposed hours of operation are 7 days per week; between 11am to 10pm Sundays to Thursdays, and 11am to midnight on Fridays and Saturdays. There will be approximately 6 staff members required on site.

The property currently contains; a kiosk, office, boat ramp, amenities block with showers and toilets, accessible toilets, covered picnic area, powered and unpowered camping sites and three cabins offering 10 beds (subject to a separate DA054/18).

2. SUMMARY

To assess and recommend determination of DA217/17 with a recommendation for approval subject to conditions.

3. LOCATION OF THE PROPOSAL

Legal Description:	Lot 56 DP 791926
Property Address:	Magpie Hollow Road South Bowenfels NSW 2790

4. ZONING: The land is zoned RE1 'Public Recreation' in accordance with Council's current planning instrument, being Lithgow Local Environmental Plan (LEP) 2014.

5. PERMISSIBILITY: The development being a 'restaurant or café', as defined below is permissible under Lithgow Local Environmental Plan 2014, subject to development consent as per the RE1 zoning table.

Restaurant or cafe *means a building or place the principal purpose of which is the preparation and serving, on a retail basis, of food and drink to people for consumption on the premises, whether or not liquor, take away meals and drinks or entertainment are also provided.*
Note. *Restaurants or cafes are a type of food and drink premises—see the definition of that term in this Dictionary.*

5.1 POLICY IMPLICATIONS (OTHER THAN DCP's)

Policy 7.1 Filling and Levelling of Land
Earthworks were previously undertaken as per DA190/16 for the sheltered area and retaining wall. Minimal earthworks are proposed as part of the current application; it includes a deck and beer garden to the existing building.

Policy 7.5 Notification of Development Applications
This policy applies to the development, however the following clause does not require Council to notify this particular application:

2. Applications For Which Notification Will Not Be Given Under This Policy
Development applications for the following types of development will not be notified. (NB: Any structure must conform to applicable setback requirements):

- *Any other development of a minor nature that, in the opinion of the assessing officer, does not have the potential to create a negative impact on the amenity of the neighbourhood by way of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, traffic generation or otherwise.*

Given the isolated nature of the development in respect to residential properties (approximately 700 metres), relatively minor scale of the development and the existing established outdoor recreation use, the development was not notified to adjoining land owners as the development is considered to not have much potential to create a negative impact on the amenity of the neighbourhood.

Policy 7.6 Development Applications By Councillors And Staff Or On Council Owned Land
This policy states that:

Development Applications to be referred to the elected Council for consideration and determination and that no aspect of the development is dealt with under delegated authority.

Given that the property is owned by Council, the proposal is reported to Council for determination.

5.2 FINANCIAL IMPLICATIONS

Section 94A Development Contributions Plan 2015
The Section 94A plan does not capture this development given it is for a change of use of an existing building at an estimated cost of $75,000. This is under the minimum threshold for a levy to be applicable being $100,000.

5.3 LEGAL IMPLICATIONS

Environmental Planning and Assessment Act 1979
In determining a development application, a consent authority is required to take into consideration the matters of relevance under Section 79C of the *Environmental Planning and Assessment Act 1979*. These matters for consideration are as follows:

5.3.1 Any Environmental Planning Instruments

Lithgow Local Environmental Plan 2014

LEP 2014 – Compliance Check		
Clause		**Compliance**
Land Use table	RE1 Public Recreation	Yes
7.3	Stormwater management	Yes
7.7	Sensitive lands	Yes

Comment: The proposed development is consistent with the zone objectives. The development is proposed to be ancillary to the recreation and camping area on the property. The development will not impact the current use or the natural environment as it will utilise a small area on the large allotment and has a reasonable setback from the Lake.

Stormwater must be disposed of to the satisfaction of Council. A condition was placed on the previous DA190/16 for the shelter area and is satisfactory. Sufficient site area is available to implement an onsite disposal system to ensure minimal impact on native bushland and receiving waters. Water NSW have imposed storm water conditions, if approved.

The property is identified as being sensitive land. The location of the development has a slight slope that is less than 25%. The land is not subject to high erosion potential, salinity, impeded drainage or expected to be subject to regular or permanent inundation. The development is designed, sited and will be managed to avoid significant adverse environmental impact.

The land is deemed suitable for the proposal and is considered to comply with Council's LEP 2014.

State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

SEPP (Sydney Drinking Water Catchment) 2011 – Compliance Check		
	Clause	**Compliance**
10	Development consent cannot be granted unless neutral or beneficial effect on water quality	Yes
11	Development that needs concurrence of the Chief Executive	Yes

Comment: The application is required to be assessed by Water NSW given the development is for a restaurant relying on existing onsite effluent management systems. The proposal was forwarded to Water NSW for assessment with no objections provided, subject to conditions of consent being imposed. It is considered that the development will meet the requirements of a neutral or beneficial effect on water quality subject to conditions of consent, if approved.

5.3.2 Any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority

Nil.

5.3.3 Any Development Control Plan

There are no DCP's applicable at the time of lodgement of the application. Council's previous DCP's that have now been repealed are used as a guide below. The following repealed DCP's are relevant:

Outdoor Advertising Development Control Plan

Outdoor Advertising – Compliance Check		
	Clause	**Compliance**
Part 1	Objectives	Yes
Part 3	Procedures	Yes
Part 4	Design Controls- General	Yes
	Design Controls- Commercial	Yes

Comment: Advertising signage is proposed to be located under the awning to identify the building. This is suitable for the development as it would not impact adjoining or adjacent landuses and would be compatible with the building material.

Off Street Carparking Development Control Plan

Off Street Carparking – Compliance Check		
	Clause	**Compliance**
Part 1	Objectives	Yes
Part 6	Car Parking Standards	Yes
Part 7	Construction Standards	Yes
Part 8	Landscaping	Yes
Part 9	Design Guidelines	Yes

Comment:
Hardstand parking for 63 cars is currently available on site adjacent to the proposed restaurant. The existing car parking is used by casual day visitors to the site. There

are 120 parking spaces across the entire site. The restaurant will generate the need for 19 spaces. It is considered however that due to the use of the restaurant by campers and mainly at night, sufficient parking is currently provided. Ample site area exists to expand the carpark should this ever prove necessary in the future.

5.3.4 Any planning agreement that has been entered into under Section 93F, or any draft planning agreement that a developer has offered to enter into under Section 93F?

Nil.

5.3.5 Any matters prescribed by the regulations that apply to the land

The development has been forwarded to Council's Building Officer for assessment under appropriate regulations. It is considered that as a result of this assessment the development will comply with the provisions of the regulations subject to conditions of consent.

5.3.6 The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

Adjoining Landuse: The surrounding area is generally for recreational and camping purposes around Lake Lyell. Rural residential uses are located adjacent to Magpie Hollow Road and adjacent to the Lake. As the development is on a lower elevation and surrounded by existing infrastructure such as the boat shed, cabins and existing office building, it is considered that the development will have minimal impact to surrounding landowners. The proposal will not cause any land use conflicts and the development is permissible within the zone.

Services: The existing office building and associated buildings have connections to electricity and telecommunication services. These services will be able to be connected to the new proposed development. The development will also be serviced by the existing onsite effluent management system currently utilising a pump out system. However, the existing system will require appropriate upgrades to cater for the proposal as per proposed conditions of consent, if approved.

Therefore, it is considered that the proposal will be adequately serviced.

Context and Setting: The proposed development will be located within an established recreation and camping area. The development will not have any major impact on the context and setting of the area. The development has been designed to complement existing features of similar development in the area.

All lighting associated with the development will be shielded and directed so as not to cause nuisance to any campers or overnight guests at the park.

Access/traffic: The proposal will gain access from Magpie Hollow Road via an existing access. The access is sealed and is suitable for the development.

Deliveries to the restaurant are expected to occur during weekdays and prior to the lunchtime period. These times would be less busy with parking available in front of the restaurant for delivery vehicles.

It is expected that a proportion of visitors to the restaurant will also be utilising the camping ground and the associated recreational facilities around Lake Lyell. Therefore there will be minimal additional traffic to the area. Magpie Hollow Road is a formed road and is not required to be upgraded for the development.

Heritage: The property is not heritage listed or located within a heritage conservation area under Council's LEP 2014. The property is also not located within the vicinity of any listed heritage items.

Flora and Fauna: No proposed clearing is required and the development will have no impact on flora or fauna.

Social and Economic Impact: As the proposed development will be generally in keeping with the provisions of the planning instrument and is reasonably compatible with other similar development in the locality, it is expected to have minimal social and economic impact.

Soils: The proposed development will have no significant impact on soils. There is no reason to believe the site would be affected by acid sulphate soil or contamination problems. Conditions of consent will be imposed to control erosion and sedimentation impacts on the site and therefore it is considered there will be minimal impacts on soils.

Water: The proposed development has been assessed using the NorBE tool as required by the *State Environmental Planning Policy (Sydney Catchment Drinking Water) 2011* with a result of satisfied*.* Therefore with appropriate conditions of consent it is considered that the development will have minimal impact on water.

Air and Microclimate: There will be no significant impact on air or microclimate.

Waste: The Statement of Environmental Effects states that waste for the site will be collected and retained behind the kitchen area in bins that are locked and sealed. Recycling will also be located in this location. Waste would be taken off site by the Park's operators on a bi weekly basis or more often as required. A condition would be placed on the consent to ensure waste is disposed of appropriately. This is satisfactory for the development.

Natural Hazards: The property is located within a bushfire prone area. The development is not for habitable residential use or defined as 'special fire protection', therefore a bushfire report is not required to be submitted. The development was referred to Council's building surveyors to assess impacts of bushfire; including evacuation procedures, access and water supply. Council's Building Surveyor comments are found later in this report.

The property is located on the edge of Lake Lyell. Due to the topography of the land sloping towards the Lake and the location of the development being situated on the relatively higher elevation, the development is not expected to be flood affected.

Noise and Vibration: There are no nearby sources of noise or vibration that would impact detrimentally upon the proposal. The proposal is not expected to cause any noise issues in the surrounding area, given it is for a restaurant/café that is ancillary to a camping and recreation park.

Other Land Resources: The development will not impact on the value of the land in terms of agricultural potential or mining as it is zoned for recreational purposes and adjacent to an established recreational/camping area.

5.3.7 The Suitability of the site for the development

The surrounding land uses are for recreational and rural residential pursuits surrounding Lake Lyell. The size and nature of the development is consistent with the existing camping and recreational park. The proposal is compatible with the objectives of the zone and is considered to have minimal impact on the surrounding amenity. Therefore, the site is considered to be suitable for the proposed development.

5.3.8 Any submissions made in accordance with this Act or the Regulations

The proposal was sent to Water NSW, Council's Building Officer, Engineers and Environmental Officer for commenting with recommendations detailed below. No submissions were received from surrounding landowners noting that the application was not notified.

WATER NSW

Comments 18 December 2017:
Water NSW has undertaken an inspection of the site, reviewed the application documents and has the following comments:

1. The site inspection identified that
   - the construction for the proposed restaurant building was underway
   - the existing amended soil mounds are not being used for wastewater treatment as they have failed due to the disposal of peak wastewater loads, and
   - two above ground poly tanks with total capacity of 64kL have been installed as recommended in the Onsite Sewage Management System Review Report and Conceptual Upgrade Plan prepared by Whitehead & Associates.

2. The Statement of Environmental Effects proposes the use of the existing on-site sewage management system at the Lake Lyell Recreation Park for the management of wastewater generated by the proposed restaurant.

3. The Onsite Sewage Management System Review Report for Lake Lyell Recreation Park and Conceptual Upgrade Plan prepared by Whitehead & Associates identified the following:
   - the existing wastewater management system for the site is undersized
   - the amended soil mounds have failed due to blockage from high suspended solids load resulting from partially treated wastewater discharged to the mounds during peak flows
   - high water level alarm and/or float activated visual alarm on existing tanks were not working and needing repair, and
   - wastewater flow data was not available for the site.

4. The Onsite Sewage Management System Review Report specifies that mounds are approximately 6m x 20m in dimension and designed to treat a maximum of

3,000 litres effluent per day (see Section 4.4 of the report). Water NSW have had discussions with Mr Stuart Crockart of Ecomax Australia regarding the design treatment capacity of the mounds. Mr Crockart advised that there are no records in relation to the size and design treatment capacity of the mounds and also there was no proper soil investigations undertaken for designing and installation of the mounds. Mr Crockart thinks the mounds are approximately 10m x 28m in dimension and each mound is designed to treat 2,000 litres effluent per day (one mound working and other resting but when both mounds work together, they can treat a maximum of 4,000 litres effluent per day). Mr Crockart also advised that he considers there are no major issues with the mounds and they can be used for effluent treatment. Water NSW considers that an assessment of the mounds should be undertaken to identify the exact design treatment capacity and if any repairs are required to make them functional/operational.

5. The Whitehead & Associates review has recommended the upgrade of the existing on-site sewage management system including installation of macerating pumps in the existing tanks, instead of submersible pumps.

6. Water NSW understands that Council are in the process of commissioning an options report regarding management of sewage at the site. Until such time Council decides its preferred option, Water NSW considers that the following are required:
   - installation of flow meters at all wastewater generation points to measure actual wastewater flow generated at the site
   - repair/replace high water level alarms
   - replace existing submersible pump/s with macerating pump/s
   - an assessment of the existing amended mounds to identify the exact design treatment capacity and if any repairs are required to make them functional/operational, and
   - based on advice in above dot point, repair/reconstruct the existing amended soil mounds to make them functional.

Water NSW does not consider that pump-out systems are sustainable or desirable as the potential for abuse means that they can be the worst performing on-site wastewater management system. However, as the site is owned by Council and there is an existing pump-out system there is a strong likelihood that pump-outs will be completed on a regular basis by a licensed contractor in a competent manner.

Water NSW will agree with a pump-out system in this instance provided that the applicant enters into an agreement with a Council-approved tanker service for wastewater to be pumped out as required until such time as either a reticulated sewerage system becomes available or the existing on-site sewage management system is upgraded.

Based on Water NSW's site inspection and the information provided, the proposed development has been assessed by Water NSW as being able to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

Water NSW concurs with Council granting consent to the application subject to the following conditions:

General

1. The site layout and works shall be as specified in the Statement of Environmental Effects prepared by Nuala Dewhurst (dated August 2017) and shown on the Site Plans prepared by Ian Laing Drafting (Proj. No. 21685; Sheets 1A & 1B; Rev A, dated 25/06/2016). No revised site layout, staging or external works that will impact on water quality, shall be permitted without the agreement of Water NSW.

Reason for Condition 1 - Water NSW has based its assessment under the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on this version of the development.

Stormwater Management

2. A rainwater collection and reuse system for the restaurant roof shall be installed that incorporates the following specifications and requirements:
   - rainwater tanks with a minimum total capacity of 10,000 litres above any volume required for mains top-up
   - roofs and gutters designed so as to maximise the capture of rainwater in the tanks
   - the tanks plumbed to toilets and other areas for non-potable use including landscape watering, and
   - all rainwater tank overflow shall be directed to a level spreader such that discharge does not result in erosion.

3. No wash water used in cleaning the floors of the restaurant facility or kitchen shall be directed to the stormwater system.

4. No variation to stormwater treatment or management that will impact on water quality shall be permitted without the agreement of Water NSW.

Reason for Conditions 2 to 4 – To ensure appropriate stormwater treatment and quality control measures are designed, implemented and maintained so as to achieve a sustainable neutral or beneficial impact on water quality, particularly during wet weather, over the longer term.

Wastewater Management

5. **Prior to the issuance of a Construction Certificate**, a report prepared by a suitably qualified person shall be submitted to Council for consideration to identify:
   a) the exact design treatment capacity of the existing amended mounds
   b) the existing and proposed wastewater loads generated onsite, including peak and average wastewater loading
   c) any upgrading works required to be carried out to the existing amended mounds.

6. Based on advice in Condition 5 above and **prior to the issuance of any Occupation Certificate**, the existing amended soil mounds shall be repaired and/or reconstructed such that they are functional and operational and a cut-off/switching mechanism shall be installed at the upper amenities collection well to direct effluent no greater than the design treatment capacity identified by the assessment in Condition 5 above.

7. The following improvements/repairs to the existing pump-out system shall be undertaken **prior to the issuance of a Construction Certificate** for the development:
   - install flow meters at all wastewater generation points to measure actual wastewater flow generated at the site, and
   - install/repair/replace high water level alarms and float activated visual alarms, and replace existing submersible pump/s with macerating pump/s as recommended in the Onsite Sewage Management System Review Report for Lake Lyell Recreation Park and Conceptual Upgrade Plan prepared by Whitehead and Associates (dated 25 September 2017).

8. The capacity of the existing pump-out system shall also be upgraded, **prior to the issuance of a Construction Certificate,** in accordance with the recommendations in the Onsite Sewage Management System Review Report for Lake Lyell Recreation Park and Conceptual Upgrade Plan prepared by Whitehead and Associates (dated 25 September 2017) but with the following specific requirements and modifications:
   - primary treated effluent in excess of the existing design capacity of the amended soil mound and upper amenities collection wells shall be pumped to further collection tanks with a minimum storage capacity of 40,000 litres which shall meet the following requirements:
     - be provided with a visible indicator for wastewater level and an visual alarm for excessive wastewater levels
     - the alarm shall be triggered when an individual tank volume exceeds 70% of its capacity
     - the pump line shall be a 50mm diameter, Class 12 pressure pipe
     - the tanks shall be provided with bunding on the downslope side to prevent any spilled or leaked effluent reaching Lake Lyell
   - all pump lines shall be connected to a pump-out stand concreted into the ground and shall be fitted with a "Kamlock" (or similar) cover that can be readily accessed by pump-out trucks
   - all pump-out stand shall be located in a spillage well with a valve for the collection of any spilt sewage, and
   - the applicant shall enter into an agreement with a Council-approved tanker pump out service for regular weekly pumping during peak holiday periods and "as needs" pumping during other times.

9. These conditions of consent relating to wastewater management shall be provided to the installer of the wastewater system.

10. The installers of the wastewater management system shall certify to Council in writing that the system has been constructed and installed as per these conditions of consent, and that the system has been tested and is functioning properly.

11. No **Occupation Certificate for the development shall be issued** until Council has received the written certification from the installers, and approved the onsite wastewater management system under the *Local Government Act 1993*.

Reason for Conditions 5 to 11 – To ensure that the wastewater management system is appropriately designed, located and constructed so as to have a sustainable neutral or beneficial effect on water quality over the longer term.

Operation Environmental Management Plan and and Performance Reporting

12. An Operational Environmental Management Plan (OEMP) shall be prepared in consultation with Water NSW by a person with knowledge and experience in the preparation of such plans **prior to the issuance of any Occupation Certificate**. The OEMP shall be implemented which shall include but not be limited to:
    - details on the location, description and nature of wastewater and stormwater management structures such as tanks, pipes, alarms, flow meters, pumps, desludging of tanks, grease trap, and rainwater collection system
    - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all wastewater and stormwater management structures, including the frequency of such activities
    - a monthly monitoring and performance program for the onsite sewage management system that shall include, but not be limited to:
        - wastewater flow generated at all wastewater generation points
        - quantities of wastewater directed to amended soil mound
        - condition of amended soil mound, alarms, flows meters and pumps
        - quantities of wastewater in all tanks
        - sludge levels in all tanks
        - quantities of wastewater being pumped out, and
        - records of wastewater received by a licensed facility.
    - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and
    - checklists for recording inspections and maintenance activities.

13. The monitoring and performance reports of the existing onsite sewage management system as required in Condition 12 above shall be prepared by a person with knowledge and experience in the preparation of such reports and be submitted to Council and Water NSW. The report/s shall be submitted on a 6-monthly basis **following the date of the Occupation Certificate**.

Reason for Conditions 12 & 13 – To ensure appropriate wastewater and stormwater treatment and quality control measures are managed, monitored and maintained so as to achieve a sustainable neutral or beneficial impact on water quality, particularly during wet weather, over the longer term.

Construction Activities

14. An Erosion and Sediment Control Plan shall be prepared by a person with knowledge and experience in the preparation of such plans for all works proposed or required as part of the development. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" and shall be prepared prior to construction commencing and be to the satisfaction of Council.

15. The plan shall be implemented and effective erosion and sediment controls shall be installed prior to any construction activity. The controls shall prevent sediment or polluted water leaving the site or entering any stormwater drain or

natural drainage system and shall be regularly maintained and retained until works have been completed and ground surface stabilised or groundcover re-established.

Reason for Conditions 14 & 15 - To manage adverse environmental and water quality impacts during the construction phase of the development and to minimise the risk of erosion, sedimentation and pollution within or from the site during this construction phase.

Updated Comments 12 March 2018:
Based on Water NSW's previous site inspection and the information previously provided, the proposed development has been assessed by Water NSW as being able to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

Water NSW concurs with Council granting consent to the amended application, subject to Water NSW's previously provided Condition 1 being replaced with the following. All other conditions and commentary in Water NSW's previous concurrence advice to Council (dated 18 December 2017) still apply.

General

1. The site layout and works shall be as specified in the Statement of Environmental Effects prepared by Nuala Dewhurst (dated August 2017) and shown on the Site Plans prepared by Ian Laing Drafting (Proj. No. 21685; Sheets 1A & 1B; Rev 1, dated 27.9.2017). No revised site layout, staging or external works that will impact on water quality, shall be permitted without the agreement of Water NSW.

COUNCIL'S BUILDING OFFICER
I refer to the abovementioned development application in regards to your latest referral dated 2 March 2018 and provide the following comments.

Please be advised of the following:

- The applicant proposes to convert the existing shelter building to a restaurant and also fit-out the existing unauthorised transportable building at the rear of the proposed restaurant, as a commercial kitchen.
- Suitable conditions have been included in the Consent to ensure the structural stability and fire safety of the buildings as well as access for people with disabilities and energy efficiency.
- A construction certificate will be required prior to the carrying out of any further building works and an occupation certificate will be required prior to the commencement of the restaurant.

Therefore, there is no objection to the proposal given the attached conditions of consent.

GENERAL REQUIREMENTS

That the development be carried out in accordance with the application, Statement of Environmental Effects, accompanying information, plans listed in the approval and any further information provided during the process unless otherwise amended

by the following conditions.

Building Code of Australia
All building work must be carried out in accordance with the provisions of the Building Code of Australia

REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK

Construction Certificate – Building
A construction certificate for the completion of the restaurant and for the commercial kitchen is required prior to the carrying out of any further building works. This certificate can be issued either by Council as the consent authority or by an accredited certifier.

Prior to commencing any construction works, the following provisions of the Environmental Planning and Assessment Act 1979 are to be complied with:

a) a Principal Certifying Authority(PCA) is to be appointed and Council is to be notified of the appointment in accordance with Section 81A(2)(b) of the Act and Form 7 of the Regulations, and
b) Council is to be notified at least two days prior of the intention to commence building works, in accordance with Section 81A(2)(c) of the Act in Form 7 of Schedule 1 of the Regulations.

Signage
Prior to the commencement of any works on the land, a sign/s must be erected in a prominent position on the site:

a) Showing the name of the principal contractor (if any) for any building work and a telephone number on which that person can be contacted outside working hours.
b) Stating that unauthorised entry to the work site is prohibited and
c) Showing the name, address and telephone number of the principle certifying authority for the work.

The sign/s are to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

REQUIREMENTS DURING CONSTRUCTION

Workers toilet facilities
Before work starts, toilet facilities must be provided at the work site before works begin and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site.

Erosion and sediment control
To contain soil and sediment on the property, controls are to be implemented prior to clearing of the site vegetation and the commencement of site works. This will include:

a) The installation of a sediment fence with returned ends across the low side of the site so that all water flows through. These shall be maintained at no less than 70% capacity at all times. Drains, gutters, roadways etc., shall be kept clean and free of sediment.

Soil erosion fences shall remain and must be maintained until all disturbed areas are restored by turfing, paving, revegetation.

Waste disposal
Prior to any building works commencing a suitable Waste Container for the deposit of all building rubbish and litter must be provided and emptied as soon as full at a waste management facility. Building rubbish and litter must be contained on the building site and the work site left clear of waste and debris at the completion of the works.

Construction hours
All work on site shall only occur between the following hours:

Monday to Friday	7.00am to 6.00pm
Saturday	8.00am to 1.00pm
Sunday and public holidays	No work

Excavations
All excavations and backfilling associated with the approved works must be executed safely and in accordance with appropriate professional standards. All excavations must be properly guarded and protected to prevent them from being dangerous to life or property.

Licensed plumber
That all plumbing and drainage work be carried out by a licensed plumber and drainer and inspected by Council officers.

Fire Safety Upgrade of Existing Buildings
In accordance with Clause 94 of the Environmental Planning & Assessment Regulation 2000, the existing building shall be upgraded to comply with the following provisions of the Building Code of Australia (Volume 1):-

a) The existing exit doors on both sides of the restaurant shall be fitted with panic bars or lever-type handled latches in accordance with Clause D2.21. The doors must be capable of being opened by a single-handed downward or pushing action on a single device which is located between 900mm and 1.1 metres above the floor without the need to resort to a key;
b) Emergency lighting complying with Australian Standard AS2293-2005 must be provided throughout the restaurant in accordance with Clause E4.2;
c) Illuminated exit signs complying with Australian Standard AS2293-2005 must be provided above the exit doors in accordance with Clause E4.5; and
d) Portable fire extinguishers and fire blankets must be provided in the buildings in accordance with Clause E1.6 and AS2444.

Access for People with Disabilities
Access to the building for people with a disability shall be in accordance with the recommendations in the Report by Bio-Building Design Pty Ltd dated 26 February 2018. All of the recommendations in the Report must be complied with prior to the issue of an occupation certificate.

PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE

Occupation Certificate

Prior to the use/occupation of the buildings, an Occupation Certificate must be issued by the Principal Certifying Authority (PCA).

Prior to the issue of the Occupation Certificate, the following shall be submitted to the Principal Certifying Authority:

a) A Structural Engineer's certificate of adequacy for the restaurant and kitchen buildings; and
b) Certification from an Access Consultant to confirm that the recommendations in the Report by Bio-Building Design Pty Ltd dated 26 February 2018 have been complied with.

ADVISORY NOTES

Building Code of Australia

AN1. All building work must be carried out in accordance with the provisions of the Building Code of Australia. In this regard, the following information must be submitted with the Construction Certificate Application:-

a) Structural Engineer's Certification that the kitchen floor will be structurally adequate to withstand the loads from a commercial kitchen fit-out having regard to the approved plans and the conditions of this Consent;
b) Endorsement of the architectural plans by the Access Consultants, Bio-Building Designs to ensure that the recommendations in their Report dated 26 February 2018 have been incorporated in the design of the buildings;
c) The provision of tactile indicators where the accessway meets the vehicular way in accordance with Clause D3.8(a)(v)(B);
d) Details for the design of the balustrades in accordance with Clause D2.16 with specific details for where the floor of the proposed deck may be more than 4 metres high;
e) Amended plans to indicate additional sanitary facilities to comply with Table F2.3 and ambulant sanitary facilities in accordance with Clause F2.4;
f) Details of the proposed floor coverings/linings, wall and ceiling linings to indicate compliance with Specification C1.10 – Fire Hazard Properties; and
g) A Section J Energy Efficiency Report by a suitably qualified consultant.

Inspection schedule – Drainage and Plumbing

AN2. As the Certifying Authority for water and sewer inspections Council must be contacted to undertake inspections of the various stages of construction as follows:

a. Internal and sanitary external drainage
b. Hot and cold water plumbing prior to covering
c. Final inspection of system prior to occupation of the building.

Note: forty-eight (48) hours notice shall be given to Council prior to inspections and inspection fees must be paid.

Mandatory Building Inspection schedule

AN3. To ensure structural integrity, the maintenance of minimum health standards, the management of the buildings surrounds and the protection of the environment, inspections are to be carried out at significant stages throughout the construction period. These stages are:

a) Pier holes/pad footings before filling with concrete.
b) Reinforcing steel in position and before concrete is poured (slab, footings, lintels, beams, columns, floors, walls and the like).
c) Floor frame, dampcourse, antcapping, foundation walls before floor material is

laid.

d) Framing when external wall and roof cladding is in place and prior to the hemp masonry be placed.
e) Wet area flashing prior to tiling or covering.
f) Stormwater drainage between building and discharge point (drainage pipes, soakage pits and the like) prior to covering.
g) Completion of the development and sign off to all conditions of the consent including landscaping, prior to occupation and use.

AN4. That the building is to be protected from the attack of subterranean termites by employing construction methods conforming with Australian Standard 3660.1. A durable notice must be permanently fixed to the building in a prominent location (such as the meter box) indicating:

(i) the method of protection;
(ii) the date of installation of the system; and
(iii) maintenance requirements.

AN5. Certification to indicate that the wet areas comply with AS3740 and that the glazing complies with AS1288 & AS2047 shall be submitted to the PCA prior to the issue of an occupation certificate.

AN6. A Section 68 application for the proposed water and sanitary drainage works must be submitted to, and approved by Council prior to work commencing. The application must include a proposed drainage diagram prepared by a licensed plumber together with details and specifications for the proposed device for pumping effluent to the existing system if adequate falls cannot be achieved.

AN7. A Section 68 application for the installation of a solid fuel heater must be submitted to, and approved by Council prior to the installation of the solid fuel heater in the restaurant.

ENVIRONMENTAL OFFICER

Environment has assessed the above application and has no objections subject to the following conditions:

WATER SUPPLY

1. The applicant must demonstrate that the drinking water will be provided by a licensed Water Carter and must comply with NSW Health Guidelines for Water Carters. The name of supplier to be given to Council.
2. The source of the drinking water must comply with the Australian Drinking Water Guidelines *2011* and any subsequent amendments to the Guidelines.
3. An appropriate drinking water management system, in compliance with NSW Health requirements and Public Health Act 2010 and Regulation 2012, or an appropriate filtration and disinfection process must be used to be potable water.
4. All water supplied for hand washing, showering, food preparation – all water for human contact is to be potable water.
5. All waste removed by a waste contractor is to be taken to Lithgow Waste Facility.

FOOD PREMISES

6. The proposed food premises areas are to be designed and constructed in accordance with the Food Act 2003. In this regard, the Applicant is to provide a detailed food premises fit-out plan and specification illustrating compliance with AS 4674-2004 - Design, construction and fit-out of food premises, for Council's approval prior to the commencement of demolition/construction activities.

Walls

7. The walls surrounding the food preparation areas shall be of solid construction.
8. The walls in the food preparation area of the premises shall be: sealed to prevent the entry of dirt, dust and pests; unable to absorb grease, food particles or water; and able to be easily and effectively cleaned. Walls in food preparation areas shall be finished with one or a combination of the following materials:

(i) Glazed tiles.
(ii) Stainless or aluminium sheeting.
(iii) Polyvinyl sheeting with welded seams.
(iv) Laminated thermosetting plastic sheeting.
(v) Similar impervious material adhered directly to the wall.

Floors

9. The flooring in the food preparation, storage and bar areas of the premises shall be designed and constructed so that they can be effectively cleaned; be unable to absorb grease, food particles or water; be laid so that there is no ponding of water; and to the extent that is practicable, be unable to provide harborage for pests. Floors in the food preparation areas shall be finished with one or a combination of the following materials:

(i) Sealed quarry tiles or ceramic tiles.
(ii) Stainless steel.
(iii) Polyvinyl sheeting with welded seams.
(iv) Laminated thermosetting plastic sheeting.
(v) Expoxy resin.
(vi) Steel trowel case hardened concrete.

10. Coving of not less than 25mm in radius shall be provided to the intersections of floors with walls in the food preparation area. The coving shall be integral to the surface finish of both floor and wall in such a manner as to form a continuous uninterrupted surface.
11. The floor of the food preparation areas is to be drained to a floor waste connected to the sewer. The floor waste is to consist of a removable basket within a fixed basket arrestor and is to comply with the Sydney Water requirements.

Ceiling

12. The ceiling in food preparation areas and storage areas shall be finished with impervious sealed material without joints, cracks and crevices. (Note: Drop-in, removable panel ceilings shall not be used in food preparation areas or over areas where open food is stored, displayed or served.)

Washing Facilities

13. A separate hand wash basin, supplied with a constant supply of warm running water through a single outlet or mixer, shall be provided in food preparation areas.
14. All hand wash basins installed within the premises, including those inside the toilets, shall be supplied with warm running water delivered through a single outlet.
15. Adequate hand wash basins shall be installed inside the food preparation areas. They shall be located no further than 5m from any place where food handlers are handling open food.
16. A liquid soap dispenser (that dispenses liquid soap) and a towel dispenser (that dispenses a single-use paper or cloth towel) shall be provided adjacent to or near each hand wash basin.
17. The wash up sink shall be supplied with hot and cold water

Lighting and Light Fittings

18. Artificial lighting provided to the premises shall comply with the requirements of AS 1680.1 and AS/NZS 1680.2.4.
19. In areas where open food is handled or stored, light fittings shall be designed and constructed to prevent contamination of food should the globe or tube shatter and free from any features that would harbour dirt, dust or insects or make the fitting difficult to clean.

Mechanical Exhaust Ventilation System

20. Where cooking or extensive heating processes or such other processes as may be specified are carried out in the kitchen or in food preparation areas, an approved mechanical exhaust ventilation system shall be installed and operated in accordance with AS/NZS 1668.1 - 1998 and AS 1668.2 – 2012.
21. The mechanical exhaust ventilation system shall be designed and installed in accordance with AS/NZS 1668.1 – 1998 and AS 1668.2 – 2012. A certificate (issued by a licensed mechanical ventilation contractor) stating compliance with these Australian Standards shall be submitted to Council.
22. A mechanical exhaust ventilation system that complies with the AS/NZS 1668.1-1998 and AS 1668.2-2012 shall be provided in the food preparation areas to remove the steam from the dishwasher or other washing and sanitizing equipment.

Coolroom

23. The open space between the top of the coolroom and the ceiling shall be fully enclosed and kept insect and pest proof.
24. The coolroom must have a smooth concrete floor, which is to be sloped to the door. A floor waste connected to the sewer must be located outside the coolroom.
25. The coolroom shall be able to be opened from the inside without a key and fitted with an alarm that can only be operated from within the coolroom.

Fixtures, Fittings and Equipment

26. All fixtures, fittings and equipment shall be constructed so as to be capable of being easily and effectively cleaned.
27. Service pipes, conduits and electrical wiring shall either be –
    (i) concealed in floors, plinths, walls or ceiling; or

(ii) fixed on brackets so as to provide at least 25mm clearance between the pipe and adjacent vertical surface and 100mm between the pipe or conduit and adjacent horizontal surfaces.

Toilet Cubicles

28. The toilet cubicles shall be –

(i) separated from areas where open food is handled, displayed or stored by an intervening ventilated space fitting with self-closing doors; or

(ii) provided with self-closing doors and mechanical exhaust system that operate when the sanitary compartment is in use and for at least 30 seconds after the cubicle is vacated.

Waste Management

29. Waste and recyclable material generated from the operations of the business shall be managed in a satisfactory manner that does not give rise to offensive odour or encourage pest activity. Food residues, food scraps, and waste material shall be regularly removed from the premises. Waste shall not be permitted to accumulate near the allocated waste storage bins.
30. A stainless steel cleaner's sink or a floor waste shall be provided for the disposal of waste water. The cleaner's sink or floor waste shall be located outside of areas where open food is handled.

Pest Control

31. Practicable measures shall be taken to exclude and prevent the entry of vermin into the food preparation area through windows and doors. Where premises are enclosed, windows shall be protected against the entry of pests by being -
    i. tight-fitting and permanently fixed closed;
    ii. fitted with mesh screens that can be removed for cleaning; or
    iii. protected by a permanent mesh screen that can be cleaned in place.
32. Entrances/exits, serving hatches and similar openings to food premises shall be protected against the entry of pests by –
    i. tight-fitting solid self-closing doors, roller shutters or other means of closing off the entrance; or
    ii. tight-fitting self-closing mesh screen doors.

33. The layout, disposition and method of installation of fixtures and fittings, together with wall, floor, and ceiling finishes to all preparation, storage areas and cool rooms (AS4674, the Food Act 2003 and Regulations there under).
34. Premise to be registered with Council prior to opening.

Food Safety Supervisor

35. A food safety supervisor shall be appointed in accordance with Food Act 2003 and a copy of the Food Safety Supervisor Certificate shall be submitted to Council prior to the commencement of the food business.

Liquid Trade Waste

36. All sinks in the food preparation area should be fitted with fixed sink screens.
37. Floor waste's in the food preparation areas and waste collection areas should be fitted with dry basket arrestors.

38. Food preparation activity will need to discharge to a suitable sized grease arrestor sized according to the inflow rate and instillation must comply with the requirements of AS3500 and Council's Trade Waste Guidelines.
39. A grease arrestor shall not be located in areas where food, equipment or packaging materials are handled or stored. Access to the grease arrestor for emptying shall not be through areas where open food is handled or stored or where food contact equipment and packaging materials are handled or stored.
40. If the property is connected to the Council reticulated water supply, a hose cock with RPZ backflow protection valve is required to be installed within 15m of the grease arrestor to assist with maintenance / cleaning. An annual backflow test report needs to be furnished upon installation.

ENGINEERS

I refer to the abovementioned Development Application in regards to your referral dated 02 March 2018. To this effect, I provide the following comments.

1. Sight distance at the current entrance/exit to Lake Lyell is acceptable for the proposed increase in traffic.

2. I assume that the set down area would be sufficient for off-peak deliveries and service vehicles.

3. While the amended plans note that car parking rates for restaurants are applied at a rate of 15 spaces per 100m^2 GFA, the recommended car parking provision should in fact be the greater of 15 spaces per 100m^2 GFA and 1 space per 3 seats. As the Statement of Environmental Effects notes that the restaurant will have a capacity of 90 patrons, the available parking should equal 36 spaces; 30 for patrons and 6 for staff.

4. With regard to disabled parking, compliance with Table D3.5 of the BCA is required. It states that Class 6 buildings (restaurant) should provide 1 disabled parking space for every 50 car parking spaces.

5. The current access off Magpie Hollow Road is acceptable.

Noting the above, it is suggested that the following conditions be placed on any Development Consent.

1. A construction certificate will be required to be lodged to Council prior to the commencement of any Civil Works.

2. Works as Executed (WAE) Plans detailing all services and infrastructure are to be prepared by a registered surveyor or professional engineer, and submitted to Council. The WAE plans shall be lodged prior to the release of the linen plan. The applicant is required to submit three complete sets of hard copy plans (one A1-sized, two A3-sized) and one set of electronic plans in AUTOCAD format.

3. All stormwater drainage is the responsibility of the applicant and shall be satisfactorily disposed of into Council's stormwater infrastructure.

4. All development to be constructed in accordance with Council's "Guidelines for Civil Engineering Design and Construction for Development". This document is available on Council's website or upon request from Council's administration desk.

5. Two accessible car spaces must be provided as per the requirements of the Building Code of Australia (Table D3.5). Design of the spaces must comply with Australian Standards (AS/NZS2890.1-6-2009).

Planner's Comment:
As there will be no additional car park construction, and stormwater and accessibility have been addressed by WaterNSW and Council's Building Officer, none of the five suggested conditions above need to be imposed.

5.3.9 The public interest

There have been no issues raised from the public regarding planning issues.

6. DISCUSSION AND CONCLUSIONS

The proposal is considered to generally comply with the relevant provisions of the applicable Environmental Planning Instruments. The proposal is not considered likely to have any significant negative impacts upon the environment or upon the amenity of the locality. As such it is recommended that development consent is issued subject to the conditions outlined below.

7. ATTACHMENTS

Schedule A- Conditions of consent.

8. RECOMMENDATION

THAT development application DA217/17 is approved subject to conditions set out in Schedule A.

Report prepared by:	Supervisor:
0 Signed:……	Signed:……
Dated:……	Dated:……

REASONS FOR CONDITIONS

The conditions in Schedule A have been imposed for the following reasons:

- To ensure compliance with the terms of the relevant Planning Instruments
- To ensure no injury is caused to the existing and likely future amenity of the neighbourhood
- Due to the circumstances of the case and the public interest.
- To ensure that adequate road and drainage works are provided.
- To ensure that satisfactory arrangements are made to satisfy the increased demand for public recreation facilities.
- To ensure access, parking and loading arrangements will be made to satisfy the demands created by the development.
- To ensure the structural integrity of the development.
- To ensure the protection of the health and safety of the occupants of the development.
- To protect the environment.
- To prevent, minimise, and/or offset adverse environmental impacts.
- To ensure there is no unacceptable impact on the water quality.
- To ensure adequate soil conservation and protect against movement of soil and sediments.

Schedule A

Conditions of Consent (Consent Authority)

Please Note: It should be understood that this consent in no way relieves the owner or applicant from any obligation under any covenant affecting the land.

ADMINISTRATIVE CONDITIONS

1. That the development be carried out in accordance with the application, Statement of Environmental Effects, accompanying information, plans listed in the approval and any further information provided during the process unless otherwise amended by the following conditions.

2. All waste produced by the development is to be appropriately removed to a licenced waste facility on a regular basis.

3. The approved hours of operation are between 11am to 10pm Sundays to Thursdays, and 11am to midnight on Fridays and Saturdays.

4. The maximum number of patrons at the restaurant shall be 90 with a maximum of 6 staff. This does not include people at the beer garden or deck as long as meals are not also served.

Building Code of Australia

5. All building work must be carried out in accordance with the provisions of the Building Code of Australia.

Food & Health Requirements

WATER SUPPLY

6. The applicant must demonstrate that the drinking water will be provided by a licensed Water Carter and must comply with NSW Health Guidelines for Water Carters. The name of supplier to be given to Council.
7. The source of the drinking water must comply with the Australian Drinking Water Guidelines *2011* and any subsequent amendments to the Guidelines.
8. An appropriate drinking water management system, in compliance with NSW Health requirements and Public Health Act 2010 and Regulation 2012, or an appropriate filtration and disinfection process must be used to be potable water.

9. All water supplied for hand washing, showering, food preparation – all water for human contact is to be potable water.
10. All waste removed by a waste contractor is to be taken to Lithgow Waste Facility.

FOOD PREMISES

11. The proposed food premises areas are to be designed and constructed in accordance with the Food Act 2003. In this regard, the Applicant is to provide a detailed food premises fit-out plan and specification illustrating compliance with AS 4674-2004 - Design, construction and fit-out of food premises, for Council's approval prior to the commencement of demolition/construction activities.
12. Walls
    The walls surrounding the food preparation areas shall be of solid construction.
13. The walls in the food preparation area of the premises shall be: sealed to prevent the entry of dirt, dust and pests; unable to absorb grease, food particles or water; and able to be easily and effectively cleaned. Walls in food preparation areas shall be finished with one or a combination of the following materials:

(i) Glazed tiles.
(ii) Stainless or aluminium sheeting.
(iii) Polyvinyl sheeting with welded seams.
(iv) Laminated thermosetting plastic sheeting.

(v) Similar impervious material adhered directly to the wall.

14. Floors

The flooring in the food preparation, storage and bar areas of the premises shall be designed and constructed so that they can be effectively cleaned; be unable to absorb grease, food particles or water; be laid so that there is no ponding of water; and to the extent that is practicable, be unable to provide harborage for pests. Floors in the food preparation areas shall be finished with one or a combination of the following materials:

(i) Sealed quarry tiles or ceramic tiles.
(ii) Stainless steel.
(iii) Polyvinyl sheeting with welded seams.
(iv) Laminated thermosetting plastic sheeting.
(v) Expoxy resin.

(vi) Steel trowel case hardened concrete

15. Coving of not less than 25mm in radius shall be provided to the intersections of floors with walls in the food preparation area. The coving shall be integral to the surface finish of both floor and wall in such a manner as to form a continuous uninterrupted surface.
16. The floor of the food preparation areas is to be drained to a floor waste connected to the sewer. The floor waste is to consist of a removable basket within a fixed basket arrestor and is to comply with the Sydney Water requirements.
17. Ceiling

The ceiling in food preparation areas and storage areas shall be finished with impervious sealed material without joints, cracks and crevices. (Note: Drop-in, removable panel ceilings shall not be used in food preparation areas or over areas where open food is stored, displayed or served.)

18. Washing Facilities

A separate hand wash basin, supplied with a constant supply of warm running water through a single outlet or mixer, shall be provided in food preparation areas.

19. All hand wash basins installed within the premises, including those inside the toilets, shall be supplied with warm running water delivered through a single outlet.
20. Adequate hand wash basins shall be installed inside the food preparation areas. They shall be located no further than 5m from any place where food handlers are handling open food.
21. A liquid soap dispenser (that dispenses liquid soap) and a towel dispenser (that dispenses a single-use paper or cloth towel) shall be provided adjacent to or near each hand wash basin.
22. The wash up sink shall be supplied with hot and cold water,
23. Lighting and Light Fittings

Artificial lighting provided to the premises shall comply with the requirements of AS 1680.1 and AS/NZS 1680.2.4.

24. In areas where open food is handled or stored, light fittings shall be designed and constructed to prevent contamination of food should the globe or tube shatter and free from any features that would harbour dirt, dust or insects or make the fitting difficult to clean.
25. Mechanical Exhaust Ventilation System

Where cooking or extensive heating processes or such other processes as may be specified are carried out in the kitchen or in food preparation areas, an approved mechanical exhaust ventilation system shall be installed and operated in accordance with AS/NZS 1668.1 - 1998 and AS 1668.2 – 2012.

26. The mechanical exhaust ventilation system shall be designed and installed in accordance with AS/NZS 1668.1 – 1998 and AS 1668.2 – 2012. A certificate (issued by a licensed mechanical ventilation contractor) stating compliance with these Australian Standards shall be submitted to Council.
27. A mechanical exhaust ventilation system that complies with the AS/NZS 1668.1-1998 and AS 1668.2-2012 shall be provided in the food preparation areas to remove the steam from the dishwasher or other washing and sanitizing equipment.
28. Coolroom
The open space between the top of the coolroom and the ceiling shall be fully enclosed and kept insect and pest proof.
29. The coolroom must have a smooth concrete floor, which is to be sloped to the door. A floor waste connected to the sewer must be located outside the coolroom.
30. The coolroom shall be able to be opened from the inside without a key and fitted with an alarm that can only be operated from within the coolroom.
31. Fixtures, Fittings and Equipment
All fixtures, fittings and equipment shall be constructed so as to be capable of being easily and effectively cleaned.
32. Service pipes, conduits and electrical wiring shall either be –
(ii) concealed in floors, plinths, walls or ceiling; or
(ii)fixed on brackets so as to provide at least 25mm clearance between the pipe and
(iii) adjacent vertical surface and 100mm between the pipe or conduit and adjacent horizontal surfaces
33. Toilet Cubicles
The toilet cubicles shall be –
(i) separated from areas where open food is handled, displayed or stored by an intervening ventilated space fitting with self-closing doors; or
(ii) provided with self-closing doors and mechanical exhaust system that operate when the sanitary compartment is in use and for at least 30 seconds after the cubicle is vacated.
34. Waste Management
Waste and recyclable material generated from the operations of the business shall be managed in a satisfactory manner that does not give rise to offensive odour or encourage pest activity. Food residues, food scraps, and waste material shall be regularly removed from the premises. Waste shall not be permitted to accumulate near the allocated waste storage bins
35. A stainless steel cleaner's sink or a floor waste shall be provided for the disposal of waste water. The cleaner's sink or floor waste shall be located outside of areas where open food is handled.
36. Pest Control
Practicable measures shall be taken to exclude and prevent the entry of vermin into the food preparation area through windows and doors. Where premises are enclosed, windows shall be protected against the entry of pests by being -
(i) tight-fitting and permanently fixed closed;
(ii) fitted with mesh screens that can be removed for cleaning; or
(iii) protected by a permanent mesh screen that can be cleaned in place
37. Entrances/exits, serving hatches and similar openings to food premises shall be protected against the entry of pests by –
(i) tight-fitting solid self-closing doors, roller shutters or other means of closing off the entrance; or
(ii) tight-fitting self-closing mesh screen doors.
38. The layout, disposition and method of installation of fixtures and fittings, together with wall, floor, and ceiling finishes to all preparation, storage areas and cool rooms (AS4674, the Food Act 2003 and Regulations there under.
39. Premise to be registered with Council prior to opening.

40. Food Safety Supervisor

A food safety supervisor shall be appointed in accordance with Food Act 2003 and a copy of the Food Safety Supervisor Certificate shall be submitted to Council prior to the commencement of the food business.

41. All sinks in the food preparation area should be fitted with fixed sink screens.

42. Floor waste's in the food preparation areas and waste collection areas should be fitted with dry basket arrestors.

43. Food preparation activity will need to discharge to a suitable sized grease arrestor sized according to the inflow rate and instillation must comply with the requirements of AS3500 and Council's Trade Waste Guidelines.

44. A grease arrestor shall not be located in areas where food, equipment or packaging materials are handled or stored. Access to the grease arrestor for emptying shall not be through areas where open food is handled or stored or where food contact equipment and packaging materials are handled or stored.

45. If the property is connected to the Council reticulated water supply, a hose cock with RPZ backflow protection valve is required to be installed within 15m of the grease arrestor to assist with maintenance / cleaning. An annual backflow test report needs to be furnished upon installation.

REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK

Construction Certificate – Building

46. A construction certificate for the completion of the restaurant and for the commercial kitchen is required prior to the carrying out of any further building works. This certificate can be issued either by Council as the consent authority or by an accredited certifier.

47. Prior to commencing any construction works, the following provisions of the Environmental Planning and Assessment Act 1979 are to be complied with:
    a) a Principal Certifying Authority(PCA) is to be appointed and Council is to be notified of the appointment in accordance with Section 81A(2)(b) of the Act and Form 7 of the Regulations, and
    b) Council is to be notified at least two days prior of the intention to commence building works, in accordance with Section 81A(2)(c) of the Act in Form 7 of Schedule 1 of the Regulations.

Signage

48. Prior to the commencement of any works on the land, a sign/s must be erected in a prominent position on the site:
    a) Showing the name of the principal contractor (if any) for any building work and a telephone number on which that person can be contacted outside working hours.
    b) Stating that unauthorised entry to the work site is prohibited and
    c) Showing the name, address and telephone number of the principle certifying authority for the work.

    The sign/s are to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

REQUIREMENTS DURING CONSTRUCTION

Workers toilet facilities

49. Before work starts, toilet facilities must be provided at the work site before works begin and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site.

Erosion and sediment control

50. To contain soil and sediment on the property, controls are to be implemented prior to clearing of the site vegetation and the commencement of site works. This will include:
    a) The installation of a sediment fence with returned ends across the low side of the site so that all water flows through. These shall be maintained at no less than 70% capacity at all times. Drains, gutters, roadways etc., shall be kept clean and free of sediment.

    Soil erosion fences shall remain and must be maintained until all disturbed areas are restored by turfing, paving, revegetation.

Waste disposal

51. Prior to any building works commencing a suitable Waste Container for the deposit of all building rubbish and litter must be provided and emptied as soon as full at a waste management facility. Building rubbish and litter must be contained on the building site and the work site left clear of waste and debris at the completion of the works.

Construction hours

52. All work on site shall only occur between the following hours:

Monday to Friday	7.00am to 6.00pm
Saturday	8.00am to 1.00pm

Sunday and public holidays No work

Excavations

53. All excavations and backfilling associated with the approved works must be executed safely and in accordance with appropriate professional standards. All excavations must be properly guarded and protected to prevent them from being dangerous to life or property.

Licensed plumber

54. That all plumbing and drainage work be carried out by a licensed plumber and drainer and inspected by Council officers.

Fire Safety Upgrade of Existing Buildings

55. In accordance with Clause 94 of the Environmental Planning & Assessment Regulation 2000, the existing building shall be upgraded to comply with the following provisions of the Building Code of Australia (Volume 1):-
    a) The existing exit doors on both sides of the restaurant shall be fitted with panic bars or lever-type handled latches in accordance with Clause D2.21. The doors must be capable of being opened by a single-handed downward or pushing action on a single device which is located between 900mm and 1.1 metres above the floor without the need to resort to a key;
    b) Emergency lighting complying with Australian Standard AS2293-2005 must be provided throughout the restaurant in accordance with Clause E4.2;
    c) Illuminated exit signs complying with Australian Standard AS2293-2005 must be provided above the exit doors in accordance with Clause E4.5; and
    d) Portable fire extinguishers and fire blankets must be provided in the buildings in accordance with Clause E1.6 and AS2444.

Access for People with Disabilities

56. Access to the building for people with a disability shall be in accordance with the recommendations in the Report by Bio-Building Design Pty Ltd dated 26 February 2018. All of the recommendations in the Report must be complied with prior to the issue of an occupation certificate.

PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE

Occupation Certificate

57. Prior to the use/occupation of the buildings, an Occupation Certificate must be issued by the Principal Certifying Authority (PCA).

58. Prior to the issue of the Occupation Certificate, the following shall be submitted to the Principal Certifying Authority:
    a) A Structural Engineer's certificate of adequacy for the restaurant and kitchen buildings; and
    b) Certification from an Access Consultant to confirm that the recommendations in the Report by Bio-Building Design Pty Ltd dated 26 February 2018 have been complied with.

WATER NSW REQUIREMENTS

General

59. The site layout and works shall be as specified in the Statement of Environmental Effects prepared by Nuala Dewhurst (dated August 2017) and shown on the Site Plans prepared by Ian Laing Drafting (Proj. No. 21685; Sheets 1A & 1B; Rev 1, dated 27.9.2017). No revised site layout,

staging or external works that will impact on water quality, shall be permitted without the agreement of Water NSW.

Stormwater Management

60. A rainwater collection and reuse system for the restaurant roof shall be installed that incorporates the following specifications and requirements:
    - rainwater tanks with a minimum total capacity of 10,000 litres above any volume required for mains top-up
    - roofs and gutters designed so as to maximise the capture of rainwater in the tanks
    - the tanks plumbed to toilets and other areas for non-potable use including landscape watering, and
    - all rainwater tank overflow shall be directed to a level spreader such that discharge does not result in erosion.

61. No wash water used in cleaning the floors of the restaurant facility or kitchen shall be directed to the stormwater system.

62. No variation to stormwater treatment or management that will impact on water quality shall be permitted without the agreement of Water NSW.

Wastewater Management

63. **Prior to the issuance of a Construction Certificate**, a report prepared by a suitably qualified person shall be submitted to Council for consideration to identify:
    a) the exact design treatment capacity of the existing amended mounds
    b) the existing and proposed wastewater loads generated onsite, including peak and average wastewater loading
    c) any upgrading works required to be carried out to the existing amended mounds.

64. Based on advice in Condition 63 above and **prior to the issuance of any Occupation Certificate**, the existing amended soil mounds shall be repaired and/or reconstructed such that they are functional and operational and a cut-off/switching mechanism shall be installed at the upper amenities collection well to direct effluent no greater than the design treatment capacity identified by the assessment in Condition 63 above.

65. The following improvements/repairs to the existing pump-out system shall be undertaken **prior to the issuance of a Construction Certificate** for the development:
    - install flow meters at all wastewater generation points to measure actual wastewater flow generated at the site, and
    - install/repair/replace high water level alarms and float activated visual alarms, and replace existing submersible pump/s with macerating pump/s as recommended in the Onsite Sewage Management System Review Report for Lake Lyell Recreation Park and Conceptual Upgrade Plan prepared by Whitehead and Associates (dated 25 September 2017).

66. The capacity of the existing pump-out system shall also be upgraded, **prior to the issuance of a Construction Certificate,** in accordance with the recommendations in the Onsite Sewage Management System Review Report for Lake Lyell Recreation Park and Conceptual Upgrade Plan prepared by Whitehead and Associates (dated 25 September 2017) but with the following specific requirements and modifications:
    - primary treated effluent in excess of the existing design capacity of the amended soil mound and upper amenities collection wells shall be pumped to further collection tanks with a minimum storage capacity of 40,000 litres which shall meet the following requirements:

    - be provided with a visible indicator for wastewater level and an visual alarm for excessive wastewater levels
    - the alarm shall be triggered when an individual tank volume exceeds 70% of its capacity
    - the pump line shall be a 50mm diameter, Class 12 pressure pipe
    - the tanks shall be provided with bunding on the downslope side to prevent any spilled or leaked effluent reaching Lake Lyell
  - all pump lines shall be connected to a pump-out stand concreted into the ground and shall be fitted with a "Kamlock" (or similar) cover that can be readily accessed by pump-out trucks
  - all pump-out stand shall be located in a spillage well with a valve for the collection of any spilt sewage, and
  - the applicant shall enter into an agreement with a Council-approved tanker pump out service for regular weekly pumping during peak holiday periods and "as needs" pumping during other times.

67. These conditions of consent relating to wastewater management shall be provided to the installer of the wastewater system.

68. The installers of the wastewater management system shall certify to Council in writing that the system has been constructed and installed as per these conditions of consent, and that the system has been tested and is functioning properly.

69. No **Occupation Certificate for the development shall be issued** until Council has received the written certification from the installers, and approved the onsite wastewater management system under the *Local Government Act 1993*.

Operation Environmental Management Plan and and Performance Reporting

70. An Operational Environmental Management Plan (OEMP) shall be prepared in consultation with Water NSW by a person with knowledge and experience in the preparation of such plans **prior to the issuance of any Occupation Certificate**. The OEMP shall be implemented which shall include but not be limited to:
  - details on the location, description and nature of wastewater and stormwater management structures such as tanks, pipes, alarms, flow meters, pumps, desludging of tanks, grease trap, and rainwater collection system
  - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all wastewater and stormwater management structures, including the frequency of such activities
  - a monthly monitoring and performance program for the onsite sewage management system that shall include, but not be limited to:
    - wastewater flow generated at all wastewater generation points
    - quantities of wastewater directed to amended soil mound
    - condition of amended soil mound, alarms, flows meters and pumps
    - quantities of wastewater in all tanks
    - sludge levels in all tanks
    - quantities of wastewater being pumped out, and
    - records of wastewater received by a licensed facility.
  - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and
  - checklists for recording inspections and maintenance activities.

71. The monitoring and performance reports of the existing onsite sewage management system as required in Condition 12 above shall be prepared by a person with knowledge and experience in the preparation of such reports and be submitted to Council and Water NSW. The report/s shall be submitted on a 6-monthly basis **following the date of the Occupation Certificate**.

Construction Activities

72. An Erosion and Sediment Control Plan shall be prepared by a person with knowledge and experience in the preparation of such plans for all works proposed or required as part of the development. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" and shall be prepared prior to construction commencing and be to the satisfaction of Council.

73. The plan shall be implemented and effective erosion and sediment controls shall be installed prior to any construction activity. The controls shall prevent sediment or polluted water leaving the site or entering any stormwater drain or natural drainage system and shall be regularly maintained and retained until works have been completed and ground surface stabilised or groundcover re-established.

ADVISORY NOTES

Building Code of Australia Compliance

AN1. All building work must be carried out in accordance with the provisions of the Building Code of Australia. In this regard, the following information must be submitted with the Construction Certificate Application:-

a) Structural Engineer's Certification that the kitchen floor will be structurally adequate to withstand the loads from a commercial kitchen fit-out having regard to the approved plans and the conditions of this Consent;
b) Endorsement of the architectural plans by the Access Consultants, Bio-Building Designs to ensure that the recommendations in their Report dated 26 February 2018 have been incorporated in the design of the buildings;
c) The provision of tactile indicators where the accessway meets the vehicular way in accordance with Clause D3.8(a)(v)(B);
d) Details for the design of the balustrades in accordance with Clause D2.16 with specific details for where the floor of the proposed deck may be more than 4 metres high;
e) Amended plans to indicate additional sanitary facilities to comply with Table F2.3 and ambulant sanitary facilities in accordance with Clause F2.4;
f) Details of the proposed floor coverings/linings, wall and ceiling linings to indicate compliance with Specification C1.10 – Fire Hazard Properties; and
g) A Section J Energy Efficiency Report by a suitably qualified consultant

Inspection schedule – Drainage and Plumbing

AN2. As the Certifying Authority for water and sewer inspections Council must be contacted to undertake inspections of the various stages of construction as follows:

a) Internal and sanitary external drainage
b) Hot and cold water plumbing prior to covering
c) Final inspection of system prior to occupation of the building.

Note: forty-eight (48) hours notice shall be given to Council prior to inspections and inspection fees must be paid.

Mandatory Building Inspection schedule

AN3. To ensure structural integrity, the maintenance of minimum health standards, the management of the buildings surrounds and the protection of the environment, inspections are to be carried out at significant stages throughout the construction period. These stages are:

a) Pier holes/pad footings before filling with concrete.
b) Reinforcing steel in position and before concrete is poured (slab, footings, lintels, beams, columns, floors, walls and the like).
c) Floor frame, dampcourse, antcapping, foundation walls before floor material is laid.
d) Framing when external wall and roof cladding is in place and prior to the hemp masonry be placed.
e) Wet area flashing prior to tiling or covering.
f) Stormwater drainage between building and discharge point (drainage pipes, soakage pits and the like) prior to covering.
g) Completion of the development and sign off to all conditions of the consent including landscaping, prior to occupation and use.

AN4. That the building is to be protected from the attack of subterranean termites by employing construction methods conforming with Australian Standard 3660.1. A durable notice must be permanently fixed to the building in a prominent location (such as the meter box) indicating:

(i) the method of protection;

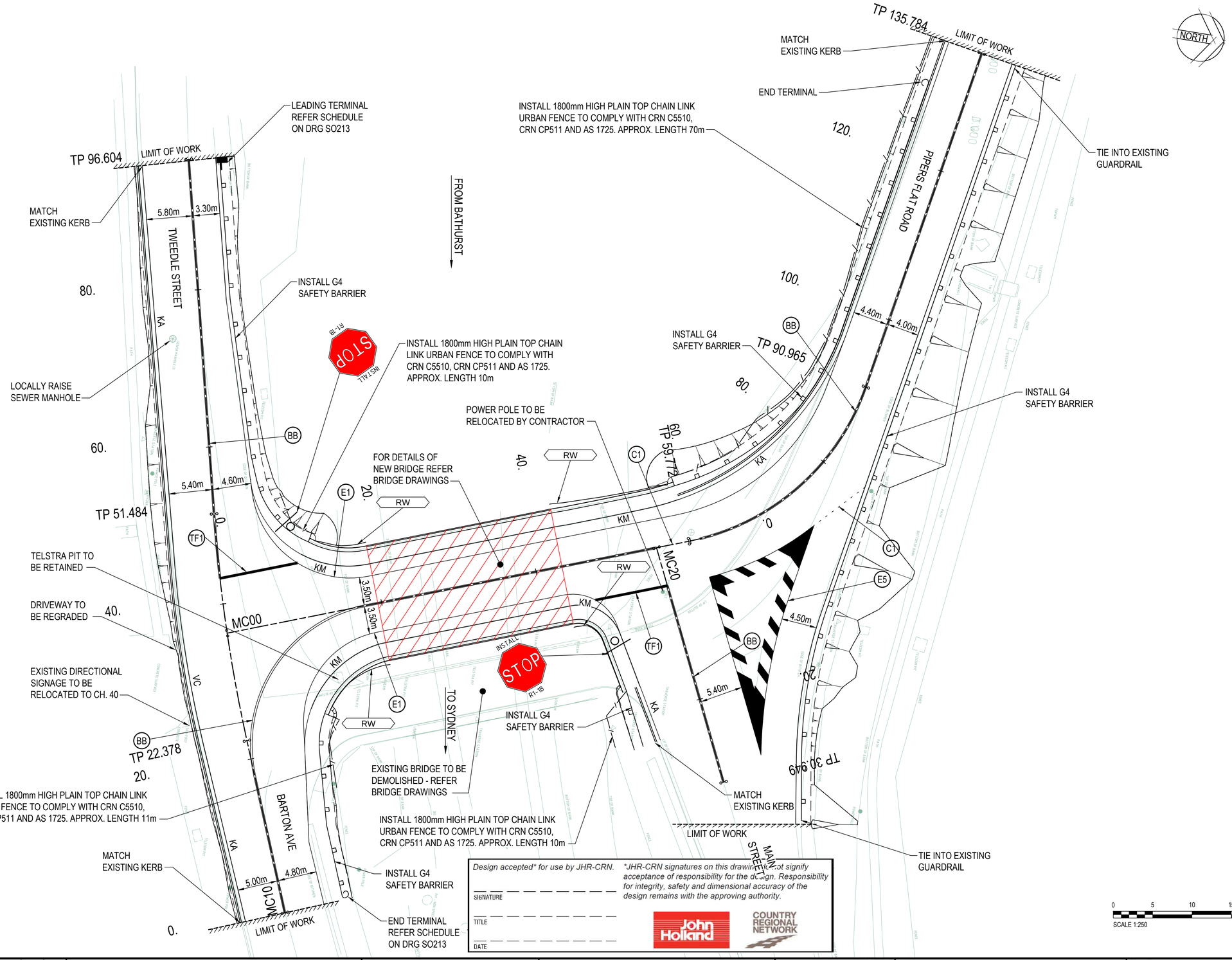
(ii) the date of installation of the system; and
(iii) maintenance requirements.

AN5. Certification to indicate that the wet areas comply with AS3740 and that the glazing complies with AS1288 & AS2047 shall be submitted to the PCA prior to the issue of an occupation certificate.

AN6. A Section 68 application for the proposed water and sanitary drainage works must be submitted to, and approved by Council prior to work commencing. The application must include a proposed drainage diagram prepared by a licensed plumber together with details and specifications for the proposed device for pumping effluent to the existing system if adequate falls cannot be achieved.

AN7. A Section 68 application for the installation of a solid fuel heater must be submitted to, and approved by Council prior to the installation of the solid fuel heater in the restaurant.

DATE PLOTTED: 22 January 2015 8:13 AM BY : JULIA PACHIKOVA



LEGEND

KA	KERB & GUTTER
VC	VEHICULAR CROSSING
KM	KERB ONLY
	G4 - GUARDRAIL
	PROPOSED FENCING
BB	BARRIER LINE
C1	CONTINUITY LINE
E1	LEFT HAND EDGE LINE
E5	OUTLINE OF PAINTED MEDIAN
TF1	STOP LINE
RW	RETAINING WALL SEE BRIDGE DESIGN PACKAGE
	PROPOSED FRANGIBLE SIGN

NOTES

1. REFER DRAWING SO-213 FOR SAFETY BARRIER & KERB SCHEDULES.

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SIGNATURE

TITLE

DATE

John Holland

COUNTRY REGIONAL NETWORK

Rev	Date	Description	Des.	Verif.	Appr.
A	19/12/2014	ISSUED FOR CONSTRUCTION	JLH	DNA	PT

Lithgow CITY COUNCIL

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Checked	J.Hodson	19/12/2014
Designed	J.Hodson	19/12/2014
Verified	D.Atkinson	19/12/2014
Approved	P.Thompson	19/12/2014

Client: LITHGOW CITY COUNCIL

BRIDGE OVER MAIN WESTERN RAILWAY LINE
MR 531 WALLERAWANG ROAD
AT WALLERAWANG (171.81km)
BRIDGE ASSET NO OBW00171A
BRIDGE APPROACH DESIGN
GENERAL ARRANGEMENT PLAN

Client Drawing Number: CC0034 -201

Status: FOR CONSTRUCTION

Datum	Register	Scale	Size
		AS SHOWN	A1

Drawing Number: 80014016 - GA201

Revision: A

XREF's: X-Titleblock A1 sht; SYD-LOGO-A1; XRF-WANG-010-SO-CTRL; XRF-WANG-000-SU-SURVEY; XRF-WANG-010-RD-DES
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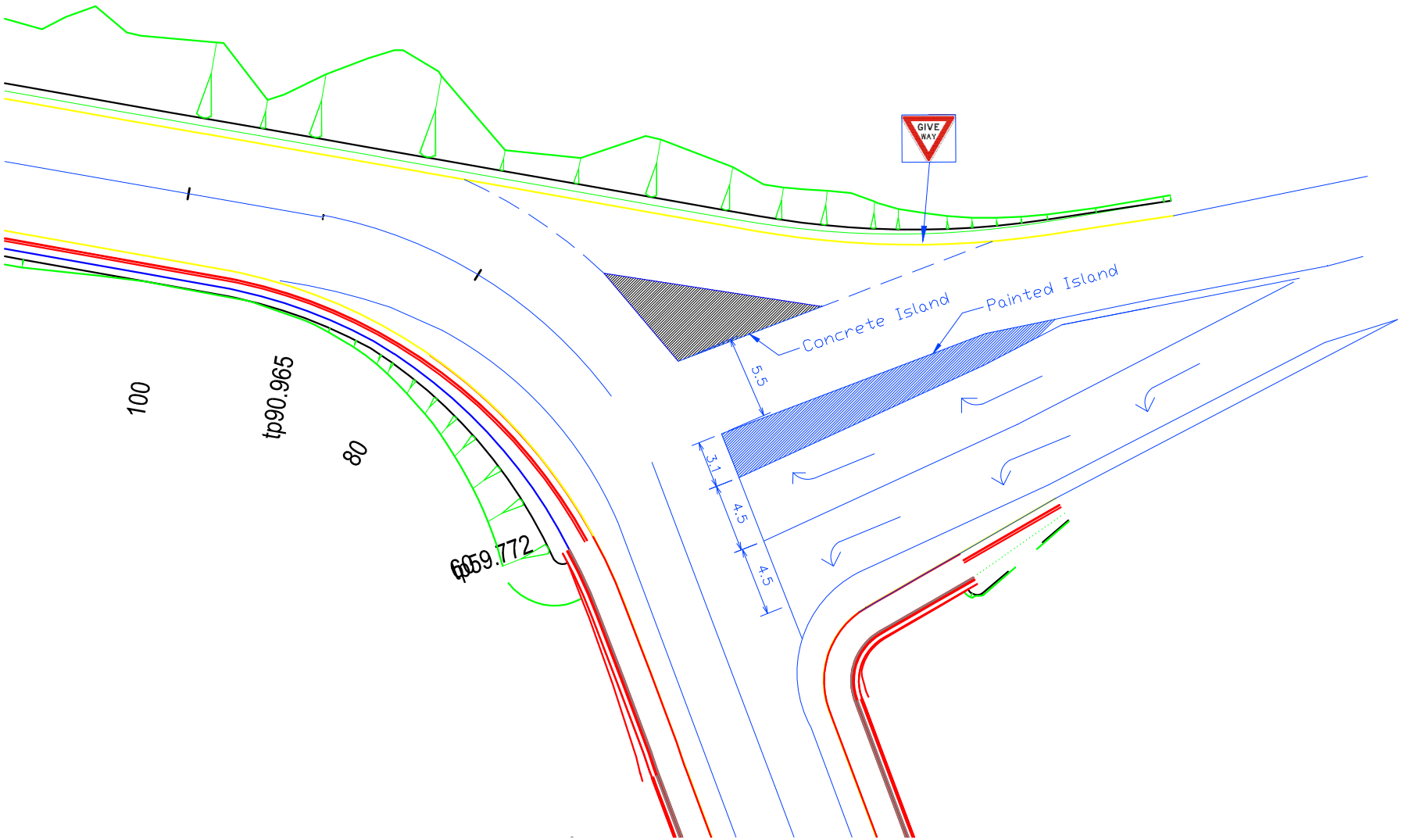
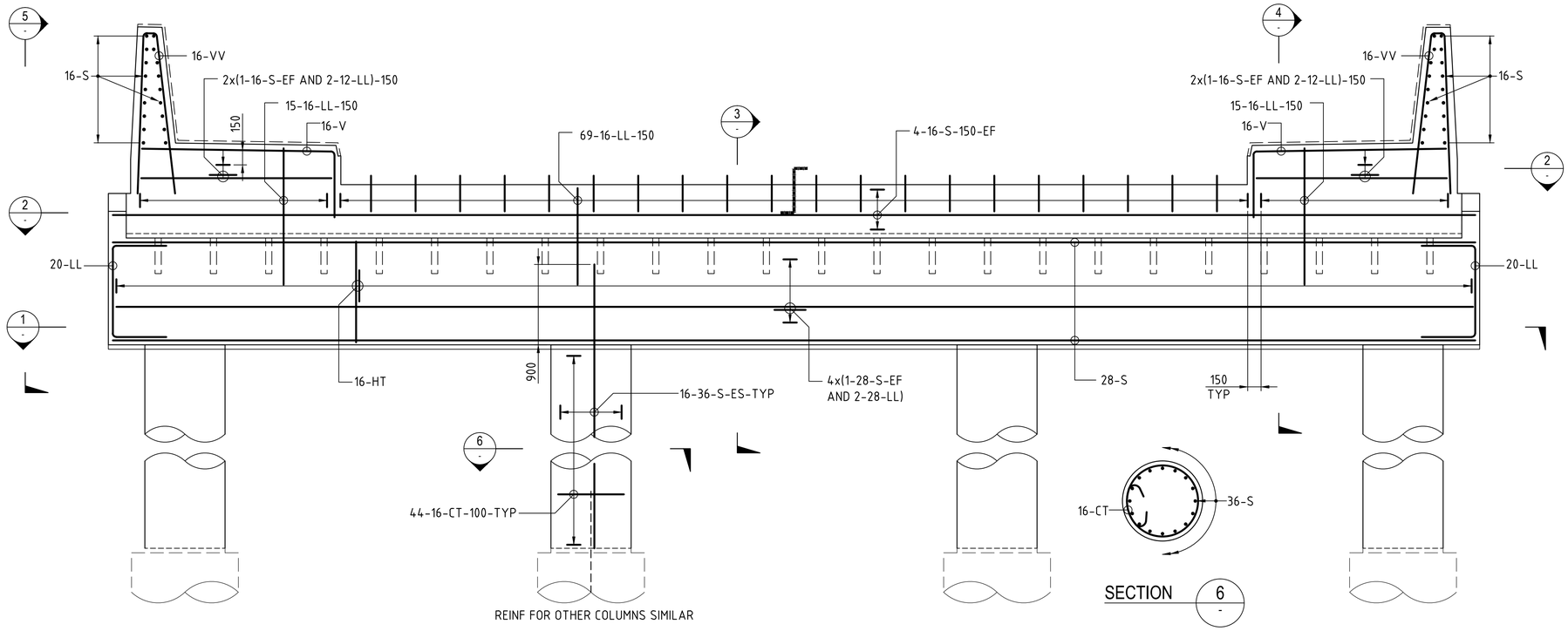

GIVE WAY
Concrete Island
Painted Island
5.5
3.1
4.5
4.5
100
tp90.965
80
6059.772

DATE PLOTTED: 20 November 2014 5:19 PM BY : KURTIS PEPLER



SECTION 6

ELEVATION

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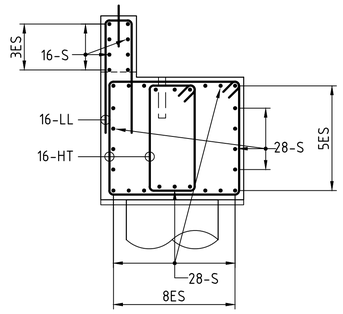
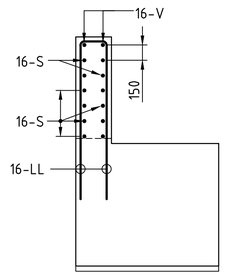


SECTION 3

FOR COLUMNS REINF SEE ELEVATION



SECTION 4

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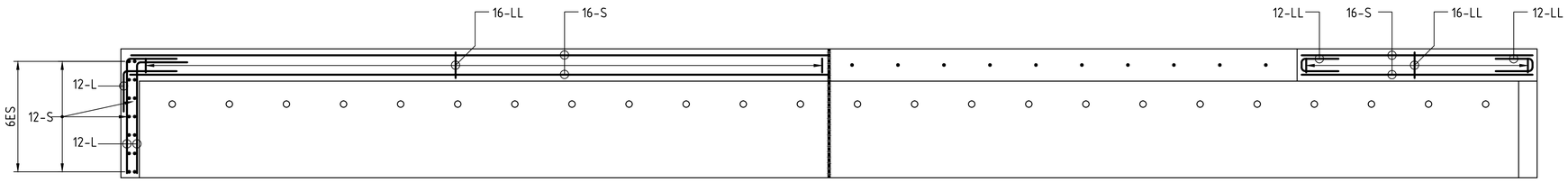

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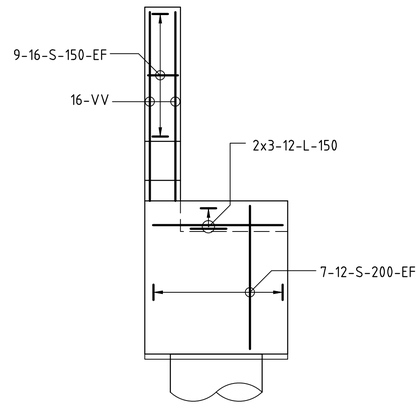

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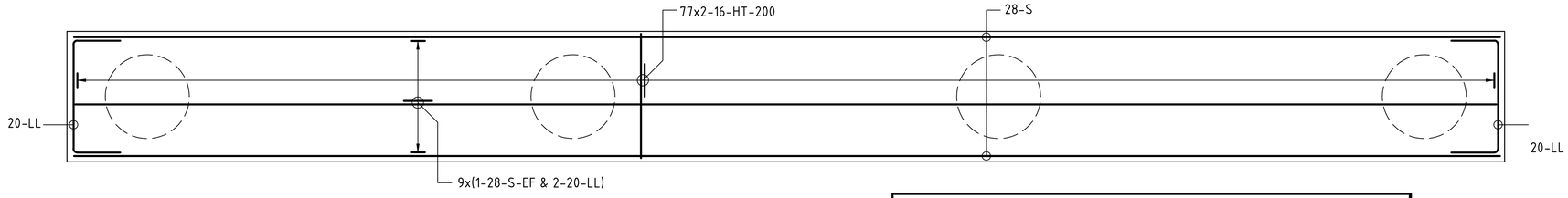

SECTION 1

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DATE

John Holland

COUNTRY REGIONAL NETWORK

NOTES

SCALE 1:30.

FOR FURTHER NOTES SEE GENERAL NOTES DRG NO 101.

Rev	Date	Description	Des.	Verif.	Appr.
A	20/11/2014	ISSUED FOR CONSTRUCTION	NR	JN / PT	

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		Date
Drawn	MS	
Checked	NR	
Designed	NR	
Verified	JN / PT	
Approved		

Client: LITHGOW CITY COUNCIL

BRIDGE OVER MAIN WESTERN RAILWAY LINE
ON WALLERAWANG ROAD
AT WALLERAWANG (171.807km)
BRIDGE ASSET NO OBW00171B

ABUTMENTS REINFORCEMENT

Client Drawing Number: CC0034 -08

Status: FOR CONSTRUCTION

Datum	Register	Scale	Size
		AS SHOWN	A1

Drawing Number: 80014016 - SB120

Revision: A

XREF's: X-Titleblock A1 sht; SYD-LOGO-A1
CAD FILE: N:\Projects\800\FY141016_Wallerawang Rail Overbridge\Drawings\Drafting-Bridges\Drawings\80014016-SB120_A.dwg

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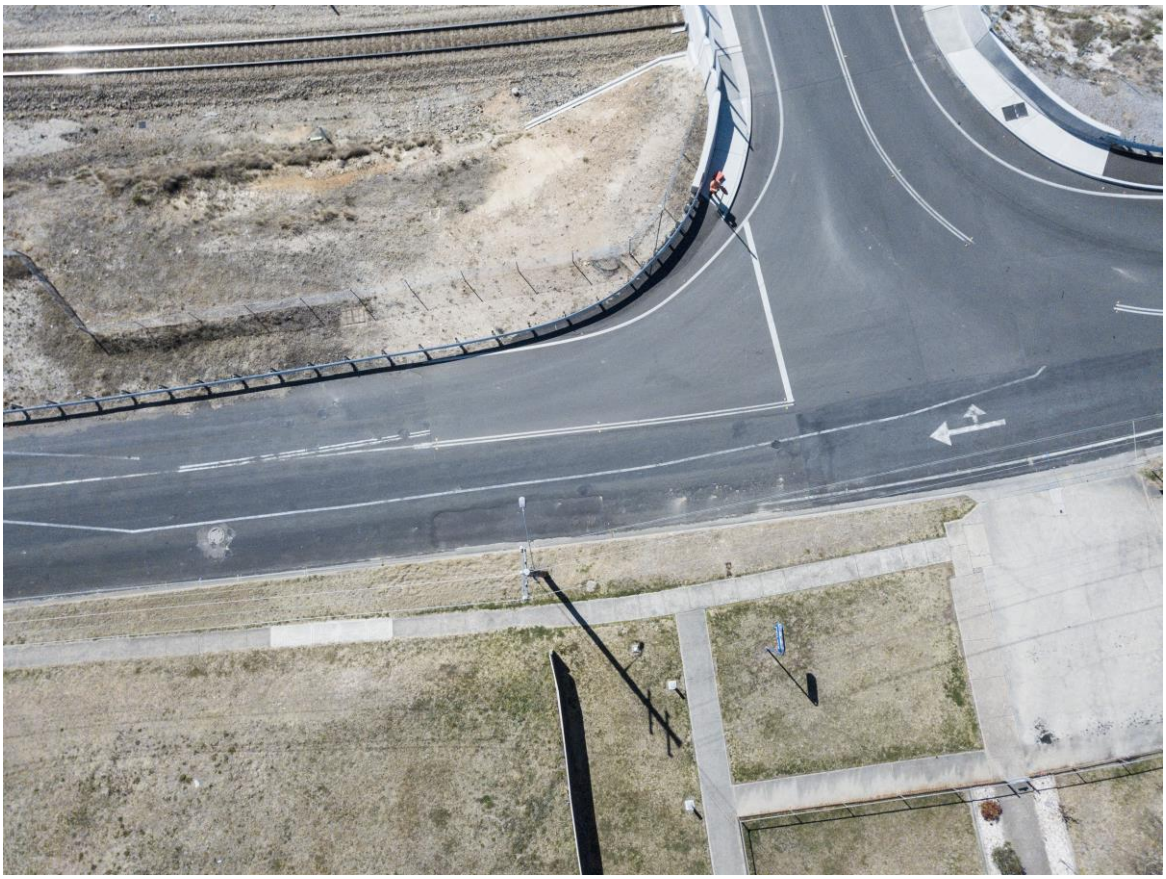

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Lithgow City Council
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Years .....

17 April 2018

Graeme Faulkner
General Manager
Lithgow City Council
180 Mort Street
Lithgow NSW 2790

Dear Graeme,

Thank you for taking the time to meet with Tony and myself in relation to the water pipeline project that Regis Resources Ltd ("Regis") as part of the McPhillamys Gold Project ("McPhillamys").

As discussed, Regis has outlined a broader pipeline corridor from the Mt Piper Power Station near Springvale to McPhillamys near Kings Plains, from which it will aim to define a viable and definitive pipeline route.

The broader pipeline corridor currently overlaps sections of land owned or controlled by Lithgow City Council ("LCC"), and as such Regis would like to formally request assistance in determining how access can be agreed for the purposes of environmental studies (where necessary) and if appropriate easements (or similar) for any subsequent pipeline development.

It is understood, that if LCC are in agreeance with the above, then there may be a need for Councillors to vote on such matters at a formal council meeting. As such, Regis would be willing to provide the Councillors with a presentation on the project prior to the formal council meeting to ensure that they have a thorough understanding of the project. If Council see a benefit in having a Centennial Coal representative present for the presentation, then that can be accommodated.

To formalise the abovementioned requests, Regis would seek formal acknowledgement from LCC in writing.

Once again, I would like to thank you for taking your time to meet with us.

Yours sincerely

Michael Coote
Community Liaison - Infrastructure
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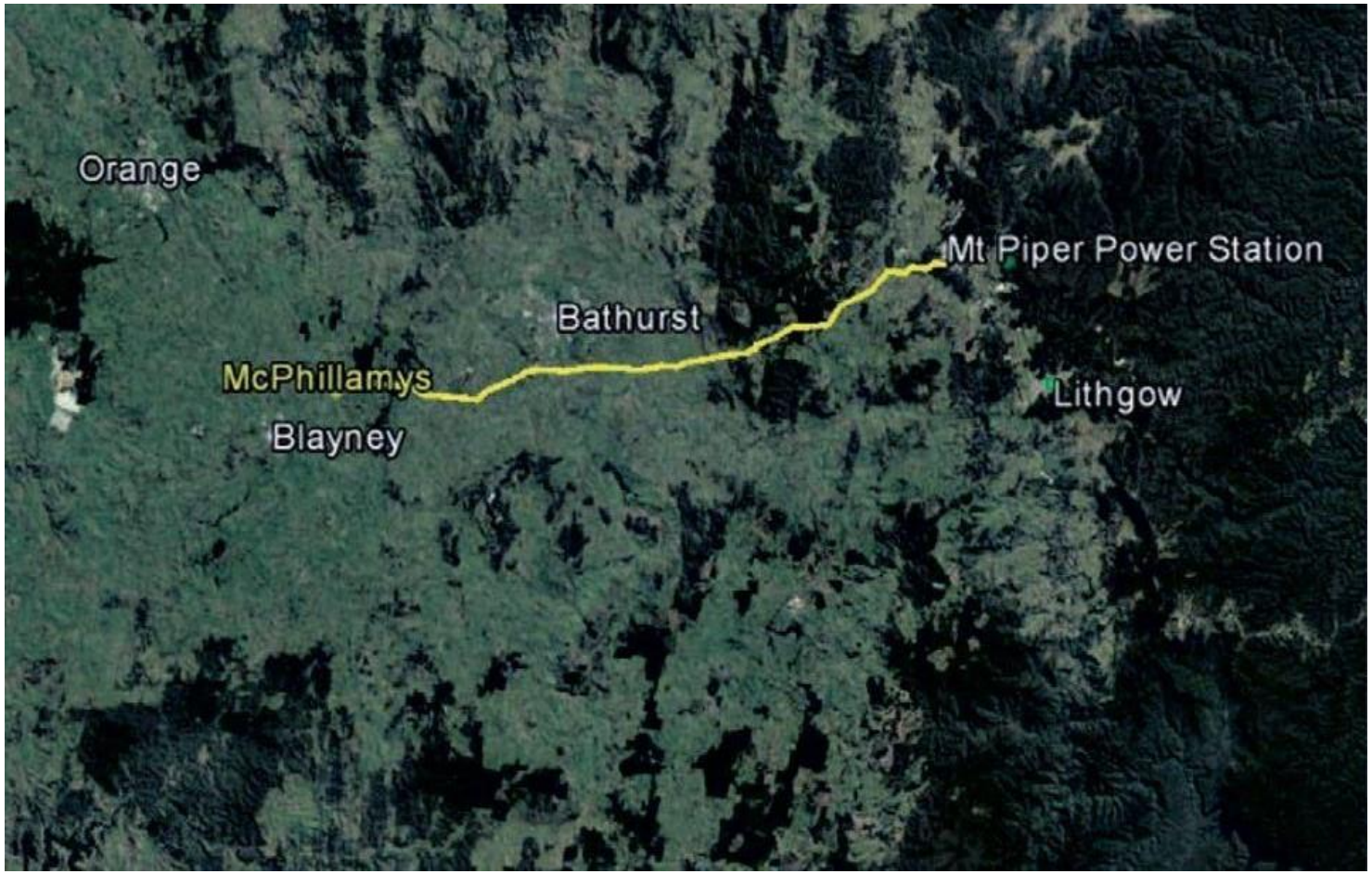
Orange
Mt Piper Power Station
Bathurst
McPhillamys
Lithgow
Blayney

LITHGOW CITY COUNCIL

DEVELOPMENT SERVICING PLANS FOR WATER SUPPLY AND SEWERAGE

May 2018

Draft 5
for Exhibition

Lithgow CITY COUNCIL

WaterOz
Planning • Design • Management

Lithgow City Council

Services	Council provides the essential water supply and sewerage services to population of over 16,000 in the Lithgow Local Government Area, in the Central Tablelands region in NSW.
Vision	A centre of Regional excellence that: ❒ Encourages community growth and development ❒ Contributes to the efficient and effective management of the environment, community and economy for present and future generations.

Development Servicing Plans for Water Supply and Sewerage 2018

Draft 5 – for Exhibition

Adopted by Council		
Minute	**Date**	

Document Control

Revision	5 for Exhibition	Date	15 May 2018
Prepared by	WaterOz Pty Ltd; A.B.N. 28 612 790 833 Email: gidi@wateroz.com.au; Telephone: 0448 480 200		
Author	Alessandra Razera		
Reviewer	Gidi Azar		
Audited by	Hunter H2O		
Audit date	31 January 2018		
Document	LCC_DSP_S2_Draft_Rev5		

This Report

This is Exhibition Draft. Council will consider any submissions made during the exhibition before adopting the DSP.

EXECUTIVE SUMMARY

These Development Servicing Plans (DSPs) cover water supply and sewerage developer charges for the areas serviced by Lithgow City Council (LCC). The service areas are shown in the maps in Appendix A.

This document comprises two water supply DSPs and four sewerage DSPs. The developer charges per equivalent tenement (ET) in each DSP area are summarised in the table below.

DSP Area	Calculated Developer Charge	Adopted Developer Charge	Cross-subsidy: Resulting Increase in TRB
	($/ET) 2018/19		
Water Supply			
Lithgow	2,921	2,921	N/A
Portland	nil	nil	
Wallerawang			
Sewerage			
Lithgow	2,730	2,730	$2
Portland	8,077	8,077	
South Bowenfels	14,213	14,213	
Wallerawang	14,622	9,622	

LCC will determine the ET loadings of new development and redevelopment and levy developer charges by multiplying the ET loadings by the charge per ET applicable to the service area.

The DSPs have been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

The assets that will serve the areas covered by these DSPs are described in section 5.

The levels of service to be provided by Council are included in section 6.

Developer charges relating to this DSP document will be reviewed after a period of 4 to 8 years. In the period between any review, developer charges will be adjusted annually on the basis of the movements in the CPI for Sydney, excluding the impact of GST.

The developer shall be responsible for the full cost of the design and construction of water supply and sewerage reticulation works within subdivisions.

Background information containing all the critical data including calculation models behind each DSP is available on request

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1 INTRODUCTION

Lithgow City Council (LCC) provides water supply and sewerage services within the Lithgow Local Government Area in NSW.

Developer charges cover part of the cost of providing water supply and sewerage infrastructure to new development and redevelopment. Developer charges have two related functions:

- They provide a source of funding for infrastructure required for urban development
- They provide signals regarding the cost of urban development thus encouraging less costly forms and areas of development

Section 64 of the *Local Government Act 1993* enables a local government council to levy developer charges for water supply and sewerage. This section refers to Section 306 of the *Water Management Act 2000*. Outline of relevant legislation is provided in Appendix D.

A DSP is a document which details the water supply and/or sewerage developer charges to be levied on development utilising a water utility's water supply and/or sewerage infrastructure.

This DSP document has been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

This DSP document supersedes any other requirements related to water supply [and/or sewerage] developer charges for the area covered by this DSP. This DSP document takes precedence over any of Council's codes or policies where there are any inconsistencies relating to water supply [and/or sewerage] developer charges.

This document contains two water supply DSPs and two sewerage DSPs, covering water supply and sewerage developer charges in regard to the Service Areas served by LCC.

These DSPs aim to achieve the following objectives:

- Allow Council to require a monetary contribution for the provision of water supply and sewerage services, proportional to the demands generated by development.
- Facilitate the provision of water supply and sewerage assets to meet the levels of service.
- Detail the contribution rates and Council's payment policies.

These DSPs were prepared using 2016/17 data. The calculated charges where adjusted using an increase of 1% pa to arrive at the calculated developer charges in 2017/18.

2 Glossary

Below is a list of some terms used in DSPs.

Abbreviations	Definitions
Asset	An asset (or part of an asset) including land and headwork's assets that directly provides, or will provide, the developer services to developments within the DSP area for which the Developer Charge is payable
ADWF	Average dry weather flow. One of the design parameters for flow in sewers.
Capital Charge	Capital cost of assets per ET x Return on Investment (ROI) factor
Capital Cost	The current replacement cost (MEERA basis) of assets used to service the development
CPI	Consumer Price Index
Developer Charge	A charge levied on developers to recover part of the capital cost incurred in providing services to new development and redevelopment
Development Area	That part of a water utility area covered by a particular DSP. Also referred to as a DSP Area
DPI Water	Department of Primary Industries Water. The regulator of LWUs.
DSP	Development Servicing Plan
EP	Equivalent Person
ET	Equivalent Tenement
Guidelines	2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, available from http://www.water.nsw.gov.au/__data/assets/pdf_file/0011/663698/2016-Developer-Charges-Guidelines.pdf
LEP	Local Environment Plan
LGA	Local Government Area
LWU	Local water utility (NSW), a local or county council operating as water utility. In this document LWU has the same meaning as a council operating under the *Local Government Act 1993*
MEERA	Modern Equivalent Engineering Replacement Asset
N/A	Not Applicable
NPV	Net Present Value
OMA	Operation, maintenance and administration (costs)
Post Asset	An Asset that was commissioned on or after 1st January of the specified year or that is yet to be commissioned

Abbreviations	Definitions
Pre-Asset	An asset that was commissioned by a water utility before 1st January of the specified year
PS	Pumping Stations
PV	Present Value
Reduction Amount	The amount by which the capital charge is reduced to arrive at the developer charge. This amount reflects the present value of the capital contribution that will be paid by the occupier of a development as part of future annual charges
ROI	Return on investment. Represents the income that is, or could be, generated by investing money
Service Area	An area serviced by a separate water supply and sewerage system, a separate small town or village, or a new development of over 500 lots (Note: this is standard terminology from the Guidelines
STP	Sewage Treatment Plant
TBL	Triple Bottom Line. TBL reports are annual performance report issued by DPI Water.
TBA	To be Advised
TRB	Typical residential bill, which is the principal indicator of the overall cost of a water supply or sewerage system. It is the bill paid by a residential customer using the utility's average annual residential water supplied per connected property, and is not a pensioner
LCC	Lithgow City Council
WSS	Water Supply System
WTP	Water Treatment Plant

3 ADMINISTRATION

3.1 DSP Names and Areas Covered

Table 1: DSP Names and Areas Covered

Water Supply DSP Name	Areas Covered
Lithgow	City of Lithgow
Portland and Wallerawang	Portland and Wallerawang towns
Sewerage DSP Name	**Areas Covered**
Lithgow	City of Lithgow
Portland	Portland Town
South Bowenfels	South Bowenfels
Wallerawang	Wallerawang Town

The service areas are shown in the maps in Appendix A.

3.2 DSP Boundaries

3.3 General

These DSPs apply to all land in the LCC LGA that is within the water and/or sewerage service areas and will be connected to the water supply and/or sewerage systems after development (subdivision and/or building) or redevelopment (change of use).

These include connection of land with existing residences and/or non-residential building if water and/or sewerage developer charges have not been paid previously, or where redevelopment will increase the demand on the water supply and/or sewerage infrastructure.

3.4 Development outside the Boundaries of the DSP

If a development occurs outside the boundaries of the DSPs, Council may:

- Prepare a new DSP for the new development; or
- Extend the boundaries of these DSPs to cover the additional areas; or
- Enter a special agreement with the developer.

Payment for specific assets that may be required to service the new development will be in accordance with the out-of-sequence development provisions in the Guidelines.

3.5 Application of Developer Charges

Developer charges apply to all building and development activities where Council determines that such activities increase the demand for water supply and/or sewerage services, whether or not such activities require development consent.

When assessing the developer charges applicable to a development or redevelopment, LCC will assess the additional demand that the proposed development will place on the relevant

water supply and/or sewerage systems in terms of ETs and will levy developer charges proportional to the number of ETs.

One ET represents a detached residential dwelling. The minimum demand for each development is 1 ET. The developer charges will be levied on all land within the DSP areas for new development and redevelopment (i.e. change of land use).

3.6 Out-of-Sequence Development

LWUs plan their infrastructure development according to a desired sequence of development. In some cases, a developer may wish to proceed with a development which is not in the same sequence. If developers were to begin construction prior to Council then they are up for the full capital cost of the assets required. In such cases the assets will be sized by the LWU.

If the asset funded by this developer will serve other future development, the developer should be reimbursed when the LWU collects developer charges from the future development. The LWU and the developer must enter into an agreement stating how the developer will be reimbursed in the future.

3.7 Indexation of Developer Charge

The developer charges will be adjusted on 1 July each year, starting on 1 July 2018, based on movements in the Consumer Price Index (CPI) for Sydney as published by the Australian Bureau of Statistics.

3.8 Payment of Developer Charges

Developer charges will be determined and levied in accordance with the provisions of this DSP document at the time of considering an application for a compliance certificate under section 305 of the *Water Management Act 2000* or a construction certificate under section 109 of the *Environmental Planning and Assessment Act 1979* or at the time of issuing a notice or other form of written advice, eg. under the SEPP (Exempt and Complying Development Codes) 2008.

The time limit for payment of developer charges will be included in the notice of determination or will be advised to the developer by a separate notice. The amount of any developer charges not paid within the specified time limit will lapse. Any subsequent determination of developer charges will be made in accordance with Council's then current DSP.

3.9 Developer Charges for Crown Developments

Crown developments for essential community services (eg. education, health, community services, and law and order) are generally exempt from general developer charges. LWUs may charge these developments only for that portion of the direct connection cost (eg. for a lead-in main) relating to the Crown development.

Under sections 306 (4) and (5), of the *Water Management Act 2000*, the Minister for Planning may make a determination in regard to developer charges levied on Crown developments.

3.10 Dispute Resolution

Disputes will be resolved in accordance with the provisions of Section 2.9 of the Guidelines. LCC is not a member of the Electricity and Water Ombudsman (EWON).

3.11 Review of DSPs

These DSPs shall be reviewed after 4 to 8 years. If appropriate, new DSPs will be prepared at that time that will replace these DSPs.

A shorter review period is permitted if a major change in circumstances occurs.

4 Demographic and Land Use Planning Information

4.1 Current ETs and ETs Projection

The basic unit of measure to quantify the demand or loading on a water supply or sewerage system is an equivalent tenement (ET). One ET represents the equivalent demand or loading from a detached residential dwelling.

4.2 Water Supply

The LCC's water services are divided into three service areas. LCC provided the 2014/15 water consumption for each serviced area. The 2014/15 Triple Bottom Line Performance Report states that the average residential property in LCC is 132kL per year. This information was used to estimate the number of water ETs for each service area and they are summarised in Table 2.

Council's adopted growth rate for the three service areas is 0.6% p.a. (Source:* LCC Strategic Business Plan, September 2014) Water supply ETs projections are shown in Table 2.

Table 2: Estimated Water ETs

Water Service Areas	2014/15 Water Consumption (kL)	2014/15 ETs*
Lithgow	693,171	5,251
Portland	230,233	1,744
Wallerawang	151,275	1,146

*Estimated number of water supply ETs using water consumption records provided by Council, email 9th January 2017

Table 3: Water Supply ETs Projection

Service Area	Estimated No. of ETs Serviced						
	2017/18	2022/23	2027/28	2032/33	2037/38	2042/43	2047/48
Lithgow	5,346	5,509	5,676	5,848	6,026	6,209	6,397
Portland	1,776	1,830	1,885	1,942	2,001	2,062	2,125
Wallerawang	1,167	1,202	1,239	1,276	1,315	1,355	1,396

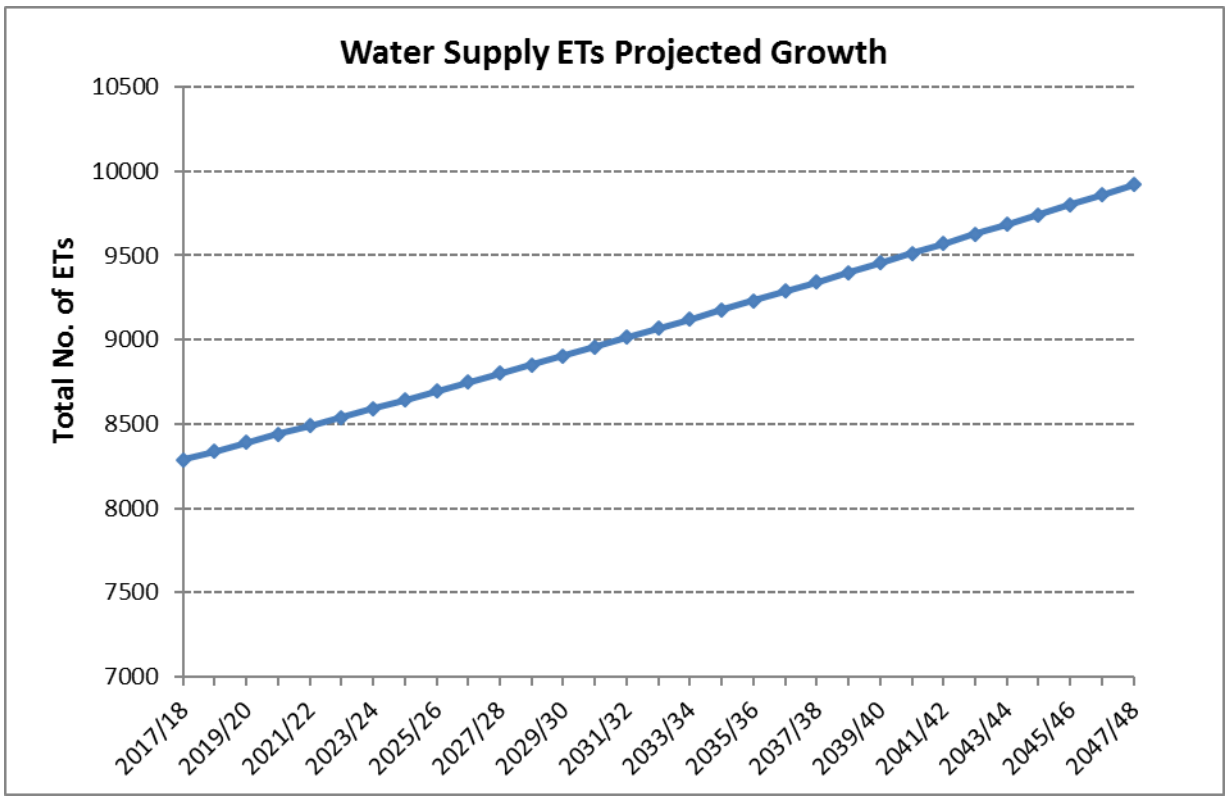


Figure 1: Water Supply ETs Projection

4.3 Sewerage

The LCC's sewerage services are divided into four service areas. South Bowenfels is a new development area in Lithgow Town. The sewerage ETs in Lithgow, Portland and Wallerawang are estimated as a ratio of the metered average dry weather flow (ADWF) in each sewerage treatment plant and the ADWF design capacity of each system multiplied by the occupancy ratio. LCC provided the number of ETs in South Bowenfels new development area. This was extracted from the total number of ETs in Lithgow to estimate the number of ETs within the Lithgow area only.

At the time of the calculations the best available data was 2015/16 inflow records. The estimated number of sewerage ETs in 2015/16 are shown in Table 4.

Council's adopted growth rate for the four service areas is 0.6% p.a. Sewerage ETs projections are shown in Table 5.

Table 4: Estimated Sewerage ETs

Service Area	2015/16 ADWF* (kL/d)	ADWF design capacity (L/EP/d)**	Occupancy ratio***	2015/16 ETs	2017/18 ETs
Lithgow	3427 (incl. SB)	240	2.26	6,318-1,380 = 4,938	4,997
South Bowenfels				1,380	1,397
Portland	542	220	2.35	1,048	1,061
Wallerawang	402	240	2.64	634	642

Source: *daily inflow data provided by Council, 9 January 2017
**Process Design Criteria pdf files
*** DSP Population Projection 2016-2026

Table 5: Sewerage ETs Projection

Service Area	Estimated No. of ETs Serviced						
	2017/18	2022/23	2027/28	2032/33	2037/38	2042/43	2047/48
Lithgow	4,997	5,149	5,305	5,467	5,632	5,804	5,980
South Bowenfels	1,397	1,439	1,483	1,528	1,575	1,622	1,672
Portland	1,061	1,093	1,126	1,161	1,196	1,232	1,270
Wallerawang	642	662	682	702	724	746	768

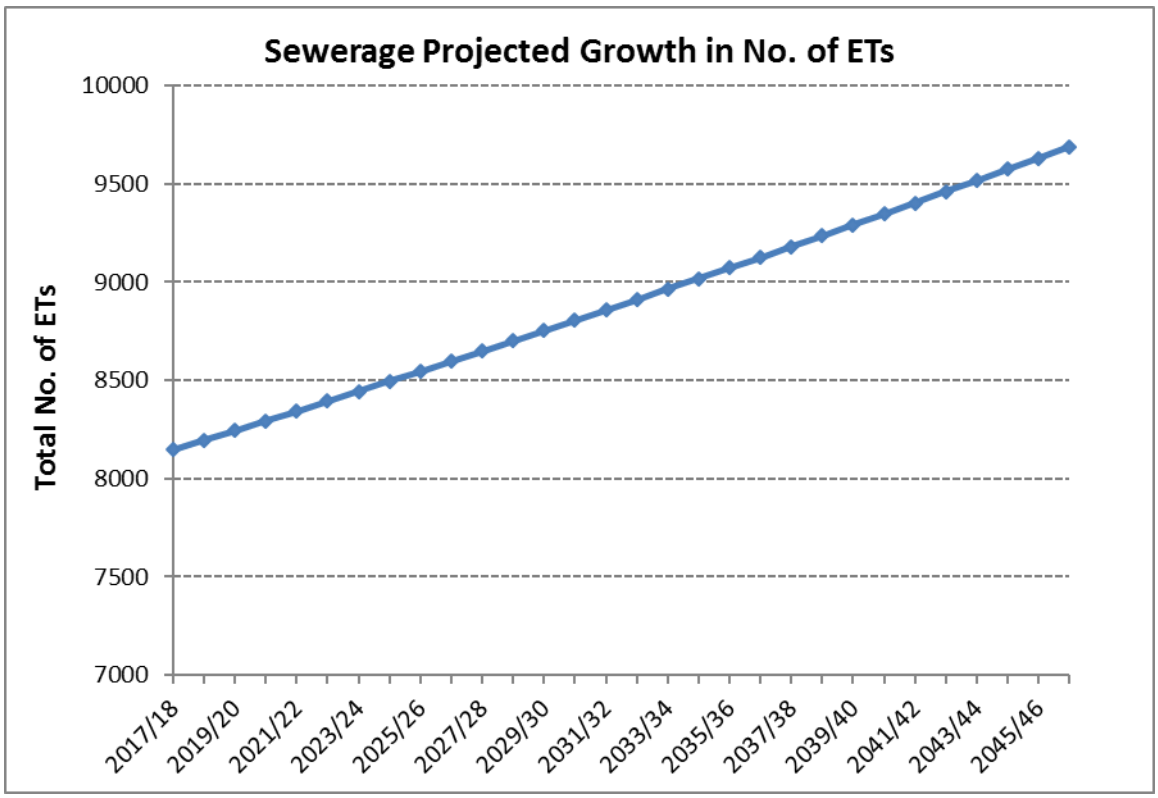


Figure 2: Sewerage Serviced ETs Projection

4.4 Land Use Information

These DSPs for water supply and sewerage should be read in conjunction with the Local Environment Plan (LEP), Development Control Plan (DCP) and other planning instruments used by LCC.

5 INFRASTRUCTURE

5.1 Water Supply

These DSPs include three water supply service areas as listed below.

- Lithgow
- Portland
- Wallerawang

LCC operates the Lithgow Water Supply Scheme, which services the City of Lithgow. The other two service areas receive water from the Fish River Water Supply Scheme. Only the components of the Portland & Wallerawang schemes that are owned and operated by LCC are included in the calculations. The components of the FRWSS are excluded from the calculations.

5.2 Existing Assets

All the existing assets servicing LCC water supply service areas are included in the capital charge calculations except for the following:

- Assets that are more than 30 years old at the commencement of the DSP
- Reticulation assets which are typically paid for by developers. Reticulation assets are defined as the local pipes providing water supply to individual properties.

The existing assets servicing the areas covered by the water supply DSPs are listed in Table 1 of Appendix B (LCC 2018 DSP Background Document for Water Supply). A summary of the existing assets is provided in Table 6.

Table 6: Water Supply Existing Assets

Service Areas	Current Replacement Cost (2017/18 $'000)	
	All Existing Assets	Existing Assets Included in DSPs*
Lithgow	76,749	9,446
Portland	3,830	568
Wallerawang	8,178	334
Shared	207	207

Note: Asset valuations exclude contingencies.
*Excluding reticulation and assets more than 30 years old (Source: Source: Lithgow Valuation Report, August 2017).

5.3 Future Capital Works Program

According to the Guidelines, the calculation of capital charge includes the cost for new works planned within the next 10 years, excluding reticulation. If Council has developed detailed plans beyond 10 years, capital cost of those items can be considered for the capital charge calculation. In these DSPs, 10 years of new works are included in the calculations.

Capital works for renewals planned within the next 10 years may be included if the existing asset is older than 30 years and/or have been removed from the asset register. For this DSP it has been assumed that the capital works for renewals are assigned to assets older than 30 years and are therefore included in the calculation.

The 10 year capital works program required to provide water supply services to the LCC service areas are provided in Table 2 of Appendix B (LCC 2018 DSP Background Document for Water Supply). The capital works program has been developed as part of LCC's Strategic Asset Management Plan. Estimates on the capital works program include contingencies.

A summary of the water supply capital works program is provided in Table 7.

Table 7: Summary of Water Supply 10 Year Capital Works

Service Area	Estimated Cost (2017/18 $'000)		
	Renewals	New Work	Total
Lithgow	11,850	10,000	21,850
Portland	0	0	0
Wallerawang	0	0	0
Shared	8,035	542	8,577

(Source: LCC Water Capital Works Program, September 2017)

The 10 year capital works program for water supply is shown in Figure 3. Timing of works and expenditure is to be reviewed and updated when required.

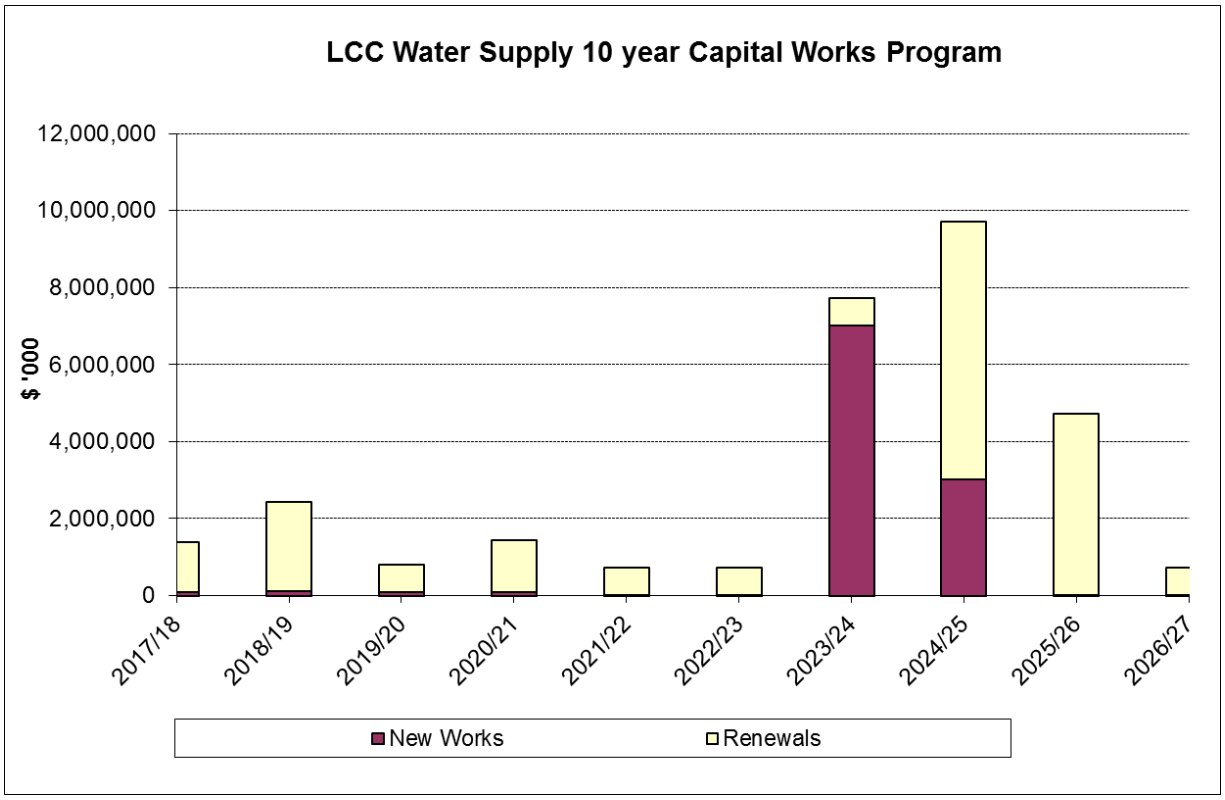


Figure 3: LCC Water Supply 10 Year Capital Works Program

5.4 Sewerage

LCC operates three sewerage systems. These DSPs include four sewerage service areas as listed below.

- Lithgow
- South Bowenfels (new development area)
- Portland
- Wallerawang

5.5 Existing Assets

All the existing assets serving LCC sewerage service areas are included in the capital charge calculations except for the following:

- Assets more than 30 years old at the commencement of the DSP
- Reticulation assets which are typically paid for by developers. Reticulation assets are defined as the local pipes connecting individual properties.

The existing assets servicing the area covered by the sewerage DSPs are listed in Table 1 of Appendix C (LCC 2018 DSP Background Document for Sewerage). A summary of the existing assets is provided in Table 8.

Table 8: Sewerage Existing Assets

Service Areas	Current Replacement Cost (2017/18 $'000)	
	All Existing Assets	Existing Assets Included in DSPs*
Lithgow	31,229	2,767
South Bowenfels (SB)	10,039	2,842
Portland	13,130	336
Wallerawang	17,444	9,344
Shared by all areas	208	208
Shared Lithgow and South Bowenfels	37,723	21,679

Note: Asset valuations exclude contingencies.
*Excluding reticulation and assets more than 30 years old (Source: Lithgow Valuation Report, August 2017).

5.6 Future Capital Works Program

According to the Guidelines, the calculation of capital charge includes capital cost for new works planned within the next 10 years, excluding reticulation. If Council has developed detailed plans beyond 10 years, capital cost of those items can be considered for the capital charge calculation. In these DSPs, 10 years of new works are included in the calculations.

Capital works for renewal planned within the next 10 years may be included if the existing asset is older than 30 years and/or have been removed from the asset register. For these DSPs it has been assumed that the capital works for renewals are assigned to assets older than 30 years and are therefore included in the calculation.

The 10 year capital works program required to provide sewerage services to the LCC sewerage service areas are provided in Table 2 of Appendix C (LCC 2018 DSP Background Document for Sewerage). The capital works program has been developed as part of LCC's Strategic Asset Management Plan. Estimates on the capital works program include contingencies

A summary of sewerage capital works program is provided in Table 9.

Table 9: Summary of Sewerage 10 Year Capital Works

Service Area	Estimated Cost (2017/18 $'000)		
	Renewals	New Works	Total
Lithgow	2,900	0	2,900
South Bowenfels	5,460	12,740	18,200
Portland	7,883	5,255	13,139
Wallerawang	0	0	0
Shared by all areas	6,825	200	7,025

(Source: LCC Sewerage Capital Works Program, May 2017)

The 10 year capital works program for sewerage is shown in Figure 4. Timing of works and expenditure are to be reviewed and updated when required.

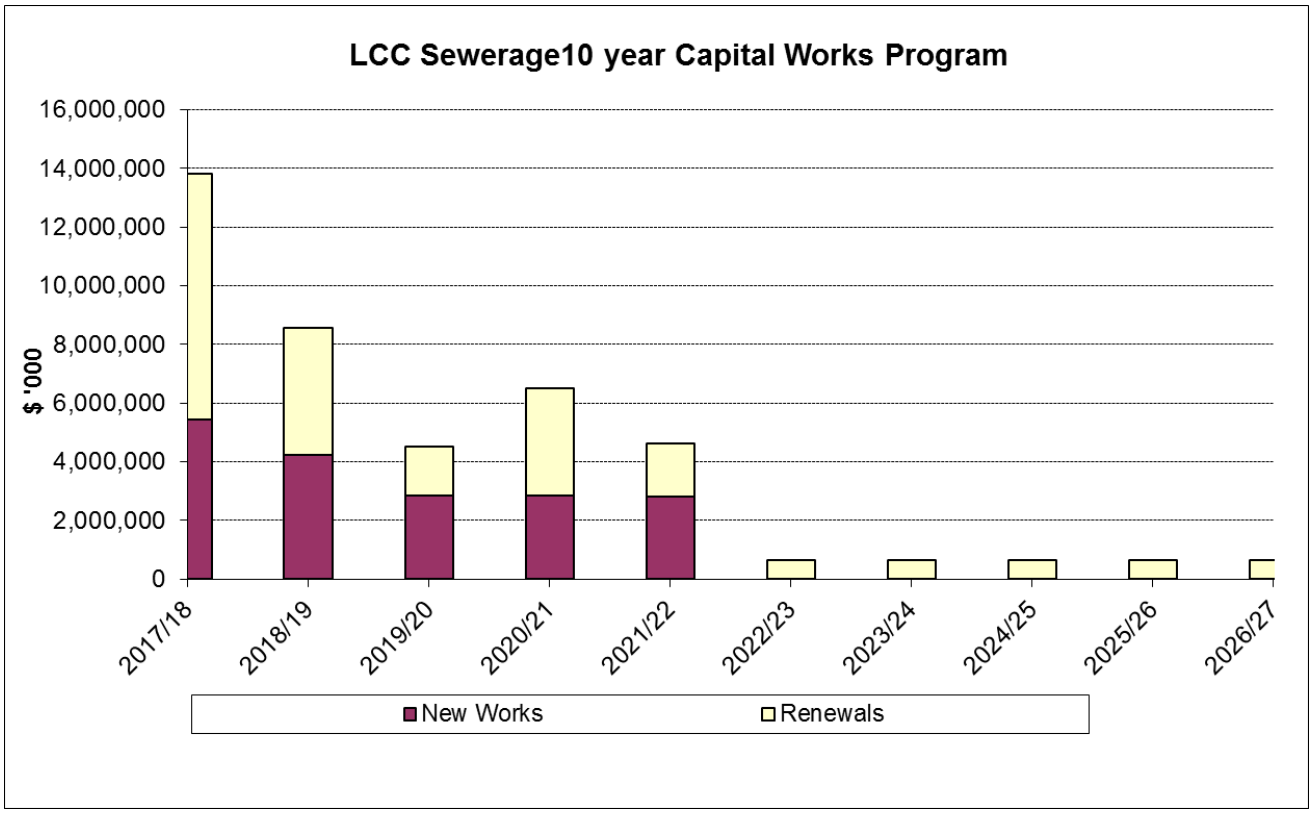


Figure 4: LCC Sewerage 10 Year Capital Works Program

6 Levels of Service

6.1 Water Supply

The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

LCC's target for water supply levels of service (LOS), listed in Table 10 below, are sourced from LCC Strategic Business Plan for Water Supply and Sewerage. These have been adopted after consultation with Councillors, on behalf of the community.

Table 10: Levels of Service for Water Supply

DESCRIPTION	UNIT	LOS Target
AVAILABILITY OF SERVICE		
Normal Quantity Available:		
Domestic Peak day	L/tenement/ day	2500
Domestic Annual Consumption	kL/tenement/ year	170
Total Annual Consumption	ML/year	2500
Total Peak Daily Consumption	ML/day	20 (23 max 10 years)
Peak/Average consumption	Ratio	2.9
Pressure:		
Min. pressure when delivering 0.1L/sec	Metres	30
Max. static pressure	Metres	150
Firefighting:		
Compliance with the Water Supply Investigation Manual* (AS 2419.1 classifications 2,3,4.& 9 with floor area less than 1000 m^2)	% area served	100
CONSUMPTION RESTRICTIONS IN DROUGHTS:		
Level of restriction applied through a repeat of the worst drought on record	Restriction as % of normal usage	10
Average duration of restrictions	Months/ 10 years	6
Average frequency of restrictions	No./ 10 year	1
SUPPLY INTERRUPTIONS TO CUSTOMERS:		
Planned		
Notice given to domestic customers*	Days	7
Notice given to commercial customers*	Days	7

DESCRIPTION	UNIT	LOS Target
Notice given to industrial customers*	Days	14
Maximum Duration	Hours/event	6hr/event
Frequency	No./Year/1000 customer	10
Unplanned		
Water main breaks	No./100 km/Year	20
Average duration	Hours/event/Year	4
Frequency	No./ per 1000 connections/Year	12
Response Times for Service Interruptions* time to have staff on-site commence work after notification		
Priority 1 (Failure to maintain continuity or quality of supply to a large number of customers or to a critical user at a critical time)		
All Customers During working hours Out of working hours	Minutes	 60 90
Priority 2 (Failure to maintain continuity or quality of supply to a small number of customers or to a non- critical user at a non-critical time)		
All Customers During working hours Out of working hours	Minutes	 60 90
Priority 3 (Failure to maintain continuity or quality of supply to a single customer)		
All Customers During working hours Out of working hours	Minutes	 60 90
CUSTOMER FEEDBACK/ COMPLAINTS@		
Complaints Received		
Water quality complaints	No./ 1000 connections/Year	5
Service complaints		6
Billing and account complaints		3
Other complaints		2
Response Times for Feedback/ Complaints Percentage of calls answered by an operator within 30 seconds@*		
General complaints and inquiries:		
Written Complaints*	Working Days	5

DESCRIPTION	UNIT	LOS Target
Personal/ oral complaints	Working Days	1
ENVIRONMENT		
Net greenhouse gas emissions(Water and Sewerage)[@]	Tonnes CO2 equivalent/1000 properties	220
WATER QUALITY Meet ADWG (NHMRC, 2011)		100%

@ - NWI Performance Indicators
* - Times apply for 95% of incidents
Source: LCC Strategic Business Plan Water Supply and Sewerage, 2013-14

6.2 Sewerage

The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

LCC's target for water supply levels of service (LOS), listed in Table 11below, are sourced from LCC Strategic Business Plan for Water Supply and Sewerage. These have been adopted after consultation with Councillors, on behalf of the community.

Table 11: Levels of Service for Sewerage

DESCRIPTION	UNIT	LOS Target
SERVICE AVAILABILITY		
Extent of area serviced	% Service area	100
SYSTEM FAILURES (OVERFLOWS TO THE ENVIRONMENT)		
Category One		
Failure due to rainfall and deficient capacity@	No./100 km/Year	12
Category Two		
Failure due to pump or other breakdown including power failure	No./100 km/Year	2
Category Three		
Failure due to main blockages and collapses@	No./100 km/Year	150
RESPONSE TIMES FOR SYSTEM FAILURES* time to have staff on-site commence work after notification		
Category One Failure due to rainfall and deficient capacity@		
All Customers		
- During working hours*	Minutes	60
- Out of working hours*		90
Category Two (Failure due to pump or other breakdown including power failure)		
All Customers		
- During working hours*	Minutes	60
- Out of working hours*		90
Category Three (Failure due to main blockages and collapses@)		
All Customers		
- During working hours*	Minutes	60
- Out of working hours*		90

DESCRIPTION	UNIT	LOS Target
CUSTOMER FEEDBACK/ COMPLAINTS@		
Complaints received	No./ 1000 connections/Year	
Service complaints		10
Odour Complaints		1
- Treatment works (outside		0
- Pumping Stations		1
- Reticulation system		0
Billing and account complaints		1
Other complaints		1
Response Times for Feedback/ Complaints		
Average connect time to a telephone	Seconds	<30
General complaints and inquiries:		
- Written Complaints*	Working Days	5
- Personal/ oral complaints*	Working Days	1
ENVIRONMENT@		
Recycle/ reuse of wastewater (dry	% total volume of	5
Sewage treated to:	% of total volume of	
- Primary level only	sewage treated	
- Secondary level only		
- Tertiary		100%
Effluent discharge compliance with	% of samples/year	100%
Net greenhouse gas emissions(Water	Tonnes CO2 equivalent/	220

@ - NWI Performance Indicators
* - Times apply for 95% of incidents
Source: LCC Strategic Business Plan Water Supply and Sewerage, 2013-14

7 DESIGN PARAMETERS

Investigation, design and construction of water supply components are based on:

- Council's levels of service (Refer to section 6 above)
- Water Supply Investigation Manual (1986)
- WSAA water supply code of Australia – WSA 03 2002
- Plumbing Code of Australia
- AS3500 Part 1 and 2
- NSW Water Directorate guidelines
- Lithgow Strategic Asset Management Plan, 2017/18 – 2026/27

Investigation, design and construction of sewerage components are based on:

- Council's levels of service (Refer to section 6 above)
- Manual of Practice: Sewer Design (1987)
- Manual of Practice: Sewage Pumping Station Design (1986)
- WSAA Sewerage Code of Australia – WSA 02-2002
- WSAA Pressure Sewerage Code of Australia – WSA 07 – 2007
- Lithgow Strategic Asset Management Plan, 2017/18 – 2026/27

LCC indicated that they are currently preparing a Total Asset Management Plan.

8 Developer Charges Methodology

8.1 Timeline

Figure 5 illustrates the timeline of the DSP calculation, including the discounting of existing assets, future assets and ETs.

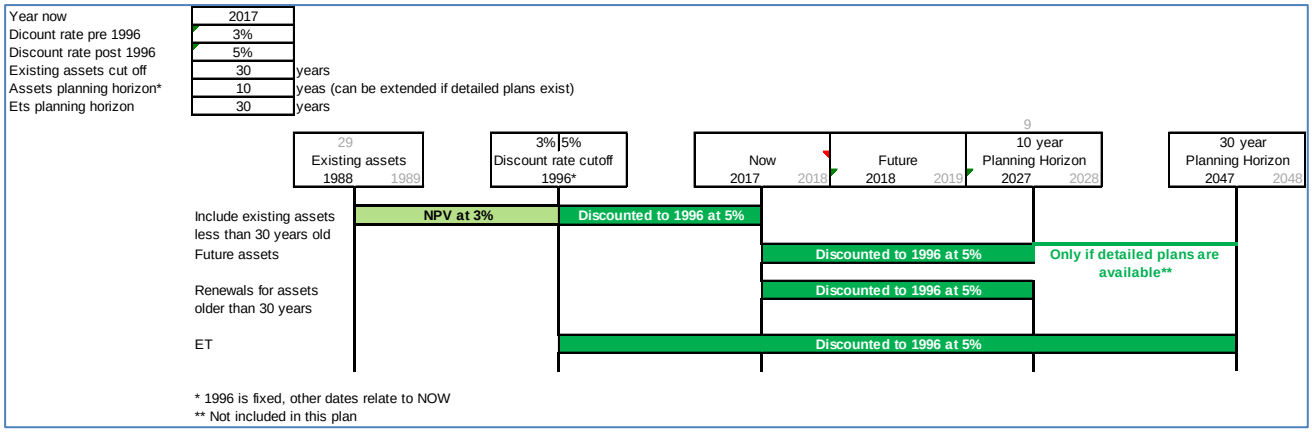


Figure 5: DSP Calculation Timeline

8.2 Capital Charge

The capital charges are calculated for LCC water supply and sewerage service areas based on the existing and future assets providing the services to these areas. The capital charge is calculated per ET by dividing PV of effective capital cost of the assets by the PV of number of new ETs.

Effective capital cost is the percentage of capital cost utilised by the post 1995/96 new ETs.

The outcomes of water supply capital charges calculation are provided in Table 3 in Appendix B and summarised in section 9. The outcomes of sewerage capital charges calculations are provided in Table 3 in Appendix C and summarised in section 10.

Generally, the capacity of an asset would not be fully utilised until some years after construction of the asset. The capital charge calculation takes account of the period to full take-up of the capacity of the asset.

The Return on Investment (ROI) is based on the holding cost of early investment and recovery of the cost over time. The annual payments have to provide a return on the investment to reflect the discounting of future payments. In accordance with IPART's Determination 9, 2000, the capital charges are calculated based on the discount rates listed in Table 12.

Table 12: Discount Rates Used in the Capital Charge Calculation

Assets	Discount Rate
Pre-1996 assets	3% pa
Post 1996 assets	5% pa

8.3 Exclusions

The developer charges do not cover the costs of reticulation and assets more than 30 years old.

LCC does not levy charges for the construction of reticulation pipework upon completion of the development.

8.4 Reduction Amount

The reduction amount represents the portion of the cost of assets that LCC expects to recover through its annual bills to the new developments.

Council has adopted the Net Present Value (NPV) of annual bills method to calculate the reduction amount. This method calculates the reduction amount as the NPV of 30 years net income from annual charges (revenue from annual bills less OMA) for the development area.

8.5 Developer Charges and Implementation

Developer charge is the capital charge minus the reduction amount. The outcomes of the water supply and sewerage developer charges calculations are included in sections 9 and 10 respectively.

8.6 Levying Lower Charges

In setting the developer charges, LCC may consider financial, social and environmental factors to determine a level of developer charges that is balanced, fair and meet Council's objectives.

Council may adopt developer charges that are lower than the calculated developer charges. LCC water supply and sewerage adopted developer charges are provided in sections 9.3 and 10.3 respectively.

Adopting developer charges that are lower than the calculated amount means that existing residents subsidise new development. The extent of this cross subsidy needs to be disclosed in the DSP.

9 Water Supply DSPs

9.1 Scope

The water supply services are divided into three service areas. The boundaries of the water supply service areas are shown in Appendix A.

9.2 Capital Charge

All the existing assets (excluding assets older than 30 years and reticulation) and future capital works (10 years) required to service LCC water service areas have been included in the calculation of the capital charge. Current and future shared assets are included in the calculation. The shared assets service all three service areas and the capital charge component of the shared assets is the same for the three service areas.

The percentage of capital cost of assets utilised by new ETs after 1995/96 are considered for the capital charge calculation. The calculated capital charges for the water supply service areas are summarised in Table 13 and Table 14. Detailed calculation is provided in Table 3 of Appendix B.

Table 13: Water Supply Effective Capital Cost

Service Areas	Capital Cost (2017/18 $'000)		Percent of Capital Cost Utilised by ETs after 1995/96	Effective Capital Cost (2017/18 $'000)	
	Existing Assets	10 Year Future Capital Works		Existing Assets	10 Year Future Capital Works
Lithgow	9,445	21,850	27.2	2,572	5,950
Portland	568	0	27.2	155	0
Wallerawang	334	0	27.2	91	0
Shared *	207	8,577	27.2	56	2,335

Note: Calculation rounding errors may be applied
*Assets that will service all areas

Table 14: Water Supply Capital Charge

Service Areas	PV of Effective Capital Cost (2016/17 $'000)		PV of new ETs		Capital Charge per ET (2017/18 $)
	Pre-1996 Assets	Post 1996 Assets (existing + future)	@3%	@5%	
Lithgow	0	2,703	879	627	4,315
Portland	155	0	292	208	530
Wallerawang	56	15	192	137	406
Shared	0	717	1364	972	737
Capital Charge for each service area including shared assets		**Lithgow**			**5,052**
		Portland			**1,268**
		Wallerawang			**1,144**

Note: Calculation rounding errors may be applied

9.3 Developer Charge

Where the capital charges of two or more service areas are within 30%, they are agglomerated into a single DSP. One agglomeration was required: Portland and Wallerawang are agglomerated into one single DSP. See table 4 in Appendix B for detailed agglomeration analyses.

Developer charge is the capital charge minus the reduction amount. Developer charge detailed calculation is provided in Table 4 in Appendix B.

The reduction amount calculation methodology is provided in section 8.4 and detailed calculation is provided in Table 5 of Appendix B.

LCC water supply calculated developer charges are summarised in Table 15 and Table 16. The proposed developer charges are provided in Table 17.

Table 15: Water Supply Weighted Capital Charge (2017/18$)

Service Areas	Capital Charge	DSP	PV of New ETs	% of PV of new ETs in each DSP area	Weighted Capital Charge for each service area
	$ per ET				$ per ET
Lithgow	5,052	WDSP1	524	100%	5,052
Wallerawang	1,144	WDSP2	174	60.3%	690
Portland	1,268		114	39.7%	503

Table 16: Water Supply Calculated Developer Charges (2017/18$)

DSP Areas	Weighted Capital Charge	Reduction Amount	Calculated Developer Charge
	$ per ET		
Lithgow	5,052	2,194	2,858
Portland and Wallerawang	1,193		0

Table 17: Water Supply Developer Charges (2018/19$)

DSP Areas	Calculated Developer Charge	Council Proposed Developer Charge
	$ per ET	
Lithgow	2,921	2,921
Portland & Wallerawang	0	0

Note: 2018/19 Developer Charge is calculated using Sydney CPI for June 2016 to June 2017 of 2.2%

9.4 Cross-Subsidy

No cross-subsidy from existing customers is proposed.

10 Sewerage DSPs

10.1 Scope

The sewerage services are divided into four service areas. The boundaries of the sewerage service areas are shown in Appendix A.

10.2 Capital Charge

All the existing assets (excluding more than 30 years old assets and reticulation) and new capital works (10 years) required to provide sewerage services have been included in the capital charge calculation. Current and future shared assets are included in the calculation. The shared assets service all four service areas and the capital charge component of the shared assets is the same for the four service areas.

The percentage of capital cost of assets utilised by new ETs after 1995/96 are considered for the capital charge calculation. The calculated capital charges for each service area are summarised in Table 18 and Table 19. Detailed calculation is provided in Table 3 of Appendix C.

Table 18: Sewerage Effective Capital Cost

Service Areas	Capital Cost (2017/18 $'000)		Percentage of Capital Cost Utilised by ETs after 1995/96	Effective Capital Cost (2017/18 $'000)	
	Existing Assets	10 Year Future Capital Works		Existing Assets	10 Year Future Capital Works
Lithgow	2,767	2,900	27.2	753	789
South Bowenfels (SB)	2,842	18,200	27.2	774	4,956
Portland	337	13,139	27.2	92	3,577
Wallerawang	9,344	0	27.2	2,544	0
Shared by all	208	7,025	27.2	56	1,913
Shared Lithgow and SB	21,679	0	27.2	5,903	0

Note: Calculation rounding errors may be applied
*Assets that will service all areas

Table 19: Sewerage Capital Charge

Service Areas	PV of Effective Capital Cost (2017/18 $'000)		PV of new ETs		Capital Charge per ET (2017/18 $)
	Pre-1996 Assets	Post 1996 Assets (existing + future)	@3%	@5%	
Lithgow	364	559	821	584	1,400
South Bowenfels (SB)	238	1,895	230	163	12,636
Portland	0	1,291	174	124	10,408
Wallerawang	0	1,262	105	75	16,813
Shared by all areas	0	583	1,331	948	615
Shared by Lithgow and SB	0	2,824	1,051	748	3,777
Capital Charge for each service area including shared assets			**Lithgow**		**5,792**
			South Bowenfels		**17,028**
			Portland		**11,024**
			Wallerawang		**17,428**

Note: Calculation rounding errors may be applied

10.3 Developer Charge

Where the capital charges of two or more service areas are within 30%, they are agglomerated into a single DSP. One agglomeration was required: Wallerawang and South Bowenfels.

However, Council wishes to remove obstacles for development in Wallerawang, where the calculated developer charge is high in relation to the cost of land. Council therefore proposes to provide a cross-subsidy to development in Wallerawang in order to avoid wasted development potential in the town. This does not apply to South Bowenfels, therefore Council opted for not agglomerating these 2 areas. Hence, LCC has four sewerage DSPs. See table 4 in Appendix C for detailed agglomeration analyses.

Developer charge is the capital charge minus the reduction amount. Developer charge detailed calculation is provided in Table 4 in Appendix C.

The reduction amount calculation methodology is provided in section 8.4 and the calculation is provided in Table 5 of Appendix C.

LCC sewerage calculated and proposed developer charges are provided in Table 21 and Table 22.

Table 20: Sewerage Weighted Capital Charge (2017/18$)

Service Areas	Capital Charge	DSP	PV of New ETs	% of PV of new ETs in each DSP area	Weighted Capital Charge for each service area
	$ per ET				$ per ET
Wallerawang	17,428	SDSP1	63	100%	17,428
South Bowenfels	17,028	SDSP2	104	100%	17,028
Portland	11,024	SDSP3	137	100%	11,024
Lithgow	5,792	SDSP4	490	100%	5,792

Table 21: Sewerage Calculated Developer Charges (2017/18$)

DSP Areas	Weighted Capital Charge	Reduction Amount	Calculated Developer Charge
	$ per ET		
Wallerawang	17,428	3,121	14,308
South Bowenfels	17,028		13,907
Portland	11,024		7,903
Lithgow	5,792		2,671

Table 22: Sewerage Developer Charges (2018/19$)

DSP Areas	Calculated Developer Charge	Council Proposed Developer Charge
	$ per ET	
Wallerawang	14,622	9,622
South Bowenfels	14,213	14,213
Portland	8,077	8,077
Lithgow	2,730	2,730

Note: 2018/19 Developer Charge is calculated using Sydney CPI for June 2016 to June 2017 of 2.2%

10.4 Cross-Subsidy

As is shown in Table 22, Council proposes to reduce the charges for the Wallerawang area. The reason is that that Council considers that the calculated charge are cost-prohibitive and would have discouraged development in this area.

The developer charges income difference needs to be subsidised by existing customers through annual bills (i.e. typical residential bill - TRB). To balance the difference in income from the calculated developer charge and proposed developer charge, Council will need to increase the TRB as shown in Table 23. TRB impact is graphically shown in Figure 6.

The cross-subsidy, resulting from capping of developer charges must be disclosed in the DSP, the utility's Annual Report, annual Operational Plan and in communication materials for consultation with stakeholders

Table 23: Impact of Cross-Subsidies on Sewerage Typical Residential Bill

Option	Required Annual TRB (2016/17 $)	TRB Difference	Resulting Increase in TRB (%)
Calculated- Weighted Average Developer Charge - $6,100	$878*	-	-
Proposed- Weighted Average Developer Charge -$5,704	$880	$2	0.3%

*Source: Lithgow City Council TBL Sewerage Performance Report 2014-15

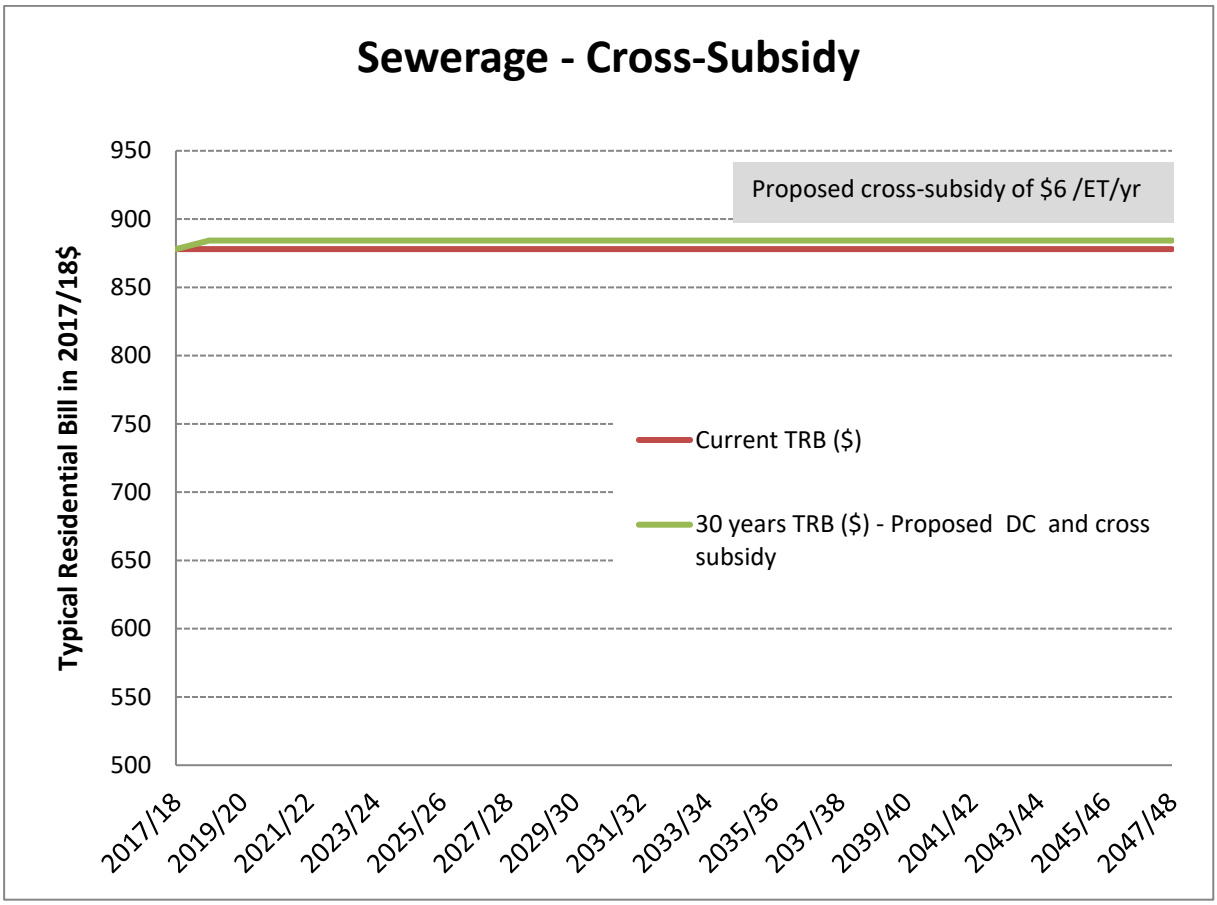


Figure 6: Impact of Lower Developer Charge on Sewer TRB

11 Reviewing/Updating of Calculated Developer Charges

Developer charges relating to these DSPs shall be reviewed by the LWU after a period of 4 to 8 years. In the period between any reviews, developer charges will be adjusted on 1st July each year on the basis of movements in the CPI for Sydney as required by the Developer Charges Guidelines (excluding the impact of GST). Developer charges will be those charges determined by Council from time to time and will be published in Council's Annual Fees and Charges.

12 Background Documents

Background information and calculations related to these DSPs are available in the following documents:

1. Developer Charges Guidelines for Water Supply, Sewerage and Stormwater - 2016, published by Department of Primary Industries, DPI Water. For link refer to the Glossary2).
2. LCC 2018 DSP Background Document for Water Supply (Appendix B).
3. LCC 2018 DSP Background Document for Sewerage (Appendix C).
4. LCC Water Supply TBL Performance Report (2014/15).
5. LCC Sewerage TBL Performance Report (2014/15).
6. LCC Strategic Business Plans for Water Supply and Sewerage Services including Financial Plan (Final draft 2013-14)
7. LCC Special Schedules 3 to 6, June 2017.

Note: These background documents contain detailed calculations for the capital charges, reduction amount and developer charges, including asset commissioning dates, size/length of assets, MEERA valuation of assets, 10 years capital works program, assets current and future capacities.

To receive copies of the documents 4, 5 and 6 please contact the water supply and sewerage section of Lithgow City Council. Document 7 is part of Council's financial reports, available from Council's Web site.

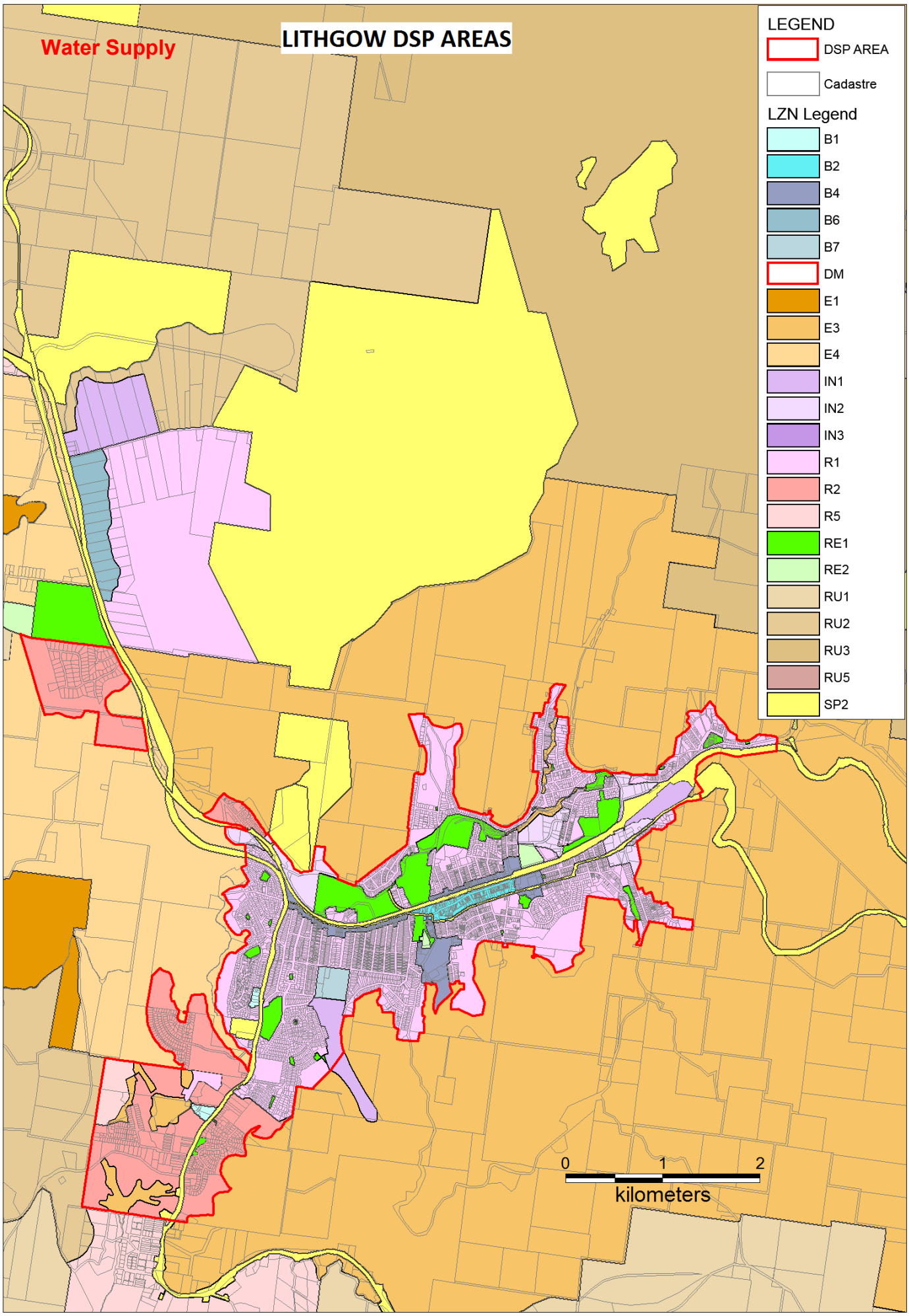
13 Other DSPs and Related Contribution Plans

Other related plans include:

- S94 plans developed by Lithgow City Council

APPENDIX A

SERVICE AREA MAPS FOR WATER SUPPLY AND SEWERAGE


LITHGOW DSP AREAS
Water Supply
LEGEND
DSP AREA
Cadastre
LZN Legend
B1
B2
B4
B6
B7
DM
E1
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E4
IN1
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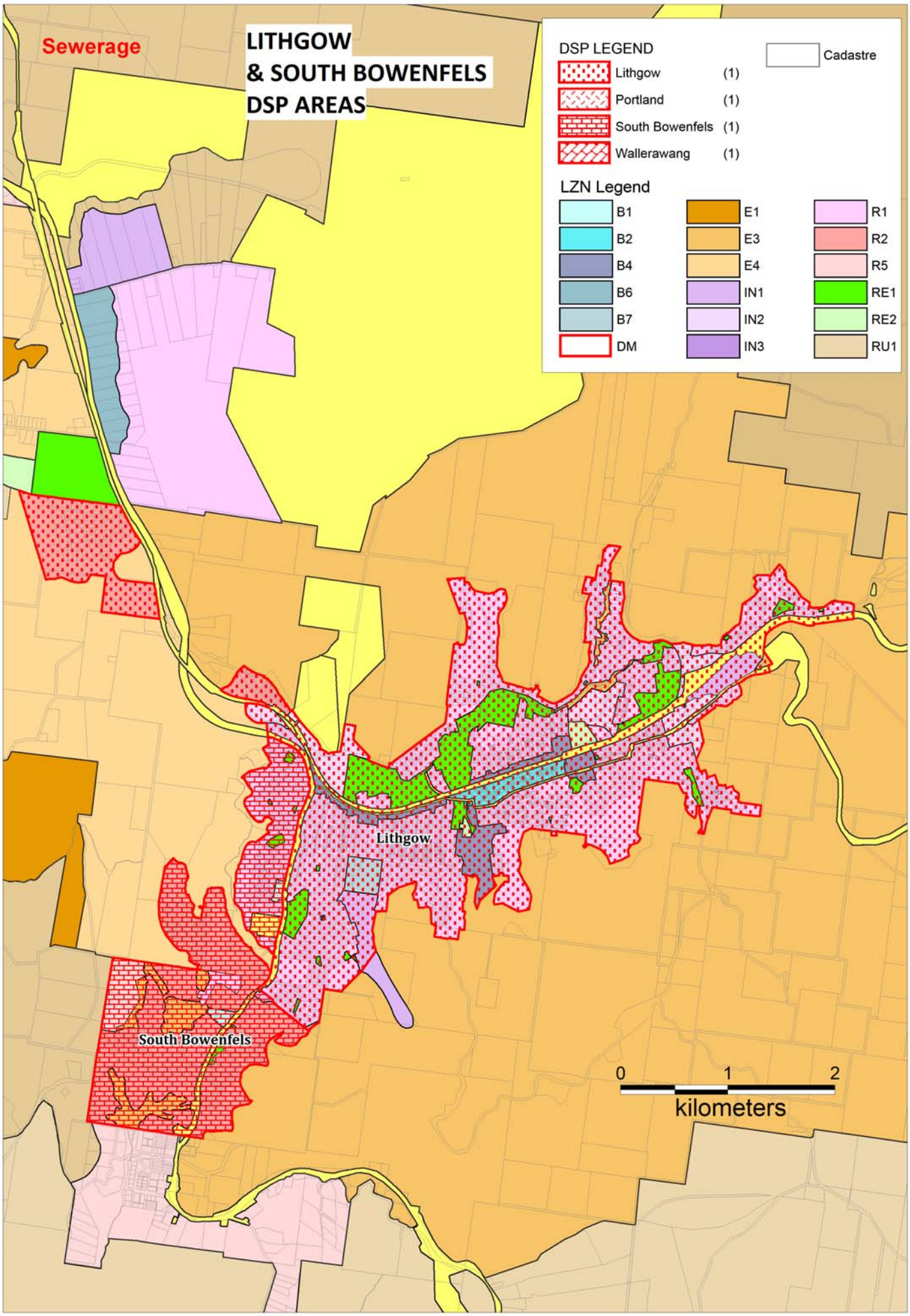
Sewerage
LITHGOW
& SOUTH BOWENFELS
DSP AREAS
DSP LEGEND
Lithgow (1)
Portland (1)
South Bowenfels (1)
Wallerawang (1)
Cadastre
LZN Legend
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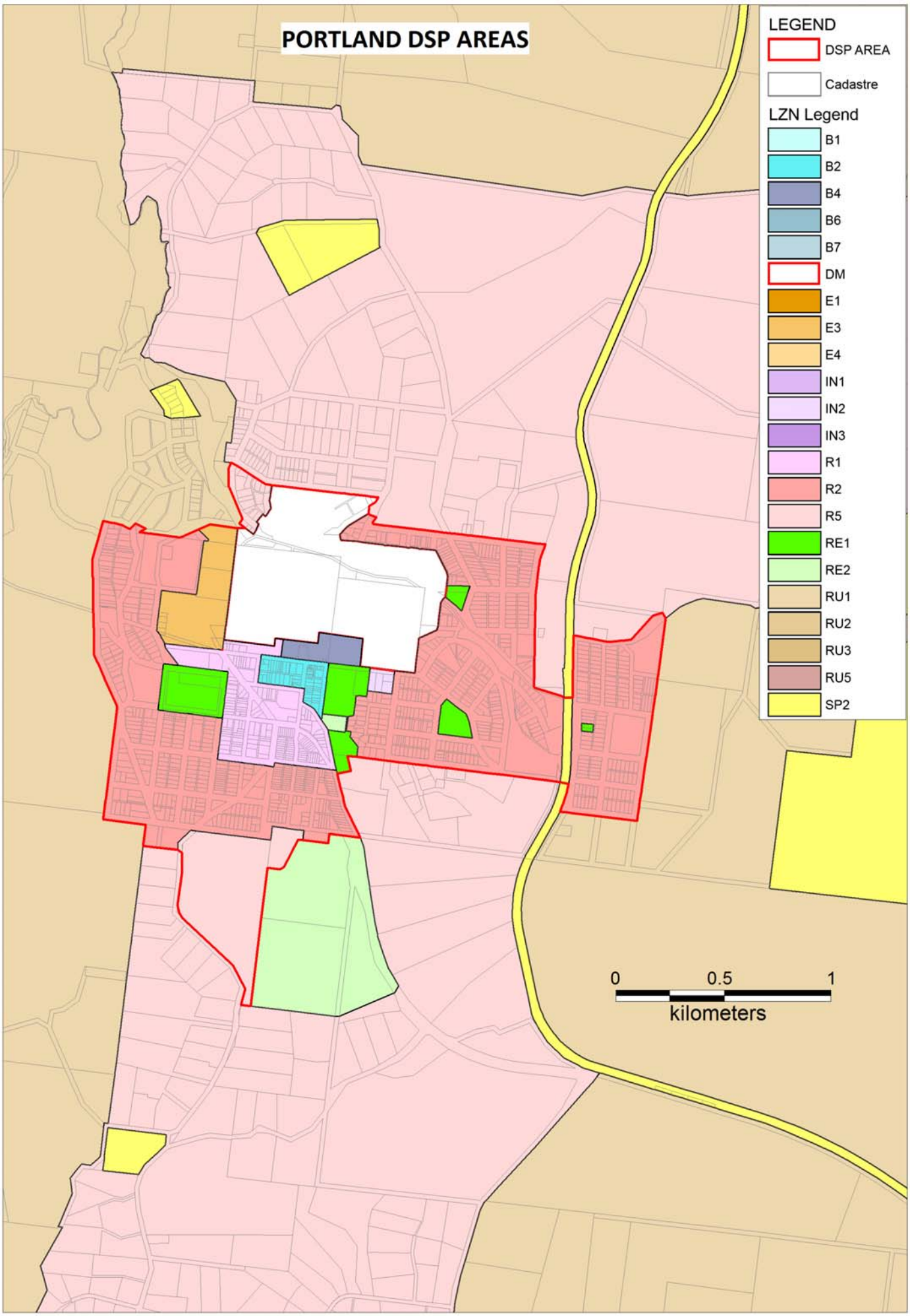
PORTLAND DSP AREAS
LEGEND
DSP AREA
Cadastre
LZN Legend
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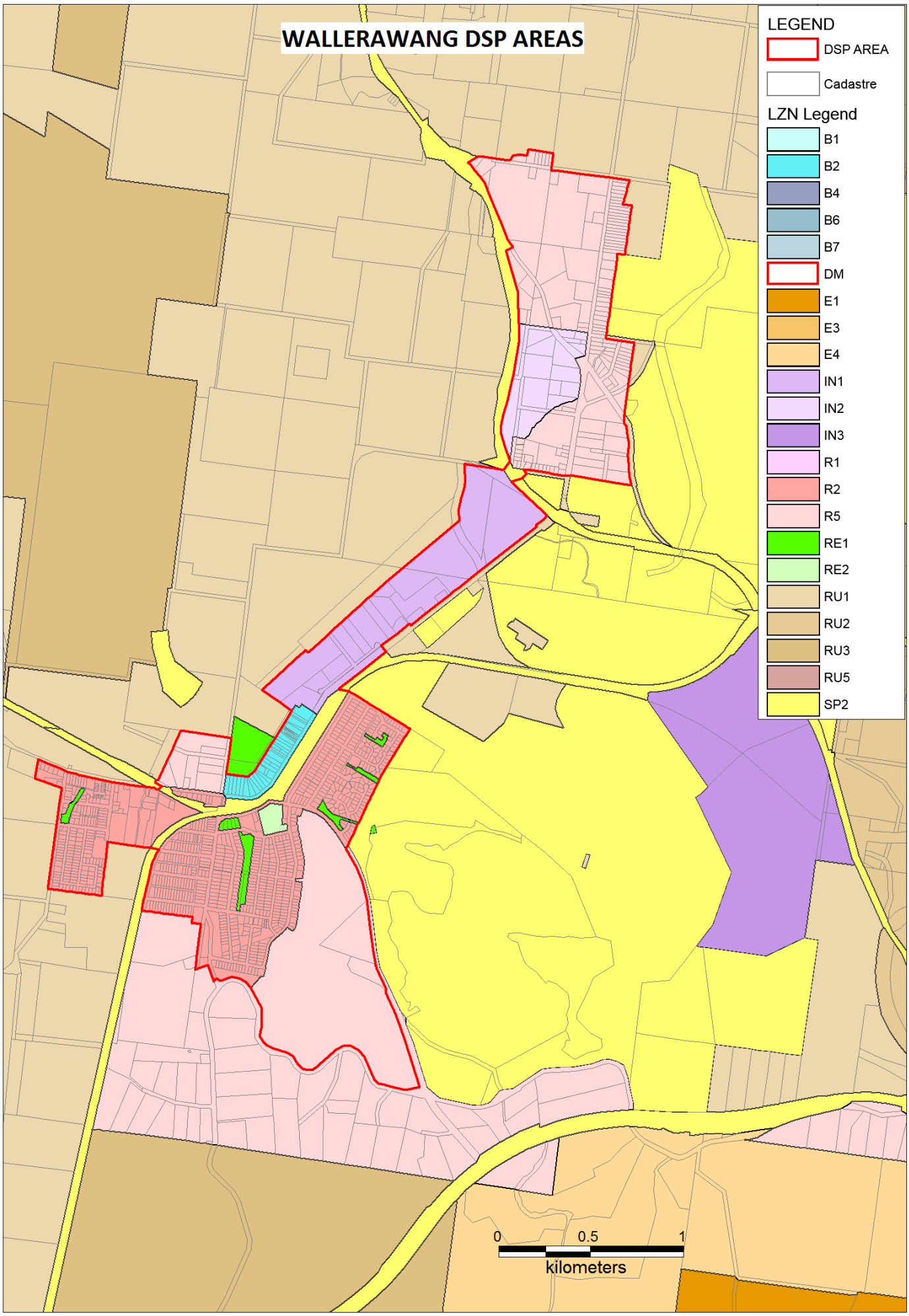
WALLERAWANG DSP AREAS
LEGEND
DSP AREA
Cadastre
LZN Legend
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APPENDIX B

BACKGROUND DOCUMENT FOR WATER SUPPLY DSP 2018

The background document comprises:

Table 1 – Existing Assets

Table 2 – Future Assets

Table 3 – Capital Charge Calculation

Table 4 – Developer Charge Calculation

Table 5 – Reduction Amount Calculation

Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Water Pump Station 100m	Water Pump Station	Clarence Water transfer Scheme Bottom WPS		1997	$ 1,125,193	$ 1,149,947	$ 1,149,947	$1,149,947	$1,149,947	$0	$0	$0	$0
Lithgow	Conventional	Water Treatment Works	Clarence Water Transfer Scheme Bottom WPS		2014	$ 529,502	$ 541,151	$ 541,151	$541,151	$541,151	$0	$0	$0	$0
Lithgow	Water Pump Station 100m	Water Pump Station	Clarence Water Transfer Scheme Top WPS		2014	$ 479,774	$ 490,329	$ 490,329	$490,329	$490,329	$0	$0	$0	$0
Lithgow	Water Pump Station 100m	Water Pump Station	Clarence Water Transfer Scheme Top WPS		2014	$ 931,326	$ 951,815	$ 951,815	$951,815	$951,815	$0	$0	$0	$0
Lithgow	Trunk	Water Mains	CWTS Bottom - CWTS Top		2014	$ 548,370	$ 560,434	$ 560,434	$560,434	$560,434	$0	$0	$0	$0
Lithgow	Trunk	Water Mains	CWTS Top - No 2 Dam		2014	$ 130,680	$ 133,555	$ 133,555	$133,555	$133,555	$0	$0	$0	$0
Lithgow	Trunk	Water Mains	CWTS Top - No 2 Dam		2014	$ 478,275	$ 488,797	$ 488,797	$488,797	$488,797	$0	$0	$0	$0
Lithgow	Trunk	Water Mains	CWTS Top - No 2 Dam		2014	$ 636,650	$ 650,656	$ 650,656	$650,656	$650,656	$0	$0	$0	$0
Lithgow	Trunk	Water Mains	CWTS Top - No 2 Dam		1985	$ 990,000	$ 1,011,780	$ 1,011,780	$0	$0	$0	$0	$0	$1,011,780
Shared	Monitoring	Ancillary	Genset 1250 kVA		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Shared	Monitoring	Ancillary	WPS Clarance Water Transfer Scheme Top		2014	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Shared	Monitoring	Ancillary	WPS Clarence Water Transfer Scheme Bottom		2014	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
	Reticulation	Water Mains	Wm200821		1950	$ 15,283	$ 15,619	$ -	$0	$0	$0	$0	$0	$15,619
	Reticulation	Water Mains	Wm201788		1950	$ 10,303	$ 10,530	$ -	$0	$0	$0	$0	$0	$10,530
	Reticulation	Water Mains	Wm201789		1950	$ 29,432	$ 30,080	$ -	$0	$0	$0	$0	$0	$30,080
	Reticulation	Water Mains	Wm201790		1950	$ 189	$ 193	$ -	$0	$0	$0	$0	$0	$193
	Reticulation	Water Mains	Wm201791		1950	$ 9,463	$ 9,671	$ -	$0	$0	$0	$0	$0	$9,671
	Reticulation	Water Mains	Wm201792		1950	$ 1,163	$ 1,189	$ -	$0	$0	$0	$0	$0	$1,189
	Reticulation	Water Mains	Wm201793		1950	$ 8,861	$ 9,056	$ -	$0	$0	$0	$0	$0	$9,056
	Reticulation	Water Mains	Wm201794		1950	$ 1,866	$ 1,907	$ -	$0	$0	$0	$0	$0	$1,907
	Reticulation	Water Mains	Wm201795		1950	$ 6,074	$ 6,207	$ -	$0	$0	$0	$0	$0	$6,207
	Reticulation	Water Mains	Wm201796		1950	$ 445	$ 455	$ -	$0	$0	$0	$0	$0	$455
	Reticulation	Water Mains	Wm201797		1950	$ 1,234	$ 1,261	$ -	$0	$0	$0	$0	$0	$1,261
	Reticulation	Water Mains	Wm201798		1950	$ 19,097	$ 19,517	$ -	$0	$0	$0	$0	$0	$19,517
	Reticulation	Water Mains	Wm201799		1950	$ 33,631	$ 34,371	$ -	$0	$0	$0	$0	$0	$34,371
	Reticulation	Water Mains	Wm201800		1950	$ 917	$ 938	$ -	$0	$0	$0	$0	$0	$938
	Reticulation	Water Mains	Wm201801		1950	$ 38,057	$ 38,894	$ -	$0	$0	$0	$0	$0	$38,894
	Reticulation	Water Mains	Wm201802		1950	$ 503	$ 514	$ -	$0	$0	$0	$0	$0	$514
	Reticulation	Water Mains	Wm201803		1950	$ 38,968	$ 39,825	$ -	$0	$0	$0	$0	$0	$39,825
	Reticulation	Water Mains	Wm201804		1950	$ 1,919	$ 1,961	$ -	$0	$0	$0	$0	$0	$1,961
	Reticulation	Water Mains	Wm201805		1950	$ 15,903	$ 16,253	$ -	$0	$0	$0	$0	$0	$16,253
	Reticulation	Water Mains	Wm201806		1950	$ 53,737	$ 54,920	$ -	$0	$0	$0	$0	$0	$54,920
	Trunk	Water Mains	Wm200234		1950	$ 8,645	$ 8,835	$ 8,835	$0	$0	$0	$0	$0	$8,835
	Trunk	Water Mains	Wm200463		1950	$ 2,731	$ 2,791	$ 2,791	$0	$0	$0	$0	$0	$2,791
	Trunk	Water Mains	Wm200748		1950	$ 288	$ 294	$ 294	$0	$0	$0	$0	$0	$294
	Trunk	Water Mains	Wm200749		1950	$ 27,260	$ 27,859	$ 27,859	$0	$0	$0	$0	$0	$27,859
	Trunk	Water Mains	Wm200751		1950	$ 55	$ 56	$ 56	$0	$0	$0	$0	$0	$56
	Trunk	Water Mains	Wm200753		1950	$ 6,733	$ 6,881	$ 6,881	$0	$0	$0	$0	$0	$6,881
	Trunk	Water Mains	Wm200822		1950	$ 153,658	$ 157,038	$ 157,038	$0	$0	$0	$0	$0	$157,038
	Trunk	Water Mains	Wm201209		1950	$ 6,241	$ 6,378	$ 6,378	$0	$0	$0	$0	$0	$6,378
	Trunk	Water Mains	Wm201221		1950	$ 46,818	$ 47,848	$ 47,848	$0	$0	$0	$0	$0	$47,848
	Trunk	Water Mains	Wm201252		1950	$ 13,249	$ 13,540	$ 13,540	$0	$0	$0	$0	$0	$13,540
	Trunk	Water Mains	Wm201259		1950	$ 25,964	$ 26,535	$ 26,535	$0	$0	$0	$0	$0	$26,535
	Trunk	Water Mains	Wm201260		1950	$ 83	$ 84	$ 84	$0	$0	$0	$0	$0	$84
	Trunk	Water Mains	Wm201452		1950	$ 23,434	$ 23,950	$ 23,950	$0	$0	$0	$0	$0	$23,950
	Reticulation	Water Mains	Wm201136		2006	$ 9,747	$ 9,962	$ -	$0	$0	$0	$0	$0	$9,962
	Reticulation	Water Mains	Wm201137		2006	$ 43,488	$ 44,445	$ -	$0	$0	$0	$0	$0	$44,445
	Reticulation	Water Mains	Wm201138		2006	$ 14,694	$ 15,017	$ -	$0	$0	$0	$0	$0	$15,017
	Reticulation	Water Mains	Wm201139		2006	$ 530	$ 542	$ -	$0	$0	$0	$0	$0	$542
	Reticulation	Water Mains	Wm201140		2006	$ 2,804	$ 2,866	$ -	$0	$0	$0	$0	$0	$2,866
	Reticulation	Water Mains	Wm201141		2006	$ 7,760	$ 7,931	$ -	$0	$0	$0	$0	$0	$7,931
Shared	Monitoring	Ancillary	Clarence Header Tank		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Clarence Header Tank		1920	$ 293,550	$ 300,008	$ 300,008	$0	$0	$0	$0	$0	$300,008
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Clarence Header Tank		1920	$ 1,663,450	$ 1,700,046	$ 1,700,046	$0	$0	$0	$0	$0	$1,700,046
Lithgow	Generator	Ancillary	Cook St High Reservoir		2013	$ 231,818	$ 236,918	$ 236,918	$236,918	$236,918	$0	$0	$0	$0
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Cook St High Reservoir		1984	$ 153,728	$ 157,110	$ 157,110	$0	$0	$0	$0	$0	$157,110
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Cook St High Reservoir		1984	$ 871,123	$ 890,287	$ 890,287	$0	$0	$0	$0	$0	$890,287
Shared	Monitoring	Ancillary	Cook St Low Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Cook St Low Reservoir		1926	$ 418,695	$ 427,906	$ 427,906	$0	$0	$0	$0	$0	$427,906
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Cook St Low Reservoir		1926	$ 2,372,605	$ 2,424,802	$ 2,424,802	$0	$0	$0	$0	$0	$2,424,802
Lithgow	Water Pump Station 100m	Water Pump Station	Cook St Water Pump Station		1984	$ 156,560	$ 160,004	$ 160,004	$0	$0	$0	$0	$0	$160,004
Lithgow	Water Pump Station 100m	Water Pump Station	Cook St Water Pump Station		2016	$ 332,690	$ 340,009	$ 340,009	$340,009	$340,009	$0	$0	$0	$0
Lithgow	Water Reservoirs - Dams	Water Reservoirs	Farmers Creek Dam No 1		1890	$ 2,040,000	$ 2,084,880	$ 2,084,880	$0	$0	$0	$0	$0	$2,084,880
Lithgow	Water Reservoirs - Dams	Water Reservoirs	Farmers Creek Dam No 2		1907	$ 9,256,406	$ 9,460,047	$ 9,460,047	$0	$0	$0	$0	$0	$9,460,047
Lithgow	Mechanical	Raw Water Storage	Farmers Creek Dam No 2 - Gravity Arch Concrete Dam - Mechanical		2016	$ 150,000	$ 153,300	$ 153,300	$153,300	$153,300	$0	$0	$0	$0
Lithgow	Filtration	Water Treatment Works	Filter Media & Under Drain System Oakey Park WTP		2017	$ 692,892	$ 708,136	$ 708,136	$708,136	$708,136	$0	$0	$0	$0
Lithgow	Reticulation	Water Mains	Fullagar Ave Mains Extension		2017	$ 223,399	$ 228,314	$ -	$0	$0	$0	$0	$0	$228,314
Shared	Monitoring	Ancillary	Macauley Street Reservoir		2014	$ 90,909	$ 92,909	$ 92,909	$92,909	$0	$0	$0	$92,909	$0
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Macualey Street		1987	$ 36,617	$ 37,422	$ 37,422	$0	$0	$0	$0	$0	$37,422
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Macualey Street		1987	$ 207,494	$ 212,058	$ 212,058	$0	$0	$0	$0	$0	$212,058
Shared	Monitoring	Ancillary	Magpie Hollow Reservoir		2014	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Magpie Hollow Reservoir Concrete Structure		2006	$ 472,770	$ 483,171	$ 483,171	$483,171	$483,171	$0	$0	$0	$0
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Magpie Hollow Reservoir Steel Roof		2006	$ 83,430	$ 85,265	$ 85,265	$85,265	$85,265	$0	$0	$0	$0
Shared	Monitoring	Ancillary	Main Repeater		2014	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Shared	Monitoring	Ancillary	Main Repeater		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Marrangaroo		1980	$ 16,223	$ 16,579	$ 16,579	$0	$0	$0	$0	$0	$16,579
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Marrangaroo		1980	$ 91,928	$ 93,950	$ 93,950	$0	$0	$0	$0	$0	$93,950
Shared	Monitoring	Ancillary	Marrangaroo Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Alum Dosing Electrical;;		1985	$ 56,000	$ 57,232	$ 57,232	$0	$0	$0	$0	$0	$57,232
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Alum Dosing Civil Works;;		1985	$ 81,200	$ 82,986	$ 82,986	$0	$0	$0	$0	$0	$82,986
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Alum Dosing Mechanical;;		1985	$ 648,200	$ 662,460	$ 662,460	$0	$0	$0	$0	$0	$662,460
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Coag Dosing Electrical;;		1985	$ 21,000	$ 21,462	$ 21,462	$0	$0	$0	$0	$0	$21,462
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Coag Dosing Mechanical;;		1985	$ 34,300	$ 35,055	$ 35,055	$0	$0	$0	$0	$0	$35,055
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Fluoride Dosing Electrical;;		1985	$ 31,500	$ 32,193	$ 32,193	$0	$0	$0	$0	$0	$32,193
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing Fluoride Dosing Mechanical;;		1985	$ 44,100	$ 45,070	$ 45,070	$0	$0	$0	$0	$0	$45,070
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing PH Dosing Electrical;;		1985	$ 124,600	$ 127,341	$ 127,341	$0	$0	$0	$0	$0	$127,341
Lithgow	Chemical Dosing	Water Treatment Works	Oakey Creek WTP Chemical Dosing PH Dosing Mechanical;;		1985	$ 247,800	$ 253,252	$ 253,252	$0	$0	$0	$0	$0	$253,252

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Clearwater Storage	Water Treatment Works	Oakey Creek WTP Clearwater Storage Clearwater Tank Electrical;;		1985	$ 49,000	$ 50,078	$ 50,078	$0	$0	$0	$0	$0	$50,078
Lithgow	Clearwater Storage	Water Treatment Works	Oakey Creek WTP Clearwater Storage Clearwater Tank Mechanical;;		1985	$ 91,000	$ 93,002	$ 93,002	$0	$0	$0	$0	$0	$93,002
Lithgow	Clearwater Storage	Water Treatment Works	Oakey Creek WTP Clearwater Storage Clearwater Tank Civil Works;;		1985	$ 1,029,898	$ 1,052,556	$ 1,052,556	$0	$0	$0	$0	$0	$1,052,556
Lithgow	Clearwater Transfer	Water Treatment Works	Oakey Creek WTP Clearwater Transfer Clearwater PS Electrical;;		1985	$ 98,000	$ 100,156	$ 100,156	$0	$0	$0	$0	$0	$100,156
Lithgow	Clearwater Transfer	Water Treatment Works	Oakey Creek WTP Clearwater Transfer Clearwater PS Mechanical;;		1985	$ 308,004	$ 314,780	$ 314,780	$0	$0	$0	$0	$0	$314,780
Lithgow	Disinfection	Water Treatment Works	Oakey Creek WTP Disinfection Chlorine Dosing Electrical;;		1985	$ 91,000	$ 93,002	$ 93,002	$0	$0	$0	$0	$0	$93,002
Lithgow	Disinfection	Water Treatment Works	Oakey Creek WTP Disinfection Chlorine Dosing Mechanical;;		1985	$ 147,000	$ 150,234	$ 150,234	$0	$0	$0	$0	$0	$150,234
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Backwash System Civil Works;;		1985	$ 147,000	$ 150,234	$ 150,234	$0	$0	$0	$0	$0	$150,234
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Backwash System Electrical;;		1985	$ 336,000	$ 343,392	$ 343,392	$0	$0	$0	$0	$0	$343,392
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Backwash System Mechanical;;		1985	$ 666,400	$ 681,061	$ 681,061	$0	$0	$0	$0	$0	$681,061
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Gravity Filters Electrical;;		2016	$ 952,000	$ 972,944	$ 972,944	$972,944	$972,944	$0	$0	$0	$0
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Gravity Filters Civil Works;;		1985	$ 971,320	$ 992,689	$ 992,689	$0	$0	$0	$0	$0	$992,689
Lithgow	Filtration	Water Treatment Works	Oakey Creek WTP Filtration Gravity Filters Mechanical;;		2016	$ 1,260,000	$ 1,287,720	$ 1,287,720	$1,287,720	$1,287,720	$0	$0	$0	$0
Lithgow	Preliminary Flow Control	Water Treatment Works	Oakey Creek WTP Preliminary Flow Control Inlet Valve Pit Electrical;;		1985	$ 35,000	$ 35,770	$ 35,770	$0	$0	$0	$0	$0	$35,770
Lithgow	Preliminary Flow Control	Water Treatment Works	Oakey Creek WTP Preliminary Flow Control Inlet Valve Pit Civil Works;;		1985	$ 49,000	$ 50,078	$ 50,078	$0	$0	$0	$0	$0	$50,078
Lithgow	Preliminary Flow Control	Water Treatment Works	Oakey Creek WTP Preliminary Flow Control Inlet Valve Pit Mechanical;;		1985	$ 121,800	$ 124,480	$ 124,480	$0	$0	$0	$0	$0	$124,480
Lithgow	Primary Flocculation	Water Treatment Works	Oakey Creek WTP Primary Flocculation Rapid Mix Tank Electrical;;		1985	$ 35,000	$ 35,770	$ 35,770	$0	$0	$0	$0	$0	$35,770
Lithgow	Primary Flocculation	Water Treatment Works	Oakey Creek WTP Primary Flocculation Rapid Mix Tank Mechanical;;		1985	$ 119,000	$ 121,618	$ 121,618	$0	$0	$0	$0	$0	$121,618
Lithgow	Primary Sedimentation	Water Treatment Works	Oakey Creek WTP Primary Sedimentation Settling Tank Electrical;;		1985	$ 119,000	$ 121,618	$ 121,618	$0	$0	$0	$0	$0	$121,618
Lithgow	Primary Sedimentation	Water Treatment Works	Oakey Creek WTP Primary Sedimentation Settling Tank Mechanical;;		1985	$ 315,000	$ 321,930	$ 321,930	$0	$0	$0	$0	$0	$321,930
Lithgow	Primary Sedimentation	Water Treatment Works	Oakey Creek WTP Primary Sedimentation Settling Tank Civil Works;;		1985	$ 1,137,640	$ 1,162,668	$ 1,162,668	$0	$0	$0	$0	$0	$1,162,668
Lithgow	Process	Water Treatment Works	Oakey Creek WTP Process Process Systems Control;;		1985	$ 168,000	$ 171,696	$ 171,696	$0	$0	$0	$0	$0	$171,696
Lithgow	Process	Water Treatment Works	Oakey Creek WTP Process Process Systems Mechanical;;		1985	$ 581,000	$ 593,782	$ 593,782	$0	$0	$0	$0	$0	$593,782
Lithgow	Process	Water Treatment Works	Oakey Creek WTP Process Process Systems Electrical;;		1985	$ 809,200	$ 827,002	$ 827,002	$0	$0	$0	$0	$0	$827,002
Lithgow	Secondary Flocculation	Water Treatment Works	Oakey Creek WTP Secondary Flocculation Floculators Electrical;;		1985	$ 112,000	$ 114,464	$ 114,464	$0	$0	$0	$0	$0	$114,464
Lithgow	Secondary Flocculation	Water Treatment Works	Oakey Creek WTP Secondary Flocculation Floculators Mechanical;;		1985	$ 210,000	$ 214,620	$ 214,620	$0	$0	$0	$0	$0	$214,620
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Buildings Civil Works;;		1985	$ 875,840	$ 895,108	$ 895,108	$0	$0	$0	$0	$0	$895,108
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Buildings Electrical;;		1985	$ 185,360	$ 189,438	$ 189,438	$0	$0	$0	$0	$0	$189,438
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Buildings Mechanical;;		1985	$ 134,960	$ 137,929	$ 137,929	$0	$0	$0	$0	$0	$137,929
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Services Civil Works;;		1985	$ 239,400	$ 244,667	$ 244,667	$0	$0	$0	$0	$0	$244,667
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Services Electrical;;		1985	$ 84,000	$ 85,848	$ 85,848	$0	$0	$0	$0	$0	$85,848
Lithgow	Siteworks	Water Treatment Works	Oakey Creek WTP Siteworks Services Mechanical;;		1985	$ 117,600	$ 120,187	$ 120,187	$0	$0	$0	$0	$0	$120,187
Lithgow	Sludge Disposal	Water Treatment Works	Oakey Creek WTP Sludge Disposal Sludge PS Electrical;;		1985	$ 70,000	$ 71,540	$ 71,540	$0	$0	$0	$0	$0	$71,540
Lithgow	Sludge Disposal	Water Treatment Works	Oakey Creek WTP Sludge Disposal Sludge PS Mechanical;;		1985	$ 126,000	$ 128,772	$ 128,772	$0	$0	$0	$0	$0	$128,772
Lithgow	Sludge Disposal	Water Treatment Works	Oakey Creek WTP Sludge Disposal Sludge PS Civil Works;;		1985	$ 168,000	$ 171,696	$ 171,696	$0	$0	$0	$0	$0	$171,696
Shared	Monitoring	Ancillary	Shaft St New Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Shaft St New Reservoir		1986	$ 540,750	$ 552,647	$ 552,647	$0	$0	$0	$0	$0	$552,647
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Shaft St New Reservoir		1986	$ 3,064,250	$ 3,131,664	$ 3,131,664	$0	$0	$0	$0	$0	$3,131,664
Shared	Monitoring	Ancillary	Shaft St Old Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Shaft St Old Reservoir		1939	$ 367,710	$ 375,800	$ 375,800	$0	$0	$0	$0	$0	$375,800
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Shaft St Old Reservoir		1939	$ 2,083,690	$ 2,129,531	$ 2,129,531	$0	$0	$0	$0	$0	$2,129,531
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	South Bowenfels		1973	$ 182,310	$ 186,321	$ 186,321	$0	$0	$0	$0	$0	$186,321
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	South Bowenfels		1973	$ 1,033,090	$ 1,055,818	$ 1,055,818	$0	$0	$0	$0	$0	$1,055,818
Lithgow	Water Reservoirs - Dams	Water Reservoirs	Trunion Arm #2 Dam		2017	$ 141,910	$ 145,032	$ 145,032	$145,032	$145,032	$0	$0	$0	$0
Shared	Monitoring	Ancillary	Vickers St Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Chlorination Equipment	Water Chlorinators	Vickers St Reservoir Chlorination		2014	$ 58,710	$ 60,002	$ 60,002	$60,002	$60,002	$0	$0	$0	$0
Lithgow	Water Reservoirs - Concrete	Water Reservoirs	Vickers St Reservoir Concrete Structure		1973	$ 55,157	$ 56,370	$ 56,370	$0	$0	$0	$0	$0	$56,370
Lithgow	Water Reservoirs - Steel	Water Reservoirs	Vickers St Reservoir Steel Roof		1973	$ 9,734	$ 9,948	$ 9,948	$0	$0	$0	$0	$0	$9,948
Lithgow	Water Pump Station 100m	Water Pump Station	Vickers St Water Pump Station		1973	$ 79,714	$ 81,467	$ 81,467	$0	$0	$0	$0	$0	$81,467
Lithgow	Water Pump Station 100m	Water Pump Station	Vickers St Water Pump Station		1973	$ 204,978	$ 209,488	$ 209,488	$0	$0	$0	$0	$0	$209,488
Lithgow	Reticulation	Water Mains	Wm0		1957	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Water Mains	Wm200001		1950	$ 11,995	$ 12,259	$ -	$0	$0	$0	$0	$0	$12,259
Lithgow	Reticulation	Water Mains	Wm200002		1950	$ 6,988	$ 7,141	$ -	$0	$0	$0	$0	$0	$7,141
Lithgow	Reticulation	Water Mains	Wm200003		1950	$ 110,601	$ 113,034	$ -	$0	$0	$0	$0	$0	$113,034
Lithgow	Reticulation	Water Mains	Wm200004		1950	$ 12,905	$ 13,189	$ -	$0	$0	$0	$0	$0	$13,189
Lithgow	Reticulation	Water Mains	Wm200005		1950	$ 1,885	$ 1,927	$ -	$0	$0	$0	$0	$0	$1,927
Lithgow	Reticulation	Water Mains	Wm200006		1950	$ 4,345	$ 4,441	$ -	$0	$0	$0	$0	$0	$4,441
Lithgow	Reticulation	Water Mains	Wm200007		1994	$ 4,884	$ 4,991	$ -	$0	$0	$0	$0	$0	$4,991
Lithgow	Reticulation	Water Mains	Wm200008		1950	$ 22,252	$ 22,741	$ -	$0	$0	$0	$0	$0	$22,741
Lithgow	Reticulation	Water Mains	Wm200009		1950	$ 7,982	$ 8,158	$ -	$0	$0	$0	$0	$0	$8,158
Lithgow	Reticulation	Water Mains	Wm200010		1950	$ 8,959	$ 9,156	$ -	$0	$0	$0	$0	$0	$9,156
Lithgow	Reticulation	Water Mains	Wm200011		1950	$ 7,064	$ 7,219	$ -	$0	$0	$0	$0	$0	$7,219
Lithgow	Reticulation	Water Mains	Wm200012		1950	$ 17,556	$ 17,942	$ -	$0	$0	$0	$0	$0	$17,942
Lithgow	Reticulation	Water Mains	Wm200013		1950	$ 16,948	$ 17,321	$ -	$0	$0	$0	$0	$0	$17,321
Lithgow	Reticulation	Water Mains	Wm200014		1950	$ 9,954	$ 10,173	$ -	$0	$0	$0	$0	$0	$10,173
Lithgow	Reticulation	Water Mains	Wm200015		1950	$ 4,158	$ 4,249	$ -	$0	$0	$0	$0	$0	$4,249
Lithgow	Reticulation	Water Mains	Wm200016		1950	$ 36,838	$ 37,648	$ -	$0	$0	$0	$0	$0	$37,648
Lithgow	Reticulation	Water Mains	Wm200017		1950	$ 19,982	$ 20,422	$ -	$0	$0	$0	$0	$0	$20,422
Lithgow	Reticulation	Water Mains	Wm200018		1950	$ 285	$ 292	$ -	$0	$0	$0	$0	$0	$292
Lithgow	Reticulation	Water Mains	Wm200019		1979	$ 2,660	$ 2,718	$ -	$0	$0	$0	$0	$0	$2,718
Lithgow	Reticulation	Water Mains	Wm200020		1979	$ 13,859	$ 14,164	$ -	$0	$0	$0	$0	$0	$14,164
Lithgow	Reticulation	Water Mains	Wm200021		1979	$ 9,612	$ 9,823	$ -	$0	$0	$0	$0	$0	$9,823
Lithgow	Reticulation	Water Mains	Wm200022		1979	$ 3,348	$ 3,422	$ -	$0	$0	$0	$0	$0	$3,422
Lithgow	Reticulation	Water Mains	Wm200023		1950	$ 241	$ 246	$ -	$0	$0	$0	$0	$0	$246
Lithgow	Reticulation	Water Mains	Wm200024		1950	$ 136	$ 139	$ -	$0	$0	$0	$0	$0	$139
Lithgow	Reticulation	Water Mains	Wm200025		1950	$ 2,579	$ 2,636	$ -	$0	$0	$0	$0	$0	$2,636
Lithgow	Reticulation	Water Mains	Wm200026		1950	$ 1,013	$ 1,035	$ -	$0	$0	$0	$0	$0	$1,035
Lithgow	Reticulation	Water Mains	Wm200027		1950	$ 2,815	$ 2,877	$ -	$0	$0	$0	$0	$0	$2,877
Lithgow	Reticulation	Water Mains	Wm200028		1950	$ 316	$ 323	$ -	$0	$0	$0	$0	$0	$323
Lithgow	Reticulation	Water Mains	Wm200029		1950	$ 347	$ 354	$ -	$0	$0	$0	$0	$0	$354
Lithgow	Reticulation	Water Mains	Wm200030		1950	$ 4,015	$ 4,104	$ -	$0	$0	$0	$0	$0	$4,104
Lithgow	Reticulation	Water Mains	Wm200031		1950	$ 614	$ 627	$ -	$0	$0	$0	$0	$0	$627
Lithgow	Reticulation	Water Mains	Wm200032		1950	$ 3,162	$ 3,232	$ -	$0	$0	$0	$0	$0	$3,232
Lithgow	Reticulation	Water Mains	Wm200033		1950	$ 651	$ 665	$ -	$0	$0	$0	$0	$0	$665
Lithgow	Reticulation	Water Mains	Wm200034		1950	$ 23,944	$ 24,471	$ -	$0	$0	$0	$0	$0	$24,471
Lithgow	Reticulation	Water Mains	Wm200035		1950	$ 5,880	$ 6,009	$ -	$0	$0	$0	$0	$0	$6,009
Lithgow	Reticulation	Water Mains	Wm200036		1950	$ 5,064	$ 5,175	$ -	$0	$0	$0	$0	$0	$5,175

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200037		1950	$ 3,009	$ 3,075	$ -	$0	$0	$0	$0	$0	$3,075
Lithgow	Reticulation	Water Mains	Wm200038		1950	$ 59	$ 61	$ -	$0	$0	$0	$0	$0	$61
Lithgow	Reticulation	Water Mains	Wm200039		1950	$ 87	$ 89	$ -	$0	$0	$0	$0	$0	$89
Lithgow	Reticulation	Water Mains	Wm200040		1950	$ 4,728	$ 4,832	$ -	$0	$0	$0	$0	$0	$4,832
Lithgow	Reticulation	Water Mains	Wm200041		1950	$ 9,812	$ 10,028	$ -	$0	$0	$0	$0	$0	$10,028
Lithgow	Reticulation	Water Mains	Wm200042		1950	$ 9,065	$ 9,265	$ -	$0	$0	$0	$0	$0	$9,265
Lithgow	Reticulation	Water Mains	Wm200043		1950	$ 1,085	$ 1,109	$ -	$0	$0	$0	$0	$0	$1,109
Lithgow	Reticulation	Water Mains	Wm200044		1950	$ 53,929	$ 55,116	$ -	$0	$0	$0	$0	$0	$55,116
Lithgow	Reticulation	Water Mains	Wm200045		1950	$ 4,841	$ 4,948	$ -	$0	$0	$0	$0	$0	$4,948
Lithgow	Reticulation	Water Mains	Wm200046		1950	$ 37,765	$ 38,596	$ -	$0	$0	$0	$0	$0	$38,596
Lithgow	Reticulation	Water Mains	Wm200047		1950	$ 498	$ 509	$ -	$0	$0	$0	$0	$0	$509
Lithgow	Reticulation	Water Mains	Wm200048		1950	$ 76	$ 77	$ -	$0	$0	$0	$0	$0	$77
Lithgow	Reticulation	Water Mains	Wm200049		1950	$ 4,990	$ 5,100	$ -	$0	$0	$0	$0	$0	$5,100
Lithgow	Reticulation	Water Mains	Wm200050		1950	$ 2,300	$ 2,351	$ -	$0	$0	$0	$0	$0	$2,351
Lithgow	Reticulation	Water Mains	Wm200051		1950	$ 5,012	$ 5,122	$ -	$0	$0	$0	$0	$0	$5,122
Lithgow	Reticulation	Water Mains	Wm200052		1950	$ 22,818	$ 23,320	$ -	$0	$0	$0	$0	$0	$23,320
Lithgow	Reticulation	Water Mains	Wm200053		1950	$ 4,245	$ 4,338	$ -	$0	$0	$0	$0	$0	$4,338
Lithgow	Reticulation	Water Mains	Wm200054		1950	$ 25,926	$ 26,496	$ -	$0	$0	$0	$0	$0	$26,496
Lithgow	Reticulation	Water Mains	Wm200055		1950	$ 20,730	$ 21,186	$ -	$0	$0	$0	$0	$0	$21,186
Lithgow	Reticulation	Water Mains	Wm200056		1950	$ 24,164	$ 24,696	$ -	$0	$0	$0	$0	$0	$24,696
Lithgow	Reticulation	Water Mains	Wm200057		1950	$ 1,345	$ 1,374	$ -	$0	$0	$0	$0	$0	$1,374
Lithgow	Reticulation	Water Mains	Wm200058		1950	$ 28,737	$ 29,369	$ -	$0	$0	$0	$0	$0	$29,369
Lithgow	Reticulation	Water Mains	Wm200059		1950	$ 7,737	$ 7,907	$ -	$0	$0	$0	$0	$0	$7,907
Lithgow	Reticulation	Water Mains	Wm200060		1950	$ 5,169	$ 5,282	$ -	$0	$0	$0	$0	$0	$5,282
Lithgow	Reticulation	Water Mains	Wm200061		1950	$ 6,479	$ 6,622	$ -	$0	$0	$0	$0	$0	$6,622
Lithgow	Reticulation	Water Mains	Wm200062		1950	$ 9,794	$ 10,010	$ -	$0	$0	$0	$0	$0	$10,010
Lithgow	Reticulation	Water Mains	Wm200063		1950	$ 3,358	$ 3,432	$ -	$0	$0	$0	$0	$0	$3,432
Lithgow	Reticulation	Water Mains	Wm200064		1950	$ 19,464	$ 19,892	$ -	$0	$0	$0	$0	$0	$19,892
Lithgow	Reticulation	Water Mains	Wm200065		1950	$ 7,901	$ 8,075	$ -	$0	$0	$0	$0	$0	$8,075
Lithgow	Reticulation	Water Mains	Wm200066		1950	$ 4,164	$ 4,255	$ -	$0	$0	$0	$0	$0	$4,255
Lithgow	Reticulation	Water Mains	Wm200067		1950	$ 5,983	$ 6,115	$ -	$0	$0	$0	$0	$0	$6,115
Lithgow	Reticulation	Water Mains	Wm200068		1950	$ 3,311	$ 3,384	$ -	$0	$0	$0	$0	$0	$3,384
Lithgow	Reticulation	Water Mains	Wm200069		1950	$ 5,259	$ 5,375	$ -	$0	$0	$0	$0	$0	$5,375
Lithgow	Reticulation	Water Mains	Wm200070		1950	$ 3,502	$ 3,579	$ -	$0	$0	$0	$0	$0	$3,579
Lithgow	Reticulation	Water Mains	Wm200071		1950	$ 25,887	$ 26,456	$ -	$0	$0	$0	$0	$0	$26,456
Lithgow	Reticulation	Water Mains	Wm200072		1950	$ 2,212	$ 2,261	$ -	$0	$0	$0	$0	$0	$2,261
Lithgow	Reticulation	Water Mains	Wm200073		1950	$ 3,472	$ 3,549	$ -	$0	$0	$0	$0	$0	$3,549
Lithgow	Reticulation	Water Mains	Wm200074		1950	$ 11,751	$ 12,009	$ -	$0	$0	$0	$0	$0	$12,009
Lithgow	Reticulation	Water Mains	Wm200075		1950	$ 7,903	$ 8,077	$ -	$0	$0	$0	$0	$0	$8,077
Lithgow	Reticulation	Water Mains	Wm200076		1950	$ 75	$ 77	$ -	$0	$0	$0	$0	$0	$77
Lithgow	Reticulation	Water Mains	Wm200077		1950	$ 989	$ 1,011	$ -	$0	$0	$0	$0	$0	$1,011
Lithgow	Reticulation	Water Mains	Wm200078		1950	$ 2,624	$ 2,682	$ -	$0	$0	$0	$0	$0	$2,682
Lithgow	Reticulation	Water Mains	Wm200079		1950	$ 5,910	$ 6,040	$ -	$0	$0	$0	$0	$0	$6,040
Lithgow	Reticulation	Water Mains	Wm200080		1950	$ 983	$ 1,005	$ -	$0	$0	$0	$0	$0	$1,005
Lithgow	Reticulation	Water Mains	Wm200081		1950	$ 20,015	$ 20,455	$ -	$0	$0	$0	$0	$0	$20,455
Lithgow	Reticulation	Water Mains	Wm200082		1950	$ 12,092	$ 12,358	$ -	$0	$0	$0	$0	$0	$12,358
Lithgow	Reticulation	Water Mains	Wm200083		1950	$ 1,092	$ 1,116	$ -	$0	$0	$0	$0	$0	$1,116
Lithgow	Reticulation	Water Mains	Wm200084		1950	$ 8,107	$ 8,286	$ -	$0	$0	$0	$0	$0	$8,286
Lithgow	Reticulation	Water Mains	Wm200085		1950	$ 5,269	$ 5,385	$ -	$0	$0	$0	$0	$0	$5,385
Lithgow	Reticulation	Water Mains	Wm200086		1950	$ 338	$ 345	$ -	$0	$0	$0	$0	$0	$345
Lithgow	Reticulation	Water Mains	Wm200087		1950	$ 620	$ 634	$ -	$0	$0	$0	$0	$0	$634
Lithgow	Reticulation	Water Mains	Wm200088		1950	$ 8,070	$ 8,247	$ -	$0	$0	$0	$0	$0	$8,247
Lithgow	Reticulation	Water Mains	Wm200089		1950	$ 3,094	$ 3,162	$ -	$0	$0	$0	$0	$0	$3,162
Lithgow	Reticulation	Water Mains	Wm200090		1950	$ 5,073	$ 5,184	$ -	$0	$0	$0	$0	$0	$5,184
Lithgow	Reticulation	Water Mains	Wm200091		1950	$ 2,275	$ 2,325	$ -	$0	$0	$0	$0	$0	$2,325
Lithgow	Reticulation	Water Mains	Wm200092		1950	$ 5,246	$ 5,361	$ -	$0	$0	$0	$0	$0	$5,361
Lithgow	Reticulation	Water Mains	Wm200093		1950	$ 1,896	$ 1,937	$ -	$0	$0	$0	$0	$0	$1,937
Lithgow	Reticulation	Water Mains	Wm200094		1950	$ 4,590	$ 4,691	$ -	$0	$0	$0	$0	$0	$4,691
Lithgow	Reticulation	Water Mains	Wm200095		1950	$ 4,515	$ 4,614	$ -	$0	$0	$0	$0	$0	$4,614
Lithgow	Reticulation	Water Mains	Wm200096		1950	$ 7,374	$ 7,536	$ -	$0	$0	$0	$0	$0	$7,536
Lithgow	Reticulation	Water Mains	Wm200097		1950	$ 967	$ 989	$ -	$0	$0	$0	$0	$0	$989
Lithgow	Reticulation	Water Mains	Wm200098		1950	$ 174	$ 178	$ -	$0	$0	$0	$0	$0	$178
Lithgow	Reticulation	Water Mains	Wm200099		1950	$ 2,653	$ 2,711	$ -	$0	$0	$0	$0	$0	$2,711
Lithgow	Reticulation	Water Mains	Wm200100		1950	$ 3,705	$ 3,787	$ -	$0	$0	$0	$0	$0	$3,787
Lithgow	Reticulation	Water Mains	Wm200101		1950	$ 1,327	$ 1,356	$ -	$0	$0	$0	$0	$0	$1,356
Lithgow	Reticulation	Water Mains	Wm200102		1950	$ 1,419	$ 1,450	$ -	$0	$0	$0	$0	$0	$1,450
Lithgow	Reticulation	Water Mains	Wm200103		1950	$ 1,066	$ 1,089	$ -	$0	$0	$0	$0	$0	$1,089
Lithgow	Reticulation	Water Mains	Wm200104		1950	$ 10,791	$ 11,028	$ -	$0	$0	$0	$0	$0	$11,028
Lithgow	Reticulation	Water Mains	Wm200105		1950	$ 3,473	$ 3,550	$ -	$0	$0	$0	$0	$0	$3,550
Lithgow	Reticulation	Water Mains	Wm200106		1950	$ 75	$ 77	$ -	$0	$0	$0	$0	$0	$77
Lithgow	Reticulation	Water Mains	Wm200107		1950	$ 12,065	$ 12,330	$ -	$0	$0	$0	$0	$0	$12,330
Lithgow	Reticulation	Water Mains	Wm200108		1950	$ 450	$ 460	$ -	$0	$0	$0	$0	$0	$460
Lithgow	Reticulation	Water Mains	Wm200109		1950	$ 7,915	$ 8,089	$ -	$0	$0	$0	$0	$0	$8,089
Lithgow	Reticulation	Water Mains	Wm200110		1950	$ 1,721	$ 1,759	$ -	$0	$0	$0	$0	$0	$1,759
Lithgow	Reticulation	Water Mains	Wm200111		1950	$ 9,443	$ 9,651	$ -	$0	$0	$0	$0	$0	$9,651
Lithgow	Reticulation	Water Mains	Wm200112		1950	$ 17,853	$ 18,246	$ -	$0	$0	$0	$0	$0	$18,246
Lithgow	Reticulation	Water Mains	Wm200113		1950	$ 11,671	$ 11,928	$ -	$0	$0	$0	$0	$0	$11,928
Lithgow	Reticulation	Water Mains	Wm200114		1950	$ 20,818	$ 21,276	$ -	$0	$0	$0	$0	$0	$21,276
Lithgow	Reticulation	Water Mains	Wm200115		1950	$ 12,354	$ 12,626	$ -	$0	$0	$0	$0	$0	$12,626
Lithgow	Reticulation	Water Mains	Wm200116		1950	$ 38,328	$ 39,171	$ -	$0	$0	$0	$0	$0	$39,171
Lithgow	Reticulation	Water Mains	Wm200117		1950	$ 46,945	$ 47,978	$ -	$0	$0	$0	$0	$0	$47,978
Lithgow	Reticulation	Water Mains	Wm200118		1950	$ 16,121	$ 16,476	$ -	$0	$0	$0	$0	$0	$16,476
Lithgow	Reticulation	Water Mains	Wm200119		1950	$ 4,561	$ 4,661	$ -	$0	$0	$0	$0	$0	$4,661
Lithgow	Reticulation	Water Mains	Wm200120		1994	$ 17,512	$ 17,898	$ -	$0	$0	$0	$0	$0	$17,898
Lithgow	Reticulation	Water Mains	Wm200121		1994	$ 12,900	$ 13,184	$ -	$0	$0	$0	$0	$0	$13,184
Lithgow	Reticulation	Water Mains	Wm200122		1994	$ 2,477	$ 2,531	$ -	$0	$0	$0	$0	$0	$2,531
Lithgow	Reticulation	Water Mains	Wm200123		1950	$ 47	$ 48	$ -	$0	$0	$0	$0	$0	$48

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200124		1950	$ 1,991	$ 2,035	$ -	$0	$0	$0	$0	$0	$2,035
Lithgow	Reticulation	Water Mains	Wm200125		1950	$ 1,317	$ 1,346	$ -	$0	$0	$0	$0	$0	$1,346
Lithgow	Reticulation	Water Mains	Wm200126		1950	$ 144,088	$ 147,258	$ -	$0	$0	$0	$0	$0	$147,258
Lithgow	Reticulation	Water Mains	Wm200127		1950	$ 28,030	$ 28,646	$ -	$0	$0	$0	$0	$0	$28,646
Lithgow	Reticulation	Water Mains	Wm200128		1950	$ 26,785	$ 27,375	$ -	$0	$0	$0	$0	$0	$27,375
Lithgow	Reticulation	Water Mains	Wm200129		1950	$ 40,954	$ 41,855	$ -	$0	$0	$0	$0	$0	$41,855
Lithgow	Reticulation	Water Mains	Wm200130		1950	$ 65,471	$ 66,911	$ -	$0	$0	$0	$0	$0	$66,911
Lithgow	Reticulation	Water Mains	Wm200131		1950	$ 49,700	$ 50,793	$ -	$0	$0	$0	$0	$0	$50,793
Lithgow	Reticulation	Water Mains	Wm200132		1950	$ 18,961	$ 19,379	$ -	$0	$0	$0	$0	$0	$19,379
Lithgow	Reticulation	Water Mains	Wm200133		1950	$ 23,226	$ 23,737	$ -	$0	$0	$0	$0	$0	$23,737
Lithgow	Reticulation	Water Mains	Wm200134		1950	$ 1,383	$ 1,414	$ -	$0	$0	$0	$0	$0	$1,414
Lithgow	Reticulation	Water Mains	Wm200135		1950	$ 80	$ 82	$ -	$0	$0	$0	$0	$0	$82
Lithgow	Reticulation	Water Mains	Wm200136		1950	$ 820	$ 838	$ -	$0	$0	$0	$0	$0	$838
Lithgow	Reticulation	Water Mains	Wm200137		1950	$ 11,024	$ 11,266	$ -	$0	$0	$0	$0	$0	$11,266
Lithgow	Reticulation	Water Mains	Wm200138		1950	$ 31,617	$ 32,313	$ -	$0	$0	$0	$0	$0	$32,313
Lithgow	Reticulation	Water Mains	Wm200139		1950	$ 27,291	$ 27,891	$ -	$0	$0	$0	$0	$0	$27,891
Lithgow	Reticulation	Water Mains	Wm200140		1950	$ 7,222	$ 7,381	$ -	$0	$0	$0	$0	$0	$7,381
Lithgow	Reticulation	Water Mains	Wm200141		1950	$ 1,571	$ 1,606	$ -	$0	$0	$0	$0	$0	$1,606
Lithgow	Reticulation	Water Mains	Wm200142		1950	$ 746	$ 762	$ -	$0	$0	$0	$0	$0	$762
Lithgow	Reticulation	Water Mains	Wm200143		1950	$ 1,310	$ 1,339	$ -	$0	$0	$0	$0	$0	$1,339
Lithgow	Reticulation	Water Mains	Wm200144		1950	$ 208	$ 213	$ -	$0	$0	$0	$0	$0	$213
Lithgow	Reticulation	Water Mains	Wm200145		1950	$ 17,658	$ 18,046	$ -	$0	$0	$0	$0	$0	$18,046
Lithgow	Reticulation	Water Mains	Wm200146		1950	$ 17,658	$ 18,046	$ -	$0	$0	$0	$0	$0	$18,046
Lithgow	Reticulation	Water Mains	Wm200147		1950	$ 743	$ 759	$ -	$0	$0	$0	$0	$0	$759
Lithgow	Reticulation	Water Mains	Wm200148		1950	$ 875	$ 894	$ -	$0	$0	$0	$0	$0	$894
Lithgow	Reticulation	Water Mains	Wm200149		1950	$ 17,982	$ 18,378	$ -	$0	$0	$0	$0	$0	$18,378
Lithgow	Reticulation	Water Mains	Wm200150		1950	$ 6,395	$ 6,535	$ -	$0	$0	$0	$0	$0	$6,535
Lithgow	Reticulation	Water Mains	Wm200151		1950	$ 1,745	$ 1,784	$ -	$0	$0	$0	$0	$0	$1,784
Lithgow	Reticulation	Water Mains	Wm200152		1950	$ 96,026	$ 98,139	$ -	$0	$0	$0	$0	$0	$98,139
Lithgow	Reticulation	Water Mains	Wm200153		1950	$ 1,745	$ 1,783	$ -	$0	$0	$0	$0	$0	$1,783
Lithgow	Reticulation	Water Mains	Wm200154		1950	$ 8,708	$ 8,900	$ -	$0	$0	$0	$0	$0	$8,900
Lithgow	Reticulation	Water Mains	Wm200155		1950	$ 158	$ 162	$ -	$0	$0	$0	$0	$0	$162
Lithgow	Reticulation	Water Mains	Wm200156		1950	$ 311	$ 318	$ -	$0	$0	$0	$0	$0	$318
Lithgow	Reticulation	Water Mains	Wm200157		1950	$ 21	$ 21	$ -	$0	$0	$0	$0	$0	$21
Lithgow	Reticulation	Water Mains	Wm200158		1950	$ 282	$ 288	$ -	$0	$0	$0	$0	$0	$288
Lithgow	Reticulation	Water Mains	Wm200159		1950	$ 13,866	$ 14,171	$ -	$0	$0	$0	$0	$0	$14,171
Lithgow	Reticulation	Water Mains	Wm200160		1950	$ 540	$ 552	$ -	$0	$0	$0	$0	$0	$552
Lithgow	Reticulation	Water Mains	Wm200161		1950	$ 302	$ 309	$ -	$0	$0	$0	$0	$0	$309
Lithgow	Reticulation	Water Mains	Wm200162		1950	$ 520	$ 531	$ -	$0	$0	$0	$0	$0	$531
Lithgow	Reticulation	Water Mains	Wm200163		1950	$ 24,431	$ 24,969	$ -	$0	$0	$0	$0	$0	$24,969
Lithgow	Reticulation	Water Mains	Wm200164		1950	$ 109	$ 111	$ -	$0	$0	$0	$0	$0	$111
Lithgow	Reticulation	Water Mains	Wm200165		1950	$ 11,848	$ 12,108	$ -	$0	$0	$0	$0	$0	$12,108
Lithgow	Reticulation	Water Mains	Wm200166		1950	$ 9,670	$ 9,883	$ -	$0	$0	$0	$0	$0	$9,883
Lithgow	Reticulation	Water Mains	Wm200167		1950	$ 141	$ 144	$ -	$0	$0	$0	$0	$0	$144
Lithgow	Reticulation	Water Mains	Wm200168		1950	$ 311	$ 318	$ -	$0	$0	$0	$0	$0	$318
Lithgow	Reticulation	Water Mains	Wm200169		1950	$ 3,431	$ 3,507	$ -	$0	$0	$0	$0	$0	$3,507
Lithgow	Reticulation	Water Mains	Wm200170		1950	$ 4,557	$ 4,657	$ -	$0	$0	$0	$0	$0	$4,657
Lithgow	Reticulation	Water Mains	Wm200171		1950	$ 621	$ 635	$ -	$0	$0	$0	$0	$0	$635
Lithgow	Reticulation	Water Mains	Wm200172		1950	$ 27,084	$ 27,680	$ -	$0	$0	$0	$0	$0	$27,680
Lithgow	Reticulation	Water Mains	Wm200173		1950	$ 198	$ 203	$ -	$0	$0	$0	$0	$0	$203
Lithgow	Reticulation	Water Mains	Wm200174		1950	$ 25,303	$ 25,860	$ -	$0	$0	$0	$0	$0	$25,860
Lithgow	Reticulation	Water Mains	Wm200175		1950	$ 6,394	$ 6,535	$ -	$0	$0	$0	$0	$0	$6,535
Lithgow	Reticulation	Water Mains	Wm200176		1950	$ 15,149	$ 15,482	$ -	$0	$0	$0	$0	$0	$15,482
Lithgow	Reticulation	Water Mains	Wm200177		1950	$ 14,932	$ 15,260	$ -	$0	$0	$0	$0	$0	$15,260
Lithgow	Reticulation	Water Mains	Wm200178		1950	$ 25,699	$ 26,265	$ -	$0	$0	$0	$0	$0	$26,265
Lithgow	Reticulation	Water Mains	Wm200179		1950	$ 1,116	$ 1,141	$ -	$0	$0	$0	$0	$0	$1,141
Lithgow	Reticulation	Water Mains	Wm200180		1950	$ 7,265	$ 7,425	$ -	$0	$0	$0	$0	$0	$7,425
Lithgow	Reticulation	Water Mains	Wm200181		1950	$ 141	$ 144	$ -	$0	$0	$0	$0	$0	$144
Lithgow	Reticulation	Water Mains	Wm200182		1950	$ 416	$ 425	$ -	$0	$0	$0	$0	$0	$425
Lithgow	Reticulation	Water Mains	Wm200183		1950	$ 342	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm200184		1950	$ 311	$ 317	$ -	$0	$0	$0	$0	$0	$317
Lithgow	Reticulation	Water Mains	Wm200185		1950	$ 288	$ 294	$ -	$0	$0	$0	$0	$0	$294
Lithgow	Reticulation	Water Mains	Wm200186		1950	$ 835	$ 853	$ -	$0	$0	$0	$0	$0	$853
Lithgow	Reticulation	Water Mains	Wm200187		1950	$ 268	$ 274	$ -	$0	$0	$0	$0	$0	$274
Lithgow	Reticulation	Water Mains	Wm200188		1950	$ 140	$ 144	$ -	$0	$0	$0	$0	$0	$144
Lithgow	Reticulation	Water Mains	Wm200189		1950	$ 184	$ 188	$ -	$0	$0	$0	$0	$0	$188
Lithgow	Reticulation	Water Mains	Wm200190		1950	$ 809	$ 826	$ -	$0	$0	$0	$0	$0	$826
Lithgow	Reticulation	Water Mains	Wm200191		1950	$ 4,714	$ 4,818	$ -	$0	$0	$0	$0	$0	$4,818
Lithgow	Reticulation	Water Mains	Wm200192		1950	$ 573	$ 585	$ -	$0	$0	$0	$0	$0	$585
Lithgow	Reticulation	Water Mains	Wm200193		1950	$ 30,818	$ 31,496	$ -	$0	$0	$0	$0	$0	$31,496
Lithgow	Reticulation	Water Mains	Wm200194		1950	$ 20,673	$ 21,128	$ -	$0	$0	$0	$0	$0	$21,128
Lithgow	Reticulation	Water Mains	Wm200195		1950	$ 13,194	$ 13,484	$ -	$0	$0	$0	$0	$0	$13,484
Lithgow	Reticulation	Water Mains	Wm200196		1950	$ 406	$ 415	$ -	$0	$0	$0	$0	$0	$415
Lithgow	Reticulation	Water Mains	Wm200197		1950	$ 12,262	$ 12,532	$ -	$0	$0	$0	$0	$0	$12,532
Lithgow	Reticulation	Water Mains	Wm200198		1950	$ 416	$ 425	$ -	$0	$0	$0	$0	$0	$425
Lithgow	Reticulation	Water Mains	Wm200199		1950	$ 9,607	$ 9,818	$ -	$0	$0	$0	$0	$0	$9,818
Lithgow	Reticulation	Water Mains	Wm200200		1950	$ 242	$ 248	$ -	$0	$0	$0	$0	$0	$248
Lithgow	Reticulation	Water Mains	Wm200201		1950	$ 11,445	$ 11,697	$ -	$0	$0	$0	$0	$0	$11,697
Lithgow	Reticulation	Water Mains	Wm200202		1950	$ 624	$ 638	$ -	$0	$0	$0	$0	$0	$638
Lithgow	Reticulation	Water Mains	Wm200203		1950	$ 256	$ 262	$ -	$0	$0	$0	$0	$0	$262
Lithgow	Reticulation	Water Mains	Wm200204		1950	$ 17,247	$ 17,626	$ -	$0	$0	$0	$0	$0	$17,626
Lithgow	Reticulation	Water Mains	Wm200205		1950	$ 4,812	$ 4,918	$ -	$0	$0	$0	$0	$0	$4,918
Lithgow	Reticulation	Water Mains	Wm200206		1950	$ 241	$ 247	$ -	$0	$0	$0	$0	$0	$247
Lithgow	Reticulation	Water Mains	Wm200207		1950	$ 263	$ 269	$ -	$0	$0	$0	$0	$0	$269
Lithgow	Reticulation	Water Mains	Wm200208		1950	$ 1,040	$ 1,063	$ -	$0	$0	$0	$0	$0	$1,063
Lithgow	Reticulation	Water Mains	Wm200209		1950	$ 203	$ 208	$ -	$0	$0	$0	$0	$0	$208
Lithgow	Reticulation	Water Mains	Wm200210		1950	$ 34,329	$ 35,084	$ -	$0	$0	$0	$0	$0	$35,084

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Lithgow	Reticulation	Water Mains	Wm200211		1950	$ 308	$ 315	$ -	$0	$0	$0	$0	$0	$315
Lithgow	Reticulation	Water Mains	Wm200212		1950	$ 48,049	$ 49,106	$ -	$0	$0	$0	$0	$0	$49,106
Lithgow	Reticulation	Water Mains	Wm200213		1950	$ 427	$ 436	$ -	$0	$0	$0	$0	$0	$436
Lithgow	Reticulation	Water Mains	Wm200214		1950	$ 386	$ 394	$ -	$0	$0	$0	$0	$0	$394
Lithgow	Reticulation	Water Mains	Wm200215		1950	$ 4,715	$ 4,819	$ -	$0	$0	$0	$0	$0	$4,819
Lithgow	Reticulation	Water Mains	Wm200216		1950	$ 1,281	$ 1,310	$ -	$0	$0	$0	$0	$0	$1,310
Lithgow	Reticulation	Water Mains	Wm200217		1950	$ 105	$ 107	$ -	$0	$0	$0	$0	$0	$107
Lithgow	Reticulation	Water Mains	Wm200218		1950	$ 24,900	$ 25,448	$ -	$0	$0	$0	$0	$0	$25,448
Lithgow	Reticulation	Water Mains	Wm200219		1950	$ 226	$ 231	$ -	$0	$0	$0	$0	$0	$231
Lithgow	Reticulation	Water Mains	Wm200220		1950	$ 11,398	$ 11,649	$ -	$0	$0	$0	$0	$0	$11,649
Lithgow	Reticulation	Water Mains	Wm200221		1950	$ 25,142	$ 25,695	$ -	$0	$0	$0	$0	$0	$25,695
Lithgow	Reticulation	Water Mains	Wm200222		1950	$ 140	$ 143	$ -	$0	$0	$0	$0	$0	$143
Lithgow	Reticulation	Water Mains	Wm200223		1950	$ 1,205	$ 1,232	$ -	$0	$0	$0	$0	$0	$1,232
Lithgow	Reticulation	Water Mains	Wm200224		1950	$ 557	$ 569	$ -	$0	$0	$0	$0	$0	$569
Lithgow	Reticulation	Water Mains	Wm200225		1950	$ 10,333	$ 10,560	$ -	$0	$0	$0	$0	$0	$10,560
Lithgow	Reticulation	Water Mains	Wm200226		1950	$ 1,604	$ 1,639	$ -	$0	$0	$0	$0	$0	$1,639
Lithgow	Reticulation	Water Mains	Wm200227		1950	$ 4,747	$ 4,851	$ -	$0	$0	$0	$0	$0	$4,851
Lithgow	Reticulation	Water Mains	Wm200229		1950	$ 787	$ 804	$ -	$0	$0	$0	$0	$0	$804
Lithgow	Reticulation	Water Mains	Wm200230		1950	$ 46,373	$ 47,393	$ -	$0	$0	$0	$0	$0	$47,393
Lithgow	Reticulation	Water Mains	Wm200231		1950	$ 3,951	$ 4,038	$ -	$0	$0	$0	$0	$0	$4,038
Lithgow	Reticulation	Water Mains	Wm200232		1950	$ 4,744	$ 4,848	$ -	$0	$0	$0	$0	$0	$4,848
Lithgow	Reticulation	Water Mains	Wm200233		1950	$ 14,249	$ 14,562	$ -	$0	$0	$0	$0	$0	$14,562
Lithgow	Reticulation	Water Mains	Wm200235		1950	$ 103	$ 105	$ -	$0	$0	$0	$0	$0	$105
Lithgow	Reticulation	Water Mains	Wm200236		1950	$ 9,576	$ 9,786	$ -	$0	$0	$0	$0	$0	$9,786
Lithgow	Reticulation	Water Mains	Wm200237		1950	$ 23,032	$ 23,539	$ -	$0	$0	$0	$0	$0	$23,539
Lithgow	Reticulation	Water Mains	Wm200238		1950	$ 2,143	$ 2,190	$ -	$0	$0	$0	$0	$0	$2,190
Lithgow	Reticulation	Water Mains	Wm200239		1950	$ 22,763	$ 23,264	$ -	$0	$0	$0	$0	$0	$23,264
Lithgow	Reticulation	Water Mains	Wm200240		1950	$ 2,977	$ 3,043	$ -	$0	$0	$0	$0	$0	$3,043
Lithgow	Reticulation	Water Mains	Wm200241		1950	$ 6,757	$ 6,906	$ -	$0	$0	$0	$0	$0	$6,906
Lithgow	Reticulation	Water Mains	Wm200242		1950	$ 19,524	$ 19,953	$ -	$0	$0	$0	$0	$0	$19,953
Lithgow	Reticulation	Water Mains	Wm200243		1950	$ 21,984	$ 22,467	$ -	$0	$0	$0	$0	$0	$22,467
Lithgow	Reticulation	Water Mains	Wm200244		1950	$ 1,104	$ 1,128	$ -	$0	$0	$0	$0	$0	$1,128
Lithgow	Reticulation	Water Mains	Wm200245		1950	$ 17,054	$ 17,429	$ -	$0	$0	$0	$0	$0	$17,429
Lithgow	Reticulation	Water Mains	Wm200246		1950	$ 24,543	$ 25,083	$ -	$0	$0	$0	$0	$0	$25,083
Lithgow	Reticulation	Water Mains	Wm200247		1950	$ 8,962	$ 9,159	$ -	$0	$0	$0	$0	$0	$9,159
Lithgow	Reticulation	Water Mains	Wm200248		1950	$ 27	$ 28	$ -	$0	$0	$0	$0	$0	$28
Lithgow	Reticulation	Water Mains	Wm200249		1950	$ 1,846	$ 1,886	$ -	$0	$0	$0	$0	$0	$1,886
Lithgow	Reticulation	Water Mains	Wm200250		1950	$ 37,206	$ 38,025	$ -	$0	$0	$0	$0	$0	$38,025
Lithgow	Reticulation	Water Mains	Wm200251		1950	$ 4,582	$ 4,683	$ -	$0	$0	$0	$0	$0	$4,683
Lithgow	Reticulation	Water Mains	Wm200252		1950	$ 3,047	$ 3,114	$ -	$0	$0	$0	$0	$0	$3,114
Lithgow	Reticulation	Water Mains	Wm200253		1950	$ 97,815	$ 99,967	$ -	$0	$0	$0	$0	$0	$99,967
Lithgow	Reticulation	Water Mains	Wm200254		1950	$ 8,349	$ 8,533	$ -	$0	$0	$0	$0	$0	$8,533
Lithgow	Reticulation	Water Mains	Wm200255		1950	$ 16,117	$ 16,472	$ -	$0	$0	$0	$0	$0	$16,472
Lithgow	Reticulation	Water Mains	Wm200256		1950	$ 1,536	$ 1,570	$ -	$0	$0	$0	$0	$0	$1,570
Lithgow	Reticulation	Water Mains	Wm200257		1950	$ 12,268	$ 12,538	$ -	$0	$0	$0	$0	$0	$12,538
Lithgow	Reticulation	Water Mains	Wm200258		1950	$ 241	$ 246	$ -	$0	$0	$0	$0	$0	$246
Lithgow	Reticulation	Water Mains	Wm200259		1950	$ 77	$ 79	$ -	$0	$0	$0	$0	$0	$79
Lithgow	Reticulation	Water Mains	Wm200260		1950	$ 18,993	$ 19,411	$ -	$0	$0	$0	$0	$0	$19,411
Lithgow	Reticulation	Water Mains	Wm200261		1950	$ 8,757	$ 8,950	$ -	$0	$0	$0	$0	$0	$8,950
Lithgow	Reticulation	Water Mains	Wm200262		1950	$ 17,756	$ 18,147	$ -	$0	$0	$0	$0	$0	$18,147
Lithgow	Reticulation	Water Mains	Wm200263		1950	$ 908	$ 928	$ -	$0	$0	$0	$0	$0	$928
Lithgow	Reticulation	Water Mains	Wm200264		1950	$ 7,936	$ 8,110	$ -	$0	$0	$0	$0	$0	$8,110
Lithgow	Reticulation	Water Mains	Wm200265		1950	$ 1,296	$ 1,325	$ -	$0	$0	$0	$0	$0	$1,325
Lithgow	Reticulation	Water Mains	Wm200266		1950	$ 2,167	$ 2,214	$ -	$0	$0	$0	$0	$0	$2,214
Lithgow	Reticulation	Water Mains	Wm200267		1950	$ 26,036	$ 26,609	$ -	$0	$0	$0	$0	$0	$26,609
Lithgow	Reticulation	Water Mains	Wm200268		1950	$ 2,273	$ 2,323	$ -	$0	$0	$0	$0	$0	$2,323
Lithgow	Reticulation	Water Mains	Wm200269		1950	$ 1,514	$ 1,547	$ -	$0	$0	$0	$0	$0	$1,547
Lithgow	Reticulation	Water Mains	Wm200270		1950	$ 442	$ 451	$ -	$0	$0	$0	$0	$0	$451
Lithgow	Reticulation	Water Mains	Wm200271		1950	$ 2,196	$ 2,244	$ -	$0	$0	$0	$0	$0	$2,244
Lithgow	Reticulation	Water Mains	Wm200272		1950	$ 46,058	$ 47,071	$ -	$0	$0	$0	$0	$0	$47,071
Lithgow	Reticulation	Water Mains	Wm200273		1950	$ 47,728	$ 48,778	$ -	$0	$0	$0	$0	$0	$48,778
Lithgow	Reticulation	Water Mains	Wm200274		1950	$ 3,711	$ 3,793	$ -	$0	$0	$0	$0	$0	$3,793
Lithgow	Reticulation	Water Mains	Wm200275		1950	$ 1,931	$ 1,973	$ -	$0	$0	$0	$0	$0	$1,973
Lithgow	Reticulation	Water Mains	Wm200276		1950	$ 24,368	$ 24,904	$ -	$0	$0	$0	$0	$0	$24,904
Lithgow	Reticulation	Water Mains	Wm200277		1950	$ 625	$ 639	$ -	$0	$0	$0	$0	$0	$639
Lithgow	Reticulation	Water Mains	Wm200278		1950	$ 61,800	$ 63,160	$ -	$0	$0	$0	$0	$0	$63,160
Lithgow	Reticulation	Water Mains	Wm200279		1950	$ 1,852	$ 1,893	$ -	$0	$0	$0	$0	$0	$1,893
Lithgow	Reticulation	Water Mains	Wm200280		1950	$ 14,363	$ 14,679	$ -	$0	$0	$0	$0	$0	$14,679
Lithgow	Reticulation	Water Mains	Wm200281		1950	$ 1,714	$ 1,752	$ -	$0	$0	$0	$0	$0	$1,752
Lithgow	Reticulation	Water Mains	Wm200282		1950	$ 16,381	$ 16,741	$ -	$0	$0	$0	$0	$0	$16,741
Lithgow	Reticulation	Water Mains	Wm200283		1950	$ 33,779	$ 34,522	$ -	$0	$0	$0	$0	$0	$34,522
Lithgow	Reticulation	Water Mains	Wm200284		1950	$ 941	$ 962	$ -	$0	$0	$0	$0	$0	$962
Lithgow	Reticulation	Water Mains	Wm200285		1950	$ 292	$ 298	$ -	$0	$0	$0	$0	$0	$298
Lithgow	Reticulation	Water Mains	Wm200286		1950	$ 529	$ 540	$ -	$0	$0	$0	$0	$0	$540
Lithgow	Reticulation	Water Mains	Wm200287		1950	$ 40	$ 41	$ -	$0	$0	$0	$0	$0	$41
Lithgow	Reticulation	Water Mains	Wm200288		1950	$ 23,649	$ 24,169	$ -	$0	$0	$0	$0	$0	$24,169
Lithgow	Reticulation	Water Mains	Wm200289		1950	$ 2,477	$ 2,532	$ -	$0	$0	$0	$0	$0	$2,532
Lithgow	Reticulation	Water Mains	Wm200290		1950	$ 15,004	$ 15,334	$ -	$0	$0	$0	$0	$0	$15,334
Lithgow	Reticulation	Water Mains	Wm200291		1950	$ 37,381	$ 38,204	$ -	$0	$0	$0	$0	$0	$38,204
Lithgow	Reticulation	Water Mains	Wm200292		1950	$ 20,271	$ 20,717	$ -	$0	$0	$0	$0	$0	$20,717
Lithgow	Reticulation	Water Mains	Wm200293		1950	$ 336	$ 343	$ -	$0	$0	$0	$0	$0	$343
Lithgow	Reticulation	Water Mains	Wm200294		1950	$ 342	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm200295		1950	$ 2,510	$ 2,565	$ -	$0	$0	$0	$0	$0	$2,565
Lithgow	Reticulation	Water Mains	Wm200296		1950	$ 32,306	$ 33,017	$ -	$0	$0	$0	$0	$0	$33,017
Lithgow	Reticulation	Water Mains	Wm200297		1950	$ 2,094	$ 2,140	$ -	$0	$0	$0	$0	$0	$2,140
Lithgow	Reticulation	Water Mains	Wm200298		1950	$ 32,331	$ 33,042	$ -	$0	$0	$0	$0	$0	$33,042
Lithgow	Reticulation	Water Mains	Wm200299		1950	$ 16,459	$ 16,821	$ -	$0	$0	$0	$0	$0	$16,821

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200300		1950	$ 509	$ 520	$ -	$0	$0	$0	$0	$0	$520
Lithgow	Reticulation	Water Mains	Wm200301		1950	$ 34,436	$ 35,194	$ -	$0	$0	$0	$0	$0	$35,194
Lithgow	Reticulation	Water Mains	Wm200302		1950	$ 4,030	$ 4,119	$ -	$0	$0	$0	$0	$0	$4,119
Lithgow	Reticulation	Water Mains	Wm200303		1950	$ 39,617	$ 40,488	$ -	$0	$0	$0	$0	$0	$40,488
Lithgow	Reticulation	Water Mains	Wm200304		1950	$ 67	$ 69	$ -	$0	$0	$0	$0	$0	$69
Lithgow	Reticulation	Water Mains	Wm200305		1950	$ 16,266	$ 16,624	$ -	$0	$0	$0	$0	$0	$16,624
Lithgow	Reticulation	Water Mains	Wm200306		1950	$ 106	$ 108	$ -	$0	$0	$0	$0	$0	$108
Lithgow	Reticulation	Water Mains	Wm200307		1950	$ 12,489	$ 12,764	$ -	$0	$0	$0	$0	$0	$12,764
Lithgow	Reticulation	Water Mains	Wm200308		1950	$ 1,823	$ 1,863	$ -	$0	$0	$0	$0	$0	$1,863
Lithgow	Reticulation	Water Mains	Wm200309		1950	$ 10,466	$ 10,696	$ -	$0	$0	$0	$0	$0	$10,696
Lithgow	Reticulation	Water Mains	Wm200310		1950	$ 14,328	$ 14,643	$ -	$0	$0	$0	$0	$0	$14,643
Lithgow	Reticulation	Water Mains	Wm200311		1950	$ 81	$ 82	$ -	$0	$0	$0	$0	$0	$82
Lithgow	Reticulation	Water Mains	Wm200312		1950	$ 107	$ 110	$ -	$0	$0	$0	$0	$0	$110
Lithgow	Reticulation	Water Mains	Wm200313		1950	$ 21,968	$ 22,451	$ -	$0	$0	$0	$0	$0	$22,451
Lithgow	Reticulation	Water Mains	Wm200314		1950	$ 10,798	$ 11,036	$ -	$0	$0	$0	$0	$0	$11,036
Lithgow	Reticulation	Water Mains	Wm200315		1950	$ 34,464	$ 35,222	$ -	$0	$0	$0	$0	$0	$35,222
Lithgow	Reticulation	Water Mains	Wm200316		1950	$ 11,073	$ 11,317	$ -	$0	$0	$0	$0	$0	$11,317
Lithgow	Reticulation	Water Mains	Wm200317		1950	$ 474	$ 484	$ -	$0	$0	$0	$0	$0	$484
Lithgow	Reticulation	Water Mains	Wm200318		1950	$ 7,108	$ 7,264	$ -	$0	$0	$0	$0	$0	$7,264
Lithgow	Reticulation	Water Mains	Wm200319		1950	$ 53	$ 54	$ -	$0	$0	$0	$0	$0	$54
Lithgow	Reticulation	Water Mains	Wm200320		1950	$ 521	$ 532	$ -	$0	$0	$0	$0	$0	$532
Lithgow	Reticulation	Water Mains	Wm200321		1950	$ 1,180	$ 1,206	$ -	$0	$0	$0	$0	$0	$1,206
Lithgow	Reticulation	Water Mains	Wm200322		1950	$ 10,526	$ 10,757	$ -	$0	$0	$0	$0	$0	$10,757
Lithgow	Reticulation	Water Mains	Wm200323		1950	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm200324		1950	$ 22,203	$ 22,691	$ -	$0	$0	$0	$0	$0	$22,691
Lithgow	Reticulation	Water Mains	Wm200325		1950	$ 29	$ 30	$ -	$0	$0	$0	$0	$0	$30
Lithgow	Reticulation	Water Mains	Wm200326		1950	$ 23,624	$ 24,143	$ -	$0	$0	$0	$0	$0	$24,143
Lithgow	Reticulation	Water Mains	Wm200327		1950	$ 12,959	$ 13,244	$ -	$0	$0	$0	$0	$0	$13,244
Lithgow	Reticulation	Water Mains	Wm200328		1950	$ 968	$ 989	$ -	$0	$0	$0	$0	$0	$989
Lithgow	Reticulation	Water Mains	Wm200329		1950	$ 11,424	$ 11,675	$ -	$0	$0	$0	$0	$0	$11,675
Lithgow	Reticulation	Water Mains	Wm200330		1950	$ 21,075	$ 21,539	$ -	$0	$0	$0	$0	$0	$21,539
Lithgow	Reticulation	Water Mains	Wm200331		1950	$ 42,220	$ 43,149	$ -	$0	$0	$0	$0	$0	$43,149
Lithgow	Reticulation	Water Mains	Wm200332		1950	$ 5,317	$ 5,434	$ -	$0	$0	$0	$0	$0	$5,434
Lithgow	Reticulation	Water Mains	Wm200333		1979	$ 699	$ 714	$ -	$0	$0	$0	$0	$0	$714
Lithgow	Reticulation	Water Mains	Wm200334		1950	$ 40	$ 41	$ -	$0	$0	$0	$0	$0	$41
Lithgow	Reticulation	Water Mains	Wm200335		1950	$ 33,265	$ 33,997	$ -	$0	$0	$0	$0	$0	$33,997
Lithgow	Reticulation	Water Mains	Wm200336		1950	$ 10,862	$ 11,101	$ -	$0	$0	$0	$0	$0	$11,101
Lithgow	Reticulation	Water Mains	Wm200337		1950	$ 12,997	$ 13,282	$ -	$0	$0	$0	$0	$0	$13,282
Lithgow	Reticulation	Water Mains	Wm200338		1950	$ 2,907	$ 2,971	$ -	$0	$0	$0	$0	$0	$2,971
Lithgow	Reticulation	Water Mains	Wm200339		1950	$ 5,307	$ 5,424	$ -	$0	$0	$0	$0	$0	$5,424
Lithgow	Reticulation	Water Mains	Wm200340		1950	$ 56,264	$ 57,502	$ -	$0	$0	$0	$0	$0	$57,502
Lithgow	Reticulation	Water Mains	Wm200341		1950	$ 49	$ 50	$ -	$0	$0	$0	$0	$0	$50
Lithgow	Reticulation	Water Mains	Wm200342		1950	$ 36,715	$ 37,522	$ -	$0	$0	$0	$0	$0	$37,522
Lithgow	Reticulation	Water Mains	Wm200343		1950	$ 2,559	$ 2,615	$ -	$0	$0	$0	$0	$0	$2,615
Lithgow	Reticulation	Water Mains	Wm200344		1950	$ 29,521	$ 30,170	$ -	$0	$0	$0	$0	$0	$30,170
Lithgow	Reticulation	Water Mains	Wm200345		1950	$ 199	$ 203	$ -	$0	$0	$0	$0	$0	$203
Lithgow	Reticulation	Water Mains	Wm200346		1950	$ 10,386	$ 10,615	$ -	$0	$0	$0	$0	$0	$10,615
Lithgow	Reticulation	Water Mains	Wm200347		1950	$ 17,870	$ 18,263	$ -	$0	$0	$0	$0	$0	$18,263
Lithgow	Reticulation	Water Mains	Wm200348		1950	$ 14,380	$ 14,696	$ -	$0	$0	$0	$0	$0	$14,696
Lithgow	Reticulation	Water Mains	Wm200349		1950	$ 8,603	$ 8,793	$ -	$0	$0	$0	$0	$0	$8,793
Lithgow	Reticulation	Water Mains	Wm200350		1950	$ 2,106	$ 2,153	$ -	$0	$0	$0	$0	$0	$2,153
Lithgow	Reticulation	Water Mains	Wm200351		1950	$ 14,766	$ 15,091	$ -	$0	$0	$0	$0	$0	$15,091
Lithgow	Reticulation	Water Mains	Wm200352		1950	$ 691	$ 707	$ -	$0	$0	$0	$0	$0	$707
Lithgow	Reticulation	Water Mains	Wm200353		1950	$ 2,365	$ 2,417	$ -	$0	$0	$0	$0	$0	$2,417
Lithgow	Reticulation	Water Mains	Wm200354		1950	$ 1,810	$ 1,849	$ -	$0	$0	$0	$0	$0	$1,849
Lithgow	Reticulation	Water Mains	Wm200355		1950	$ 443	$ 453	$ -	$0	$0	$0	$0	$0	$453
Lithgow	Reticulation	Water Mains	Wm200356		1950	$ 34,190	$ 34,942	$ -	$0	$0	$0	$0	$0	$34,942
Lithgow	Reticulation	Water Mains	Wm200357		1950	$ 3,959	$ 4,046	$ -	$0	$0	$0	$0	$0	$4,046
Lithgow	Reticulation	Water Mains	Wm200358		1950	$ 30,029	$ 30,690	$ -	$0	$0	$0	$0	$0	$30,690
Lithgow	Reticulation	Water Mains	Wm200359		1950	$ 4,270	$ 4,364	$ -	$0	$0	$0	$0	$0	$4,364
Lithgow	Reticulation	Water Mains	Wm200360		1950	$ 19,352	$ 19,778	$ -	$0	$0	$0	$0	$0	$19,778
Lithgow	Reticulation	Water Mains	Wm200361		1950	$ 12,097	$ 12,363	$ -	$0	$0	$0	$0	$0	$12,363
Lithgow	Reticulation	Water Mains	Wm200362		1950	$ 14	$ 14	$ -	$0	$0	$0	$0	$0	$14
Lithgow	Reticulation	Water Mains	Wm200363		1950	$ 306	$ 313	$ -	$0	$0	$0	$0	$0	$313
Lithgow	Reticulation	Water Mains	Wm200364		1950	$ 343	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm200365		1950	$ 15,699	$ 16,044	$ -	$0	$0	$0	$0	$0	$16,044
Lithgow	Reticulation	Water Mains	Wm200366		1950	$ 29,538	$ 30,188	$ -	$0	$0	$0	$0	$0	$30,188
Lithgow	Reticulation	Water Mains	Wm200367		1950	$ 72	$ 74	$ -	$0	$0	$0	$0	$0	$74
Lithgow	Reticulation	Water Mains	Wm200368		1950	$ 2,695	$ 2,755	$ -	$0	$0	$0	$0	$0	$2,755
Lithgow	Reticulation	Water Mains	Wm200369		1950	$ 14,498	$ 14,817	$ -	$0	$0	$0	$0	$0	$14,817
Lithgow	Reticulation	Water Mains	Wm200370		1950	$ 18,282	$ 18,684	$ -	$0	$0	$0	$0	$0	$18,684
Lithgow	Reticulation	Water Mains	Wm200371		1950	$ 26,205	$ 26,782	$ -	$0	$0	$0	$0	$0	$26,782
Lithgow	Reticulation	Water Mains	Wm200372		1950	$ 95	$ 97	$ -	$0	$0	$0	$0	$0	$97
Lithgow	Reticulation	Water Mains	Wm200373		1950	$ 26,454	$ 27,036	$ -	$0	$0	$0	$0	$0	$27,036
Lithgow	Reticulation	Water Mains	Wm200374		1950	$ 232	$ 237	$ -	$0	$0	$0	$0	$0	$237
Lithgow	Reticulation	Water Mains	Wm200375		1950	$ 41,331	$ 42,241	$ -	$0	$0	$0	$0	$0	$42,241
Lithgow	Reticulation	Water Mains	Wm200376		1950	$ 33,023	$ 33,750	$ -	$0	$0	$0	$0	$0	$33,750
Lithgow	Reticulation	Water Mains	Wm200377		1950	$ 44,456	$ 45,434	$ -	$0	$0	$0	$0	$0	$45,434
Lithgow	Reticulation	Water Mains	Wm200378		1950	$ 987	$ 1,009	$ -	$0	$0	$0	$0	$0	$1,009
Lithgow	Reticulation	Water Mains	Wm200379		1950	$ 1,269	$ 1,296	$ -	$0	$0	$0	$0	$0	$1,296
Lithgow	Reticulation	Water Mains	Wm200380		1950	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm200381		1950	$ 4,995	$ 5,105	$ -	$0	$0	$0	$0	$0	$5,105
Lithgow	Reticulation	Water Mains	Wm200382		1950	$ 8,557	$ 8,746	$ -	$0	$0	$0	$0	$0	$8,746
Lithgow	Reticulation	Water Mains	Wm200383		1950	$ 468	$ 478	$ -	$0	$0	$0	$0	$0	$478
Lithgow	Reticulation	Water Mains	Wm200384		1950	$ 1,591	$ 1,626	$ -	$0	$0	$0	$0	$0	$1,626
Lithgow	Reticulation	Water Mains	Wm200385		1950	$ 11,908	$ 12,170	$ -	$0	$0	$0	$0	$0	$12,170
Lithgow	Reticulation	Water Mains	Wm200386		1950	$ 14,583	$ 14,904	$ -	$0	$0	$0	$0	$0	$14,904

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200387		1950	$ 67	$ 68	$ -	$0	$0	$0	$0	$0	$68
Lithgow	Reticulation	Water Mains	Wm200388		1950	$ 70	$ 71	$ -	$0	$0	$0	$0	$0	$71
Lithgow	Reticulation	Water Mains	Wm200389		1950	$ 31,396	$ 32,086	$ -	$0	$0	$0	$0	$0	$32,086
Lithgow	Reticulation	Water Mains	Wm200390		1950	$ 27,716	$ 28,326	$ -	$0	$0	$0	$0	$0	$28,326
Lithgow	Reticulation	Water Mains	Wm200391		1950	$ 16,730	$ 17,098	$ -	$0	$0	$0	$0	$0	$17,098
Lithgow	Reticulation	Water Mains	Wm200392		1950	$ 205	$ 209	$ -	$0	$0	$0	$0	$0	$209
Lithgow	Reticulation	Water Mains	Wm200393		1950	$ 10,843	$ 11,081	$ -	$0	$0	$0	$0	$0	$11,081
Lithgow	Reticulation	Water Mains	Wm200394		1950	$ 1,588	$ 1,622	$ -	$0	$0	$0	$0	$0	$1,622
Lithgow	Reticulation	Water Mains	Wm200395		1950	$ 156	$ 160	$ -	$0	$0	$0	$0	$0	$160
Lithgow	Reticulation	Water Mains	Wm200396		1950	$ 292	$ 299	$ -	$0	$0	$0	$0	$0	$299
Lithgow	Reticulation	Water Mains	Wm200397		1950	$ 233	$ 238	$ -	$0	$0	$0	$0	$0	$238
Lithgow	Reticulation	Water Mains	Wm200398		1950	$ 124	$ 127	$ -	$0	$0	$0	$0	$0	$127
Lithgow	Reticulation	Water Mains	Wm200399		1950	$ 43,099	$ 44,047	$ -	$0	$0	$0	$0	$0	$44,047
Lithgow	Reticulation	Water Mains	Wm200400		1950	$ 599	$ 612	$ -	$0	$0	$0	$0	$0	$612
Lithgow	Reticulation	Water Mains	Wm200401		1950	$ 20,740	$ 21,196	$ -	$0	$0	$0	$0	$0	$21,196
Lithgow	Reticulation	Water Mains	Wm200402		1950	$ 134	$ 137	$ -	$0	$0	$0	$0	$0	$137
Lithgow	Reticulation	Water Mains	Wm200403		1950	$ 10,969	$ 11,210	$ -	$0	$0	$0	$0	$0	$11,210
Lithgow	Reticulation	Water Mains	Wm200404		1950	$ 1,637	$ 1,673	$ -	$0	$0	$0	$0	$0	$1,673
Lithgow	Reticulation	Water Mains	Wm200405		1950	$ 1,397	$ 1,427	$ -	$0	$0	$0	$0	$0	$1,427
Lithgow	Reticulation	Water Mains	Wm200406		1950	$ 75,060	$ 76,711	$ -	$0	$0	$0	$0	$0	$76,711
Lithgow	Reticulation	Water Mains	Wm200407		1950	$ 1,399	$ 1,430	$ -	$0	$0	$0	$0	$0	$1,430
Lithgow	Reticulation	Water Mains	Wm200408		1950	$ 1,615	$ 1,651	$ -	$0	$0	$0	$0	$0	$1,651
Lithgow	Reticulation	Water Mains	Wm200409		1950	$ 51	$ 52	$ -	$0	$0	$0	$0	$0	$52
Lithgow	Reticulation	Water Mains	Wm200410		1950	$ 4,502	$ 4,601	$ -	$0	$0	$0	$0	$0	$4,601
Lithgow	Reticulation	Water Mains	Wm200411		1950	$ 16,276	$ 16,634	$ -	$0	$0	$0	$0	$0	$16,634
Lithgow	Reticulation	Water Mains	Wm200412		1950	$ 6,816	$ 6,966	$ -	$0	$0	$0	$0	$0	$6,966
Lithgow	Reticulation	Water Mains	Wm200413		1950	$ 41	$ 42	$ -	$0	$0	$0	$0	$0	$42
Lithgow	Reticulation	Water Mains	Wm200414		1950	$ 3,956	$ 4,043	$ -	$0	$0	$0	$0	$0	$4,043
Lithgow	Reticulation	Water Mains	Wm200415		1950	$ 2,375	$ 2,427	$ -	$0	$0	$0	$0	$0	$2,427
Lithgow	Reticulation	Water Mains	Wm200416		1950	$ 5,087	$ 5,199	$ -	$0	$0	$0	$0	$0	$5,199
Lithgow	Reticulation	Water Mains	Wm200417		1950	$ 15,387	$ 15,726	$ -	$0	$0	$0	$0	$0	$15,726
Lithgow	Reticulation	Water Mains	Wm200418		1950	$ 1,035	$ 1,058	$ -	$0	$0	$0	$0	$0	$1,058
Lithgow	Reticulation	Water Mains	Wm200419		1950	$ 5,618	$ 5,742	$ -	$0	$0	$0	$0	$0	$5,742
Lithgow	Reticulation	Water Mains	Wm200420		1950	$ 3,528	$ 3,605	$ -	$0	$0	$0	$0	$0	$3,605
Lithgow	Reticulation	Water Mains	Wm200421		1950	$ 11,912	$ 12,174	$ -	$0	$0	$0	$0	$0	$12,174
Lithgow	Reticulation	Water Mains	Wm200422		1950	$ 6,556	$ 6,701	$ -	$0	$0	$0	$0	$0	$6,701
Lithgow	Reticulation	Water Mains	Wm200423		1950	$ 10,202	$ 10,426	$ -	$0	$0	$0	$0	$0	$10,426
Lithgow	Reticulation	Water Mains	Wm200424		1950	$ 2,703	$ 2,763	$ -	$0	$0	$0	$0	$0	$2,763
Lithgow	Reticulation	Water Mains	Wm200425		1950	$ 3,369	$ 3,443	$ -	$0	$0	$0	$0	$0	$3,443
Lithgow	Reticulation	Water Mains	Wm200426		1950	$ 20,030	$ 20,471	$ -	$0	$0	$0	$0	$0	$20,471
Lithgow	Reticulation	Water Mains	Wm200427		1950	$ 63	$ 64	$ -	$0	$0	$0	$0	$0	$64
Lithgow	Reticulation	Water Mains	Wm200428		1950	$ 1,549	$ 1,583	$ -	$0	$0	$0	$0	$0	$1,583
Lithgow	Reticulation	Water Mains	Wm200429		1950	$ 2,104	$ 2,150	$ -	$0	$0	$0	$0	$0	$2,150
Lithgow	Reticulation	Water Mains	Wm200430		1950	$ 1,794	$ 1,834	$ -	$0	$0	$0	$0	$0	$1,834
Lithgow	Reticulation	Water Mains	Wm200431		1950	$ 3,871	$ 3,956	$ -	$0	$0	$0	$0	$0	$3,956
Lithgow	Reticulation	Water Mains	Wm200432		1950	$ 1,483	$ 1,516	$ -	$0	$0	$0	$0	$0	$1,516
Lithgow	Reticulation	Water Mains	Wm200433		1950	$ 204	$ 208	$ -	$0	$0	$0	$0	$0	$208
Lithgow	Reticulation	Water Mains	Wm200434		1950	$ 68	$ 69	$ -	$0	$0	$0	$0	$0	$69
Lithgow	Reticulation	Water Mains	Wm200435		1950	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm200436		1950	$ 1,595	$ 1,630	$ -	$0	$0	$0	$0	$0	$1,630
Lithgow	Reticulation	Water Mains	Wm200437		1954	$ 97	$ 99	$ -	$0	$0	$0	$0	$0	$99
Lithgow	Reticulation	Water Mains	Wm200438		1954	$ 113	$ 116	$ -	$0	$0	$0	$0	$0	$116
Lithgow	Reticulation	Water Mains	Wm200439		1950	$ 10,911	$ 11,151	$ -	$0	$0	$0	$0	$0	$11,151
Lithgow	Reticulation	Water Mains	Wm200440		1957	$ 35	$ 35	$ -	$0	$0	$0	$0	$0	$35
Lithgow	Reticulation	Water Mains	Wm200441		1957	$ 39	$ 40	$ -	$0	$0	$0	$0	$0	$40
Lithgow	Reticulation	Water Mains	Wm200442		1957	$ 215	$ 220	$ -	$0	$0	$0	$0	$0	$220
Lithgow	Reticulation	Water Mains	Wm200443		1957	$ 118	$ 120	$ -	$0	$0	$0	$0	$0	$120
Lithgow	Reticulation	Water Mains	Wm200444		1957	$ 84	$ 86	$ -	$0	$0	$0	$0	$0	$86
Lithgow	Reticulation	Water Mains	Wm200445		1957	$ 2,121	$ 2,168	$ -	$0	$0	$0	$0	$0	$2,168
Lithgow	Reticulation	Water Mains	Wm200446		1950	$ 1,256	$ 1,284	$ -	$0	$0	$0	$0	$0	$1,284
Lithgow	Reticulation	Water Mains	Wm200447		1950	$ 1,257	$ 1,284	$ -	$0	$0	$0	$0	$0	$1,284
Lithgow	Reticulation	Water Mains	Wm200448		1950	$ 710	$ 725	$ -	$0	$0	$0	$0	$0	$725
Lithgow	Reticulation	Water Mains	Wm200449		1950	$ 5,351	$ 5,469	$ -	$0	$0	$0	$0	$0	$5,469
Lithgow	Reticulation	Water Mains	Wm200450		1950	$ 9,639	$ 9,851	$ -	$0	$0	$0	$0	$0	$9,851
Lithgow	Reticulation	Water Mains	Wm200451		1950	$ 10,384	$ 10,613	$ -	$0	$0	$0	$0	$0	$10,613
Lithgow	Reticulation	Water Mains	Wm200452		1950	$ 400	$ 409	$ -	$0	$0	$0	$0	$0	$409
Lithgow	Reticulation	Water Mains	Wm200453		1950	$ 1,084	$ 1,107	$ -	$0	$0	$0	$0	$0	$1,107
Lithgow	Reticulation	Water Mains	Wm200454		1950	$ 28	$ 29	$ -	$0	$0	$0	$0	$0	$29
Lithgow	Reticulation	Water Mains	Wm200455		1950	$ 107,331	$ 109,693	$ -	$0	$0	$0	$0	$0	$109,693
Lithgow	Reticulation	Water Mains	Wm200456		1950	$ 23,736	$ 24,258	$ -	$0	$0	$0	$0	$0	$24,258
Lithgow	Reticulation	Water Mains	Wm200458		1950	$ 44,113	$ 45,083	$ -	$0	$0	$0	$0	$0	$45,083
Lithgow	Reticulation	Water Mains	Wm200459		1950	$ 313	$ 320	$ -	$0	$0	$0	$0	$0	$320
Lithgow	Reticulation	Water Mains	Wm200460		1950	$ 12,659	$ 12,938	$ -	$0	$0	$0	$0	$0	$12,938
Lithgow	Reticulation	Water Mains	Wm200461		1950	$ 871	$ 890	$ -	$0	$0	$0	$0	$0	$890
Lithgow	Reticulation	Water Mains	Wm200462		1950	$ 41	$ 42	$ -	$0	$0	$0	$0	$0	$42
Lithgow	Reticulation	Water Mains	Wm200464		1950	$ 2,571	$ 2,628	$ -	$0	$0	$0	$0	$0	$2,628
Lithgow	Reticulation	Water Mains	Wm200465		1950	$ 11	$ 11	$ -	$0	$0	$0	$0	$0	$11
Lithgow	Reticulation	Water Mains	Wm200466		1950	$ 51	$ 52	$ -	$0	$0	$0	$0	$0	$52
Lithgow	Reticulation	Water Mains	Wm200467		1950	$ 169,206	$ 172,928	$ -	$0	$0	$0	$0	$0	$172,928
Lithgow	Reticulation	Water Mains	Wm200468		1950	$ 31,487	$ 32,180	$ -	$0	$0	$0	$0	$0	$32,180
Lithgow	Reticulation	Water Mains	Wm200469		1950	$ 6,819	$ 6,969	$ -	$0	$0	$0	$0	$0	$6,969
Lithgow	Reticulation	Water Mains	Wm200470		1957	$ 108	$ 110	$ -	$0	$0	$0	$0	$0	$110
Lithgow	Reticulation	Water Mains	Wm200471		1957	$ 3,336	$ 3,409	$ -	$0	$0	$0	$0	$0	$3,409
Lithgow	Reticulation	Water Mains	Wm200472		1957	$ 1,785	$ 1,824	$ -	$0	$0	$0	$0	$0	$1,824
Lithgow	Reticulation	Water Mains	Wm200473		1950	$ 397	$ 406	$ -	$0	$0	$0	$0	$0	$406
Lithgow	Reticulation	Water Mains	Wm200474		1957	$ 32	$ 33	$ -	$0	$0	$0	$0	$0	$33
Lithgow	Reticulation	Water Mains	Wm200475		1950	$ 22,019	$ 22,503	$ -	$0	$0	$0	$0	$0	$22,503

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200476		1957	$ 7,842	$ 8,014	$ -	$0	$0	$0	$0	$0	$8,014
Lithgow	Reticulation	Water Mains	Wm200477		1957	$ 570	$ 582	$ -	$0	$0	$0	$0	$0	$582
Lithgow	Reticulation	Water Mains	Wm200478		1950	$ 342	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm200479		1950	$ 299	$ 306	$ -	$0	$0	$0	$0	$0	$306
Lithgow	Reticulation	Water Mains	Wm200480		1950	$ 14,382	$ 14,698	$ -	$0	$0	$0	$0	$0	$14,698
Lithgow	Reticulation	Water Mains	Wm200481		1950	$ 5,341	$ 5,459	$ -	$0	$0	$0	$0	$0	$5,459
Lithgow	Reticulation	Water Mains	Wm200482		1950	$ 2,949	$ 3,014	$ -	$0	$0	$0	$0	$0	$3,014
Lithgow	Reticulation	Water Mains	Wm200483		1950	$ 41,722	$ 42,640	$ -	$0	$0	$0	$0	$0	$42,640
Lithgow	Reticulation	Water Mains	Wm200484		1950	$ 4,161	$ 4,253	$ -	$0	$0	$0	$0	$0	$4,253
Lithgow	Reticulation	Water Mains	Wm200485		1950	$ 58,567	$ 59,855	$ -	$0	$0	$0	$0	$0	$59,855
Lithgow	Reticulation	Water Mains	Wm200486		1950	$ 7,216	$ 7,374	$ -	$0	$0	$0	$0	$0	$7,374
Lithgow	Reticulation	Water Mains	Wm200487		1950	$ 870	$ 889	$ -	$0	$0	$0	$0	$0	$889
Lithgow	Reticulation	Water Mains	Wm200488		1950	$ 48,946	$ 50,022	$ -	$0	$0	$0	$0	$0	$50,022
Lithgow	Reticulation	Water Mains	Wm200489		1950	$ 104	$ 106	$ -	$0	$0	$0	$0	$0	$106
Lithgow	Reticulation	Water Mains	Wm200490		1950	$ 69,050	$ 70,570	$ -	$0	$0	$0	$0	$0	$70,570
Lithgow	Reticulation	Water Mains	Wm200491		1950	$ 97	$ 100	$ -	$0	$0	$0	$0	$0	$100
Lithgow	Reticulation	Water Mains	Wm200492		1950	$ 15,412	$ 15,751	$ -	$0	$0	$0	$0	$0	$15,751
Lithgow	Reticulation	Water Mains	Wm200493		1950	$ 6,880	$ 7,032	$ -	$0	$0	$0	$0	$0	$7,032
Lithgow	Reticulation	Water Mains	Wm200494		1950	$ 64	$ 66	$ -	$0	$0	$0	$0	$0	$66
Lithgow	Reticulation	Water Mains	Wm200495		1950	$ 150	$ 153	$ -	$0	$0	$0	$0	$0	$153
Lithgow	Reticulation	Water Mains	Wm200496		1950	$ 36,028	$ 36,820	$ -	$0	$0	$0	$0	$0	$36,820
Lithgow	Reticulation	Water Mains	Wm200497		1950	$ 92	$ 94	$ -	$0	$0	$0	$0	$0	$94
Lithgow	Reticulation	Water Mains	Wm200498		1950	$ 48,505	$ 49,572	$ -	$0	$0	$0	$0	$0	$49,572
Lithgow	Reticulation	Water Mains	Wm200499		1950	$ 39	$ 39	$ -	$0	$0	$0	$0	$0	$39
Lithgow	Reticulation	Water Mains	Wm200500		1950	$ 121	$ 123	$ -	$0	$0	$0	$0	$0	$123
Lithgow	Reticulation	Water Mains	Wm200501		1950	$ 67,619	$ 69,106	$ -	$0	$0	$0	$0	$0	$69,106
Lithgow	Reticulation	Water Mains	Wm200502		1950	$ 4,408	$ 4,505	$ -	$0	$0	$0	$0	$0	$4,505
Lithgow	Reticulation	Water Mains	Wm200503		1950	$ 6,963	$ 7,116	$ -	$0	$0	$0	$0	$0	$7,116
Lithgow	Reticulation	Water Mains	Wm200504		1950	$ 15,903	$ 16,253	$ -	$0	$0	$0	$0	$0	$16,253
Lithgow	Reticulation	Water Mains	Wm200505		1950	$ 2,297	$ 2,347	$ -	$0	$0	$0	$0	$0	$2,347
Lithgow	Reticulation	Water Mains	Wm200506		1950	$ 22,430	$ 22,924	$ -	$0	$0	$0	$0	$0	$22,924
Lithgow	Reticulation	Water Mains	Wm200507		1950	$ 3,205	$ 3,276	$ -	$0	$0	$0	$0	$0	$3,276
Lithgow	Reticulation	Water Mains	Wm200508		1950	$ 649	$ 664	$ -	$0	$0	$0	$0	$0	$664
Lithgow	Reticulation	Water Mains	Wm200509		1950	$ 24,571	$ 25,112	$ -	$0	$0	$0	$0	$0	$25,112
Lithgow	Reticulation	Water Mains	Wm200510		1950	$ 130	$ 132	$ -	$0	$0	$0	$0	$0	$132
Lithgow	Reticulation	Water Mains	Wm200511		1950	$ 1,317	$ 1,346	$ -	$0	$0	$0	$0	$0	$1,346
Lithgow	Reticulation	Water Mains	Wm200512		1950	$ 17,900	$ 18,293	$ -	$0	$0	$0	$0	$0	$18,293
Lithgow	Reticulation	Water Mains	Wm200513		1950	$ 630	$ 644	$ -	$0	$0	$0	$0	$0	$644
Lithgow	Reticulation	Water Mains	Wm200514		1950	$ 75,347	$ 77,005	$ -	$0	$0	$0	$0	$0	$77,005
Lithgow	Reticulation	Water Mains	Wm200515		1950	$ 929	$ 950	$ -	$0	$0	$0	$0	$0	$950
Lithgow	Reticulation	Water Mains	Wm200516		1950	$ 41,568	$ 42,482	$ -	$0	$0	$0	$0	$0	$42,482
Lithgow	Reticulation	Water Mains	Wm200517		1950	$ 1,409	$ 1,440	$ -	$0	$0	$0	$0	$0	$1,440
Lithgow	Reticulation	Water Mains	Wm200518		1950	$ 33	$ 33	$ -	$0	$0	$0	$0	$0	$33
Lithgow	Reticulation	Water Mains	Wm200519		1950	$ 374	$ 382	$ -	$0	$0	$0	$0	$0	$382
Lithgow	Reticulation	Water Mains	Wm200520		1950	$ 11,664	$ 11,921	$ -	$0	$0	$0	$0	$0	$11,921
Lithgow	Reticulation	Water Mains	Wm200521		1950	$ 443	$ 453	$ -	$0	$0	$0	$0	$0	$453
Lithgow	Reticulation	Water Mains	Wm200522		1950	$ 16,342	$ 16,702	$ -	$0	$0	$0	$0	$0	$16,702
Lithgow	Reticulation	Water Mains	Wm200523		1950	$ 525	$ 537	$ -	$0	$0	$0	$0	$0	$537
Lithgow	Reticulation	Water Mains	Wm200524		1950	$ 1,353	$ 1,383	$ -	$0	$0	$0	$0	$0	$1,383
Lithgow	Reticulation	Water Mains	Wm200525		1950	$ 391	$ 400	$ -	$0	$0	$0	$0	$0	$400
Lithgow	Reticulation	Water Mains	Wm200526		1950	$ 38,321	$ 39,164	$ -	$0	$0	$0	$0	$0	$39,164
Lithgow	Reticulation	Water Mains	Wm200527		1950	$ 702	$ 717	$ -	$0	$0	$0	$0	$0	$717
Lithgow	Reticulation	Water Mains	Wm200528		1950	$ 40,164	$ 41,048	$ -	$0	$0	$0	$0	$0	$41,048
Lithgow	Reticulation	Water Mains	Wm200529		1950	$ 3,853	$ 3,938	$ -	$0	$0	$0	$0	$0	$3,938
Lithgow	Reticulation	Water Mains	Wm200530		1950	$ 21,532	$ 22,006	$ -	$0	$0	$0	$0	$0	$22,006
Lithgow	Reticulation	Water Mains	Wm200531		1950	$ 22,016	$ 22,500	$ -	$0	$0	$0	$0	$0	$22,500
Lithgow	Reticulation	Water Mains	Wm200532		1950	$ 60	$ 62	$ -	$0	$0	$0	$0	$0	$62
Lithgow	Reticulation	Water Mains	Wm200533		1950	$ 71	$ 72	$ -	$0	$0	$0	$0	$0	$72
Lithgow	Reticulation	Water Mains	Wm200534		1950	$ 45,410	$ 46,409	$ -	$0	$0	$0	$0	$0	$46,409
Lithgow	Reticulation	Water Mains	Wm200535		1950	$ 269	$ 275	$ -	$0	$0	$0	$0	$0	$275
Lithgow	Reticulation	Water Mains	Wm200536		1950	$ 134	$ 137	$ -	$0	$0	$0	$0	$0	$137
Lithgow	Reticulation	Water Mains	Wm200537		1950	$ 28,684	$ 29,315	$ -	$0	$0	$0	$0	$0	$29,315
Lithgow	Reticulation	Water Mains	Wm200538		1950	$ 194	$ 198	$ -	$0	$0	$0	$0	$0	$198
Lithgow	Reticulation	Water Mains	Wm200539		1950	$ 2,361	$ 2,413	$ -	$0	$0	$0	$0	$0	$2,413
Lithgow	Reticulation	Water Mains	Wm200540		1950	$ 18,678	$ 19,089	$ -	$0	$0	$0	$0	$0	$19,089
Lithgow	Reticulation	Water Mains	Wm200541		1950	$ 462	$ 472	$ -	$0	$0	$0	$0	$0	$472
Lithgow	Reticulation	Water Mains	Wm200542		1950	$ 17,551	$ 17,937	$ -	$0	$0	$0	$0	$0	$17,937
Lithgow	Reticulation	Water Mains	Wm200543		1950	$ 457	$ 467	$ -	$0	$0	$0	$0	$0	$467
Lithgow	Reticulation	Water Mains	Wm200544		1950	$ 37,857	$ 38,690	$ -	$0	$0	$0	$0	$0	$38,690
Lithgow	Reticulation	Water Mains	Wm200545		1950	$ 2,765	$ 2,826	$ -	$0	$0	$0	$0	$0	$2,826
Lithgow	Reticulation	Water Mains	Wm200546		1950	$ 338	$ 345	$ -	$0	$0	$0	$0	$0	$345
Lithgow	Reticulation	Water Mains	Wm200547		1950	$ 321	$ 328	$ -	$0	$0	$0	$0	$0	$328
Lithgow	Reticulation	Water Mains	Wm200548		1950	$ 12,048	$ 12,313	$ -	$0	$0	$0	$0	$0	$12,313
Lithgow	Reticulation	Water Mains	Wm200549		1950	$ 55,494	$ 56,715	$ -	$0	$0	$0	$0	$0	$56,715
Lithgow	Reticulation	Water Mains	Wm200550		1950	$ 2,575	$ 2,632	$ -	$0	$0	$0	$0	$0	$2,632
Lithgow	Reticulation	Water Mains	Wm200551		1950	$ 34,759	$ 35,524	$ -	$0	$0	$0	$0	$0	$35,524
Lithgow	Reticulation	Water Mains	Wm200552		1950	$ 22,868	$ 23,371	$ -	$0	$0	$0	$0	$0	$23,371
Lithgow	Reticulation	Water Mains	Wm200553		1950	$ 1,211	$ 1,238	$ -	$0	$0	$0	$0	$0	$1,238
Lithgow	Reticulation	Water Mains	Wm200554		1950	$ 1,743	$ 1,781	$ -	$0	$0	$0	$0	$0	$1,781
Lithgow	Reticulation	Water Mains	Wm200555		1950	$ 34,574	$ 35,335	$ -	$0	$0	$0	$0	$0	$35,335
Lithgow	Reticulation	Water Mains	Wm200556		1950	$ 55,367	$ 56,585	$ -	$0	$0	$0	$0	$0	$56,585
Lithgow	Reticulation	Water Mains	Wm200557		1950	$ 41,716	$ 42,634	$ -	$0	$0	$0	$0	$0	$42,634
Lithgow	Reticulation	Water Mains	Wm200558		1950	$ 12,544	$ 12,820	$ -	$0	$0	$0	$0	$0	$12,820
Lithgow	Reticulation	Water Mains	Wm200559		1950	$ 33,960	$ 34,707	$ -	$0	$0	$0	$0	$0	$34,707
Lithgow	Reticulation	Water Mains	Wm200560		1950	$ 946	$ 966	$ -	$0	$0	$0	$0	$0	$966
Lithgow	Reticulation	Water Mains	Wm200561		1979	$ 13,661	$ 13,962	$ -	$0	$0	$0	$0	$0	$13,962
Lithgow	Reticulation	Water Mains	Wm200562		1979	$ 12,811	$ 13,093	$ -	$0	$0	$0	$0	$0	$13,093

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200563		1979	$ 76,055	$ 77,728	$ -	$0	$0	$0	$0	$0	$77,728
Lithgow	Reticulation	Water Mains	Wm200564		1979	$ 2,759	$ 2,820	$ -	$0	$0	$0	$0	$0	$2,820
Lithgow	Reticulation	Water Mains	Wm200565		1979	$ 10,302	$ 10,529	$ -	$0	$0	$0	$0	$0	$10,529
Lithgow	Reticulation	Water Mains	Wm200566		1979	$ 55	$ 56	$ -	$0	$0	$0	$0	$0	$56
Lithgow	Reticulation	Water Mains	Wm200567		1979	$ 581	$ 594	$ -	$0	$0	$0	$0	$0	$594
Lithgow	Reticulation	Water Mains	Wm200568		1979	$ 95,999	$ 98,111	$ -	$0	$0	$0	$0	$0	$98,111
Lithgow	Reticulation	Water Mains	Wm200569		1979	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm200570		1979	$ 3,404	$ 3,479	$ -	$0	$0	$0	$0	$0	$3,479
Lithgow	Reticulation	Water Mains	Wm200571		1979	$ 28,182	$ 28,802	$ -	$0	$0	$0	$0	$0	$28,802
Lithgow	Reticulation	Water Mains	Wm200572		1979	$ 89	$ 90	$ -	$0	$0	$0	$0	$0	$90
Lithgow	Reticulation	Water Mains	Wm200573		1979	$ 92	$ 94	$ -	$0	$0	$0	$0	$0	$94
Lithgow	Reticulation	Water Mains	Wm200574		1979	$ 26,389	$ 26,970	$ -	$0	$0	$0	$0	$0	$26,970
Lithgow	Reticulation	Water Mains	Wm200575		1950	$ 19,890	$ 20,328	$ -	$0	$0	$0	$0	$0	$20,328
Lithgow	Reticulation	Water Mains	Wm200576		1950	$ 1,110	$ 1,134	$ -	$0	$0	$0	$0	$0	$1,134
Lithgow	Reticulation	Water Mains	Wm200577		1979	$ 29,522	$ 30,171	$ -	$0	$0	$0	$0	$0	$30,171
Lithgow	Reticulation	Water Mains	Wm200578		1950	$ 146	$ 149	$ -	$0	$0	$0	$0	$0	$149
Lithgow	Reticulation	Water Mains	Wm200579		1979	$ 71	$ 72	$ -	$0	$0	$0	$0	$0	$72
Lithgow	Reticulation	Water Mains	Wm200580		1979	$ 39	$ 40	$ -	$0	$0	$0	$0	$0	$40
Lithgow	Reticulation	Water Mains	Wm200581		1979	$ 17,500	$ 17,885	$ -	$0	$0	$0	$0	$0	$17,885
Lithgow	Reticulation	Water Mains	Wm200582		1979	$ 91	$ 93	$ -	$0	$0	$0	$0	$0	$93
Lithgow	Reticulation	Water Mains	Wm200583		1979	$ 67	$ 68	$ -	$0	$0	$0	$0	$0	$68
Lithgow	Reticulation	Water Mains	Wm200584		1979	$ 64	$ 66	$ -	$0	$0	$0	$0	$0	$66
Lithgow	Reticulation	Water Mains	Wm200585		1979	$ 16,602	$ 16,968	$ -	$0	$0	$0	$0	$0	$16,968
Lithgow	Reticulation	Water Mains	Wm200586		1979	$ 2,951	$ 3,016	$ -	$0	$0	$0	$0	$0	$3,016
Lithgow	Reticulation	Water Mains	Wm200587		1979	$ 2,055	$ 2,100	$ -	$0	$0	$0	$0	$0	$2,100
Lithgow	Reticulation	Water Mains	Wm200588		1979	$ 31,315	$ 32,003	$ -	$0	$0	$0	$0	$0	$32,003
Lithgow	Reticulation	Water Mains	Wm200589		1979	$ 66	$ 67	$ -	$0	$0	$0	$0	$0	$67
Lithgow	Reticulation	Water Mains	Wm200590		1979	$ 45,674	$ 46,678	$ -	$0	$0	$0	$0	$0	$46,678
Lithgow	Reticulation	Water Mains	Wm200591		1979	$ 1,323	$ 1,352	$ -	$0	$0	$0	$0	$0	$1,352
Lithgow	Reticulation	Water Mains	Wm200592		1979	$ 287	$ 294	$ -	$0	$0	$0	$0	$0	$294
Lithgow	Reticulation	Water Mains	Wm200593		1979	$ 68,980	$ 70,497	$ -	$0	$0	$0	$0	$0	$70,497
Lithgow	Reticulation	Water Mains	Wm200594		1979	$ 41,014	$ 41,916	$ -	$0	$0	$0	$0	$0	$41,916
Lithgow	Reticulation	Water Mains	Wm200595		1979	$ 183	$ 188	$ -	$0	$0	$0	$0	$0	$188
Lithgow	Reticulation	Water Mains	Wm200596		1979	$ 518	$ 529	$ -	$0	$0	$0	$0	$0	$529
Lithgow	Reticulation	Water Mains	Wm200597		1979	$ 3,090	$ 3,158	$ -	$0	$0	$0	$0	$0	$3,158
Lithgow	Reticulation	Water Mains	Wm200598		1979	$ 14,324	$ 14,639	$ -	$0	$0	$0	$0	$0	$14,639
Lithgow	Reticulation	Water Mains	Wm200599		1979	$ 35	$ 35	$ -	$0	$0	$0	$0	$0	$35
Lithgow	Reticulation	Water Mains	Wm200600		1950	$ 671	$ 686	$ -	$0	$0	$0	$0	$0	$686
Lithgow	Reticulation	Water Mains	Wm200601		2004	$ 12,108	$ 12,374	$ -	$0	$0	$0	$0	$0	$12,374
Lithgow	Reticulation	Water Mains	Wm200602		2004	$ 11,318	$ 11,567	$ -	$0	$0	$0	$0	$0	$11,567
Lithgow	Reticulation	Water Mains	Wm200603		1950	$ 994	$ 1,016	$ -	$0	$0	$0	$0	$0	$1,016
Lithgow	Reticulation	Water Mains	Wm200604		1979	$ 37,383	$ 38,206	$ -	$0	$0	$0	$0	$0	$38,206
Lithgow	Reticulation	Water Mains	Wm200605		1950	$ 195	$ 199	$ -	$0	$0	$0	$0	$0	$199
Lithgow	Reticulation	Water Mains	Wm200606		1979	$ 39,801	$ 40,677	$ -	$0	$0	$0	$0	$0	$40,677
Lithgow	Reticulation	Water Mains	Wm200607		1979	$ 395	$ 404	$ -	$0	$0	$0	$0	$0	$404
Lithgow	Reticulation	Water Mains	Wm200608		1979	$ 56,555	$ 57,799	$ -	$0	$0	$0	$0	$0	$57,799
Lithgow	Reticulation	Water Mains	Wm200609		1950	$ 115	$ 118	$ -	$0	$0	$0	$0	$0	$118
Lithgow	Reticulation	Water Mains	Wm200610		1979	$ 29,083	$ 29,723	$ -	$0	$0	$0	$0	$0	$29,723
Lithgow	Reticulation	Water Mains	Wm200611		1950	$ 174	$ 178	$ -	$0	$0	$0	$0	$0	$178
Lithgow	Reticulation	Water Mains	Wm200612		1979	$ 636	$ 650	$ -	$0	$0	$0	$0	$0	$650
Lithgow	Reticulation	Water Mains	Wm200613		1950	$ 935	$ 956	$ -	$0	$0	$0	$0	$0	$956
Lithgow	Reticulation	Water Mains	Wm200614		1979	$ 433	$ 442	$ -	$0	$0	$0	$0	$0	$442
Lithgow	Reticulation	Water Mains	Wm200615		1979	$ 206	$ 211	$ -	$0	$0	$0	$0	$0	$211
Lithgow	Reticulation	Water Mains	Wm200616		1950	$ 7,554	$ 7,721	$ -	$0	$0	$0	$0	$0	$7,721
Lithgow	Reticulation	Water Mains	Wm200617		1979	$ 431	$ 440	$ -	$0	$0	$0	$0	$0	$440
Lithgow	Reticulation	Water Mains	Wm200618		1979	$ 12,829	$ 13,111	$ -	$0	$0	$0	$0	$0	$13,111
Lithgow	Reticulation	Water Mains	Wm200619		1979	$ 18,086	$ 18,483	$ -	$0	$0	$0	$0	$0	$18,483
Lithgow	Reticulation	Water Mains	Wm200620		1979	$ 14,144	$ 14,456	$ -	$0	$0	$0	$0	$0	$14,456
Lithgow	Reticulation	Water Mains	Wm200621		1979	$ 893	$ 912	$ -	$0	$0	$0	$0	$0	$912
Lithgow	Reticulation	Water Mains	Wm200622		1979	$ 35,133	$ 35,906	$ -	$0	$0	$0	$0	$0	$35,906
Lithgow	Reticulation	Water Mains	Wm200623		1979	$ 27,873	$ 28,486	$ -	$0	$0	$0	$0	$0	$28,486
Lithgow	Reticulation	Water Mains	Wm200624		1979	$ 726	$ 742	$ -	$0	$0	$0	$0	$0	$742
Lithgow	Reticulation	Water Mains	Wm200625		1950	$ 3,866	$ 3,951	$ -	$0	$0	$0	$0	$0	$3,951
Lithgow	Reticulation	Water Mains	Wm200626		1950	$ 129	$ 131	$ -	$0	$0	$0	$0	$0	$131
Lithgow	Reticulation	Water Mains	Wm200627		1950	$ 14	$ 14	$ -	$0	$0	$0	$0	$0	$14
Lithgow	Reticulation	Water Mains	Wm200628		1950	$ 4,763	$ 4,868	$ -	$0	$0	$0	$0	$0	$4,868
Lithgow	Reticulation	Water Mains	Wm200629		1950	$ 7,487	$ 7,652	$ -	$0	$0	$0	$0	$0	$7,652
Lithgow	Reticulation	Water Mains	Wm200630		1950	$ 85	$ 87	$ -	$0	$0	$0	$0	$0	$87
Lithgow	Reticulation	Water Mains	Wm200631		1950	$ 65	$ 66	$ -	$0	$0	$0	$0	$0	$66
Lithgow	Reticulation	Water Mains	Wm200632		1950	$ 3,886	$ 3,971	$ -	$0	$0	$0	$0	$0	$3,971
Lithgow	Reticulation	Water Mains	Wm200633		1950	$ 93,790	$ 95,854	$ -	$0	$0	$0	$0	$0	$95,854
Lithgow	Reticulation	Water Mains	Wm200634		1950	$ 626,929	$ 640,721	$ -	$0	$0	$0	$0	$0	$640,721
Lithgow	Reticulation	Water Mains	Wm200635		1950	$ 15,839	$ 16,187	$ -	$0	$0	$0	$0	$0	$16,187
Lithgow	Reticulation	Water Mains	Wm200636		1950	$ 39,205	$ 40,067	$ -	$0	$0	$0	$0	$0	$40,067
Lithgow	Reticulation	Water Mains	Wm200637		1950	$ 14,928	$ 15,256	$ -	$0	$0	$0	$0	$0	$15,256
Lithgow	Reticulation	Water Mains	Wm200638		1950	$ 3,008	$ 3,074	$ -	$0	$0	$0	$0	$0	$3,074
Lithgow	Reticulation	Water Mains	Wm200639		1950	$ 530	$ 542	$ -	$0	$0	$0	$0	$0	$542
Lithgow	Trunk	Water Mains	Wm200640		1950	$ 1,849	$ 1,890	$ 1,890	$0	$0	$0	$0	$0	$1,890
Lithgow	Reticulation	Water Mains	Wm200754		1950	$ 5,484	$ 5,604	$ -	$0	$0	$0	$0	$0	$5,604
Lithgow	Reticulation	Water Mains	Wm200755		1950	$ 12,130	$ 12,397	$ -	$0	$0	$0	$0	$0	$12,397
Lithgow	Reticulation	Water Mains	Wm200756		1950	$ 307	$ 313	$ -	$0	$0	$0	$0	$0	$313
Lithgow	Reticulation	Water Mains	Wm200757		1950	$ 183	$ 187	$ -	$0	$0	$0	$0	$0	$187
Lithgow	Reticulation	Water Mains	Wm200758		1950	$ 169	$ 173	$ -	$0	$0	$0	$0	$0	$173
Lithgow	Reticulation	Water Mains	Wm200759		1950	$ 12,344	$ 12,616	$ -	$0	$0	$0	$0	$0	$12,616
Lithgow	Reticulation	Water Mains	Wm200760		1950	$ 443	$ 453	$ -	$0	$0	$0	$0	$0	$453
Lithgow	Reticulation	Water Mains	Wm200761		1950	$ 16,302	$ 16,661	$ -	$0	$0	$0	$0	$0	$16,661
Lithgow	Reticulation	Water Mains	Wm200762		1950	$ 101	$ 103	$ -	$0	$0	$0	$0	$0	$103

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Lithgow	Reticulation	Water Mains	Wm200763		1950	$ 44,607	$ 45,588	$ -	$0	$0	$0	$0	$0	$45,588
Lithgow	Reticulation	Water Mains	Wm200764		1950	$ 130	$ 132	$ -	$0	$0	$0	$0	$0	$132
Lithgow	Reticulation	Water Mains	Wm200765		1950	$ 8,252	$ 8,434	$ -	$0	$0	$0	$0	$0	$8,434
Lithgow	Reticulation	Water Mains	Wm200766		1950	$ 18	$ 18	$ -	$0	$0	$0	$0	$0	$18
Lithgow	Reticulation	Water Mains	Wm200767		1950	$ 8,669	$ 8,859	$ -	$0	$0	$0	$0	$0	$8,859
Lithgow	Reticulation	Water Mains	Wm200768		1950	$ 134	$ 137	$ -	$0	$0	$0	$0	$0	$137
Lithgow	Reticulation	Water Mains	Wm200769		1950	$ 1,500	$ 1,533	$ -	$0	$0	$0	$0	$0	$1,533
Lithgow	Reticulation	Water Mains	Wm200770		1950	$ 3,300	$ 3,373	$ -	$0	$0	$0	$0	$0	$3,373
Lithgow	Reticulation	Water Mains	Wm200771		1950	$ 253	$ 259	$ -	$0	$0	$0	$0	$0	$259
Lithgow	Reticulation	Water Mains	Wm200772		1950	$ 76,860	$ 78,551	$ -	$0	$0	$0	$0	$0	$78,551
Lithgow	Reticulation	Water Mains	Wm200773		1950	$ 2,452	$ 2,506	$ -	$0	$0	$0	$0	$0	$2,506
Lithgow	Reticulation	Water Mains	Wm200774		1950	$ 263	$ 268	$ -	$0	$0	$0	$0	$0	$268
Lithgow	Reticulation	Water Mains	Wm200775		1950	$ 9,327	$ 9,532	$ -	$0	$0	$0	$0	$0	$9,532
Lithgow	Reticulation	Water Mains	Wm200776		1950	$ 206	$ 211	$ -	$0	$0	$0	$0	$0	$211
Lithgow	Reticulation	Water Mains	Wm200777		1950	$ 214	$ 219	$ -	$0	$0	$0	$0	$0	$219
Lithgow	Reticulation	Water Mains	Wm200778		1950	$ 51,541	$ 52,675	$ -	$0	$0	$0	$0	$0	$52,675
Lithgow	Reticulation	Water Mains	Wm200779		1950	$ 23,438	$ 23,954	$ -	$0	$0	$0	$0	$0	$23,954
Lithgow	Reticulation	Water Mains	Wm200780		1950	$ 16	$ 17	$ -	$0	$0	$0	$0	$0	$17
Lithgow	Reticulation	Water Mains	Wm200781		1950	$ 63	$ 64	$ -	$0	$0	$0	$0	$0	$64
Lithgow	Reticulation	Water Mains	Wm200782		1950	$ 9,088	$ 9,288	$ -	$0	$0	$0	$0	$0	$9,288
Lithgow	Reticulation	Water Mains	Wm200783		1950	$ 2,261	$ 2,311	$ -	$0	$0	$0	$0	$0	$2,311
Lithgow	Reticulation	Water Mains	Wm200784		1950	$ 2,515	$ 2,570	$ -	$0	$0	$0	$0	$0	$2,570
Lithgow	Reticulation	Water Mains	Wm200785		1950	$ 29	$ 30	$ -	$0	$0	$0	$0	$0	$30
Lithgow	Reticulation	Water Mains	Wm200786		1950	$ 70	$ 72	$ -	$0	$0	$0	$0	$0	$72
Lithgow	Reticulation	Water Mains	Wm200787		1950	$ 12,034	$ 12,299	$ -	$0	$0	$0	$0	$0	$12,299
Lithgow	Reticulation	Water Mains	Wm200788		1950	$ 2,123	$ 2,170	$ -	$0	$0	$0	$0	$0	$2,170
Lithgow	Reticulation	Water Mains	Wm200789		1950	$ 47	$ 48	$ -	$0	$0	$0	$0	$0	$48
Lithgow	Reticulation	Water Mains	Wm200790		1950	$ 24,847	$ 25,394	$ -	$0	$0	$0	$0	$0	$25,394
Lithgow	Reticulation	Water Mains	Wm200791		1950	$ 14,189	$ 14,501	$ -	$0	$0	$0	$0	$0	$14,501
Lithgow	Reticulation	Water Mains	Wm200792		1950	$ 23,621	$ 24,140	$ -	$0	$0	$0	$0	$0	$24,140
Lithgow	Reticulation	Water Mains	Wm200793		1950	$ 3,749	$ 3,832	$ -	$0	$0	$0	$0	$0	$3,832
Lithgow	Reticulation	Water Mains	Wm200794		1950	$ 149	$ 152	$ -	$0	$0	$0	$0	$0	$152
Lithgow	Reticulation	Water Mains	Wm200795		1950	$ 25,944	$ 26,514	$ -	$0	$0	$0	$0	$0	$26,514
Lithgow	Reticulation	Water Mains	Wm200796		1950	$ 1,014	$ 1,037	$ -	$0	$0	$0	$0	$0	$1,037
Lithgow	Reticulation	Water Mains	Wm200797		1950	$ 21,478	$ 21,951	$ -	$0	$0	$0	$0	$0	$21,951
Lithgow	Reticulation	Water Mains	Wm200798		1950	$ 77,370	$ 79,072	$ -	$0	$0	$0	$0	$0	$79,072
Lithgow	Reticulation	Water Mains	Wm200799		1950	$ 342	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm200800		1950	$ 3,827	$ 3,911	$ -	$0	$0	$0	$0	$0	$3,911
Lithgow	Reticulation	Water Mains	Wm200801		1950	$ 73,744	$ 75,367	$ -	$0	$0	$0	$0	$0	$75,367
Lithgow	Reticulation	Water Mains	Wm200802		1950	$ 3,530	$ 3,607	$ -	$0	$0	$0	$0	$0	$3,607
Lithgow	Reticulation	Water Mains	Wm200803		1950	$ 173	$ 177	$ -	$0	$0	$0	$0	$0	$177
Lithgow	Reticulation	Water Mains	Wm200804		1950	$ 16,950	$ 17,323	$ -	$0	$0	$0	$0	$0	$17,323
Lithgow	Reticulation	Water Mains	Wm200805		1950	$ 1,252	$ 1,280	$ -	$0	$0	$0	$0	$0	$1,280
Lithgow	Reticulation	Water Mains	Wm200806		1950	$ 42,966	$ 43,911	$ -	$0	$0	$0	$0	$0	$43,911
Lithgow	Reticulation	Water Mains	Wm200807		1950	$ 50	$ 51	$ -	$0	$0	$0	$0	$0	$51
Lithgow	Reticulation	Water Mains	Wm200808		1950	$ 2,802	$ 2,864	$ -	$0	$0	$0	$0	$0	$2,864
Lithgow	Reticulation	Water Mains	Wm200809		1950	$ 3,420	$ 3,496	$ -	$0	$0	$0	$0	$0	$3,496
Lithgow	Reticulation	Water Mains	Wm200810		1950	$ 12,297	$ 12,567	$ -	$0	$0	$0	$0	$0	$12,567
Lithgow	Reticulation	Water Mains	Wm200811		1950	$ 211	$ 215	$ -	$0	$0	$0	$0	$0	$215
Lithgow	Reticulation	Water Mains	Wm200812		1950	$ 33,643	$ 34,383	$ -	$0	$0	$0	$0	$0	$34,383
Lithgow	Reticulation	Water Mains	Wm200813		1950	$ 2,742	$ 2,803	$ -	$0	$0	$0	$0	$0	$2,803
Lithgow	Reticulation	Water Mains	Wm200814		1950	$ 76,363	$ 78,043	$ -	$0	$0	$0	$0	$0	$78,043
Lithgow	Reticulation	Water Mains	Wm200815		1950	$ 55,184	$ 56,398	$ -	$0	$0	$0	$0	$0	$56,398
Lithgow	Reticulation	Water Mains	Wm200817		1950	$ 48,672	$ 49,743	$ -	$0	$0	$0	$0	$0	$49,743
Lithgow	Reticulation	Water Mains	Wm200818		1950	$ 8,912	$ 9,108	$ -	$0	$0	$0	$0	$0	$9,108
Lithgow	Reticulation	Water Mains	Wm200819		1950	$ 363,083	$ 371,071	$ -	$0	$0	$0	$0	$0	$371,071
Lithgow	Reticulation	Water Mains	Wm200820		1950	$ 206	$ 211	$ -	$0	$0	$0	$0	$0	$211
Lithgow	Reticulation	Water Mains	Wm200823		1950	$ 3,903	$ 3,989	$ -	$0	$0	$0	$0	$0	$3,989
Lithgow	Reticulation	Water Mains	Wm200824		1950	$ 3,191	$ 3,261	$ -	$0	$0	$0	$0	$0	$3,261
Lithgow	Reticulation	Water Mains	Wm200825		1950	$ 30,363	$ 31,031	$ -	$0	$0	$0	$0	$0	$31,031
Lithgow	Reticulation	Water Mains	Wm200826		1950	$ 648	$ 663	$ -	$0	$0	$0	$0	$0	$663
Lithgow	Reticulation	Water Mains	Wm200827		1950	$ 58,122	$ 59,401	$ -	$0	$0	$0	$0	$0	$59,401
Lithgow	Reticulation	Water Mains	Wm200828		1950	$ 586	$ 599	$ -	$0	$0	$0	$0	$0	$599
Lithgow	Reticulation	Water Mains	Wm200829		1950	$ 838	$ 856	$ -	$0	$0	$0	$0	$0	$856
Lithgow	Reticulation	Water Mains	Wm200830		1950	$ 49,741	$ 50,835	$ -	$0	$0	$0	$0	$0	$50,835
Lithgow	Reticulation	Water Mains	Wm200831		1950	$ 17,630	$ 18,017	$ -	$0	$0	$0	$0	$0	$18,017
Lithgow	Reticulation	Water Mains	Wm200832		1950	$ 16,116	$ 16,470	$ -	$0	$0	$0	$0	$0	$16,470
Lithgow	Reticulation	Water Mains	Wm200833		1950	$ 201,232	$ 205,659	$ -	$0	$0	$0	$0	$0	$205,659
Lithgow	Reticulation	Water Mains	Wm200834		1950	$ 368,943	$ 377,060	$ -	$0	$0	$0	$0	$0	$377,060
Lithgow	Reticulation	Water Mains	Wm200835		1950	$ 806,582	$ 824,326	$ -	$0	$0	$0	$0	$0	$824,326
Lithgow	Reticulation	Water Mains	Wm200836		1950	$ 182,927	$ 186,952	$ -	$0	$0	$0	$0	$0	$186,952
Lithgow	Reticulation	Water Mains	Wm200837		1950	$ 65,785	$ 67,232	$ -	$0	$0	$0	$0	$0	$67,232
Lithgow	Reticulation	Water Mains	Wm200838		1950	$ 7,887	$ 8,060	$ -	$0	$0	$0	$0	$0	$8,060
Lithgow	Trunk	Water Mains	Wm200839		1950	$ 1,437	$ 1,469	$ 1,469	$0	$0	$0	$0	$0	$1,469
Lithgow	Reticulation	Water Mains	Wm200840		1950	$ 3,379	$ 3,453	$ -	$0	$0	$0	$0	$0	$3,453
Lithgow	Trunk	Water Mains	Wm200841		1950	$ 1,280	$ 1,309	$ 1,309	$0	$0	$0	$0	$0	$1,309
Lithgow	Trunk	Water Mains	Wm200842		1950	$ 14,626	$ 14,947	$ 14,947	$0	$0	$0	$0	$0	$14,947
Lithgow	Trunk	Water Mains	Wm200843		1950	$ 5,952	$ 6,082	$ 6,082	$0	$0	$0	$0	$0	$6,082
Lithgow	Reticulation	Water Mains	Wm200844		1950	$ 20,744	$ 21,200	$ -	$0	$0	$0	$0	$0	$21,200
Lithgow	Reticulation	Water Mains	Wm200845		1950	$ 48,238	$ 49,299	$ -	$0	$0	$0	$0	$0	$49,299
Lithgow	Reticulation	Water Mains	Wm200846		1950	$ 427	$ 436	$ -	$0	$0	$0	$0	$0	$436
Lithgow	Reticulation	Water Mains	Wm200847		1950	$ 34,214	$ 34,967	$ -	$0	$0	$0	$0	$0	$34,967
Lithgow	Reticulation	Water Mains	Wm200848		1950	$ 17,788	$ 18,180	$ -	$0	$0	$0	$0	$0	$18,180
Lithgow	Reticulation	Water Mains	Wm200849		1950	$ 2,875	$ 2,938	$ -	$0	$0	$0	$0	$0	$2,938
Lithgow	Reticulation	Water Mains	Wm200850		1950	$ 26,618	$ 27,204	$ -	$0	$0	$0	$0	$0	$27,204
Lithgow	Reticulation	Water Mains	Wm200851		1950	$ 3,732	$ 3,814	$ -	$0	$0	$0	$0	$0	$3,814
Lithgow	Reticulation	Water Mains	Wm200852		1950	$ 14,053	$ 14,362	$ -	$0	$0	$0	$0	$0	$14,362

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm200853		1950	$ 591	$ 604	$ -	$0	$0	$0	$0	$0	$604
Lithgow	Reticulation	Water Mains	Wm200854		1950	$ 80,264	$ 82,030	$ -	$0	$0	$0	$0	$0	$82,030
Lithgow	Reticulation	Water Mains	Wm200855		1950	$ 220	$ 225	$ -	$0	$0	$0	$0	$0	$225
Lithgow	Reticulation	Water Mains	Wm200856		1950	$ 580	$ 593	$ -	$0	$0	$0	$0	$0	$593
Lithgow	Reticulation	Water Mains	Wm200857		1950	$ 29,197	$ 29,839	$ -	$0	$0	$0	$0	$0	$29,839
Lithgow	Reticulation	Water Mains	Wm200858		1950	$ 533	$ 545	$ -	$0	$0	$0	$0	$0	$545
Lithgow	Reticulation	Water Mains	Wm200859		1950	$ 21,779	$ 22,258	$ -	$0	$0	$0	$0	$0	$22,258
Lithgow	Reticulation	Water Mains	Wm200860		1950	$ 122	$ 125	$ -	$0	$0	$0	$0	$0	$125
Lithgow	Reticulation	Water Mains	Wm200861		1950	$ 10,577	$ 10,810	$ -	$0	$0	$0	$0	$0	$10,810
Lithgow	Reticulation	Water Mains	Wm200862		1950	$ 26,912	$ 27,504	$ -	$0	$0	$0	$0	$0	$27,504
Lithgow	Reticulation	Water Mains	Wm200863		1950	$ 84,164	$ 86,016	$ -	$0	$0	$0	$0	$0	$86,016
Lithgow	Reticulation	Water Mains	Wm200864		1950	$ 18,689	$ 19,101	$ -	$0	$0	$0	$0	$0	$19,101
Lithgow	Reticulation	Water Mains	Wm200865		1950	$ 468	$ 479	$ -	$0	$0	$0	$0	$0	$479
Lithgow	Reticulation	Water Mains	Wm200866		1950	$ 1,337	$ 1,367	$ -	$0	$0	$0	$0	$0	$1,367
Lithgow	Reticulation	Water Mains	Wm200867		1950	$ 32,570	$ 33,286	$ -	$0	$0	$0	$0	$0	$33,286
Lithgow	Reticulation	Water Mains	Wm200868		1950	$ 1,110	$ 1,134	$ -	$0	$0	$0	$0	$0	$1,134
Lithgow	Reticulation	Water Mains	Wm200869		1950	$ 30,455	$ 31,125	$ -	$0	$0	$0	$0	$0	$31,125
Lithgow	Reticulation	Water Mains	Wm200870		1950	$ 7,399	$ 7,562	$ -	$0	$0	$0	$0	$0	$7,562
Lithgow	Reticulation	Water Mains	Wm200871		1950	$ 17,092	$ 17,468	$ -	$0	$0	$0	$0	$0	$17,468
Lithgow	Reticulation	Water Mains	Wm200872		1950	$ 127,455	$ 130,259	$ -	$0	$0	$0	$0	$0	$130,259
Lithgow	Reticulation	Water Mains	Wm200873		1950	$ 43,344	$ 44,298	$ -	$0	$0	$0	$0	$0	$44,298
Lithgow	Reticulation	Water Mains	Wm200874		1950	$ 6,737	$ 6,885	$ -	$0	$0	$0	$0	$0	$6,885
Lithgow	Reticulation	Water Mains	Wm200875		1950	$ 166,546	$ 170,210	$ -	$0	$0	$0	$0	$0	$170,210
Lithgow	Reticulation	Water Mains	Wm200876		1950	$ 4,409	$ 4,506	$ -	$0	$0	$0	$0	$0	$4,506
Lithgow	Reticulation	Water Mains	Wm200877		1950	$ 18,615	$ 19,025	$ -	$0	$0	$0	$0	$0	$19,025
Lithgow	Reticulation	Water Mains	Wm200878		1950	$ 20,804	$ 21,262	$ -	$0	$0	$0	$0	$0	$21,262
Lithgow	Reticulation	Water Mains	Wm200879		1950	$ 4,060	$ 4,150	$ -	$0	$0	$0	$0	$0	$4,150
Lithgow	Reticulation	Water Mains	Wm200880		1950	$ 60	$ 62	$ -	$0	$0	$0	$0	$0	$62
Lithgow	Reticulation	Water Mains	Wm200881		1950	$ 1,028	$ 1,050	$ -	$0	$0	$0	$0	$0	$1,050
Lithgow	Reticulation	Water Mains	Wm200882		1950	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm200883		1950	$ 13,054	$ 13,341	$ -	$0	$0	$0	$0	$0	$13,341
Lithgow	Reticulation	Water Mains	Wm200884		1950	$ 47	$ 48	$ -	$0	$0	$0	$0	$0	$48
Lithgow	Reticulation	Water Mains	Wm200885		1950	$ 35,249	$ 36,024	$ -	$0	$0	$0	$0	$0	$36,024
Lithgow	Reticulation	Water Mains	Wm200886		1950	$ 109	$ 111	$ -	$0	$0	$0	$0	$0	$111
Lithgow	Reticulation	Water Mains	Wm200887		1950	$ 14,035	$ 14,344	$ -	$0	$0	$0	$0	$0	$14,344
Lithgow	Reticulation	Water Mains	Wm200888		1950	$ 49	$ 50	$ -	$0	$0	$0	$0	$0	$50
Lithgow	Reticulation	Water Mains	Wm200889		1950	$ 140	$ 143	$ -	$0	$0	$0	$0	$0	$143
Lithgow	Reticulation	Water Mains	Wm200890		1950	$ 24,380	$ 24,916	$ -	$0	$0	$0	$0	$0	$24,916
Lithgow	Reticulation	Water Mains	Wm200891		1950	$ 98	$ 100	$ -	$0	$0	$0	$0	$0	$100
Lithgow	Reticulation	Water Mains	Wm200892		1950	$ 173	$ 177	$ -	$0	$0	$0	$0	$0	$177
Lithgow	Reticulation	Water Mains	Wm200893		1950	$ 6,285	$ 6,423	$ -	$0	$0	$0	$0	$0	$6,423
Lithgow	Reticulation	Water Mains	Wm200894		1950	$ 158	$ 161	$ -	$0	$0	$0	$0	$0	$161
Lithgow	Reticulation	Water Mains	Wm200895		1950	$ 86	$ 88	$ -	$0	$0	$0	$0	$0	$88
Lithgow	Reticulation	Water Mains	Wm200896		1950	$ 15,748	$ 16,094	$ -	$0	$0	$0	$0	$0	$16,094
Lithgow	Reticulation	Water Mains	Wm200897		1950	$ 292	$ 299	$ -	$0	$0	$0	$0	$0	$299
Lithgow	Reticulation	Water Mains	Wm200898		1950	$ 3,225	$ 3,296	$ -	$0	$0	$0	$0	$0	$3,296
Lithgow	Reticulation	Water Mains	Wm200899		1950	$ 92,461	$ 94,495	$ -	$0	$0	$0	$0	$0	$94,495
Lithgow	Reticulation	Water Mains	Wm200900		1950	$ 174	$ 178	$ -	$0	$0	$0	$0	$0	$178
Lithgow	Reticulation	Water Mains	Wm200901		1950	$ 604	$ 618	$ -	$0	$0	$0	$0	$0	$618
Lithgow	Reticulation	Water Mains	Wm200902		1950	$ 1,170	$ 1,196	$ -	$0	$0	$0	$0	$0	$1,196
Lithgow	Reticulation	Water Mains	Wm200903		1950	$ 5,879	$ 6,009	$ -	$0	$0	$0	$0	$0	$6,009
Lithgow	Reticulation	Water Mains	Wm200904		1950	$ 1,655	$ 1,692	$ -	$0	$0	$0	$0	$0	$1,692
Lithgow	Reticulation	Water Mains	Wm200905		1950	$ 7,547	$ 7,713	$ -	$0	$0	$0	$0	$0	$7,713
Lithgow	Reticulation	Water Mains	Wm200906		1950	$ 154	$ 158	$ -	$0	$0	$0	$0	$0	$158
Lithgow	Reticulation	Water Mains	Wm200907		1950	$ 20,131	$ 20,574	$ -	$0	$0	$0	$0	$0	$20,574
Lithgow	Reticulation	Water Mains	Wm200908		1950	$ 651	$ 665	$ -	$0	$0	$0	$0	$0	$665
Lithgow	Reticulation	Water Mains	Wm200909		1950	$ 542	$ 554	$ -	$0	$0	$0	$0	$0	$554
Lithgow	Reticulation	Water Mains	Wm200910		1950	$ 275	$ 281	$ -	$0	$0	$0	$0	$0	$281
Lithgow	Reticulation	Water Mains	Wm200911		1950	$ 15,715	$ 16,060	$ -	$0	$0	$0	$0	$0	$16,060
Lithgow	Reticulation	Water Mains	Wm200912		1950	$ 351	$ 359	$ -	$0	$0	$0	$0	$0	$359
Lithgow	Reticulation	Water Mains	Wm200913		1950	$ 405	$ 414	$ -	$0	$0	$0	$0	$0	$414
Lithgow	Reticulation	Water Mains	Wm200914		1950	$ 33,753	$ 34,496	$ -	$0	$0	$0	$0	$0	$34,496
Lithgow	Reticulation	Water Mains	Wm200915		1950	$ 170	$ 174	$ -	$0	$0	$0	$0	$0	$174
Lithgow	Reticulation	Water Mains	Wm200916		1950	$ 26,024	$ 26,597	$ -	$0	$0	$0	$0	$0	$26,597
Lithgow	Reticulation	Water Mains	Wm200917		1950	$ 109	$ 112	$ -	$0	$0	$0	$0	$0	$112
Lithgow	Reticulation	Water Mains	Wm200918		1950	$ 21,665	$ 22,142	$ -	$0	$0	$0	$0	$0	$22,142
Lithgow	Reticulation	Water Mains	Wm200919		1950	$ 36,015	$ 36,807	$ -	$0	$0	$0	$0	$0	$36,807
Lithgow	Reticulation	Water Mains	Wm200920		1950	$ 15,113	$ 15,445	$ -	$0	$0	$0	$0	$0	$15,445
Lithgow	Reticulation	Water Mains	Wm200921		1950	$ 12,053	$ 12,318	$ -	$0	$0	$0	$0	$0	$12,318
Lithgow	Reticulation	Water Mains	Wm200922		1950	$ 522	$ 534	$ -	$0	$0	$0	$0	$0	$534
Lithgow	Reticulation	Water Mains	Wm200923		1950	$ 18,940	$ 19,356	$ -	$0	$0	$0	$0	$0	$19,356
Lithgow	Reticulation	Water Mains	Wm200924		1950	$ 16,225	$ 16,582	$ -	$0	$0	$0	$0	$0	$16,582
Lithgow	Reticulation	Water Mains	Wm200925		1950	$ 8,291	$ 8,473	$ -	$0	$0	$0	$0	$0	$8,473
Lithgow	Reticulation	Water Mains	Wm200926		1950	$ 212	$ 217	$ -	$0	$0	$0	$0	$0	$217
Lithgow	Reticulation	Water Mains	Wm200927		1950	$ 40,320	$ 41,207	$ -	$0	$0	$0	$0	$0	$41,207
Lithgow	Reticulation	Water Mains	Wm200928		1950	$ 1,212	$ 1,239	$ -	$0	$0	$0	$0	$0	$1,239
Lithgow	Reticulation	Water Mains	Wm200929		1950	$ 14,743	$ 15,068	$ -	$0	$0	$0	$0	$0	$15,068
Lithgow	Reticulation	Water Mains	Wm200930		1950	$ 1,198	$ 1,224	$ -	$0	$0	$0	$0	$0	$1,224
Lithgow	Reticulation	Water Mains	Wm200931		1950	$ 19,675	$ 20,108	$ -	$0	$0	$0	$0	$0	$20,108
Lithgow	Reticulation	Water Mains	Wm200932		1950	$ 499	$ 510	$ -	$0	$0	$0	$0	$0	$510
Lithgow	Reticulation	Water Mains	Wm200933		1950	$ 518	$ 529	$ -	$0	$0	$0	$0	$0	$529
Lithgow	Reticulation	Water Mains	Wm200934		1950	$ 505	$ 517	$ -	$0	$0	$0	$0	$0	$517
Lithgow	Reticulation	Water Mains	Wm200935		1950	$ 43,246	$ 44,198	$ -	$0	$0	$0	$0	$0	$44,198
Lithgow	Reticulation	Water Mains	Wm200936		1950	$ 1,470	$ 1,502	$ -	$0	$0	$0	$0	$0	$1,502
Lithgow	Reticulation	Water Mains	Wm200937		1950	$ 1,251	$ 1,279	$ -	$0	$0	$0	$0	$0	$1,279
Lithgow	Reticulation	Water Mains	Wm200938		1950	$ 822	$ 840	$ -	$0	$0	$0	$0	$0	$840
Lithgow	Reticulation	Water Mains	Wm200939		1950	$ 31,184	$ 31,870	$ -	$0	$0	$0	$0	$0	$31,870

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Lithgow	Reticulation	Water Mains	Wm200940		1950	$ 27,938	$ 28,553	$ -	$0	$0	$0	$0	$0	$28,553
Lithgow	Reticulation	Water Mains	Wm200941		1950	$ 13,412	$ 13,707	$ -	$0	$0	$0	$0	$0	$13,707
Lithgow	Reticulation	Water Mains	Wm200942		1950	$ 21,917	$ 22,399	$ -	$0	$0	$0	$0	$0	$22,399
Lithgow	Reticulation	Water Mains	Wm200943		1950	$ 195	$ 200	$ -	$0	$0	$0	$0	$0	$200
Lithgow	Reticulation	Water Mains	Wm200944		1950	$ 18,219	$ 18,619	$ -	$0	$0	$0	$0	$0	$18,619
Lithgow	Reticulation	Water Mains	Wm200945		1950	$ 16,421	$ 16,782	$ -	$0	$0	$0	$0	$0	$16,782
Lithgow	Reticulation	Water Mains	Wm200946		1950	$ 111	$ 113	$ -	$0	$0	$0	$0	$0	$113
Lithgow	Reticulation	Water Mains	Wm200947		1950	$ 7,129	$ 7,286	$ -	$0	$0	$0	$0	$0	$7,286
Lithgow	Reticulation	Water Mains	Wm200948		1950	$ 553	$ 565	$ -	$0	$0	$0	$0	$0	$565
Lithgow	Reticulation	Water Mains	Wm200949		1950	$ 274	$ 280	$ -	$0	$0	$0	$0	$0	$280
Lithgow	Reticulation	Water Mains	Wm200950		1950	$ 37,613	$ 38,440	$ -	$0	$0	$0	$0	$0	$38,440
Lithgow	Reticulation	Water Mains	Wm200951		1988	$ 1,199	$ 1,226	$ -	$0	$0	$0	$0	$0	$1,226
Lithgow	Reticulation	Water Mains	Wm200952		1950	$ 16,413	$ 16,774	$ -	$0	$0	$0	$0	$0	$16,774
Lithgow	Reticulation	Water Mains	Wm200953		1988	$ 1,262	$ 1,290	$ -	$0	$0	$0	$0	$0	$1,290
Lithgow	Reticulation	Water Mains	Wm200954		1950	$ 18,430	$ 18,835	$ -	$0	$0	$0	$0	$0	$18,835
Lithgow	Reticulation	Water Mains	Wm200955		1988	$ 496	$ 507	$ -	$0	$0	$0	$0	$0	$507
Lithgow	Reticulation	Water Mains	Wm200956		1988	$ 25,285	$ 25,841	$ -	$0	$0	$0	$0	$0	$25,841
Lithgow	Reticulation	Water Mains	Wm200957		1988	$ 72	$ 73	$ -	$0	$0	$0	$0	$0	$73
Lithgow	Reticulation	Water Mains	Wm200958		1988	$ 17,200	$ 17,579	$ -	$0	$0	$0	$0	$0	$17,579
Lithgow	Reticulation	Water Mains	Wm200959		1988	$ 158	$ 162	$ -	$0	$0	$0	$0	$0	$162
Lithgow	Reticulation	Water Mains	Wm200960		1988	$ 22,496	$ 22,991	$ -	$0	$0	$0	$0	$0	$22,991
Lithgow	Reticulation	Water Mains	Wm200961		1988	$ 56	$ 57	$ -	$0	$0	$0	$0	$0	$57
Lithgow	Reticulation	Water Mains	Wm200962		1988	$ 6,889	$ 7,040	$ -	$0	$0	$0	$0	$0	$7,040
Lithgow	Reticulation	Water Mains	Wm200963		1988	$ 18,973	$ 19,390	$ -	$0	$0	$0	$0	$0	$19,390
Lithgow	Reticulation	Water Mains	Wm200964		1988	$ 7,065	$ 7,221	$ -	$0	$0	$0	$0	$0	$7,221
Lithgow	Reticulation	Water Mains	Wm200965		1994	$ 2,591	$ 2,648	$ -	$0	$0	$0	$0	$0	$2,648
Lithgow	Reticulation	Water Mains	Wm200966		1950	$ 1,284	$ 1,313	$ -	$0	$0	$0	$0	$0	$1,313
Lithgow	Reticulation	Water Mains	Wm200967		1994	$ 34,554	$ 35,314	$ -	$0	$0	$0	$0	$0	$35,314
Lithgow	Reticulation	Water Mains	Wm200967		1994	$ 110,350	$ 112,777	$ -	$0	$0	$0	$0	$0	$112,777
Lithgow	Reticulation	Water Mains	Wm200968		2006	$ 1,039	$ 1,061	$ -	$0	$0	$0	$0	$0	$1,061
Lithgow	Reticulation	Water Mains	Wm200969		1950	$ 65,978	$ 67,430	$ -	$0	$0	$0	$0	$0	$67,430
Lithgow	Reticulation	Water Mains	Wm200970		1950	$ 1,533	$ 1,566	$ -	$0	$0	$0	$0	$0	$1,566
Lithgow	Reticulation	Water Mains	Wm200971		1950	$ 78,035	$ 79,751	$ -	$0	$0	$0	$0	$0	$79,751
Lithgow	Reticulation	Water Mains	Wm200972		1950	$ 51,847	$ 52,988	$ -	$0	$0	$0	$0	$0	$52,988
Lithgow	Reticulation	Water Mains	Wm200973		1950	$ 39,030	$ 39,889	$ -	$0	$0	$0	$0	$0	$39,889
Lithgow	Reticulation	Water Mains	Wm200974		1950	$ 90,628	$ 92,621	$ -	$0	$0	$0	$0	$0	$92,621
Lithgow	Reticulation	Water Mains	Wm200975		1950	$ 27,914	$ 28,528	$ -	$0	$0	$0	$0	$0	$28,528
Lithgow	Reticulation	Water Mains	Wm200976		1950	$ 25,591	$ 26,154	$ -	$0	$0	$0	$0	$0	$26,154
Lithgow	Reticulation	Water Mains	Wm200977		1950	$ 26,500	$ 27,083	$ -	$0	$0	$0	$0	$0	$27,083
Lithgow	Reticulation	Water Mains	Wm200978		1950	$ 414	$ 423	$ -	$0	$0	$0	$0	$0	$423
Lithgow	Reticulation	Water Mains	Wm200979		1950	$ 548	$ 560	$ -	$0	$0	$0	$0	$0	$560
Lithgow	Reticulation	Water Mains	Wm200980		1950	$ 2,977	$ 3,043	$ -	$0	$0	$0	$0	$0	$3,043
Lithgow	Reticulation	Water Mains	Wm200981		1950	$ 9,923	$ 10,141	$ -	$0	$0	$0	$0	$0	$10,141
Lithgow	Reticulation	Water Mains	Wm201142		2006	$ 25,800	$ 26,367	$ -	$0	$0	$0	$0	$0	$26,367
Lithgow	Reticulation	Water Mains	Wm201143		2006	$ 1,673	$ 1,710	$ -	$0	$0	$0	$0	$0	$1,710
Lithgow	Reticulation	Water Mains	Wm201144		2006	$ 269	$ 274	$ -	$0	$0	$0	$0	$0	$274
Lithgow	Reticulation	Water Mains	Wm201145		2006	$ 3,402	$ 3,477	$ -	$0	$0	$0	$0	$0	$3,477
Lithgow	Reticulation	Water Mains	Wm201146		2006	$ 21,828	$ 22,308	$ -	$0	$0	$0	$0	$0	$22,308
Lithgow	Reticulation	Water Mains	Wm201147		2006	$ 640	$ 654	$ -	$0	$0	$0	$0	$0	$654
Lithgow	Reticulation	Water Mains	Wm201148		2006	$ 59	$ 61	$ -	$0	$0	$0	$0	$0	$61
Lithgow	Reticulation	Water Mains	Wm201149		2006	$ 24,936	$ 25,485	$ -	$0	$0	$0	$0	$0	$25,485
Lithgow	Reticulation	Water Mains	Wm201150		2006	$ 19,140	$ 19,561	$ -	$0	$0	$0	$0	$0	$19,561
Lithgow	Reticulation	Water Mains	Wm201151		2006	$ 56	$ 57	$ -	$0	$0	$0	$0	$0	$57
Lithgow	Reticulation	Water Mains	Wm201152		2006	$ 3,518	$ 3,595	$ -	$0	$0	$0	$0	$0	$3,595
Lithgow	Reticulation	Water Mains	Wm201153		2006	$ 256	$ 261	$ -	$0	$0	$0	$0	$0	$261
Lithgow	Reticulation	Water Mains	Wm201154		1988	$ 2,512	$ 2,567	$ -	$0	$0	$0	$0	$0	$2,567
Lithgow	Reticulation	Water Mains	Wm201155		1988	$ 46,767	$ 47,796	$ -	$0	$0	$0	$0	$0	$47,796
Lithgow	Reticulation	Water Mains	Wm201156		1988	$ 609	$ 622	$ -	$0	$0	$0	$0	$0	$622
Lithgow	Reticulation	Water Mains	Wm201157		1988	$ 510	$ 521	$ -	$0	$0	$0	$0	$0	$521
Lithgow	Reticulation	Water Mains	Wm201158		1988	$ 35,251	$ 36,026	$ -	$0	$0	$0	$0	$0	$36,026
Lithgow	Reticulation	Water Mains	Wm201159		2007	$ 22,380	$ 22,872	$ -	$0	$0	$0	$0	$0	$22,872
Lithgow	Reticulation	Water Mains	Wm201160		2007	$ 2,938	$ 3,003	$ -	$0	$0	$0	$0	$0	$3,003
Lithgow	Reticulation	Water Mains	Wm201161		2007	$ 2,369	$ 2,421	$ -	$0	$0	$0	$0	$0	$2,421
Lithgow	Reticulation	Water Mains	Wm201162		2007	$ 4,207	$ 4,299	$ -	$0	$0	$0	$0	$0	$4,299
Lithgow	Reticulation	Water Mains	Wm201163		1950	$ 1,938	$ 1,981	$ -	$0	$0	$0	$0	$0	$1,981
Lithgow	Reticulation	Water Mains	Wm201164		1950	$ 143	$ 146	$ -	$0	$0	$0	$0	$0	$146
Lithgow	Reticulation	Water Mains	Wm201165		1950	$ 20,864	$ 21,323	$ -	$0	$0	$0	$0	$0	$21,323
Lithgow	Reticulation	Water Mains	Wm201166		1950	$ 1,313	$ 1,342	$ -	$0	$0	$0	$0	$0	$1,342
Lithgow	Reticulation	Water Mains	Wm201167		1950	$ 20,187	$ 20,631	$ -	$0	$0	$0	$0	$0	$20,631
Lithgow	Reticulation	Water Mains	Wm201168		1950	$ 9,484	$ 9,693	$ -	$0	$0	$0	$0	$0	$9,693
Lithgow	Reticulation	Water Mains	Wm201243		1950	$ 11,611	$ 11,866	$ -	$0	$0	$0	$0	$0	$11,866
Lithgow	Reticulation	Water Mains	Wm201244		1950	$ 6,937	$ 7,090	$ -	$0	$0	$0	$0	$0	$7,090
Lithgow	Reticulation	Water Mains	Wm201245		1950	$ 70,822	$ 72,380	$ -	$0	$0	$0	$0	$0	$72,380
Lithgow	Reticulation	Water Mains	Wm201246		1950	$ 659	$ 673	$ -	$0	$0	$0	$0	$0	$673
Lithgow	Reticulation	Water Mains	Wm201317		2004	$ 3,896	$ 3,982	$ -	$0	$0	$0	$0	$0	$3,982
Lithgow	Reticulation	Water Mains	Wm201318		2004	$ 4,102	$ 4,192	$ -	$0	$0	$0	$0	$0	$4,192
Lithgow	Reticulation	Water Mains	Wm201319		2004	$ 4,577	$ 4,677	$ -	$0	$0	$0	$0	$0	$4,677
Lithgow	Reticulation	Water Mains	Wm201320		2004	$ 2,407	$ 2,460	$ -	$0	$0	$0	$0	$0	$2,460
Lithgow	Reticulation	Water Mains	Wm201321		2004	$ 107	$ 109	$ -	$0	$0	$0	$0	$0	$109
Lithgow	Reticulation	Water Mains	Wm201322		2004	$ 9,439	$ 9,647	$ -	$0	$0	$0	$0	$0	$9,647
Lithgow	Reticulation	Water Mains	Wm201323		2004	$ 5,384	$ 5,502	$ -	$0	$0	$0	$0	$0	$5,502
Lithgow	Reticulation	Water Mains	Wm201324		2004	$ 120	$ 123	$ -	$0	$0	$0	$0	$0	$123
Lithgow	Reticulation	Water Mains	Wm201325		2004	$ 5,358	$ 5,476	$ -	$0	$0	$0	$0	$0	$5,476
Lithgow	Reticulation	Water Mains	Wm201326		2004	$ 3,310	$ 3,383	$ -	$0	$0	$0	$0	$0	$3,383
Lithgow	Reticulation	Water Mains	Wm201327		2004	$ 2,041	$ 2,086	$ -	$0	$0	$0	$0	$0	$2,086
Lithgow	Reticulation	Water Mains	Wm201328		2004	$ 5,888	$ 6,017	$ -	$0	$0	$0	$0	$0	$6,017
Lithgow	Reticulation	Water Mains	Wm201329		2004	$ 8,708	$ 8,899	$ -	$0	$0	$0	$0	$0	$8,899

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm201330		2004	$ 11,715	$ 11,972	$ -	$0	$0	$0	$0	$0	$11,972
Lithgow	Reticulation	Water Mains	Wm201331		2004	$ 3,085	$ 3,152	$ -	$0	$0	$0	$0	$0	$3,152
Lithgow	Reticulation	Water Mains	Wm201332		2004	$ 4,301	$ 4,396	$ -	$0	$0	$0	$0	$0	$4,396
Lithgow	Reticulation	Water Mains	Wm201333		2004	$ 1,349	$ 1,379	$ -	$0	$0	$0	$0	$0	$1,379
Lithgow	Reticulation	Water Mains	Wm201334		2004	$ 4,418	$ 4,515	$ -	$0	$0	$0	$0	$0	$4,515
Lithgow	Reticulation	Water Mains	Wm201335		2004	$ 5,061	$ 5,172	$ -	$0	$0	$0	$0	$0	$5,172
Lithgow	Reticulation	Water Mains	Wm201336		2004	$ 3,073	$ 3,141	$ -	$0	$0	$0	$0	$0	$3,141
Lithgow	Reticulation	Water Mains	Wm201337		2004	$ 5,884	$ 6,013	$ -	$0	$0	$0	$0	$0	$6,013
Lithgow	Reticulation	Water Mains	Wm201338		2004	$ 5,882	$ 6,011	$ -	$0	$0	$0	$0	$0	$6,011
Lithgow	Reticulation	Water Mains	Wm201339		2004	$ 6,458	$ 6,600	$ -	$0	$0	$0	$0	$0	$6,600
Lithgow	Reticulation	Water Mains	Wm201340		2004	$ 7,957	$ 8,132	$ -	$0	$0	$0	$0	$0	$8,132
Lithgow	Reticulation	Water Mains	Wm201341		2004	$ 5,263	$ 5,379	$ -	$0	$0	$0	$0	$0	$5,379
Lithgow	Reticulation	Water Mains	Wm201342		2004	$ 5,329	$ 5,446	$ -	$0	$0	$0	$0	$0	$5,446
Lithgow	Reticulation	Water Mains	Wm201343		2004	$ 9,487	$ 9,695	$ -	$0	$0	$0	$0	$0	$9,695
Lithgow	Reticulation	Water Mains	Wm201344		2004	$ 118	$ 120	$ -	$0	$0	$0	$0	$0	$120
Lithgow	Reticulation	Water Mains	Wm201345		2004	$ 113	$ 116	$ -	$0	$0	$0	$0	$0	$116
Lithgow	Reticulation	Water Mains	Wm201346		2004	$ 1,911	$ 1,953	$ -	$0	$0	$0	$0	$0	$1,953
Lithgow	Reticulation	Water Mains	Wm201347		2004	$ 3,950	$ 4,037	$ -	$0	$0	$0	$0	$0	$4,037
Lithgow	Reticulation	Water Mains	Wm201348		2004	$ 2,792	$ 2,854	$ -	$0	$0	$0	$0	$0	$2,854
Lithgow	Reticulation	Water Mains	Wm201349		2004	$ 1,891	$ 1,933	$ -	$0	$0	$0	$0	$0	$1,933
Lithgow	Reticulation	Water Mains	Wm201350		2004	$ 88	$ 90	$ -	$0	$0	$0	$0	$0	$90
Lithgow	Reticulation	Water Mains	Wm201351		2004	$ 5,872	$ 6,001	$ -	$0	$0	$0	$0	$0	$6,001
Lithgow	Reticulation	Water Mains	Wm201352		2004	$ 101	$ 104	$ -	$0	$0	$0	$0	$0	$104
Lithgow	Reticulation	Water Mains	Wm201353		2004	$ 3,039	$ 3,106	$ -	$0	$0	$0	$0	$0	$3,106
Lithgow	Reticulation	Water Mains	Wm201354		2004	$ 4,892	$ 4,999	$ -	$0	$0	$0	$0	$0	$4,999
Lithgow	Reticulation	Water Mains	Wm201355		2004	$ 854	$ 873	$ -	$0	$0	$0	$0	$0	$873
Lithgow	Reticulation	Water Mains	Wm201356		2004	$ 6,035	$ 6,168	$ -	$0	$0	$0	$0	$0	$6,168
Lithgow	Reticulation	Water Mains	Wm201357		2004	$ 3,461	$ 3,537	$ -	$0	$0	$0	$0	$0	$3,537
Lithgow	Reticulation	Water Mains	Wm201358		2004	$ 5,012	$ 5,123	$ -	$0	$0	$0	$0	$0	$5,123
Lithgow	Reticulation	Water Mains	Wm201359		2004	$ 3,773	$ 3,856	$ -	$0	$0	$0	$0	$0	$3,856
Lithgow	Reticulation	Water Mains	Wm201360		2004	$ 1,151	$ 1,177	$ -	$0	$0	$0	$0	$0	$1,177
Lithgow	Reticulation	Water Mains	Wm201361		2004	$ 115	$ 117	$ -	$0	$0	$0	$0	$0	$117
Lithgow	Reticulation	Water Mains	Wm201362		2004	$ 5,824	$ 5,952	$ -	$0	$0	$0	$0	$0	$5,952
Lithgow	Reticulation	Water Mains	Wm201363		2004	$ 8,209	$ 8,390	$ -	$0	$0	$0	$0	$0	$8,390
Lithgow	Reticulation	Water Mains	Wm201364		2004	$ 8,943	$ 9,139	$ -	$0	$0	$0	$0	$0	$9,139
Lithgow	Reticulation	Water Mains	Wm201365		2004	$ 777	$ 794	$ -	$0	$0	$0	$0	$0	$794
Lithgow	Reticulation	Water Mains	Wm201366		2004	$ 5,130	$ 5,243	$ -	$0	$0	$0	$0	$0	$5,243
Lithgow	Reticulation	Water Mains	Wm201367		2004	$ 186	$ 190	$ -	$0	$0	$0	$0	$0	$190
Lithgow	Reticulation	Water Mains	Wm201368		2004	$ 801	$ 818	$ -	$0	$0	$0	$0	$0	$818
Lithgow	Reticulation	Water Mains	Wm201369		2004	$ 5,889	$ 6,018	$ -	$0	$0	$0	$0	$0	$6,018
Lithgow	Reticulation	Water Mains	Wm201370		2004	$ 10,439	$ 10,669	$ -	$0	$0	$0	$0	$0	$10,669
Lithgow	Reticulation	Water Mains	Wm201371		2004	$ 317	$ 324	$ -	$0	$0	$0	$0	$0	$324
Lithgow	Reticulation	Water Mains	Wm201372		2004	$ 4,774	$ 4,879	$ -	$0	$0	$0	$0	$0	$4,879
Lithgow	Reticulation	Water Mains	Wm201373		2004	$ 413	$ 422	$ -	$0	$0	$0	$0	$0	$422
Lithgow	Reticulation	Water Mains	Wm201374		2004	$ 526	$ 537	$ -	$0	$0	$0	$0	$0	$537
Lithgow	Reticulation	Water Mains	Wm201375		1950	$ 196	$ 201	$ -	$0	$0	$0	$0	$0	$201
Lithgow	Reticulation	Water Mains	Wm201376		1950	$ 170	$ 174	$ -	$0	$0	$0	$0	$0	$174
Lithgow	Reticulation	Water Mains	Wm201377		1950	$ 4,317	$ 4,412	$ -	$0	$0	$0	$0	$0	$4,412
Lithgow	Reticulation	Water Mains	Wm201378		1950	$ 26,082	$ 26,656	$ -	$0	$0	$0	$0	$0	$26,656
Lithgow	Reticulation	Water Mains	Wm201379		1950	$ 61,161	$ 62,507	$ -	$0	$0	$0	$0	$0	$62,507
Lithgow	Reticulation	Water Mains	Wm201380		1950	$ 43,196	$ 44,146	$ -	$0	$0	$0	$0	$0	$44,146
Lithgow	Reticulation	Water Mains	Wm201381		1950	$ 1,570	$ 1,604	$ -	$0	$0	$0	$0	$0	$1,604
Lithgow	Trunk	Water Mains	Wm201382		1950	$ 239,328	$ 244,593	$ 244,593	$0	$0	$0	$0	$0	$244,593
Lithgow	Trunk	Water Mains	Wm201383		1950	$ 534,108	$ 545,858	$ 545,858	$0	$0	$0	$0	$0	$545,858
Lithgow	Trunk	Water Mains	Wm201384		1950	$ 192,261	$ 196,491	$ 196,491	$0	$0	$0	$0	$0	$196,491
Lithgow	Trunk	Water Mains	Wm201385		1950	$ 19,468	$ 19,896	$ 19,896	$0	$0	$0	$0	$0	$19,896
Lithgow	Reticulation	Water Mains	Wm201386		1979	$ 9,113	$ 9,314	$ -	$0	$0	$0	$0	$0	$9,314
Lithgow	Reticulation	Water Mains	Wm201387		1979	$ 29,413	$ 30,060	$ -	$0	$0	$0	$0	$0	$30,060
Lithgow	Reticulation	Water Mains	Wm201388		1950	$ 1,272,845	$ 1,300,848	$ -	$0	$0	$0	$0	$0	$1,300,848
Lithgow	Reticulation	Water Mains	Wm201389		1979	$ 30,629	$ 31,303	$ -	$0	$0	$0	$0	$0	$31,303
Lithgow	Reticulation	Water Mains	Wm201390		1950	$ 10,586	$ 10,819	$ -	$0	$0	$0	$0	$0	$10,819
Lithgow	Reticulation	Water Mains	Wm201391		1950	$ 75,268	$ 76,924	$ -	$0	$0	$0	$0	$0	$76,924
Lithgow	Reticulation	Water Mains	Wm201392		1950	$ 17,840	$ 18,232	$ -	$0	$0	$0	$0	$0	$18,232
Lithgow	Reticulation	Water Mains	Wm201393		1950	$ 604,887	$ 618,194	$ -	$0	$0	$0	$0	$0	$618,194
Lithgow	Trunk	Water Mains	Wm201394		1950	$ 171,298	$ 175,066	$ 175,066	$0	$0	$0	$0	$0	$175,066
Lithgow	Reticulation	Water Mains	Wm201395		1950	$ 2,049	$ 2,094	$ -	$0	$0	$0	$0	$0	$2,094
Lithgow	Reticulation	Water Mains	Wm201396		1950	$ 8,988	$ 9,186	$ -	$0	$0	$0	$0	$0	$9,186
Lithgow	Reticulation	Water Mains	Wm201397		1950	$ 125,081	$ 127,832	$ -	$0	$0	$0	$0	$0	$127,832
Lithgow	Reticulation	Water Mains	Wm201398		2004	$ 11,003	$ 11,245	$ -	$0	$0	$0	$0	$0	$11,245
Lithgow	Reticulation	Water Mains	Wm201399		2004	$ 32,728	$ 33,448	$ -	$0	$0	$0	$0	$0	$33,448
Lithgow	Reticulation	Water Mains	Wm201400		1979	$ 1,662	$ 1,699	$ -	$0	$0	$0	$0	$0	$1,699
Lithgow	Reticulation	Water Mains	Wm201401		1979	$ 24,846	$ 25,392	$ -	$0	$0	$0	$0	$0	$25,392
Lithgow	Reticulation	Water Mains	Wm201402		1979	$ 2,960	$ 3,025	$ -	$0	$0	$0	$0	$0	$3,025
Lithgow	Reticulation	Water Mains	Wm201403		1979	$ 17,547	$ 17,933	$ -	$0	$0	$0	$0	$0	$17,933
Lithgow	Reticulation	Water Mains	Wm201404		1979	$ 22,367	$ 22,859	$ -	$0	$0	$0	$0	$0	$22,859
Lithgow	Reticulation	Water Mains	Wm201405		1979	$ 26,778	$ 27,368	$ -	$0	$0	$0	$0	$0	$27,368
Lithgow	Reticulation	Water Mains	Wm201406		1979	$ 10,995	$ 11,237	$ -	$0	$0	$0	$0	$0	$11,237
Lithgow	Reticulation	Water Mains	Wm201407		1979	$ 15,146	$ 15,479	$ -	$0	$0	$0	$0	$0	$15,479
Lithgow	Reticulation	Water Mains	Wm201408		1979	$ 3,033	$ 3,100	$ -	$0	$0	$0	$0	$0	$3,100
Lithgow	Reticulation	Water Mains	Wm201409		1979	$ 52,020	$ 53,164	$ -	$0	$0	$0	$0	$0	$53,164
Lithgow	Reticulation	Water Mains	Wm201410		1979	$ 86,061	$ 87,955	$ -	$0	$0	$0	$0	$0	$87,955
Lithgow	Reticulation	Water Mains	Wm201411		1979	$ 39,152	$ 40,013	$ -	$0	$0	$0	$0	$0	$40,013
Lithgow	Reticulation	Water Mains	Wm201412		1979	$ 58,280	$ 59,563	$ -	$0	$0	$0	$0	$0	$59,563
Lithgow	Reticulation	Water Mains	Wm201413		1979	$ 105,906	$ 108,236	$ -	$0	$0	$0	$0	$0	$108,236
Lithgow	Reticulation	Water Mains	Wm201414		1979	$ 1,398	$ 1,429	$ -	$0	$0	$0	$0	$0	$1,429
Lithgow	Reticulation	Water Mains	Wm201415		1994	$ 564	$ 577	$ -	$0	$0	$0	$0	$0	$577
Lithgow	Reticulation	Water Mains	Wm201416		1994	$ 20,101	$ 20,544	$ -	$0	$0	$0	$0	$0	$20,544

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm201417		1994	$ 13,334	$ 13,627	$ -	$0	$0	$0	$0	$0	$13,627
Lithgow	Reticulation	Water Mains	Wm201418		1994	$ 14,015	$ 14,324	$ -	$0	$0	$0	$0	$0	$14,324
Lithgow	Reticulation	Water Mains	Wm201419		1994	$ 672	$ 687	$ -	$0	$0	$0	$0	$0	$687
Lithgow	Reticulation	Water Mains	Wm201420		1994	$ 5,355	$ 5,473	$ -	$0	$0	$0	$0	$0	$5,473
Lithgow	Reticulation	Water Mains	Wm201421		1994	$ 38,608	$ 39,457	$ -	$0	$0	$0	$0	$0	$39,457
Lithgow	Reticulation	Water Mains	Wm201422		1994	$ 2,434	$ 2,488	$ -	$0	$0	$0	$0	$0	$2,488
Lithgow	Reticulation	Water Mains	Wm201423		1994	$ 6,755	$ 6,904	$ -	$0	$0	$0	$0	$0	$6,904
Lithgow	Reticulation	Water Mains	Wm201424		1994	$ 1,960	$ 2,003	$ -	$0	$0	$0	$0	$0	$2,003
Lithgow	Reticulation	Water Mains	Wm201425		1994	$ 16,150	$ 16,505	$ -	$0	$0	$0	$0	$0	$16,505
Lithgow	Reticulation	Water Mains	Wm201426		2001	$ 12,728	$ 13,008	$ -	$0	$0	$0	$0	$0	$13,008
Lithgow	Reticulation	Water Mains	Wm201427		2001	$ 11,851	$ 12,112	$ -	$0	$0	$0	$0	$0	$12,112
Lithgow	Reticulation	Water Mains	Wm201428		2001	$ 13,105	$ 13,393	$ -	$0	$0	$0	$0	$0	$13,393
Lithgow	Reticulation	Water Mains	Wm201429		2001	$ 16,633	$ 16,999	$ -	$0	$0	$0	$0	$0	$16,999
Lithgow	Reticulation	Water Mains	Wm201430		2001	$ 282	$ 289	$ -	$0	$0	$0	$0	$0	$289
Lithgow	Reticulation	Water Mains	Wm201431		2001	$ 14,576	$ 14,897	$ -	$0	$0	$0	$0	$0	$14,897
Lithgow	Reticulation	Water Mains	Wm201432		2001	$ 94	$ 96	$ -	$0	$0	$0	$0	$0	$96
Lithgow	Reticulation	Water Mains	Wm201433		2001	$ 11,660	$ 11,916	$ -	$0	$0	$0	$0	$0	$11,916
Lithgow	Reticulation	Water Mains	Wm201434		1988	$ 4,616	$ 4,717	$ -	$0	$0	$0	$0	$0	$4,717
Lithgow	Reticulation	Water Mains	Wm201435		1988	$ 11,491	$ 11,744	$ -	$0	$0	$0	$0	$0	$11,744
Lithgow	Reticulation	Water Mains	Wm201436		1950	$ 19,422	$ 19,849	$ -	$0	$0	$0	$0	$0	$19,849
Lithgow	Reticulation	Water Mains	Wm201437		1950	$ 43	$ 44	$ -	$0	$0	$0	$0	$0	$44
Lithgow	Reticulation	Water Mains	Wm201438		1950	$ 16,811	$ 17,180	$ -	$0	$0	$0	$0	$0	$17,180
Lithgow	Reticulation	Water Mains	Wm201439		1950	$ 67	$ 68	$ -	$0	$0	$0	$0	$0	$68
Lithgow	Reticulation	Water Mains	Wm201440		1950	$ 58	$ 59	$ -	$0	$0	$0	$0	$0	$59
Lithgow	Reticulation	Water Mains	Wm201441		1950	$ 1,828	$ 1,868	$ -	$0	$0	$0	$0	$0	$1,868
Lithgow	Reticulation	Water Mains	Wm201442		1950	$ 28,963	$ 29,600	$ -	$0	$0	$0	$0	$0	$29,600
Lithgow	Reticulation	Water Mains	Wm201443		1950	$ 273	$ 279	$ -	$0	$0	$0	$0	$0	$279
Lithgow	Reticulation	Water Mains	Wm201444		1950	$ 53,574	$ 54,753	$ -	$0	$0	$0	$0	$0	$54,753
Lithgow	Reticulation	Water Mains	Wm201445		1950	$ 74,632	$ 76,274	$ -	$0	$0	$0	$0	$0	$76,274
Lithgow	Reticulation	Water Mains	Wm201447		1980	$ 432,938	$ 442,463	$ -	$0	$0	$0	$0	$0	$442,463
Lithgow	Reticulation	Water Mains	Wm201448		1980	$ 1,322	$ 1,351	$ -	$0	$0	$0	$0	$0	$1,351
Lithgow	Reticulation	Water Mains	Wm201449		1980	$ 107,201	$ 109,560	$ -	$0	$0	$0	$0	$0	$109,560
Lithgow	Reticulation	Water Mains	Wm201461		1950	$ 8,086	$ 8,264	$ -	$0	$0	$0	$0	$0	$8,264
Lithgow	Reticulation	Water Mains	Wm201462		1950	$ 292	$ 299	$ -	$0	$0	$0	$0	$0	$299
Lithgow	Reticulation	Water Mains	Wm201463		1950	$ 17,449	$ 17,833	$ -	$0	$0	$0	$0	$0	$17,833
Lithgow	Reticulation	Water Mains	Wm201464		1950	$ 16,764	$ 17,133	$ -	$0	$0	$0	$0	$0	$17,133
Lithgow	Reticulation	Water Mains	Wm201465		1950	$ 19,095	$ 19,515	$ -	$0	$0	$0	$0	$0	$19,515
Lithgow	Reticulation	Water Mains	Wm201466		1950	$ 7,649	$ 7,818	$ -	$0	$0	$0	$0	$0	$7,818
Lithgow	Reticulation	Water Mains	Wm201467		1950	$ 10,353	$ 10,581	$ -	$0	$0	$0	$0	$0	$10,581
Lithgow	Reticulation	Water Mains	Wm201468		1950	$ 50	$ 51	$ -	$0	$0	$0	$0	$0	$51
Lithgow	Reticulation	Water Mains	Wm201469		1950	$ 22,748	$ 23,248	$ -	$0	$0	$0	$0	$0	$23,248
Lithgow	Reticulation	Water Mains	Wm201470		1950	$ 878	$ 898	$ -	$0	$0	$0	$0	$0	$898
Lithgow	Reticulation	Water Mains	Wm201471		1950	$ 48,370	$ 49,434	$ -	$0	$0	$0	$0	$0	$49,434
Lithgow	Reticulation	Water Mains	Wm201472		1950	$ 14,398	$ 14,715	$ -	$0	$0	$0	$0	$0	$14,715
Lithgow	Reticulation	Water Mains	Wm201473		1950	$ 20,950	$ 21,411	$ -	$0	$0	$0	$0	$0	$21,411
Lithgow	Reticulation	Water Mains	Wm201474		1950	$ 11,083	$ 11,327	$ -	$0	$0	$0	$0	$0	$11,327
Lithgow	Reticulation	Water Mains	Wm201475		1950	$ 153,652	$ 157,033	$ -	$0	$0	$0	$0	$0	$157,033
Lithgow	Reticulation	Water Mains	Wm201476		1950	$ 7,274	$ 7,434	$ -	$0	$0	$0	$0	$0	$7,434
Lithgow	Reticulation	Water Mains	Wm201477		1950	$ 256	$ 261	$ -	$0	$0	$0	$0	$0	$261
Lithgow	Reticulation	Water Mains	Wm201478		1950	$ 14,458	$ 14,776	$ -	$0	$0	$0	$0	$0	$14,776
Lithgow	Reticulation	Water Mains	Wm201479		1950	$ 2,536	$ 2,591	$ -	$0	$0	$0	$0	$0	$2,591
Lithgow	Reticulation	Water Mains	Wm201480		1950	$ 31	$ 32	$ -	$0	$0	$0	$0	$0	$32
Lithgow	Reticulation	Water Mains	Wm201481		1950	$ 1,174	$ 1,200	$ -	$0	$0	$0	$0	$0	$1,200
Lithgow	Reticulation	Water Mains	Wm201482		1950	$ 125,098	$ 127,850	$ -	$0	$0	$0	$0	$0	$127,850
Lithgow	Reticulation	Water Mains	Wm201483		1950	$ 18,022	$ 18,419	$ -	$0	$0	$0	$0	$0	$18,419
Lithgow	Reticulation	Water Mains	Wm201484		1950	$ 1,136	$ 1,161	$ -	$0	$0	$0	$0	$0	$1,161
Lithgow	Reticulation	Water Mains	Wm201485		1950	$ 13,323	$ 13,616	$ -	$0	$0	$0	$0	$0	$13,616
Lithgow	Reticulation	Water Mains	Wm201486		1950	$ 1,994	$ 2,038	$ -	$0	$0	$0	$0	$0	$2,038
Lithgow	Reticulation	Water Mains	Wm201487		1950	$ 12,425	$ 12,698	$ -	$0	$0	$0	$0	$0	$12,698
Lithgow	Reticulation	Water Mains	Wm201488		1950	$ 471	$ 482	$ -	$0	$0	$0	$0	$0	$482
Lithgow	Reticulation	Water Mains	Wm201489		1950	$ 169	$ 173	$ -	$0	$0	$0	$0	$0	$173
Lithgow	Reticulation	Water Mains	Wm201490		1950	$ 8,381	$ 8,565	$ -	$0	$0	$0	$0	$0	$8,565
Lithgow	Reticulation	Water Mains	Wm201491		1950	$ 195	$ 200	$ -	$0	$0	$0	$0	$0	$200
Lithgow	Reticulation	Water Mains	Wm201492		1950	$ 789	$ 807	$ -	$0	$0	$0	$0	$0	$807
Lithgow	Reticulation	Water Mains	Wm201493		1950	$ 10,557	$ 10,789	$ -	$0	$0	$0	$0	$0	$10,789
Lithgow	Reticulation	Water Mains	Wm201494		1950	$ 16,302	$ 16,660	$ -	$0	$0	$0	$0	$0	$16,660
Lithgow	Reticulation	Water Mains	Wm201495		1950	$ 16,753	$ 17,122	$ -	$0	$0	$0	$0	$0	$17,122
Lithgow	Reticulation	Water Mains	Wm201496		1950	$ 74	$ 75	$ -	$0	$0	$0	$0	$0	$75
Lithgow	Reticulation	Water Mains	Wm201497		1950	$ 107	$ 109	$ -	$0	$0	$0	$0	$0	$109
Lithgow	Reticulation	Water Mains	Wm201498		1950	$ 157	$ 160	$ -	$0	$0	$0	$0	$0	$160
Lithgow	Reticulation	Water Mains	Wm201499		1950	$ 138	$ 141	$ -	$0	$0	$0	$0	$0	$141
Lithgow	Reticulation	Water Mains	Wm201500		1950	$ 27,705	$ 28,314	$ -	$0	$0	$0	$0	$0	$28,314
Lithgow	Reticulation	Water Mains	Wm201501		1950	$ 2,230	$ 2,279	$ -	$0	$0	$0	$0	$0	$2,279
Lithgow	Reticulation	Water Mains	Wm201502		1950	$ 3,719	$ 3,801	$ -	$0	$0	$0	$0	$0	$3,801
Lithgow	Reticulation	Water Mains	Wm201503		1950	$ 2,259	$ 2,309	$ -	$0	$0	$0	$0	$0	$2,309
Lithgow	Reticulation	Water Mains	Wm201504		1950	$ 99	$ 101	$ -	$0	$0	$0	$0	$0	$101
Lithgow	Reticulation	Water Mains	Wm201505		1950	$ 5,133	$ 5,246	$ -	$0	$0	$0	$0	$0	$5,246
Lithgow	Reticulation	Water Mains	Wm201506		1950	$ 4,473	$ 4,572	$ -	$0	$0	$0	$0	$0	$4,572
Lithgow	Reticulation	Water Mains	Wm201507		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Lithgow	Reticulation	Water Mains	Wm201508		1950	$ 6,616	$ 6,762	$ -	$0	$0	$0	$0	$0	$6,762
Lithgow	Reticulation	Water Mains	Wm201509		1950	$ 130	$ 133	$ -	$0	$0	$0	$0	$0	$133
Lithgow	Reticulation	Water Mains	Wm201510		1950	$ 20,620	$ 21,073	$ -	$0	$0	$0	$0	$0	$21,073
Lithgow	Reticulation	Water Mains	Wm201511		1950	$ 5,729	$ 5,855	$ -	$0	$0	$0	$0	$0	$5,855
Lithgow	Reticulation	Water Mains	Wm201512		1950	$ 56	$ 57	$ -	$0	$0	$0	$0	$0	$57
Lithgow	Reticulation	Water Mains	Wm201513		1950	$ 4,844	$ 4,950	$ -	$0	$0	$0	$0	$0	$4,950
Lithgow	Reticulation	Water Mains	Wm201514		1950	$ 2,418	$ 2,471	$ -	$0	$0	$0	$0	$0	$2,471
Lithgow	Reticulation	Water Mains	Wm201515		1950	$ 228	$ 233	$ -	$0	$0	$0	$0	$0	$233

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Lithgow	Reticulation	Water Mains	Wm201516		1950	$ 3,036	$ 3,102	$ -	$0	$0	$0	$0	$0	$3,102
Lithgow	Reticulation	Water Mains	Wm201517		1950	$ 342	$ 349	$ -	$0	$0	$0	$0	$0	$349
Lithgow	Reticulation	Water Mains	Wm201518		1950	$ 54	$ 55	$ -	$0	$0	$0	$0	$0	$55
Lithgow	Reticulation	Water Mains	Wm201519		1950	$ 1,717	$ 1,755	$ -	$0	$0	$0	$0	$0	$1,755
Lithgow	Reticulation	Water Mains	Wm201520		1950	$ 6,112	$ 6,247	$ -	$0	$0	$0	$0	$0	$6,247
Lithgow	Reticulation	Water Mains	Wm201521		1950	$ 12,453	$ 12,727	$ -	$0	$0	$0	$0	$0	$12,727
Lithgow	Reticulation	Water Mains	Wm201522		1950	$ 852	$ 871	$ -	$0	$0	$0	$0	$0	$871
Lithgow	Reticulation	Water Mains	Wm201523		1950	$ 4,919	$ 5,027	$ -	$0	$0	$0	$0	$0	$5,027
Lithgow	Reticulation	Water Mains	Wm201524		1950	$ 839	$ 857	$ -	$0	$0	$0	$0	$0	$857
Lithgow	Reticulation	Water Mains	Wm201525		1950	$ 370,328	$ 378,475	$ -	$0	$0	$0	$0	$0	$378,475
Lithgow	Trunk	Water Mains	Wm201526		1950	$ 161,045	$ 164,588	$ 164,588	$0	$0	$0	$0	$0	$164,588
Lithgow	Trunk	Water Mains	Wm201527		1950	$ 47,378	$ 48,421	$ 48,421	$0	$0	$0	$0	$0	$48,421
Lithgow	Reticulation	Water Mains	Wm201528		1950	$ 240,057	$ 245,339	$ -	$0	$0	$0	$0	$0	$245,339
Lithgow	Reticulation	Water Mains	Wm201529		1950	$ 66,189	$ 67,645	$ -	$0	$0	$0	$0	$0	$67,645
Lithgow	Reticulation	Water Mains	Wm201530		1950	$ 435	$ 445	$ -	$0	$0	$0	$0	$0	$445
Lithgow	Reticulation	Water Mains	Wm201531		1950	$ 94	$ 96	$ -	$0	$0	$0	$0	$0	$96
Lithgow	Reticulation	Water Mains	Wm201532		1950	$ 17	$ 17	$ -	$0	$0	$0	$0	$0	$17
Lithgow	Reticulation	Water Mains	Wm201533		1950	$ 688	$ 703	$ -	$0	$0	$0	$0	$0	$703
Lithgow	Reticulation	Water Mains	Wm201534		1950	$ 83	$ 85	$ -	$0	$0	$0	$0	$0	$85
Lithgow	Reticulation	Water Mains	Wm201535		1950	$ 502	$ 513	$ -	$0	$0	$0	$0	$0	$513
Lithgow	Reticulation	Water Mains	Wm201536		1950	$ 153,398	$ 156,773	$ -	$0	$0	$0	$0	$0	$156,773
Lithgow	Reticulation	Water Mains	Wm201537		1950	$ 17	$ 18	$ -	$0	$0	$0	$0	$0	$18
Lithgow	Reticulation	Water Mains	Wm201538		1950	$ 390	$ 399	$ -	$0	$0	$0	$0	$0	$399
Lithgow	Reticulation	Water Mains	Wm201539		1950	$ 39,595	$ 40,466	$ -	$0	$0	$0	$0	$0	$40,466
Lithgow	Reticulation	Water Mains	Wm201540		1950	$ 73,872	$ 75,497	$ -	$0	$0	$0	$0	$0	$75,497
Lithgow	Reticulation	Water Mains	Wm201541		1950	$ 343	$ 350	$ -	$0	$0	$0	$0	$0	$350
Lithgow	Reticulation	Water Mains	Wm201542		1950	$ 116,790	$ 119,359	$ -	$0	$0	$0	$0	$0	$119,359
Lithgow	Reticulation	Water Mains	Wm201543		1950	$ 1,817	$ 1,857	$ -	$0	$0	$0	$0	$0	$1,857
Lithgow	Reticulation	Water Mains	Wm201544		1950	$ 69,978	$ 71,518	$ -	$0	$0	$0	$0	$0	$71,518
Lithgow	Reticulation	Water Mains	Wm201545		1950	$ 1,305	$ 1,333	$ -	$0	$0	$0	$0	$0	$1,333
Lithgow	Reticulation	Water Mains	Wm201546		1950	$ 111	$ 113	$ -	$0	$0	$0	$0	$0	$113
Lithgow	Reticulation	Water Mains	Wm201547		1950	$ 820	$ 838	$ -	$0	$0	$0	$0	$0	$838
Lithgow	Reticulation	Water Mains	Wm201548		1950	$ 472	$ 483	$ -	$0	$0	$0	$0	$0	$483
Lithgow	Reticulation	Water Mains	Wm201549		1950	$ 2,409	$ 2,462	$ -	$0	$0	$0	$0	$0	$2,462
Lithgow	Reticulation	Water Mains	Wm201550		1950	$ 34,712	$ 35,475	$ -	$0	$0	$0	$0	$0	$35,475
Lithgow	Reticulation	Water Mains	Wm201551		1979	$ 144,187	$ 147,359	$ -	$0	$0	$0	$0	$0	$147,359
Lithgow	Reticulation	Water Mains	Wm201552		1950	$ 23,469	$ 23,985	$ -	$0	$0	$0	$0	$0	$23,985
Lithgow	Reticulation	Water Mains	Wm201553		1950	$ 69,142	$ 70,663	$ -	$0	$0	$0	$0	$0	$70,663
Lithgow	Reticulation	Water Mains	Wm201554		1950	$ 9,783	$ 9,998	$ -	$0	$0	$0	$0	$0	$9,998
Lithgow	Reticulation	Water Mains	Wm201555		1950	$ 565	$ 578	$ -	$0	$0	$0	$0	$0	$578
Lithgow	Reticulation	Water Mains	Wm201556		1950	$ 2,904	$ 2,968	$ -	$0	$0	$0	$0	$0	$2,968
Lithgow	Reticulation	Water Mains	Wm201557		1950	$ 698	$ 713	$ -	$0	$0	$0	$0	$0	$713
Lithgow	Reticulation	Water Mains	Wm201558		1950	$ 8,474	$ 8,660	$ -	$0	$0	$0	$0	$0	$8,660
Lithgow	Reticulation	Water Mains	Wm201559		1950	$ 1,120	$ 1,144	$ -	$0	$0	$0	$0	$0	$1,144
Lithgow	Reticulation	Water Mains	Wm201560		1950	$ 6,136	$ 6,271	$ -	$0	$0	$0	$0	$0	$6,271
Lithgow	Reticulation	Water Mains	Wm201561		1950	$ 23,232	$ 23,743	$ -	$0	$0	$0	$0	$0	$23,743
Lithgow	Reticulation	Water Mains	Wm201562		1950	$ 93	$ 95	$ -	$0	$0	$0	$0	$0	$95
Lithgow	Reticulation	Water Mains	Wm201563		1950	$ 14,687	$ 15,011	$ -	$0	$0	$0	$0	$0	$15,011
Lithgow	Reticulation	Water Mains	Wm201564		1950	$ 11,990	$ 12,254	$ -	$0	$0	$0	$0	$0	$12,254
Lithgow	Reticulation	Water Mains	Wm201565		1950	$ 154	$ 157	$ -	$0	$0	$0	$0	$0	$157
Lithgow	Reticulation	Water Mains	Wm201566		1950	$ 344	$ 352	$ -	$0	$0	$0	$0	$0	$352
Lithgow	Reticulation	Water Mains	Wm201567		1950	$ 2,074	$ 2,120	$ -	$0	$0	$0	$0	$0	$2,120
Lithgow	Reticulation	Water Mains	Wm201568		1950	$ 433	$ 442	$ -	$0	$0	$0	$0	$0	$442
Lithgow	Reticulation	Water Mains	Wm201569		1950	$ 587	$ 600	$ -	$0	$0	$0	$0	$0	$600
Lithgow	Reticulation	Water Mains	Wm201570		1950	$ 761	$ 778	$ -	$0	$0	$0	$0	$0	$778
Lithgow	Reticulation	Water Mains	Wm201571		1950	$ 17,198	$ 17,576	$ -	$0	$0	$0	$0	$0	$17,576
Lithgow	Reticulation	Water Mains	Wm201572		1950	$ 2,731	$ 2,791	$ -	$0	$0	$0	$0	$0	$2,791
Lithgow	Reticulation	Water Mains	Wm201573		1950	$ 917	$ 937	$ -	$0	$0	$0	$0	$0	$937
Lithgow	Reticulation	Water Mains	Wm201574		1950	$ 1,232	$ 1,259	$ -	$0	$0	$0	$0	$0	$1,259
Lithgow	Reticulation	Water Mains	Wm201575		1950	$ 49,464	$ 50,553	$ -	$0	$0	$0	$0	$0	$50,553
Lithgow	Reticulation	Water Mains	Wm201576		1950	$ 1,949	$ 1,992	$ -	$0	$0	$0	$0	$0	$1,992
Lithgow	Reticulation	Water Mains	Wm201577		1950	$ 2,170	$ 2,218	$ -	$0	$0	$0	$0	$0	$2,218
Lithgow	Reticulation	Water Mains	Wm201578		1950	$ 3,434	$ 3,509	$ -	$0	$0	$0	$0	$0	$3,509
Lithgow	Reticulation	Water Mains	Wm201579		1950	$ 7,505	$ 7,670	$ -	$0	$0	$0	$0	$0	$7,670
Lithgow	Reticulation	Water Mains	Wm201580		1950	$ 15,587	$ 15,930	$ -	$0	$0	$0	$0	$0	$15,930
Lithgow	Reticulation	Water Mains	Wm201581		1950	$ 1,156	$ 1,181	$ -	$0	$0	$0	$0	$0	$1,181
Lithgow	Reticulation	Water Mains	Wm201582		1950	$ 21,474	$ 21,946	$ -	$0	$0	$0	$0	$0	$21,946
Lithgow	Reticulation	Water Mains	Wm201583		1950	$ 4,080	$ 4,170	$ -	$0	$0	$0	$0	$0	$4,170
Lithgow	Reticulation	Water Mains	Wm201584		1950	$ 23,840	$ 24,364	$ -	$0	$0	$0	$0	$0	$24,364
Lithgow	Reticulation	Water Mains	Wm201585		1950	$ 59	$ 60	$ -	$0	$0	$0	$0	$0	$60
Lithgow	Reticulation	Water Mains	Wm201586		1950	$ 9,497	$ 9,706	$ -	$0	$0	$0	$0	$0	$9,706
Lithgow	Reticulation	Water Mains	Wm201587		1950	$ 17	$ 17	$ -	$0	$0	$0	$0	$0	$17
Lithgow	Reticulation	Water Mains	Wm201588		1950	$ 38,108	$ 38,947	$ -	$0	$0	$0	$0	$0	$38,947
Lithgow	Reticulation	Water Mains	Wm201589		1950	$ 9,329	$ 9,534	$ -	$0	$0	$0	$0	$0	$9,534
Lithgow	Reticulation	Water Mains	Wm201590		1950	$ 15,280	$ 15,616	$ -	$0	$0	$0	$0	$0	$15,616
Lithgow	Reticulation	Water Mains	Wm201591		1950	$ 1,105	$ 1,129	$ -	$0	$0	$0	$0	$0	$1,129
Lithgow	Reticulation	Water Mains	Wm201592		1950	$ 18,229	$ 18,630	$ -	$0	$0	$0	$0	$0	$18,630
Lithgow	Reticulation	Water Mains	Wm201593		1950	$ 997	$ 1,019	$ -	$0	$0	$0	$0	$0	$1,019
Lithgow	Reticulation	Water Mains	Wm201594		1950	$ 1,603	$ 1,638	$ -	$0	$0	$0	$0	$0	$1,638
Lithgow	Reticulation	Water Mains	Wm201595		1950	$ 12,927	$ 13,211	$ -	$0	$0	$0	$0	$0	$13,211
Lithgow	Reticulation	Water Mains	Wm201596		1950	$ 6,243	$ 6,380	$ -	$0	$0	$0	$0	$0	$6,380
Lithgow	Reticulation	Water Mains	Wm201597		1950	$ 4,064	$ 4,153	$ -	$0	$0	$0	$0	$0	$4,153
Lithgow	Reticulation	Water Mains	Wm201598		1950	$ 12,593	$ 12,870	$ -	$0	$0	$0	$0	$0	$12,870
Lithgow	Reticulation	Water Mains	Wm201599		1950	$ 13,348	$ 13,642	$ -	$0	$0	$0	$0	$0	$13,642
Lithgow	Reticulation	Water Mains	Wm201600		1950	$ 52,241	$ 53,391	$ -	$0	$0	$0	$0	$0	$53,391
Lithgow	Reticulation	Water Mains	Wm201601		1950	$ 19,914	$ 20,352	$ -	$0	$0	$0	$0	$0	$20,352
Lithgow	Reticulation	Water Mains	Wm201602		1950	$ 4,209	$ 4,302	$ -	$0	$0	$0	$0	$0	$4,302

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Reticulation	Water Mains	Wm201603		1950	$ 31,763	$ 32,462	$ -	$0	$0	$0	$0	$0	$32,462
Lithgow	Reticulation	Water Mains	Wm201604		1950	$ 9,833	$ 10,049	$ -	$0	$0	$0	$0	$0	$10,049
Lithgow	Reticulation	Water Mains	Wm201605		1950	$ 15,924	$ 16,275	$ -	$0	$0	$0	$0	$0	$16,275
Lithgow	Reticulation	Water Mains	Wm201606		1950	$ 37,438	$ 38,262	$ -	$0	$0	$0	$0	$0	$38,262
Lithgow	Reticulation	Water Mains	Wm201607		1950	$ 27,823	$ 28,435	$ -	$0	$0	$0	$0	$0	$28,435
Lithgow	Reticulation	Water Mains	Wm201608		1950	$ 41,045	$ 41,948	$ -	$0	$0	$0	$0	$0	$41,948
Lithgow	Reticulation	Water Mains	Wm201609		1950	$ 953	$ 974	$ -	$0	$0	$0	$0	$0	$974
Lithgow	Reticulation	Water Mains	Wm201610		1950	$ 7,439	$ 7,603	$ -	$0	$0	$0	$0	$0	$7,603
Lithgow	Reticulation	Water Mains	Wm201611		1950	$ 728	$ 744	$ -	$0	$0	$0	$0	$0	$744
Lithgow	Reticulation	Water Mains	Wm201612		1950	$ 4,873	$ 4,980	$ -	$0	$0	$0	$0	$0	$4,980
Lithgow	Reticulation	Water Mains	Wm201613		1950	$ 24,224	$ 24,757	$ -	$0	$0	$0	$0	$0	$24,757
Lithgow	Reticulation	Water Mains	Wm201614		1950	$ 472	$ 482	$ -	$0	$0	$0	$0	$0	$482
Lithgow	Reticulation	Water Mains	Wm201615		1950	$ 19	$ 20	$ -	$0	$0	$0	$0	$0	$20
Lithgow	Reticulation	Water Mains	Wm201616		1950	$ 4,862	$ 4,969	$ -	$0	$0	$0	$0	$0	$4,969
Lithgow	Reticulation	Water Mains	Wm201617		1950	$ 23,925	$ 24,452	$ -	$0	$0	$0	$0	$0	$24,452
Lithgow	Reticulation	Water Mains	Wm201618		1950	$ 120	$ 122	$ -	$0	$0	$0	$0	$0	$122
Lithgow	Reticulation	Water Mains	Wm201619		1950	$ 1,756	$ 1,795	$ -	$0	$0	$0	$0	$0	$1,795
Lithgow	Reticulation	Water Mains	Wm201620		1950	$ 96	$ 98	$ -	$0	$0	$0	$0	$0	$98
Lithgow	Reticulation	Water Mains	Wm201621		1950	$ 24,502	$ 25,042	$ -	$0	$0	$0	$0	$0	$25,042
Lithgow	Reticulation	Water Mains	Wm201622		1950	$ 57,399	$ 58,662	$ -	$0	$0	$0	$0	$0	$58,662
Lithgow	Reticulation	Water Mains	Wm201623		1950	$ 17,118	$ 17,494	$ -	$0	$0	$0	$0	$0	$17,494
Lithgow	Reticulation	Water Mains	Wm201624		1950	$ 7,979	$ 8,155	$ -	$0	$0	$0	$0	$0	$8,155
Lithgow	Reticulation	Water Mains	Wm201625		1950	$ 6,037	$ 6,170	$ -	$0	$0	$0	$0	$0	$6,170
Lithgow	Reticulation	Water Mains	Wm201626		1950	$ 3,574	$ 3,653	$ -	$0	$0	$0	$0	$0	$3,653
Lithgow	Reticulation	Water Mains	Wm201627		1950	$ 51,794	$ 52,934	$ -	$0	$0	$0	$0	$0	$52,934
Lithgow	Reticulation	Water Mains	Wm201628		1950	$ 257	$ 262	$ -	$0	$0	$0	$0	$0	$262
Lithgow	Reticulation	Water Mains	Wm201629		1950	$ 43,303	$ 44,256	$ -	$0	$0	$0	$0	$0	$44,256
Lithgow	Reticulation	Water Mains	Wm201630		1950	$ 6,517	$ 6,660	$ -	$0	$0	$0	$0	$0	$6,660
Lithgow	Reticulation	Water Mains	Wm201631		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Lithgow	Reticulation	Water Mains	Wm201632		1950	$ 20,372	$ 20,820	$ -	$0	$0	$0	$0	$0	$20,820
Lithgow	Reticulation	Water Mains	Wm201633		1950	$ 16,232	$ 16,589	$ -	$0	$0	$0	$0	$0	$16,589
Lithgow	Reticulation	Water Mains	Wm201634		1950	$ 40,139	$ 41,022	$ -	$0	$0	$0	$0	$0	$41,022
Lithgow	Reticulation	Water Mains	Wm201635		1950	$ 9,133	$ 9,334	$ -	$0	$0	$0	$0	$0	$9,334
Lithgow	Reticulation	Water Mains	Wm201636		1950	$ 13,588	$ 13,887	$ -	$0	$0	$0	$0	$0	$13,887
Lithgow	Reticulation	Water Mains	Wm201637		1950	$ 17,823	$ 18,215	$ -	$0	$0	$0	$0	$0	$18,215
Lithgow	Reticulation	Water Mains	Wm201638		1950	$ 204,621	$ 209,123	$ -	$0	$0	$0	$0	$0	$209,123
Lithgow	Reticulation	Water Mains	Wm201639		1950	$ 5,374	$ 5,492	$ -	$0	$0	$0	$0	$0	$5,492
Lithgow	Reticulation	Water Mains	Wm201640		1950	$ 4,954	$ 5,063	$ -	$0	$0	$0	$0	$0	$5,063
Lithgow	Reticulation	Water Mains	Wm201641		1950	$ 16,226	$ 16,583	$ -	$0	$0	$0	$0	$0	$16,583
Lithgow	Reticulation	Water Mains	Wm201642		1950	$ 265	$ 271	$ -	$0	$0	$0	$0	$0	$271
Lithgow	Reticulation	Water Mains	Wm201643		1950	$ 10,370	$ 10,599	$ -	$0	$0	$0	$0	$0	$10,599
Lithgow	Reticulation	Water Mains	Wm201644		1950	$ 8	$ 9	$ -	$0	$0	$0	$0	$0	$9
Lithgow	Reticulation	Water Mains	Wm201645		1950	$ 7,900	$ 8,074	$ -	$0	$0	$0	$0	$0	$8,074
Lithgow	Reticulation	Water Mains	Wm201646		1957	$ 22,567	$ 23,064	$ -	$0	$0	$0	$0	$0	$23,064
Lithgow	Reticulation	Water Mains	Wm201647		1950	$ 25,357	$ 25,915	$ -	$0	$0	$0	$0	$0	$25,915
Lithgow	Reticulation	Water Mains	Wm201648		1957	$ 1,685	$ 1,722	$ -	$0	$0	$0	$0	$0	$1,722
Lithgow	Reticulation	Water Mains	Wm201649		1957	$ 6,622	$ 6,768	$ -	$0	$0	$0	$0	$0	$6,768
Lithgow	Reticulation	Water Mains	Wm201650		1957	$ 4,506	$ 4,605	$ -	$0	$0	$0	$0	$0	$4,605
Lithgow	Reticulation	Water Mains	Wm201651		1957	$ 1,263	$ 1,291	$ -	$0	$0	$0	$0	$0	$1,291
Lithgow	Reticulation	Water Mains	Wm201652		1957	$ 281	$ 287	$ -	$0	$0	$0	$0	$0	$287
Lithgow	Reticulation	Water Mains	Wm201653		1957	$ 8,216	$ 8,396	$ -	$0	$0	$0	$0	$0	$8,396
Lithgow	Reticulation	Water Mains	Wm201654		1957	$ 721	$ 736	$ -	$0	$0	$0	$0	$0	$736
Lithgow	Reticulation	Water Mains	Wm201655		1957	$ 49,871	$ 50,968	$ -	$0	$0	$0	$0	$0	$50,968
Lithgow	Reticulation	Water Mains	Wm201656		1957	$ 1,364	$ 1,394	$ -	$0	$0	$0	$0	$0	$1,394
Lithgow	Reticulation	Water Mains	Wm201657		1950	$ 749	$ 766	$ -	$0	$0	$0	$0	$0	$766
Lithgow	Reticulation	Water Mains	Wm201658		1950	$ 197,624	$ 201,972	$ -	$0	$0	$0	$0	$0	$201,972
Lithgow	Reticulation	Water Mains	Wm201659		1950	$ 163,043	$ 166,630	$ -	$0	$0	$0	$0	$0	$166,630
Lithgow	Reticulation	Water Mains	Wm201660		1950	$ 94,398	$ 96,475	$ -	$0	$0	$0	$0	$0	$96,475
Lithgow	Reticulation	Water Mains	Wm201661		1950	$ 347	$ 355	$ -	$0	$0	$0	$0	$0	$355
Lithgow	Reticulation	Water Mains	Wm201662		1950	$ 360	$ 368	$ -	$0	$0	$0	$0	$0	$368
Lithgow	Reticulation	Water Mains	Wm201663		1950	$ 1,503	$ 1,536	$ -	$0	$0	$0	$0	$0	$1,536
Lithgow	Reticulation	Water Mains	Wm201664		1950	$ 23,877	$ 24,403	$ -	$0	$0	$0	$0	$0	$24,403
Lithgow	Reticulation	Water Mains	Wm201665		1950	$ 28,357	$ 28,981	$ -	$0	$0	$0	$0	$0	$28,981
Lithgow	Reticulation	Water Mains	Wm201666		1950	$ 21,004	$ 21,466	$ -	$0	$0	$0	$0	$0	$21,466
Lithgow	Reticulation	Water Mains	Wm201667		1950	$ 88,619	$ 90,569	$ -	$0	$0	$0	$0	$0	$90,569
Lithgow	Reticulation	Water Mains	Wm201668		1950	$ 69,705	$ 71,239	$ -	$0	$0	$0	$0	$0	$71,239
Lithgow	Reticulation	Water Mains	Wm201669		1950	$ 80,524	$ 82,295	$ -	$0	$0	$0	$0	$0	$82,295
Lithgow	Reticulation	Water Mains	Wm201670		1950	$ 48	$ 49	$ -	$0	$0	$0	$0	$0	$49
Lithgow	Reticulation	Water Mains	Wm201671		1950	$ 22,792	$ 23,294	$ -	$0	$0	$0	$0	$0	$23,294
Lithgow	Reticulation	Water Mains	Wm201672		1950	$ 27,880	$ 28,493	$ -	$0	$0	$0	$0	$0	$28,493
Lithgow	Reticulation	Water Mains	Wm201673		1950	$ 9,874	$ 10,092	$ -	$0	$0	$0	$0	$0	$10,092
Lithgow	Reticulation	Water Mains	Wm201674		1950	$ 125,490	$ 128,251	$ -	$0	$0	$0	$0	$0	$128,251
Lithgow	Reticulation	Water Mains	Wm201675		1950	$ 188,577	$ 192,726	$ -	$0	$0	$0	$0	$0	$192,726
Lithgow	Reticulation	Water Mains	Wm201676		1950	$ 18,009	$ 18,405	$ -	$0	$0	$0	$0	$0	$18,405
Lithgow	Reticulation	Water Mains	Wm201677		1950	$ 21,610	$ 22,085	$ -	$0	$0	$0	$0	$0	$22,085
Lithgow	Reticulation	Water Mains	Wm201678		1950	$ 2,503	$ 2,558	$ -	$0	$0	$0	$0	$0	$2,558
Lithgow	Reticulation	Water Mains	Wm201679		1950	$ 2,921	$ 2,985	$ -	$0	$0	$0	$0	$0	$2,985
Lithgow	Reticulation	Water Mains	Wm201680		1950	$ 21,407	$ 21,878	$ -	$0	$0	$0	$0	$0	$21,878
Lithgow	Reticulation	Water Mains	Wm201681		1950	$ 23,720	$ 24,242	$ -	$0	$0	$0	$0	$0	$24,242
Lithgow	Reticulation	Water Mains	Wm201682		1950	$ 761	$ 777	$ -	$0	$0	$0	$0	$0	$777
Lithgow	Reticulation	Water Mains	Wm201683		1950	$ 38	$ 39	$ -	$0	$0	$0	$0	$0	$39
Lithgow	Reticulation	Water Mains	Wm201684		1950	$ 42	$ 42	$ -	$0	$0	$0	$0	$0	$42
Lithgow	Reticulation	Water Mains	Wm201685		1950	$ 700	$ 716	$ -	$0	$0	$0	$0	$0	$716
Lithgow	Reticulation	Water Mains	Wm201686		1950	$ 44,002	$ 44,970	$ -	$0	$0	$0	$0	$0	$44,970
Lithgow	Reticulation	Water Mains	Wm201687		1950	$ 511	$ 522	$ -	$0	$0	$0	$0	$0	$522
Lithgow	Reticulation	Water Mains	Wm201688		1950	$ 531	$ 542	$ -	$0	$0	$0	$0	$0	$542
Lithgow	Reticulation	Water Mains	Wm201689		1950	$ 33	$ 34	$ -	$0	$0	$0	$0	$0	$34

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Lithgow	Reticulation	Water Mains	Wm201690		1950	$ 251,525	$ 257,059	$ -	$0	$0	$0	$0	$0	$257,059
Lithgow	Reticulation	Water Mains	Wm201691		1950	$ 20,603	$ 21,056	$ -	$0	$0	$0	$0	$0	$21,056
Lithgow	Reticulation	Water Mains	Wm201692		1950	$ 186	$ 190	$ -	$0	$0	$0	$0	$0	$190
Lithgow	Reticulation	Water Mains	Wm201693		1950	$ 359	$ 367	$ -	$0	$0	$0	$0	$0	$367
Lithgow	Reticulation	Water Mains	Wm201694		1950	$ 18,313	$ 18,716	$ -	$0	$0	$0	$0	$0	$18,716
Lithgow	Reticulation	Water Mains	Wm201695		1950	$ 7,004	$ 7,158	$ -	$0	$0	$0	$0	$0	$7,158
Lithgow	Reticulation	Water Mains	Wm201696		1950	$ 35	$ 36	$ -	$0	$0	$0	$0	$0	$36
Lithgow	Reticulation	Water Mains	Wm201697		1950	$ 27,263	$ 27,862	$ -	$0	$0	$0	$0	$0	$27,862
Lithgow	Reticulation	Water Mains	Wm201698		1950	$ 2,686	$ 2,745	$ -	$0	$0	$0	$0	$0	$2,745
Lithgow	Reticulation	Water Mains	Wm201699		1950	$ 4,538	$ 4,638	$ -	$0	$0	$0	$0	$0	$4,638
Lithgow	Reticulation	Water Mains	Wm201700		1950	$ 35,360	$ 36,138	$ -	$0	$0	$0	$0	$0	$36,138
Lithgow	Reticulation	Water Mains	Wm201701		1950	$ 221	$ 226	$ -	$0	$0	$0	$0	$0	$226
Lithgow	Reticulation	Water Mains	Wm201702		1950	$ 5	$ 5	$ -	$0	$0	$0	$0	$0	$5
Lithgow	Reticulation	Water Mains	Wm201703		1950	$ 5,631	$ 5,755	$ -	$0	$0	$0	$0	$0	$5,755
Lithgow	Reticulation	Water Mains	Wm201704		1957	$ 451,497	$ 461,430	$ -	$0	$0	$0	$0	$0	$461,430
Lithgow	Reticulation	Water Mains	Wm201705		1950	$ 27,540	$ 28,146	$ -	$0	$0	$0	$0	$0	$28,146
Lithgow	Reticulation	Water Mains	Wm201706		1950	$ 573	$ 586	$ -	$0	$0	$0	$0	$0	$586
Lithgow	Reticulation	Water Mains	Wm201707		1950	$ 1,304	$ 1,333	$ -	$0	$0	$0	$0	$0	$1,333
Lithgow	Reticulation	Water Mains	Wm201708		1994	$ 3,645	$ 3,725	$ -	$0	$0	$0	$0	$0	$3,725
Lithgow	Reticulation	Water Mains	Wm201709		1950	$ 686,042	$ 701,135	$ -	$0	$0	$0	$0	$0	$701,135
Lithgow	Reticulation	Water Mains	Wm201743		1950	$ 27,777	$ 28,388	$ -	$0	$0	$0	$0	$0	$28,388
Lithgow	Reticulation	Water Mains	Wm201744		1950	$ 36,016	$ 36,808	$ -	$0	$0	$0	$0	$0	$36,808
Lithgow	Reticulation	Water Mains	Wm201745		1950	$ 17,876	$ 18,269	$ -	$0	$0	$0	$0	$0	$18,269
Lithgow	Reticulation	Water Mains	Wm201746		1994	$ 555	$ 567	$ -	$0	$0	$0	$0	$0	$567
Lithgow	Reticulation	Water Mains	Wm201747		1994	$ 8,108	$ 8,286	$ -	$0	$0	$0	$0	$0	$8,286
Lithgow	Reticulation	Water Mains	Wm201748		1988	$ 9,125	$ 9,325	$ -	$0	$0	$0	$0	$0	$9,325
Lithgow	Reticulation	Water Mains	Wm201749		1988	$ 7,518	$ 7,683	$ -	$0	$0	$0	$0	$0	$7,683
Lithgow	Reticulation	Water Mains	Wm201750		1950	$ 7,293	$ 7,453	$ -	$0	$0	$0	$0	$0	$7,453
Lithgow	Reticulation	Water Mains	Wm201751		1950	$ 178,022	$ 181,938	$ -	$0	$0	$0	$0	$0	$181,938
Lithgow	Reticulation	Water Mains	Wm201752		2004	$ 57,178	$ 58,436	$ -	$0	$0	$0	$0	$0	$58,436
Lithgow	Reticulation	Water Mains	Wm201753		2004	$ 1,844	$ 1,885	$ -	$0	$0	$0	$0	$0	$1,885
Lithgow	Reticulation	Water Mains	Wm201754		2004	$ 43,276	$ 44,228	$ -	$0	$0	$0	$0	$0	$44,228
Lithgow	Reticulation	Water Mains	Wm201755		1950	$ 4,644	$ 4,746	$ -	$0	$0	$0	$0	$0	$4,746
Lithgow	Reticulation	Water Mains	Wm201756		1950	$ 13,037	$ 13,324	$ -	$0	$0	$0	$0	$0	$13,324
Lithgow	Reticulation	Water Mains	Wm201757		1950	$ 9,019	$ 9,217	$ -	$0	$0	$0	$0	$0	$9,217
Lithgow	Reticulation	Water Mains	Wm201758		1950	$ 82,437	$ 84,250	$ -	$0	$0	$0	$0	$0	$84,250
Lithgow	Reticulation	Water Mains	Wm201759		1950	$ 9,618	$ 9,830	$ -	$0	$0	$0	$0	$0	$9,830
Lithgow	Reticulation	Water Mains	Wm201760		1950	$ 90	$ 92	$ -	$0	$0	$0	$0	$0	$92
Lithgow	Reticulation	Water Mains	Wm201761		1950	$ 88,816	$ 90,770	$ -	$0	$0	$0	$0	$0	$90,770
Lithgow	Reticulation	Water Mains	Wm201762		1950	$ 36,739	$ 37,547	$ -	$0	$0	$0	$0	$0	$37,547
Lithgow	Reticulation	Water Mains	Wm201763		1979	$ 2,038	$ 2,083	$ -	$0	$0	$0	$0	$0	$2,083
Lithgow	Reticulation	Water Mains	Wm201764		1979	$ 30,898	$ 31,578	$ -	$0	$0	$0	$0	$0	$31,578
Lithgow	Reticulation	Water Mains	Wm201765		1950	$ 6,456	$ 6,598	$ -	$0	$0	$0	$0	$0	$6,598
Lithgow	Reticulation	Water Mains	Wm201766		1950	$ 5,454	$ 5,574	$ -	$0	$0	$0	$0	$0	$5,574
Lithgow	Reticulation	Water Mains	Wm201767		1950	$ 1,754	$ 1,793	$ -	$0	$0	$0	$0	$0	$1,793
Lithgow	Reticulation	Water Mains	Wm201768		1950	$ 65	$ 67	$ -	$0	$0	$0	$0	$0	$67
Lithgow	Reticulation	Water Mains	Wm201769		1950	$ 4,807	$ 4,912	$ -	$0	$0	$0	$0	$0	$4,912
Lithgow	Reticulation	Water Mains	Wm201770		1950	$ 6,555	$ 6,699	$ -	$0	$0	$0	$0	$0	$6,699
Lithgow	Reticulation	Water Mains	Wm201771		1950	$ 28,626	$ 29,255	$ -	$0	$0	$0	$0	$0	$29,255
Lithgow	Reticulation	Water Mains	Wm201772		1950	$ 19,877	$ 20,314	$ -	$0	$0	$0	$0	$0	$20,314
Lithgow	Reticulation	Water Mains	Wm201773		1950	$ 537,799	$ 549,630	$ -	$0	$0	$0	$0	$0	$549,630
Lithgow	Reticulation	Water Mains	Wm201774		1950	$ 946,952	$ 967,785	$ -	$0	$0	$0	$0	$0	$967,785
Lithgow	Reticulation	Water Mains	Wm201775		1950	$ 26,975	$ 27,569	$ -	$0	$0	$0	$0	$0	$27,569
Lithgow	Reticulation	Water Mains	Wm201776		1950	$ 48,448	$ 49,514	$ -	$0	$0	$0	$0	$0	$49,514
Lithgow	Reticulation	Water Mains	Wm201777		1950	$ 11,853	$ 12,113	$ -	$0	$0	$0	$0	$0	$12,113
Lithgow	Reticulation	Water Mains	Wm201778		1950	$ 582	$ 595	$ -	$0	$0	$0	$0	$0	$595
Lithgow	Reticulation	Water Mains	Wm201779		1979	$ 79	$ 81	$ -	$0	$0	$0	$0	$0	$81
Lithgow	Reticulation	Water Mains	Wm201780		1979	$ 2,317	$ 2,368	$ -	$0	$0	$0	$0	$0	$2,368
Lithgow	Reticulation	Water Mains	Wm201781		1979	$ 36,762	$ 37,571	$ -	$0	$0	$0	$0	$0	$37,571
Lithgow	Reticulation	Water Mains	Wm201782		1979	$ 60	$ 61	$ -	$0	$0	$0	$0	$0	$61
Lithgow	Reticulation	Water Mains	Wm201809		1950	$ 15,500	$ 15,841	$ -	$0	$0	$0	$0	$0	$15,841
Lithgow	Reticulation	Water Mains	Wm201810		1950	$ 287	$ 293	$ -	$0	$0	$0	$0	$0	$293
Lithgow	Reticulation	Water Mains	Wm201811		1950	$ 255,773	$ 261,400	$ -	$0	$0	$0	$0	$0	$261,400
Lithgow	Reticulation	Water Mains	Wm201812		1950	$ 11,479	$ 11,732	$ -	$0	$0	$0	$0	$0	$11,732
Lithgow	Reticulation	Water Mains	Wm201813		1950	$ 13,781	$ 14,084	$ -	$0	$0	$0	$0	$0	$14,084
Lithgow	Reticulation	Water Mains	Wm201814		1950	$ 8,203	$ 8,384	$ -	$0	$0	$0	$0	$0	$8,384
Lithgow	Reticulation	Water Mains	Wm201815		2010	$ 62,858	$ 64,241	$ -	$0	$0	$0	$0	$0	$64,241
Lithgow	Reticulation	Water Mains	Wm201816		2010	$ 600	$ 613	$ -	$0	$0	$0	$0	$0	$613
Lithgow	Reticulation	Water Mains	Wm201817		1950	$ 718	$ 734	$ -	$0	$0	$0	$0	$0	$734
Lithgow	Reticulation	Water Mains	Wm201817		2010	$ 1,421	$ 1,452	$ -	$0	$0	$0	$0	$0	$1,452
Shared	Monitoring	Ancillary	WPS Cook St		2016	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Shared	Monitoring	Ancillary	WPS Viskers St		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Lithgow	Property Service	Water Mains	Ws300004		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300005		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300006		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300007		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300008		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300009		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300010		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300011		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300012		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300013		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300014		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300015		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300016		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300017		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300018		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0

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Lithgow	Property Service	Water Mains	Ws300019		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300020		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300021		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300022		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300023		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300024		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300025		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300026		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300027		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300028		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300029		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300030		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300031		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300032		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300033		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300034		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300035		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300036		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300037		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300038		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300039		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300040		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300041		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300042		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300043		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300044		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300045		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300046		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300047		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300048		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300049		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300050		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300051		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300052		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300053		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300054		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300055		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300056		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300057		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300058		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300059		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300060		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300061		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300062		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300063		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300064		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300065		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300066		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300067		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300068		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300069		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300070		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300071		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300072		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300073		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300074		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300075		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300076		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300077		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300078		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300079		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300080		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300081		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300082		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300083		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300084		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300085		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300086		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300087		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300088		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300089		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300090		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300091		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300092		1979	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300093		1979	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300094		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300095		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300096		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300097		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300098		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300099		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300100		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300101		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300102		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300103		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300104		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300105		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0

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Lithgow	Property Service	Water Mains	Ws300106		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300107		2004	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300108		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300109		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300110		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300111		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300112		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300113		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300114		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300115		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300116		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300117		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300118		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300119		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300120		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300121		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300122		2001	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300123		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300124		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300125		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300126		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300127		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300128		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300129		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300130		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300131		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300132		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300133		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300134		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300135		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300136		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300137		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300138		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300139		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300140		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300141		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300142		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300143		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300144		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300145		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300146		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300147		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300148		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300149		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300150		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300151		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300152		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300153		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300154		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300155		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300156		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300157		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300158		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300159		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300160		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300163		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300164		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300165		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300166		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300167		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300168		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300169		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300170		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300171		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300172		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300173		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300174		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300175		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300176		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300177		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300178		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300179		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300180		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300181		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300182		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300183		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300184		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300185		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300186		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300187		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300188		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300189		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300190		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300191		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300192		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300193		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300194		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Lithgow	Property Service	Water Mains	Ws300195		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300196		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300197		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300198		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300199		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300200		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300201		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300202		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300203		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300204		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300205		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300206		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300207		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300208		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300209		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300210		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300211		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300212		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300213		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300214		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300215		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300216		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300217		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300218		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300219		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300220		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300221		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300222		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300223		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300224		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300225		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300226		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300227		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300228		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300229		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300230		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300231		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300232		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300233		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300234		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300235		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300236		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300237		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300238		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300239		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300240		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300241		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300242		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300243		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300244		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300245		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300246		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300247		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300248		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300249		2007	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300251		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow	Property Service	Water Mains	Ws300252		1950	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
Lithgow			South Bowenfels Resevoir		2015	$ 6,570	$ 6,715	$ 6,715	$6,715	$6,715	$0	$0	$0	$0
Portland	Water Reservoirs - Concrete	Water Reservoirs	Portland HL (Ridge)		1988	$ 83,430	$ 85,265	$ 85,265	$85,265	$0	$85,265	$0	$0	$0
Portland	Water Reservoirs - Concrete	Water Reservoirs	Portland HL (Ridge)		1988	$ 472,770	$ 483,171	$ 483,171	$483,171	$0	$483,171	$0	$0	$0
Shared	Monitoring	Ancillary	Portland HL (Ridge) Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Portland	Water Reservoirs - Concrete	Water Reservoirs	Portland LL (Purcell)		1953	$ 90,537	$ 92,529	$ 92,529	$0	$0	$0	$0	$0	$92,529
Portland	Water Reservoirs - Concrete	Water Reservoirs	Portland LL (Purcell)		1953	$ 513,043	$ 524,330	$ 524,330	$0	$0	$0	$0	$0	$524,330
Shared	Monitoring	Ancillary	Portland LL (Purcell) Reservoir		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Portland	Reticulation	Water Mains	Wm200982		1950	$ 11,436	$ 11,687	$ -	$0	$0	$0	$0	$0	$11,687
Portland	Reticulation	Water Mains	Wm200983		1950	$ 2,902	$ 2,966	$ -	$0	$0	$0	$0	$0	$2,966
Portland	Reticulation	Water Mains	Wm200984		1950	$ 20,881	$ 21,341	$ -	$0	$0	$0	$0	$0	$21,341
Portland	Reticulation	Water Mains	Wm200985		1950	$ 537	$ 549	$ -	$0	$0	$0	$0	$0	$549
Portland	Reticulation	Water Mains	Wm200986		1950	$ 7,222	$ 7,381	$ -	$0	$0	$0	$0	$0	$7,381
Portland	Reticulation	Water Mains	Wm200987		1950	$ 17,120	$ 17,497	$ -	$0	$0	$0	$0	$0	$17,497
Portland	Reticulation	Water Mains	Wm200988		1950	$ 9,371	$ 9,577	$ -	$0	$0	$0	$0	$0	$9,577
Portland	Reticulation	Water Mains	Wm200989		1950	$ 1,886	$ 1,927	$ -	$0	$0	$0	$0	$0	$1,927
Portland	Reticulation	Water Mains	Wm200990		1950	$ 2,876	$ 2,939	$ -	$0	$0	$0	$0	$0	$2,939
Portland	Reticulation	Water Mains	Wm200991		1950	$ 11,967	$ 12,230	$ -	$0	$0	$0	$0	$0	$12,230
Portland	Reticulation	Water Mains	Wm200992		1950	$ 22,965	$ 23,470	$ -	$0	$0	$0	$0	$0	$23,470
Portland	Reticulation	Water Mains	Wm200993		1950	$ 3,978	$ 4,066	$ -	$0	$0	$0	$0	$0	$4,066
Portland	Reticulation	Water Mains	Wm200994		1950	$ 1,447	$ 1,478	$ -	$0	$0	$0	$0	$0	$1,478
Portland	Reticulation	Water Mains	Wm200995		1950	$ 23,433	$ 23,949	$ -	$0	$0	$0	$0	$0	$23,949
Portland	Reticulation	Water Mains	Wm200996		1950	$ 516	$ 527	$ -	$0	$0	$0	$0	$0	$527
Portland	Reticulation	Water Mains	Wm200997		1950	$ 26,802	$ 27,392	$ -	$0	$0	$0	$0	$0	$27,392
Portland	Reticulation	Water Mains	Wm200998		1950	$ 9,219	$ 9,422	$ -	$0	$0	$0	$0	$0	$9,422
Portland	Reticulation	Water Mains	Wm200999		1950	$ 408	$ 417	$ -	$0	$0	$0	$0	$0	$417
Portland	Reticulation	Water Mains	Wm201000		1950	$ 560	$ 572	$ -	$0	$0	$0	$0	$0	$572
Portland	Reticulation	Water Mains	Wm201001		1950	$ 7,797	$ 7,968	$ -	$0	$0	$0	$0	$0	$7,968
Portland	Reticulation	Water Mains	Wm201002		1950	$ 54,991	$ 56,200	$ -	$0	$0	$0	$0	$0	$56,200
Portland	Reticulation	Water Mains	Wm201003		1950	$ 5,365	$ 5,483	$ -	$0	$0	$0	$0	$0	$5,483
Portland	Reticulation	Water Mains	Wm201004		1950	$ 28,379	$ 29,003	$ -	$0	$0	$0	$0	$0	$29,003

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Portland	Reticulation	Water Mains	Wm201005		1950	$ 11,047	$ 11,290	$ -	$0	$0	$0	$0	$0	$11,290
Portland	Reticulation	Water Mains	Wm201006		1950	$ 21,248	$ 21,716	$ -	$0	$0	$0	$0	$0	$21,716
Portland	Reticulation	Water Mains	Wm201007		1950	$ 18,701	$ 19,112	$ -	$0	$0	$0	$0	$0	$19,112
Portland	Reticulation	Water Mains	Wm201008		1950	$ 2,764	$ 2,825	$ -	$0	$0	$0	$0	$0	$2,825
Portland	Reticulation	Water Mains	Wm201009		1950	$ 24,420	$ 24,957	$ -	$0	$0	$0	$0	$0	$24,957
Portland	Reticulation	Water Mains	Wm201010		1950	$ 422	$ 431	$ -	$0	$0	$0	$0	$0	$431
Portland	Reticulation	Water Mains	Wm201011		1950	$ 10,046	$ 10,267	$ -	$0	$0	$0	$0	$0	$10,267
Portland	Reticulation	Water Mains	Wm201012		1950	$ 2,679	$ 2,738	$ -	$0	$0	$0	$0	$0	$2,738
Portland	Reticulation	Water Mains	Wm201013		1950	$ 9,983	$ 10,203	$ -	$0	$0	$0	$0	$0	$10,203
Portland	Reticulation	Water Mains	Wm201014		1950	$ 6,549	$ 6,693	$ -	$0	$0	$0	$0	$0	$6,693
Portland	Reticulation	Water Mains	Wm201015		1950	$ 25,451	$ 26,011	$ -	$0	$0	$0	$0	$0	$26,011
Portland	Reticulation	Water Mains	Wm201016		1950	$ 3,019	$ 3,085	$ -	$0	$0	$0	$0	$0	$3,085
Portland	Reticulation	Water Mains	Wm201017		1950	$ 5,507	$ 5,628	$ -	$0	$0	$0	$0	$0	$5,628
Portland	Reticulation	Water Mains	Wm201018		1950	$ 2,106	$ 2,152	$ -	$0	$0	$0	$0	$0	$2,152
Portland	Reticulation	Water Mains	Wm201019		1950	$ 27,719	$ 28,329	$ -	$0	$0	$0	$0	$0	$28,329
Portland	Reticulation	Water Mains	Wm201020		1950	$ 3,222	$ 3,293	$ -	$0	$0	$0	$0	$0	$3,293
Portland	Reticulation	Water Mains	Wm201021		1950	$ 27,448	$ 28,051	$ -	$0	$0	$0	$0	$0	$28,051
Portland	Reticulation	Water Mains	Wm201022		1950	$ 28,410	$ 29,035	$ -	$0	$0	$0	$0	$0	$29,035
Portland	Reticulation	Water Mains	Wm201023		1950	$ 2,189	$ 2,237	$ -	$0	$0	$0	$0	$0	$2,237
Portland	Reticulation	Water Mains	Wm201024		1950	$ 655	$ 669	$ -	$0	$0	$0	$0	$0	$669
Portland	Reticulation	Water Mains	Wm201025		1950	$ 24,525	$ 25,064	$ -	$0	$0	$0	$0	$0	$25,064
Portland	Reticulation	Water Mains	Wm201026		1950	$ 725	$ 741	$ -	$0	$0	$0	$0	$0	$741
Portland	Reticulation	Water Mains	Wm201027		1950	$ 24,158	$ 24,689	$ -	$0	$0	$0	$0	$0	$24,689
Portland	Reticulation	Water Mains	Wm201028		1950	$ 447	$ 457	$ -	$0	$0	$0	$0	$0	$457
Portland	Reticulation	Water Mains	Wm201029		1950	$ 37,035	$ 37,849	$ -	$0	$0	$0	$0	$0	$37,849
Portland	Reticulation	Water Mains	Wm201030		1950	$ 620	$ 634	$ -	$0	$0	$0	$0	$0	$634
Portland	Reticulation	Water Mains	Wm201031		1950	$ 794	$ 812	$ -	$0	$0	$0	$0	$0	$812
Portland	Reticulation	Water Mains	Wm201032		1950	$ 711	$ 726	$ -	$0	$0	$0	$0	$0	$726
Portland	Reticulation	Water Mains	Wm201033		1950	$ 17,075	$ 17,450	$ -	$0	$0	$0	$0	$0	$17,450
Portland	Reticulation	Water Mains	Wm201034		1950	$ 418	$ 427	$ -	$0	$0	$0	$0	$0	$427
Portland	Reticulation	Water Mains	Wm201035		1950	$ 17,161	$ 17,538	$ -	$0	$0	$0	$0	$0	$17,538
Portland	Reticulation	Water Mains	Wm201036		1950	$ 17,055	$ 17,430	$ -	$0	$0	$0	$0	$0	$17,430
Portland	Reticulation	Water Mains	Wm201037		1950	$ 2,114	$ 2,160	$ -	$0	$0	$0	$0	$0	$2,160
Portland	Reticulation	Water Mains	Wm201038		1950	$ 520	$ 531	$ -	$0	$0	$0	$0	$0	$531
Portland	Reticulation	Water Mains	Wm201039		1950	$ 10,188	$ 10,412	$ -	$0	$0	$0	$0	$0	$10,412
Portland	Reticulation	Water Mains	Wm201040		1950	$ 9,401	$ 9,608	$ -	$0	$0	$0	$0	$0	$9,608
Portland	Reticulation	Water Mains	Wm201041		1950	$ 694	$ 709	$ -	$0	$0	$0	$0	$0	$709
Portland	Reticulation	Water Mains	Wm201042		1950	$ 79,808	$ 81,564	$ -	$0	$0	$0	$0	$0	$81,564
Portland	Reticulation	Water Mains	Wm201043		1950	$ 30,916	$ 31,596	$ -	$0	$0	$0	$0	$0	$31,596
Portland	Reticulation	Water Mains	Wm201044		1950	$ 24,891	$ 25,439	$ -	$0	$0	$0	$0	$0	$25,439
Portland	Reticulation	Water Mains	Wm201045		1950	$ 3,202	$ 3,273	$ -	$0	$0	$0	$0	$0	$3,273
Portland	Reticulation	Water Mains	Wm201046		1950	$ 15,768	$ 16,115	$ -	$0	$0	$0	$0	$0	$16,115
Portland	Reticulation	Water Mains	Wm201047		1950	$ 7,245	$ 7,405	$ -	$0	$0	$0	$0	$0	$7,405
Portland	Reticulation	Water Mains	Wm201048		1950	$ 2,213	$ 2,262	$ -	$0	$0	$0	$0	$0	$2,262
Portland	Reticulation	Water Mains	Wm201049		1950	$ 11,616	$ 11,871	$ -	$0	$0	$0	$0	$0	$11,871
Portland	Reticulation	Water Mains	Wm201050		1950	$ 958	$ 979	$ -	$0	$0	$0	$0	$0	$979
Portland	Reticulation	Water Mains	Wm201051		1950	$ 1,917	$ 1,960	$ -	$0	$0	$0	$0	$0	$1,960
Portland	Reticulation	Water Mains	Wm201052		1950	$ 1,149	$ 1,175	$ -	$0	$0	$0	$0	$0	$1,175
Portland	Reticulation	Water Mains	Wm201053		1950	$ 39,119	$ 39,980	$ -	$0	$0	$0	$0	$0	$39,980
Portland	Reticulation	Water Mains	Wm201054		1950	$ 71,922	$ 73,504	$ -	$0	$0	$0	$0	$0	$73,504
Portland	Reticulation	Water Mains	Wm201055		1950	$ 21,221	$ 21,688	$ -	$0	$0	$0	$0	$0	$21,688
Portland	Reticulation	Water Mains	Wm201056		1950	$ 2,184	$ 2,233	$ -	$0	$0	$0	$0	$0	$2,233
Portland	Reticulation	Water Mains	Wm201057		1950	$ 11,639	$ 11,895	$ -	$0	$0	$0	$0	$0	$11,895
Portland	Reticulation	Water Mains	Wm201058		1950	$ 11,251	$ 11,498	$ -	$0	$0	$0	$0	$0	$11,498
Portland	Reticulation	Water Mains	Wm201059		1950	$ 15,018	$ 15,348	$ -	$0	$0	$0	$0	$0	$15,348
Portland	Reticulation	Water Mains	Wm201060		1950	$ 4,792	$ 4,897	$ -	$0	$0	$0	$0	$0	$4,897
Portland	Reticulation	Water Mains	Wm201061		1950	$ 2,323	$ 2,374	$ -	$0	$0	$0	$0	$0	$2,374
Portland	Reticulation	Water Mains	Wm201062		1950	$ 1,530	$ 1,564	$ -	$0	$0	$0	$0	$0	$1,564
Portland	Reticulation	Water Mains	Wm201063		1950	$ 11,156	$ 11,401	$ -	$0	$0	$0	$0	$0	$11,401
Portland	Reticulation	Water Mains	Wm201064		1950	$ 15,061	$ 15,392	$ -	$0	$0	$0	$0	$0	$15,392
Portland	Reticulation	Water Mains	Wm201065		1950	$ 19,973	$ 20,413	$ -	$0	$0	$0	$0	$0	$20,413
Portland	Reticulation	Water Mains	Wm201066		1950	$ 1,413	$ 1,444	$ -	$0	$0	$0	$0	$0	$1,444
Portland	Reticulation	Water Mains	Wm201067		1950	$ 28,070	$ 28,688	$ -	$0	$0	$0	$0	$0	$28,688
Portland	Reticulation	Water Mains	Wm201068		1950	$ 824	$ 842	$ -	$0	$0	$0	$0	$0	$842
Portland	Reticulation	Water Mains	Wm201069		1950	$ 453	$ 463	$ -	$0	$0	$0	$0	$0	$463
Portland	Reticulation	Water Mains	Wm201070		1950	$ 2,942	$ 3,007	$ -	$0	$0	$0	$0	$0	$3,007
Portland	Reticulation	Water Mains	Wm201071		1950	$ 8,119	$ 8,297	$ -	$0	$0	$0	$0	$0	$8,297
Portland	Reticulation	Water Mains	Wm201072		1950	$ 2,956	$ 3,021	$ -	$0	$0	$0	$0	$0	$3,021
Portland	Reticulation	Water Mains	Wm201073		1950	$ 17,370	$ 17,752	$ -	$0	$0	$0	$0	$0	$17,752
Portland	Reticulation	Water Mains	Wm201074		1950	$ 15,199	$ 15,533	$ -	$0	$0	$0	$0	$0	$15,533
Portland	Reticulation	Water Mains	Wm201075		1950	$ 3,046	$ 3,113	$ -	$0	$0	$0	$0	$0	$3,113
Portland	Reticulation	Water Mains	Wm201076		1950	$ 5,445	$ 5,564	$ -	$0	$0	$0	$0	$0	$5,564
Portland	Reticulation	Water Mains	Wm201077		1950	$ 21,148	$ 21,613	$ -	$0	$0	$0	$0	$0	$21,613
Portland	Reticulation	Water Mains	Wm201078		1950	$ 677	$ 692	$ -	$0	$0	$0	$0	$0	$692
Portland	Reticulation	Water Mains	Wm201079		1950	$ 13,028	$ 13,315	$ -	$0	$0	$0	$0	$0	$13,315
Portland	Reticulation	Water Mains	Wm201080		1950	$ 2,179	$ 2,226	$ -	$0	$0	$0	$0	$0	$2,226
Portland	Reticulation	Water Mains	Wm201081		1950	$ 4,843	$ 4,949	$ -	$0	$0	$0	$0	$0	$4,949
Portland	Reticulation	Water Mains	Wm201082		1950	$ 61,386	$ 62,737	$ -	$0	$0	$0	$0	$0	$62,737
Portland	Reticulation	Water Mains	Wm201083		1950	$ 12,546	$ 12,822	$ -	$0	$0	$0	$0	$0	$12,822
Portland	Reticulation	Water Mains	Wm201084		1950	$ 53,221	$ 54,392	$ -	$0	$0	$0	$0	$0	$54,392
Portland	Reticulation	Water Mains	Wm201085		1950	$ 15,559	$ 15,902	$ -	$0	$0	$0	$0	$0	$15,902
Portland	Reticulation	Water Mains	Wm201086		1950	$ 849	$ 867	$ -	$0	$0	$0	$0	$0	$867
Portland	Reticulation	Water Mains	Wm201087		1950	$ 15,834	$ 16,183	$ -	$0	$0	$0	$0	$0	$16,183
Portland	Reticulation	Water Mains	Wm201088		1950	$ 18,619	$ 19,029	$ -	$0	$0	$0	$0	$0	$19,029
Portland	Reticulation	Water Mains	Wm201089		1950	$ 28,844	$ 29,478	$ -	$0	$0	$0	$0	$0	$29,478
Portland	Reticulation	Water Mains	Wm201090		1950	$ 8,433	$ 8,618	$ -	$0	$0	$0	$0	$0	$8,618
Portland	Reticulation	Water Mains	Wm201091		1950	$ 12,733	$ 13,013	$ -	$0	$0	$0	$0	$0	$13,013

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Portland	Reticulation	Water Mains	Wm201092		1950	$ 34,251	$ 35,004	$ -	$0	$0	$0	$0	$0	$35,004
Portland	Reticulation	Water Mains	Wm201093		1950	$ 57,540	$ 58,806	$ -	$0	$0	$0	$0	$0	$58,806
Portland	Reticulation	Water Mains	Wm201094		1950	$ 18,030	$ 18,427	$ -	$0	$0	$0	$0	$0	$18,427
Portland	Reticulation	Water Mains	Wm201095		1950	$ 2,472	$ 2,527	$ -	$0	$0	$0	$0	$0	$2,527
Portland	Reticulation	Water Mains	Wm201096		1950	$ 21,623	$ 22,099	$ -	$0	$0	$0	$0	$0	$22,099
Portland	Reticulation	Water Mains	Wm201097		1950	$ 17,925	$ 18,319	$ -	$0	$0	$0	$0	$0	$18,319
Portland	Reticulation	Water Mains	Wm201098		1950	$ 19,159	$ 19,581	$ -	$0	$0	$0	$0	$0	$19,581
Portland	Reticulation	Water Mains	Wm201099		1950	$ 7,584	$ 7,751	$ -	$0	$0	$0	$0	$0	$7,751
Portland	Reticulation	Water Mains	Wm201100		1950	$ 47,260	$ 48,300	$ -	$0	$0	$0	$0	$0	$48,300
Portland	Reticulation	Water Mains	Wm201101		1950	$ 13,198	$ 13,489	$ -	$0	$0	$0	$0	$0	$13,489
Portland	Reticulation	Water Mains	Wm201102		1950	$ 2,303	$ 2,354	$ -	$0	$0	$0	$0	$0	$2,354
Portland	Reticulation	Water Mains	Wm201103		1950	$ 2,169	$ 2,217	$ -	$0	$0	$0	$0	$0	$2,217
Portland	Reticulation	Water Mains	Wm201104		1950	$ 10,734	$ 10,970	$ -	$0	$0	$0	$0	$0	$10,970
Portland	Reticulation	Water Mains	Wm201105		1950	$ 29,832	$ 30,489	$ -	$0	$0	$0	$0	$0	$30,489
Portland	Reticulation	Water Mains	Wm201106		1950	$ 7,925	$ 8,100	$ -	$0	$0	$0	$0	$0	$8,100
Portland	Reticulation	Water Mains	Wm201107		1950	$ 20,891	$ 21,350	$ -	$0	$0	$0	$0	$0	$21,350
Portland	Reticulation	Water Mains	Wm201108		1950	$ 31,604	$ 32,300	$ -	$0	$0	$0	$0	$0	$32,300
Portland	Reticulation	Water Mains	Wm201109		1950	$ 10,207	$ 10,431	$ -	$0	$0	$0	$0	$0	$10,431
Portland	Reticulation	Water Mains	Wm201110		1950	$ 10,508	$ 10,739	$ -	$0	$0	$0	$0	$0	$10,739
Portland	Reticulation	Water Mains	Wm201111		1950	$ 7,255	$ 7,415	$ -	$0	$0	$0	$0	$0	$7,415
Portland	Reticulation	Water Mains	Wm201112		1950	$ 22,895	$ 23,399	$ -	$0	$0	$0	$0	$0	$23,399
Portland	Reticulation	Water Mains	Wm201113		1950	$ 13,928	$ 14,235	$ -	$0	$0	$0	$0	$0	$14,235
Portland	Reticulation	Water Mains	Wm201114		1950	$ 37,688	$ 38,517	$ -	$0	$0	$0	$0	$0	$38,517
Portland	Reticulation	Water Mains	Wm201115		1950	$ 8,818	$ 9,012	$ -	$0	$0	$0	$0	$0	$9,012
Portland	Reticulation	Water Mains	Wm201116		1950	$ 922	$ 942	$ -	$0	$0	$0	$0	$0	$942
Portland	Reticulation	Water Mains	Wm201117		1950	$ 12,934	$ 13,219	$ -	$0	$0	$0	$0	$0	$13,219
Portland	Reticulation	Water Mains	Wm201118		1950	$ 524	$ 536	$ -	$0	$0	$0	$0	$0	$536
Portland	Reticulation	Water Mains	Wm201119		1950	$ 11,477	$ 11,730	$ -	$0	$0	$0	$0	$0	$11,730
Portland	Reticulation	Water Mains	Wm201120		1950	$ 573	$ 586	$ -	$0	$0	$0	$0	$0	$586
Portland	Reticulation	Water Mains	Wm201121		1950	$ 13,227	$ 13,518	$ -	$0	$0	$0	$0	$0	$13,518
Portland	Reticulation	Water Mains	Wm201122		1950	$ 503	$ 515	$ -	$0	$0	$0	$0	$0	$515
Portland	Reticulation	Water Mains	Wm201123		1950	$ 40,251	$ 41,136	$ -	$0	$0	$0	$0	$0	$41,136
Portland	Reticulation	Water Mains	Wm201124		1950	$ 409	$ 418	$ -	$0	$0	$0	$0	$0	$418
Portland	Reticulation	Water Mains	Wm201125		1950	$ 114,516	$ 117,036	$ -	$0	$0	$0	$0	$0	$117,036
Portland	Reticulation	Water Mains	Wm201126		1950	$ 87,063	$ 88,979	$ -	$0	$0	$0	$0	$0	$88,979
Portland	Reticulation	Water Mains	Wm201127		1950	$ 64,618	$ 66,039	$ -	$0	$0	$0	$0	$0	$66,039
Portland	Reticulation	Water Mains	Wm201128		1950	$ 14,941	$ 15,270	$ -	$0	$0	$0	$0	$0	$15,270
Portland	Reticulation	Water Mains	Wm201129		1950	$ 11,320	$ 11,569	$ -	$0	$0	$0	$0	$0	$11,569
Portland	Reticulation	Water Mains	Wm201130		1950	$ 21,108	$ 21,573	$ -	$0	$0	$0	$0	$0	$21,573
Portland	Reticulation	Water Mains	Wm201131		1950	$ 81,586	$ 83,381	$ -	$0	$0	$0	$0	$0	$83,381
Portland	Reticulation	Water Mains	Wm201132		1950	$ 117,404	$ 119,987	$ -	$0	$0	$0	$0	$0	$119,987
Portland	Reticulation	Water Mains	Wm201450		1980	$ 945	$ 966	$ -	$0	$0	$0	$0	$0	$966
Portland	Reticulation	Water Mains	Wm201451		1950	$ 706	$ 722	$ -	$0	$0	$0	$0	$0	$722
Portland	Reticulation	Water Mains	Wm201453		1950	$ 32,874	$ 33,598	$ -	$0	$0	$0	$0	$0	$33,598
Portland	Reticulation	Water Mains	Wm201454		1950	$ 659	$ 674	$ -	$0	$0	$0	$0	$0	$674
Portland	Reticulation	Water Mains	Wm201455		1950	$ 227	$ 232	$ -	$0	$0	$0	$0	$0	$232
Portland	Reticulation	Water Mains	Wm201456		1950	$ 8,902	$ 9,098	$ -	$0	$0	$0	$0	$0	$9,098
Portland	Reticulation	Water Mains	Wm201457		1950	$ 25,672	$ 26,237	$ -	$0	$0	$0	$0	$0	$26,237
Portland	Reticulation	Water Mains	Wm201458		1950	$ 10,477	$ 10,708	$ -	$0	$0	$0	$0	$0	$10,708
Portland	Reticulation	Water Mains	Wm201459		1950	$ 112	$ 115	$ -	$0	$0	$0	$0	$0	$115
Portland	Reticulation	Water Mains	Wm201460		1950	$ 10,924	$ 11,164	$ -	$0	$0	$0	$0	$0	$11,164
Portland	Reticulation	Water Mains	Wm201807		1950	$ 14,337	$ 14,652	$ -	$0	$0	$0	$0	$0	$14,652
Portland	Reticulation	Water Mains	Wm201808		1950	$ 1,443	$ 1,475	$ -	$0	$0	$0	$0	$0	$1,475
	Reticulation	Water Mains	Wm201133		1950	$ 68,751	$ 70,264	$ -	$0	$0	$0	$0	$0	$70,264
	Reticulation	Water Mains	Wm201134		1950	$ 24,033	$ 24,562	$ -	$0	$0	$0	$0	$0	$24,562
	Reticulation	Water Mains	Wm201135		1950	$ 32,583	$ 33,299	$ -	$0	$0	$0	$0	$0	$33,299
	Reticulation	Water Mains	Wm201711		1950	$ 75,590	$ 77,253	$ -	$0	$0	$0	$0	$0	$77,253
	Reticulation	Water Mains	Wm201712		1950	$ 132,992	$ 135,918	$ -	$0	$0	$0	$0	$0	$135,918
	Reticulation	Water Mains	Wm201713		1950	$ 20,495	$ 20,946	$ -	$0	$0	$0	$0	$0	$20,946
	Reticulation	Water Mains	Wm201714		1950	$ 16,148	$ 16,503	$ -	$0	$0	$0	$0	$0	$16,503
	Reticulation	Water Mains	Wm201715		1950	$ 19,074	$ 19,493	$ -	$0	$0	$0	$0	$0	$19,493
	Reticulation	Water Mains	Wm201716		1950	$ 42,136	$ 43,063	$ -	$0	$0	$0	$0	$0	$43,063
	Reticulation	Water Mains	Wm201717		1950	$ 8,693	$ 8,884	$ -	$0	$0	$0	$0	$0	$8,884
	Reticulation	Water Mains	Wm201718		1950	$ 24,225	$ 24,758	$ -	$0	$0	$0	$0	$0	$24,758
	Reticulation	Water Mains	Wm201719		1950	$ 2,660	$ 2,719	$ -	$0	$0	$0	$0	$0	$2,719
	Reticulation	Water Mains	Wm201720		1950	$ 15,466	$ 15,806	$ -	$0	$0	$0	$0	$0	$15,806
	Reticulation	Water Mains	Wm201721		1950	$ 2,170	$ 2,218	$ -	$0	$0	$0	$0	$0	$2,218
	Reticulation	Water Mains	Wm201722		1950	$ 17,173	$ 17,551	$ -	$0	$0	$0	$0	$0	$17,551
	Reticulation	Water Mains	Wm201723		1950	$ 113,350	$ 115,843	$ -	$0	$0	$0	$0	$0	$115,843
	Reticulation	Water Mains	Wm201724		1950	$ 4,754	$ 4,858	$ -	$0	$0	$0	$0	$0	$4,858
	Reticulation	Water Mains	Wm201725		1950	$ 3,147	$ 3,216	$ -	$0	$0	$0	$0	$0	$3,216
	Reticulation	Water Mains	Wm201726		1950	$ 1,992	$ 2,035	$ -	$0	$0	$0	$0	$0	$2,035
	Reticulation	Water Mains	Wm201727		1950	$ 2,232	$ 2,281	$ -	$0	$0	$0	$0	$0	$2,281
	Reticulation	Water Mains	Wm201728		1950	$ 9,793	$ 10,009	$ -	$0	$0	$0	$0	$0	$10,009
	Reticulation	Water Mains	Wm201729		1950	$ 257	$ 263	$ -	$0	$0	$0	$0	$0	$263
	Reticulation	Water Mains	Wm201730		1950	$ 116	$ 118	$ -	$0	$0	$0	$0	$0	$118
	Reticulation	Water Mains	Wm201731		1950	$ 9,542	$ 9,752	$ -	$0	$0	$0	$0	$0	$9,752
	Reticulation	Water Mains	Wm201732		1950	$ 587	$ 600	$ -	$0	$0	$0	$0	$0	$600
	Reticulation	Water Mains	Wm201733		1950	$ 19,880	$ 20,317	$ -	$0	$0	$0	$0	$0	$20,317
	Reticulation	Water Mains	Wm201734		1950	$ 356	$ 363	$ -	$0	$0	$0	$0	$0	$363
	Reticulation	Water Mains	Wm201735		1950	$ 29,888	$ 30,546	$ -	$0	$0	$0	$0	$0	$30,546
	Reticulation	Water Mains	Wm201736		1950	$ 925	$ 946	$ -	$0	$0	$0	$0	$0	$946
	Reticulation	Water Mains	Wm201737		1950	$ 22,224	$ 22,713	$ -	$0	$0	$0	$0	$0	$22,713
	Reticulation	Water Mains	Wm201738		1950	$ 14,497	$ 14,816	$ -	$0	$0	$0	$0	$0	$14,816
	Reticulation	Water Mains	Wm201739		1950	$ 13,281	$ 13,573	$ -	$0	$0	$0	$0	$0	$13,573
	Reticulation	Water Mains	Wm201740		1950	$ 1,047	$ 1,070	$ -	$0	$0	$0	$0	$0	$1,070
	Reticulation	Water Mains	Wm201741		1950	$ 105,890	$ 108,220	$ -	$0	$0	$0	$0	$0	$108,220

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Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
	Reticulation	Water Mains	Wm201742		1950	$ 14,975	$ 15,304	$ -	$0	$0	$0	$0	$0	$15,304
	Reticulation	Water Mains	Wm201783		1950	$ 21,528	$ 22,001	$ -	$0	$0	$0	$0	$0	$22,001
	Reticulation	Water Mains	Wm201784		1950	$ 1,936	$ 1,978	$ -	$0	$0	$0	$0	$0	$1,978
	Reticulation	Water Mains	Wm201785		1950	$ 14,243	$ 14,556	$ -	$0	$0	$0	$0	$0	$14,556
	Reticulation	Water Mains	Wm201786		1950	$ 23,492	$ 24,009	$ -	$0	$0	$0	$0	$0	$24,009
	Reticulation	Water Mains	Wm201787		1950	$ 1,425	$ 1,457	$ -	$0	$0	$0	$0	$0	$1,457
Shared	Monitoring	Ancillary	Lidsdale Reservoir		2006	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$6,715	$0
Wallerawang	Chlorination Equipment	Water Chlorinators	Lidsdale Reservoir Chlorination		2014	$ 58,710	$ 60,002	$ 60,002	$60,002	$0	$0	$60,002	$0	$0
Wallerawang	Water Reservoirs - Concrete	Water Reservoirs	Lidsdale Resevoir		1978	$ 104,751	$ 107,056	$ 107,056	$0	$0	$0	$0	$0	$107,056
Wallerawang	Water Reservoirs - Concrete	Water Reservoirs	Lidsdale Resevoir		1978	$ 593,589	$ 606,648	$ 606,648	$0	$0	$0	$0	$0	$606,648
Wallerawang	Water Reservoirs - Concrete	Water Reservoirs	Wallerawang Reservoir		1990	$ 203,168	$ 207,637	$ 207,637	$207,637	$0	$0	$207,637	$0	$0
Wallerawang	Water Reservoirs - Concrete	Water Reservoirs	Wallerawang Reservoir		1950	$ 1,151,283	$ 1,176,611	$ 1,176,611	$0	$0	$0	$0	$0	$1,176,611
Wallerawang	Chlorination Equipment	Water Chlorinators	Wallerawang Reservoir Chlorination		2014	$ 58,710	$ 60,002	$ 60,002	$60,002	$0	$0	$60,002	$0	$0
Wallerawang	Water Reservoirs - Concrete	Water Reservoirs	Wallerawang Reservoirs PJ200009		1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$6,715	$0	$0
Wallerawang	Reticulation	Water Mains	Wm200641		1950	$ 16,704	$ 17,071	$ -	$0	$0	$0	$0	$0	$17,071
Wallerawang	Reticulation	Water Mains	Wm200642		1950	$ 6,290	$ 6,428	$ -	$0	$0	$0	$0	$0	$6,428
Wallerawang	Reticulation	Water Mains	Wm200643		1950	$ 1,482	$ 1,515	$ -	$0	$0	$0	$0	$0	$1,515
Wallerawang	Reticulation	Water Mains	Wm200644		1950	$ 13,109	$ 13,397	$ -	$0	$0	$0	$0	$0	$13,397
Wallerawang	Reticulation	Water Mains	Wm200645		1950	$ 13,039	$ 13,326	$ -	$0	$0	$0	$0	$0	$13,326
Wallerawang	Reticulation	Water Mains	Wm200646		1950	$ 134	$ 136	$ -	$0	$0	$0	$0	$0	$136
Wallerawang	Reticulation	Water Mains	Wm200647		1950	$ 8,524	$ 8,712	$ -	$0	$0	$0	$0	$0	$8,712
Wallerawang	Reticulation	Water Mains	Wm200648		1950	$ 603	$ 616	$ -	$0	$0	$0	$0	$0	$616
Wallerawang	Reticulation	Water Mains	Wm200649		1950	$ 8,545	$ 8,733	$ -	$0	$0	$0	$0	$0	$8,733
Wallerawang	Reticulation	Water Mains	Wm200650		1950	$ 11,052	$ 11,295	$ -	$0	$0	$0	$0	$0	$11,295
Wallerawang	Reticulation	Water Mains	Wm200651		1950	$ 95	$ 97	$ -	$0	$0	$0	$0	$0	$97
Wallerawang	Reticulation	Water Mains	Wm200652		1950	$ 12,106	$ 12,372	$ -	$0	$0	$0	$0	$0	$12,372
Wallerawang	Reticulation	Water Mains	Wm200653		1950	$ 239	$ 244	$ -	$0	$0	$0	$0	$0	$244
Wallerawang	Reticulation	Water Mains	Wm200654		1950	$ 16,234	$ 16,591	$ -	$0	$0	$0	$0	$0	$16,591
Wallerawang	Reticulation	Water Mains	Wm200655		1950	$ 17,986	$ 18,382	$ -	$0	$0	$0	$0	$0	$18,382
Wallerawang	Reticulation	Water Mains	Wm200656		1950	$ 22,679	$ 23,178	$ -	$0	$0	$0	$0	$0	$23,178
Wallerawang	Reticulation	Water Mains	Wm200657		1950	$ 451	$ 461	$ -	$0	$0	$0	$0	$0	$461
Wallerawang	Reticulation	Water Mains	Wm200658		1950	$ 9,214	$ 9,417	$ -	$0	$0	$0	$0	$0	$9,417
Wallerawang	Reticulation	Water Mains	Wm200659		1950	$ 2,189	$ 2,237	$ -	$0	$0	$0	$0	$0	$2,237
Wallerawang	Reticulation	Water Mains	Wm200660		1950	$ 3,033	$ 3,100	$ -	$0	$0	$0	$0	$0	$3,100
Wallerawang	Reticulation	Water Mains	Wm200661		1950	$ 18,131	$ 18,530	$ -	$0	$0	$0	$0	$0	$18,530
Wallerawang	Reticulation	Water Mains	Wm200662		1950	$ 2,032	$ 2,077	$ -	$0	$0	$0	$0	$0	$2,077
Wallerawang	Reticulation	Water Mains	Wm200663		1950	$ 360	$ 368	$ -	$0	$0	$0	$0	$0	$368
Wallerawang	Reticulation	Water Mains	Wm200664		1950	$ 17,341	$ 17,723	$ -	$0	$0	$0	$0	$0	$17,723
Wallerawang	Reticulation	Water Mains	Wm200665		1950	$ 255	$ 261	$ -	$0	$0	$0	$0	$0	$261
Wallerawang	Reticulation	Water Mains	Wm200666		1950	$ 535	$ 547	$ -	$0	$0	$0	$0	$0	$547
Wallerawang	Reticulation	Water Mains	Wm200667		1950	$ 205	$ 210	$ -	$0	$0	$0	$0	$0	$210
Wallerawang	Reticulation	Water Mains	Wm200668		1950	$ 20,110	$ 20,553	$ -	$0	$0	$0	$0	$0	$20,553
Wallerawang	Reticulation	Water Mains	Wm200669		1950	$ 17,900	$ 18,294	$ -	$0	$0	$0	$0	$0	$18,294
Wallerawang	Reticulation	Water Mains	Wm200670		1950	$ 313	$ 320	$ -	$0	$0	$0	$0	$0	$320
Wallerawang	Reticulation	Water Mains	Wm200671		1950	$ 405	$ 414	$ -	$0	$0	$0	$0	$0	$414
Wallerawang	Reticulation	Water Mains	Wm200672		1950	$ 21,711	$ 22,189	$ -	$0	$0	$0	$0	$0	$22,189
Wallerawang	Reticulation	Water Mains	Wm200673		1950	$ 26,281	$ 26,859	$ -	$0	$0	$0	$0	$0	$26,859
Wallerawang	Reticulation	Water Mains	Wm200674		1950	$ 1,987	$ 2,030	$ -	$0	$0	$0	$0	$0	$2,030
Wallerawang	Reticulation	Water Mains	Wm200675		1950	$ 12,722	$ 13,001	$ -	$0	$0	$0	$0	$0	$13,001
Wallerawang	Reticulation	Water Mains	Wm200676		1950	$ 88	$ 90	$ -	$0	$0	$0	$0	$0	$90
Wallerawang	Reticulation	Water Mains	Wm200677		1950	$ 21,846	$ 22,327	$ -	$0	$0	$0	$0	$0	$22,327
Wallerawang	Reticulation	Water Mains	Wm200678		1950	$ 57,914	$ 59,188	$ -	$0	$0	$0	$0	$0	$59,188
Wallerawang	Reticulation	Water Mains	Wm200679		1950	$ 140	$ 143	$ -	$0	$0	$0	$0	$0	$143
Wallerawang	Reticulation	Water Mains	Wm200680		1950	$ 371	$ 379	$ -	$0	$0	$0	$0	$0	$379
Wallerawang	Reticulation	Water Mains	Wm200681		1950	$ 3,773	$ 3,856	$ -	$0	$0	$0	$0	$0	$3,856
Wallerawang	Reticulation	Water Mains	Wm200682		1950	$ 462	$ 472	$ -	$0	$0	$0	$0	$0	$472
Wallerawang	Reticulation	Water Mains	Wm200683		1950	$ 70,351	$ 71,898	$ -	$0	$0	$0	$0	$0	$71,898
Wallerawang	Reticulation	Water Mains	Wm200684		1950	$ 88	$ 90	$ -	$0	$0	$0	$0	$0	$90
Wallerawang	Reticulation	Water Mains	Wm200685		1950	$ 26,319	$ 26,898	$ -	$0	$0	$0	$0	$0	$26,898
Wallerawang	Reticulation	Water Mains	Wm200686		1950	$ 75	$ 76	$ -	$0	$0	$0	$0	$0	$76
Wallerawang	Reticulation	Water Mains	Wm200687		1950	$ 29,614	$ 30,266	$ -	$0	$0	$0	$0	$0	$30,266
Wallerawang	Reticulation	Water Mains	Wm200688		1950	$ 16,940	$ 17,313	$ -	$0	$0	$0	$0	$0	$17,313
Wallerawang	Reticulation	Water Mains	Wm200689		1950	$ 5,961	$ 6,092	$ -	$0	$0	$0	$0	$0	$6,092
Wallerawang	Reticulation	Water Mains	Wm200690		1950	$ 2,078	$ 2,124	$ -	$0	$0	$0	$0	$0	$2,124
Wallerawang	Reticulation	Water Mains	Wm200691		1950	$ 88,580	$ 90,529	$ -	$0	$0	$0	$0	$0	$90,529
Wallerawang	Reticulation	Water Mains	Wm200692		1950	$ 706	$ 722	$ -	$0	$0	$0	$0	$0	$722
Wallerawang	Reticulation	Water Mains	Wm200693		1950	$ 36,082	$ 36,876	$ -	$0	$0	$0	$0	$0	$36,876
Wallerawang	Reticulation	Water Mains	Wm200694		1950	$ 16,698	$ 17,065	$ -	$0	$0	$0	$0	$0	$17,065
Wallerawang	Reticulation	Water Mains	Wm200695		1950	$ 182	$ 186	$ -	$0	$0	$0	$0	$0	$186
Wallerawang	Reticulation	Water Mains	Wm200696		1950	$ 57,638	$ 58,906	$ -	$0	$0	$0	$0	$0	$58,906
Wallerawang	Reticulation	Water Mains	Wm200697		1950	$ 3,242	$ 3,313	$ -	$0	$0	$0	$0	$0	$3,313
Wallerawang	Reticulation	Water Mains	Wm200698		1950	$ 2,612	$ 2,669	$ -	$0	$0	$0	$0	$0	$2,669
Wallerawang	Reticulation	Water Mains	Wm200699		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Wallerawang	Reticulation	Water Mains	Wm200700		1950	$ 846	$ 865	$ -	$0	$0	$0	$0	$0	$865
Wallerawang	Reticulation	Water Mains	Wm200701		1950	$ 43	$ 44	$ -	$0	$0	$0	$0	$0	$44
Wallerawang	Reticulation	Water Mains	Wm200702		1950	$ 73,638	$ 75,258	$ -	$0	$0	$0	$0	$0	$75,258
Wallerawang	Reticulation	Water Mains	Wm200703		1950	$ 4,057	$ 4,146	$ -	$0	$0	$0	$0	$0	$4,146
Wallerawang	Reticulation	Water Mains	Wm200704		1950	$ 232	$ 237	$ -	$0	$0	$0	$0	$0	$237
Wallerawang	Reticulation	Water Mains	Wm200705		1950	$ 11,189	$ 11,435	$ -	$0	$0	$0	$0	$0	$11,435
Wallerawang	Reticulation	Water Mains	Wm200706		1950	$ 1,673	$ 1,709	$ -	$0	$0	$0	$0	$0	$1,709
Wallerawang	Reticulation	Water Mains	Wm200707		1950	$ 33,094	$ 33,822	$ -	$0	$0	$0	$0	$0	$33,822
Wallerawang	Reticulation	Water Mains	Wm200708		1950	$ 554	$ 566	$ -	$0	$0	$0	$0	$0	$566
Wallerawang	Reticulation	Water Mains	Wm200709		1950	$ 105	$ 107	$ -	$0	$0	$0	$0	$0	$107
Wallerawang	Reticulation	Water Mains	Wm200710		1950	$ 1,801	$ 1,841	$ -	$0	$0	$0	$0	$0	$1,841
Wallerawang	Reticulation	Water Mains	Wm200711		1950	$ 29,607	$ 30,259	$ -	$0	$0	$0	$0	$0	$30,259
Wallerawang	Reticulation	Water Mains	Wm200712		1950	$ 601	$ 614	$ -	$0	$0	$0	$0	$0	$614
Wallerawang	Reticulation	Water Mains	Wm200713		1950	$ 5,225	$ 5,340	$ -	$0	$0	$0	$0	$0	$5,340

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Wallerawang	Reticulation	Water Mains	Wm200714		1950	$ 24,468	$ 25,007	$ -	$0	$0	$0	$0	$0	$25,007
Wallerawang	Reticulation	Water Mains	Wm200715		1950	$ 22,930	$ 23,435	$ -	$0	$0	$0	$0	$0	$23,435
Wallerawang	Reticulation	Water Mains	Wm200716		1950	$ 61,236	$ 62,583	$ -	$0	$0	$0	$0	$0	$62,583
Wallerawang	Reticulation	Water Mains	Wm200717		1950	$ 2,186	$ 2,234	$ -	$0	$0	$0	$0	$0	$2,234
Wallerawang	Reticulation	Water Mains	Wm200718		1950	$ 61	$ 62	$ -	$0	$0	$0	$0	$0	$62
Wallerawang	Reticulation	Water Mains	Wm200719		1950	$ 4,798	$ 4,904	$ -	$0	$0	$0	$0	$0	$4,904
Wallerawang	Reticulation	Water Mains	Wm200720		1950	$ 61,212	$ 62,558	$ -	$0	$0	$0	$0	$0	$62,558
Wallerawang	Reticulation	Water Mains	Wm200721		1950	$ 134	$ 136	$ -	$0	$0	$0	$0	$0	$136
Wallerawang	Reticulation	Water Mains	Wm200722		1950	$ 50,547	$ 51,659	$ -	$0	$0	$0	$0	$0	$51,659
Wallerawang	Reticulation	Water Mains	Wm200723		1950	$ 75,742	$ 77,408	$ -	$0	$0	$0	$0	$0	$77,408
Wallerawang	Reticulation	Water Mains	Wm200724		1950	$ 40,746	$ 41,643	$ -	$0	$0	$0	$0	$0	$41,643
Wallerawang	Reticulation	Water Mains	Wm200725		1950	$ 32,090	$ 32,796	$ -	$0	$0	$0	$0	$0	$32,796
Wallerawang	Reticulation	Water Mains	Wm200726		1950	$ 15,382	$ 15,721	$ -	$0	$0	$0	$0	$0	$15,721
Wallerawang	Reticulation	Water Mains	Wm200727		1950	$ 110	$ 113	$ -	$0	$0	$0	$0	$0	$113
Wallerawang	Reticulation	Water Mains	Wm200728		1950	$ 2,186	$ 2,234	$ -	$0	$0	$0	$0	$0	$2,234
Wallerawang	Reticulation	Water Mains	Wm200729		1950	$ 31,178	$ 31,864	$ -	$0	$0	$0	$0	$0	$31,864
Wallerawang	Reticulation	Water Mains	Wm200730		1950	$ 104	$ 106	$ -	$0	$0	$0	$0	$0	$106
Wallerawang	Reticulation	Water Mains	Wm200731		1950	$ 74,085	$ 75,715	$ -	$0	$0	$0	$0	$0	$75,715
Wallerawang	Reticulation	Water Mains	Wm200732		1950	$ 68,380	$ 69,884	$ -	$0	$0	$0	$0	$0	$69,884
Wallerawang	Reticulation	Water Mains	Wm200733		1950	$ 107,600	$ 109,968	$ -	$0	$0	$0	$0	$0	$109,968
Wallerawang	Reticulation	Water Mains	Wm200734		1950	$ 2,560	$ 2,616	$ -	$0	$0	$0	$0	$0	$2,616
Wallerawang	Reticulation	Water Mains	Wm200735		1950	$ 15,918	$ 16,269	$ -	$0	$0	$0	$0	$0	$16,269
Wallerawang	Reticulation	Water Mains	Wm200736		1950	$ 1,156	$ 1,181	$ -	$0	$0	$0	$0	$0	$1,181
Wallerawang	Reticulation	Water Mains	Wm200737		1950	$ 49,681	$ 50,774	$ -	$0	$0	$0	$0	$0	$50,774
Wallerawang	Reticulation	Water Mains	Wm200738		1950	$ 720	$ 736	$ -	$0	$0	$0	$0	$0	$736
Wallerawang	Reticulation	Water Mains	Wm200739		1950	$ 17,958	$ 18,353	$ -	$0	$0	$0	$0	$0	$18,353
Wallerawang	Reticulation	Water Mains	Wm200740		1950	$ 474	$ 484	$ -	$0	$0	$0	$0	$0	$484
Wallerawang	Reticulation	Water Mains	Wm200741		1950	$ 315	$ 322	$ -	$0	$0	$0	$0	$0	$322
Wallerawang	Reticulation	Water Mains	Wm200744		1950	$ 69,023	$ 70,542	$ -	$0	$0	$0	$0	$0	$70,542
Wallerawang	Reticulation	Water Mains	Wm200746		1950	$ 103,441	$ 105,717	$ -	$0	$0	$0	$0	$0	$105,717
Wallerawang	Reticulation	Water Mains	Wm200750		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Wallerawang	Reticulation	Water Mains	Wm200752		1950	$ 122	$ 124	$ -	$0	$0	$0	$0	$0	$124
Wallerawang	Reticulation	Water Mains	Wm201169		1950	$ 23,829	$ 24,353	$ -	$0	$0	$0	$0	$0	$24,353
Wallerawang	Reticulation	Water Mains	Wm201170		1950	$ 29,126	$ 29,766	$ -	$0	$0	$0	$0	$0	$29,766
Wallerawang	Reticulation	Water Mains	Wm201171		1950	$ 84,546	$ 86,406	$ -	$0	$0	$0	$0	$0	$86,406
Wallerawang	Reticulation	Water Mains	Wm201172		1950	$ 20,554	$ 21,006	$ -	$0	$0	$0	$0	$0	$21,006
Wallerawang	Reticulation	Water Mains	Wm201173		1950	$ 7,726	$ 7,896	$ -	$0	$0	$0	$0	$0	$7,896
Wallerawang	Reticulation	Water Mains	Wm201174		1950	$ 1,532	$ 1,566	$ -	$0	$0	$0	$0	$0	$1,566
Wallerawang	Reticulation	Water Mains	Wm201175		1950	$ 128,450	$ 131,276	$ -	$0	$0	$0	$0	$0	$131,276
Wallerawang	Reticulation	Water Mains	Wm201176		1950	$ 66,926	$ 68,399	$ -	$0	$0	$0	$0	$0	$68,399
Wallerawang	Reticulation	Water Mains	Wm201177		1950	$ 34,155	$ 34,906	$ -	$0	$0	$0	$0	$0	$34,906
Wallerawang	Reticulation	Water Mains	Wm201178		1950	$ 7,363	$ 7,525	$ -	$0	$0	$0	$0	$0	$7,525
Wallerawang	Reticulation	Water Mains	Wm201179		1950	$ 4,841	$ 4,948	$ -	$0	$0	$0	$0	$0	$4,948
Wallerawang	Reticulation	Water Mains	Wm201180		1950	$ 10,325	$ 10,552	$ -	$0	$0	$0	$0	$0	$10,552
Wallerawang	Reticulation	Water Mains	Wm201181		1950	$ 727	$ 743	$ -	$0	$0	$0	$0	$0	$743
Wallerawang	Reticulation	Water Mains	Wm201182		1950	$ 20,535	$ 20,987	$ -	$0	$0	$0	$0	$0	$20,987
Wallerawang	Reticulation	Water Mains	Wm201183		1950	$ 1,149	$ 1,174	$ -	$0	$0	$0	$0	$0	$1,174
Wallerawang	Reticulation	Water Mains	Wm201184		1950	$ 285	$ 291	$ -	$0	$0	$0	$0	$0	$291
Wallerawang	Reticulation	Water Mains	Wm201185		1950	$ 29,066	$ 29,705	$ -	$0	$0	$0	$0	$0	$29,705
Wallerawang	Reticulation	Water Mains	Wm201186		1950	$ 121	$ 124	$ -	$0	$0	$0	$0	$0	$124
Wallerawang	Reticulation	Water Mains	Wm201187		1950	$ 32,499	$ 33,214	$ -	$0	$0	$0	$0	$0	$33,214
Wallerawang	Reticulation	Water Mains	Wm201188		1950	$ 28,586	$ 29,215	$ -	$0	$0	$0	$0	$0	$29,215
Wallerawang	Reticulation	Water Mains	Wm201189		1950	$ 49,922	$ 51,020	$ -	$0	$0	$0	$0	$0	$51,020
Wallerawang	Reticulation	Water Mains	Wm201190		1950	$ 2,226	$ 2,275	$ -	$0	$0	$0	$0	$0	$2,275
Wallerawang	Reticulation	Water Mains	Wm201191		1950	$ 16,760	$ 17,129	$ -	$0	$0	$0	$0	$0	$17,129
Wallerawang	Reticulation	Water Mains	Wm201192		1950	$ 35,029	$ 35,800	$ -	$0	$0	$0	$0	$0	$35,800
Wallerawang	Reticulation	Water Mains	Wm201193		1950	$ 16,649	$ 17,015	$ -	$0	$0	$0	$0	$0	$17,015
Wallerawang	Reticulation	Water Mains	Wm201194		1950	$ 171	$ 175	$ -	$0	$0	$0	$0	$0	$175
Wallerawang	Reticulation	Water Mains	Wm201195		1950	$ 15,627	$ 15,971	$ -	$0	$0	$0	$0	$0	$15,971
Wallerawang	Reticulation	Water Mains	Wm201196		1950	$ 7,017	$ 7,171	$ -	$0	$0	$0	$0	$0	$7,171
Wallerawang	Reticulation	Water Mains	Wm201197		1950	$ 17	$ 17	$ -	$0	$0	$0	$0	$0	$17
Wallerawang	Reticulation	Water Mains	Wm201198		1950	$ 25	$ 25	$ -	$0	$0	$0	$0	$0	$25
Wallerawang	Reticulation	Water Mains	Wm201199		1950	$ 8,946	$ 9,143	$ -	$0	$0	$0	$0	$0	$9,143
Wallerawang	Reticulation	Water Mains	Wm201200		1950	$ 45,112	$ 46,104	$ -	$0	$0	$0	$0	$0	$46,104
Wallerawang	Reticulation	Water Mains	Wm201201		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Wallerawang	Reticulation	Water Mains	Wm201202		1950	$ 48,989	$ 50,067	$ -	$0	$0	$0	$0	$0	$50,067
Wallerawang	Reticulation	Water Mains	Wm201204		1950	$ 13,477	$ 13,773	$ -	$0	$0	$0	$0	$0	$13,773
Wallerawang	Reticulation	Water Mains	Wm201205		1950	$ 87	$ 89	$ -	$0	$0	$0	$0	$0	$89
Wallerawang	Reticulation	Water Mains	Wm201206		1950	$ 58,417	$ 59,702	$ -	$0	$0	$0	$0	$0	$59,702
Wallerawang	Reticulation	Water Mains	Wm201207		1950	$ 9,131	$ 9,332	$ -	$0	$0	$0	$0	$0	$9,332
Wallerawang	Reticulation	Water Mains	Wm201208		1950	$ 32	$ 32	$ -	$0	$0	$0	$0	$0	$32
Wallerawang	Reticulation	Water Mains	Wm201210		1950	$ 21,186	$ 21,652	$ -	$0	$0	$0	$0	$0	$21,652
Wallerawang	Reticulation	Water Mains	Wm201211		1950	$ 16,418	$ 16,779	$ -	$0	$0	$0	$0	$0	$16,779
Wallerawang	Reticulation	Water Mains	Wm201212		1950	$ 1,909	$ 1,951	$ -	$0	$0	$0	$0	$0	$1,951
Wallerawang	Reticulation	Water Mains	Wm201213		1950	$ 111,581	$ 114,036	$ -	$0	$0	$0	$0	$0	$114,036
Wallerawang	Reticulation	Water Mains	Wm201214		1950	$ 26,901	$ 27,493	$ -	$0	$0	$0	$0	$0	$27,493
Wallerawang	Reticulation	Water Mains	Wm201216		1950	$ 10,931	$ 11,172	$ -	$0	$0	$0	$0	$0	$11,172
Wallerawang	Reticulation	Water Mains	Wm201217		1950	$ 2,042	$ 2,087	$ -	$0	$0	$0	$0	$0	$2,087
Wallerawang	Reticulation	Water Mains	Wm201218		1950	$ 1,354	$ 1,383	$ -	$0	$0	$0	$0	$0	$1,383
Wallerawang	Reticulation	Water Mains	Wm201219		1950	$ 1,531	$ 1,564	$ -	$0	$0	$0	$0	$0	$1,564
Wallerawang	Reticulation	Water Mains	Wm201220		1950	$ 14,882	$ 15,210	$ -	$0	$0	$0	$0	$0	$15,210
Wallerawang	Reticulation	Water Mains	Wm201222		1950	$ 45,943	$ 46,954	$ -	$0	$0	$0	$0	$0	$46,954
Wallerawang	Reticulation	Water Mains	Wm201223		1950	$ 106,014	$ 108,347	$ -	$0	$0	$0	$0	$0	$108,347
Wallerawang	Reticulation	Water Mains	Wm201224		1950	$ 64,367	$ 65,783	$ -	$0	$0	$0	$0	$0	$65,783
Wallerawang	Reticulation	Water Mains	Wm201225		1950	$ 44,460	$ 45,438	$ -	$0	$0	$0	$0	$0	$45,438
Wallerawang	Reticulation	Water Mains	Wm201226		1950	$ 114	$ 116	$ -	$0	$0	$0	$0	$0	$116
Wallerawang	Reticulation	Water Mains	Wm201227		1950	$ 173	$ 177	$ -	$0	$0	$0	$0	$0	$177

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Table 1: Lithgow City Council Existing Water Supply Assets

Service Area	Asset Type	Asset Class	Asset Description	Pipe dia (mm)	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	Shared	Assets Excluded
Wallerawang	Reticulation	Water Mains	Wm201228		1950	$ 332	$ 339	$ -	$0	$0	$0	$0	$0	$339
Wallerawang	Reticulation	Water Mains	Wm201229		1950	$ 15,277	$ 15,614	$ -	$0	$0	$0	$0	$0	$15,614
Wallerawang	Reticulation	Water Mains	Wm201230		1950	$ 20,291	$ 20,738	$ -	$0	$0	$0	$0	$0	$20,738
Wallerawang	Reticulation	Water Mains	Wm201231		1950	$ 5,209	$ 5,324	$ -	$0	$0	$0	$0	$0	$5,324
Wallerawang	Reticulation	Water Mains	Wm201232		1950	$ 18,254	$ 18,655	$ -	$0	$0	$0	$0	$0	$18,655
Wallerawang	Reticulation	Water Mains	Wm201233		1950	$ 30,622	$ 31,295	$ -	$0	$0	$0	$0	$0	$31,295
Wallerawang	Reticulation	Water Mains	Wm201234		1950	$ 2,865	$ 2,928	$ -	$0	$0	$0	$0	$0	$2,928
Wallerawang	Reticulation	Water Mains	Wm201235		1950	$ 50,230	$ 51,335	$ -	$0	$0	$0	$0	$0	$51,335
Wallerawang	Reticulation	Water Mains	Wm201236		1950	$ 2,666	$ 2,725	$ -	$0	$0	$0	$0	$0	$2,725
Wallerawang	Reticulation	Water Mains	Wm201237		1950	$ 5,379	$ 5,497	$ -	$0	$0	$0	$0	$0	$5,497
Wallerawang	Reticulation	Water Mains	Wm201238		1950	$ 65,262	$ 66,698	$ -	$0	$0	$0	$0	$0	$66,698
Wallerawang	Reticulation	Water Mains	Wm201239		1950	$ 9,029	$ 9,228	$ -	$0	$0	$0	$0	$0	$9,228
Wallerawang	Reticulation	Water Mains	Wm201240		1950	$ 15,168	$ 15,501	$ -	$0	$0	$0	$0	$0	$15,501
Wallerawang	Reticulation	Water Mains	Wm201241		1950	$ 25,179	$ 25,733	$ -	$0	$0	$0	$0	$0	$25,733
Wallerawang	Reticulation	Water Mains	Wm201242		1950	$ 79,259	$ 81,003	$ -	$0	$0	$0	$0	$0	$81,003
Wallerawang	Reticulation	Water Mains	Wm201249		1950	$ 51,809	$ 52,949	$ -	$0	$0	$0	$0	$0	$52,949
Wallerawang	Reticulation	Water Mains	Wm201250		1950	$ 10,554	$ 10,787	$ -	$0	$0	$0	$0	$0	$10,787
Wallerawang	Reticulation	Water Mains	Wm201251		1950	$ 18,404	$ 18,809	$ -	$0	$0	$0	$0	$0	$18,809
Wallerawang	Reticulation	Water Mains	Wm201255		1950	$ 38,822	$ 39,676	$ -	$0	$0	$0	$0	$0	$39,676
Wallerawang	Reticulation	Water Mains	Wm201256		1950	$ 83	$ 85	$ -	$0	$0	$0	$0	$0	$85
Wallerawang	Reticulation	Water Mains	Wm201257		1950	$ 38	$ 39	$ -	$0	$0	$0	$0	$0	$39
Wallerawang	Reticulation	Water Mains	Wm201258		1950	$ 21,586	$ 22,061	$ -	$0	$0	$0	$0	$0	$22,061
Wallerawang	Reticulation	Water Mains	Wm201261		1950	$ 90,704	$ 92,700	$ -	$0	$0	$0	$0	$0	$92,700
Wallerawang	Reticulation	Water Mains	Wm201262		1950	$ 113	$ 115	$ -	$0	$0	$0	$0	$0	$115
Wallerawang	Reticulation	Water Mains	Wm201263		1950	$ 908	$ 928	$ -	$0	$0	$0	$0	$0	$928
Wallerawang	Reticulation	Water Mains	Wm201264		1950	$ 68	$ 70	$ -	$0	$0	$0	$0	$0	$70
Wallerawang	Reticulation	Water Mains	Wm201265		1950	$ 71	$ 72	$ -	$0	$0	$0	$0	$0	$72
Wallerawang	Reticulation	Water Mains	Wm201266		1950	$ 11,882	$ 12,143	$ -	$0	$0	$0	$0	$0	$12,143
Wallerawang	Reticulation	Water Mains	Wm201267		1950	$ 170,381	$ 174,129	$ -	$0	$0	$0	$0	$0	$174,129
Wallerawang	Reticulation	Water Mains	Wm201268		1950	$ 213,510	$ 218,207	$ -	$0	$0	$0	$0	$0	$218,207
Wallerawang	Reticulation	Water Mains	Wm201269		1950	$ 44,820	$ 45,806	$ -	$0	$0	$0	$0	$0	$45,806
Wallerawang	Reticulation	Water Mains	Wm201270		1950	$ 45	$ 46	$ -	$0	$0	$0	$0	$0	$46
Wallerawang	Reticulation	Water Mains	Wm201271		1950	$ 15,251	$ 15,586	$ -	$0	$0	$0	$0	$0	$15,586
Wallerawang	Reticulation	Water Mains	Wm201272		1950	$ 43	$ 44	$ -	$0	$0	$0	$0	$0	$44
Wallerawang	Reticulation	Water Mains	Wm201273		1950	$ 16,116	$ 16,471	$ -	$0	$0	$0	$0	$0	$16,471
Wallerawang	Reticulation	Water Mains	Wm201274		1950	$ 2,919	$ 2,983	$ -	$0	$0	$0	$0	$0	$2,983
Wallerawang	Reticulation	Water Mains	Wm201275		1950	$ 83,922	$ 85,768	$ -	$0	$0	$0	$0	$0	$85,768
Wallerawang	Reticulation	Water Mains	Wm201276		1950	$ 11	$ 11	$ -	$0	$0	$0	$0	$0	$11
Wallerawang	Reticulation	Water Mains	Wm201277		1950	$ 20	$ 20	$ -	$0	$0	$0	$0	$0	$20
Wallerawang	Reticulation	Water Mains	Wm201278		1950	$ 51,047	$ 52,170	$ -	$0	$0	$0	$0	$0	$52,170
Wallerawang	Reticulation	Water Mains	Wm201279		1950	$ 21,603	$ 22,078	$ -	$0	$0	$0	$0	$0	$22,078
Wallerawang	Reticulation	Water Mains	Wm201280		1950	$ 89,522	$ 91,491	$ -	$0	$0	$0	$0	$0	$91,491
Wallerawang	Reticulation	Water Mains	Wm201281		1950	$ 218	$ 223	$ -	$0	$0	$0	$0	$0	$223
Wallerawang	Reticulation	Water Mains	Wm201282		1950	$ 100,402	$ 102,610	$ -	$0	$0	$0	$0	$0	$102,610
Wallerawang	Reticulation	Water Mains	Wm201283		1950	$ 711	$ 727	$ -	$0	$0	$0	$0	$0	$727
Wallerawang	Reticulation	Water Mains	Wm201284		1950	$ 137	$ 140	$ -	$0	$0	$0	$0	$0	$140
Wallerawang	Reticulation	Water Mains	Wm201285		1950	$ 64,433	$ 65,851	$ -	$0	$0	$0	$0	$0	$65,851
Wallerawang	Reticulation	Water Mains	Wm201286		1950	$ 25,977	$ 26,549	$ -	$0	$0	$0	$0	$0	$26,549
Wallerawang	Reticulation	Water Mains	Wm201287		1950	$ 39	$ 40	$ -	$0	$0	$0	$0	$0	$40
Wallerawang	Reticulation	Water Mains	Wm201288		1950	$ 19,729	$ 20,163	$ -	$0	$0	$0	$0	$0	$20,163
Wallerawang	Reticulation	Water Mains	Wm201289		1950	$ 2,247	$ 2,296	$ -	$0	$0	$0	$0	$0	$2,296
Wallerawang	Reticulation	Water Mains	Wm201290		1950	$ 157,110	$ 160,567	$ -	$0	$0	$0	$0	$0	$160,567
Wallerawang	Reticulation	Water Mains	Wm201291		1950	$ 72,231	$ 73,820	$ -	$0	$0	$0	$0	$0	$73,820
Wallerawang	Reticulation	Water Mains	Wm201292		1950	$ 166	$ 170	$ -	$0	$0	$0	$0	$0	$170
Wallerawang	Reticulation	Water Mains	Wm201293		1950	$ 145	$ 148	$ -	$0	$0	$0	$0	$0	$148
Wallerawang	Reticulation	Water Mains	Wm201294		1950	$ 283,666	$ 289,907	$ -	$0	$0	$0	$0	$0	$289,907
Wallerawang	Reticulation	Water Mains	Wm201295		1950	$ 2,568	$ 2,624	$ -	$0	$0	$0	$0	$0	$2,624
Wallerawang	Reticulation	Water Mains	Wm201296		1950	$ 35,946	$ 36,737	$ -	$0	$0	$0	$0	$0	$36,737
Wallerawang	Reticulation	Water Mains	Wm201297		1950	$ 104,188	$ 106,480	$ -	$0	$0	$0	$0	$0	$106,480
Wallerawang	Reticulation	Water Mains	Wm201298		1950	$ 76	$ 77	$ -	$0	$0	$0	$0	$0	$77
Wallerawang	Reticulation	Water Mains	Wm201299		1950	$ 3,816	$ 3,900	$ -	$0	$0	$0	$0	$0	$3,900
Wallerawang	Reticulation	Water Mains	Wm201300		1950	$ 15,487	$ 15,827	$ -	$0	$0	$0	$0	$0	$15,827
Wallerawang	Reticulation	Water Mains	Wm201301		1950	$ 61,074	$ 62,417	$ -	$0	$0	$0	$0	$0	$62,417
Wallerawang	Reticulation	Water Mains	Wm201302		1950	$ 185,848	$ 189,937	$ -	$0	$0	$0	$0	$0	$189,937
Wallerawang	Reticulation	Water Mains	Wm201303		1950	$ 17,416	$ 17,799	$ -	$0	$0	$0	$0	$0	$17,799
Wallerawang	Reticulation	Water Mains	Wm201304		1950	$ 62,477	$ 63,851	$ -	$0	$0	$0	$0	$0	$63,851
Wallerawang	Reticulation	Water Mains	Wm201305		1950	$ 12,150	$ 12,417	$ -	$0	$0	$0	$0	$0	$12,417
Wallerawang	Reticulation	Water Mains	Wm201306		1950	$ 10,410	$ 10,639	$ -	$0	$0	$0	$0	$0	$10,639
Wallerawang	Reticulation	Water Mains	Wm201307		1950	$ 21,864	$ 22,345	$ -	$0	$0	$0	$0	$0	$22,345
Wallerawang	Reticulation	Water Mains	Wm201308		1950	$ 2,700	$ 2,760	$ -	$0	$0	$0	$0	$0	$2,760
Wallerawang	Reticulation	Water Mains	Wm201309		1950	$ 55	$ 56	$ -	$0	$0	$0	$0	$0	$56
Wallerawang	Reticulation	Water Mains	Wm201310		1950	$ 51	$ 52	$ -	$0	$0	$0	$0	$0	$52
Wallerawang	Reticulation	Water Mains	Wm201311		1950	$ 6,755	$ 6,904	$ -	$0	$0	$0	$0	$0	$6,904
Wallerawang	Reticulation	Water Mains	Wm201312		1950	$ 3,398	$ 3,473	$ -	$0	$0	$0	$0	$0	$3,473
Wallerawang	Reticulation	Water Mains	Wm201313		1950	$ 70,255	$ 71,800	$ -	$0	$0	$0	$0	$0	$71,800
Wallerawang	Reticulation	Water Mains	Wm201314		1950	$ 1,498	$ 1,531	$ -	$0	$0	$0	$0	$0	$1,531
Wallerawang	Reticulation	Water Mains	Wm201315		2004	$ 5,365	$ 5,483	$ -	$0	$0	$0	$0	$0	$5,483
Wallerawang	Reticulation	Water Mains	Wm201316		2004	$ 1,046	$ 1,069	$ -	$0	$0	$0	$0	$0	$1,069
Wallerawang	Property Service	Water Mains	Ws300161		1994	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0
						$ 88,665,407	**$ 90,616,046**	**$ 52,850,468**	**$ 10,555,744**	**$ 9,445,897**	**$ 568,436**	**$ 334,355**	**$ 207,056**	**$ 80,060,301**

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Table 2: Lithgow City Council Water Supply Capital Works Program

All values are in year 2017/18 ($)

Project	New Works	ILOS	Renewals	Project Total	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Lithgow														
Chlorinator Renewal			100%	**200,000**	50000	0	0	150000	0	0	0	0	0	0
Dam Safety Works		100%		**1,400,000**	200000	250000	100000	250000	100000	100000	100000	100000	100000	100000
WTP SCADA System		100%		**0**	0	0	0	0	0	0	0	0	0	0
Oakey Park WTP			100%	**900,000**	200000	200000	100000	100000	50000	50000	50000	50000	50000	50000
Treatment Plants			100%	**0**	0	0	0	0	0	0	0	0	0	0
Pump Station Renewal			100%	**750,000**	0	50000	0	100000	100000	100000	100000	100000	100000	100000
Major Refurbishment of Oakey Park WTP			100%	**10,000,000**	0	0	0	0	0	0	0	6000000	4000000	0
Tunnel Hill Reservoir Marrangaroo	100%			**10,000,000**	0	0	0	0	0	0	7000000	3000000	0	0
Portland														
Wallerawang														
Shared														
Mains Renewals			100%	**4,250,000**	0	500000	250000	500000	500000	500000	500000	500000	500000	500000
Telemetry Upgrade			100%	**300,000**	50000	0	50000	200000	0	0	0	0	0	0
Others (Inc Reval Assets) 13/14 Water loss	25%	25%	50%	**970,000**	20000	150000	100000	100000	100000	100000	100000	100000	100000	100000
Reserviors			100%	**3,000,000**	1000000	1500000	250000	250000	0	0	0	0	0	0
Land Purchase	100%			**200,000**	50000	50000	50000	50000	0	0	0	0	0	0
Safety Equipment	100%			**100,000**	25000	25000	25000	25000	0	0	0	0	0	0
					0	0	0	0	0	0	0	0	0	0
				32,070,000	**1,595,000**	**2,725,000**	**925,000**	**1,725,000**	**850,000**	**850,000**	**7,850,000**	**9,850,000**	**4,850,000**	**850,000**

New Works	**$10,542,500**	80,000	112,500	100,000	100,000	25,000	25,000	7,025,000	3,025,000	25,000	25,000
Renewals	**$19,885,000**	1,310,000	2,325,000	700,000	1,350,000	700,000	700,000	700,000	6,700,000	4,700,000	700,000
Total	**$30,427,500**	**$1,390,000**	**$2,437,500**	**$ 800,000**	**$1,450,000**	**$ 725,000**	**$ 725,000**	**$7,725,000**	**$9,725,000**	**$4,725,000**	**$ 725,000**

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Table 3: Lithgow City Council Water Supply Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Lithgow						**27.2%**						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		4600				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		4628	28	28	28	
Subtotal (Assets pre-1996)			$ -				$ -			$ -	$ -					$ -
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		4655	28	28	28	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		4684	28	28	28	
Assets commissioned in	1997	1997	$1,149,947				$313,140	5%	0.95	$298,229		4712	28	28	28	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		4740	28	27	26	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		4769	29	26	25	
Assets commissioned in	2000	2000	$0				$0	5%	0.82	$0		4798	29	26	24	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		4827	29	25	23	
Assets commissioned in	2002	2002	$0				$0	5%	0.75	$0		4856	29	24	22	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		4885	29	24	21	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		4915	29	23	20	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		4944	30	23	19	
Assets commissioned in	2006	2006	$568,436				$154,790	5%	0.61	$95,028		4974	30	22	18	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		5004	30	22	18	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		5034	30	21	17	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		5065	30	21	16	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		5095	31	20	15	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		5126	31	20	15	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		5157	31	19	14	
Assets commissioned in	2013	2013	$236,918				$64,515	5%	0.44	$28,148		5188	31	19	14	
Assets commissioned in	2014	2014	$3,876,740				$1,055,668	5%	0.42	$438,652		5219	31	18	13	
Assets commissioned in	2015	2015	$6,715				$1,828	5%	0.40	$724		5251	32	18	12	
Assets commissioned in	2016	2016	$2,753,973				$749,930	5%	0.38	$282,641		5283	32	18	12	
Assets commissioned in	2017	2017	$853,168				$232,325	5%	0.36	$83,391		5315	32	17	11	
			$ 9,445,897				$ 2,572,196				$ 1,226,811					
Future																
Assets planned in 2017/18	2018	2018		$250,000	$0		$68,077	5%	0.34	$23,272		5346	32	17	11	
Assets planned in 2018/19	2019	2019		$250,000	$0		$68,077	5%	0.33	$22,164		5378	32	16	10	
Assets planned in 2019/20	2020	2020		$100,000	$0		$27,231	5%	0.31	$8,443		5411	32	16	10	
Assets planned in 2020/21	2021	2021		$350,000	$0		$95,308	5%	0.30	$28,145		5443	32	16	10	
Assets planned in 2021/22	2022	2022		$150,000	$0		$40,846	5%	0.28	$11,488		5476	33	15	9	
Assets planned in 2022/23	2023	2023		$150,000	$0		$40,846	5%	0.27	$10,941		5509	33	15	9	
Assets planned in 2023/24	2024	2024		$150,000	$7,000,000		$1,947,004	5%	0.26	$496,668		5542	33	14	8	
Assets planned in 2024/25	2025	2025		$6,150,000	$3,000,000		$2,491,621	5%	0.24	$605,330		5575	33	14	8	
Assets planned in 2025/26	2026	2026		$4,150,000	$0		$1,130,079	5%	0.23	$261,475		5608	33	14	8	
Assets planned in 2026/27	2027	2027		$150,000	$0		$40,846	5%	0.22	$9,001		5642	34	13	7	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		5676	34	13	7	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		5710	34	13	7	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		5744	34	13	7	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		5779	34	12	6	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		5813	35	12	6	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		5848	35	12	6	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		5883	35	11	5	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		5919	35	11	5	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		5954	36	11	5	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		5990	36	11	5	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		6026	36	10	5	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		6062	36	10	4	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		6098	36	10	4	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		6135	37	10	4	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		6172	37	9	4	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		6209	37	9	4	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		6246	37	9	4	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		6284	37	9	3	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		6321	38	9	3	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		6359	38	8	3	
				$ 11,850,000	$ 10,000,000		$ 5,949,936				$ 1,476,927		1045			
Subtotal (Assets post-1996)										**$ 2,703,738**			**1,732**	**879**	**627**	**$ 4,315**
												TOTAL CAPITAL CHARGE PER ET				**$4,315**
											TOTAL CAPITAL CHARGE PER ET (including shared assets)					**$5,052**

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Table 3: Lithgow City Council Water Supply Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Portland						27.2%						0.60%				
Existing																
Assets commissioned in	1988	1996	$568,436				$154,790	3%	1.00	$154,790						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		1528				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		1537	9	9	9	
Subtotal (Assets pre-1996)			$ 568,436				$ 154,790			$ 154,790	$ 154,790					$ 530
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		1546	9	9	9	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		1556	9	9	9	
Assets commissioned in	1997	1997	$0				$0	5%	0.95	$0		1565	9	9	9	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		1574	9	9	9	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		1584	10	9	8	
Assets commissioned in	2000	2000	$0				$0	5%	0.82	$0		1594	10	8	8	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		1603	10	8	8	
Assets commissioned in	2002	2002	$0				$0	5%	0.75	$0		1613	10	8	7	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		1623	10	8	7	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		1632	10	8	7	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		1642	10	8	6	
Assets commissioned in	2006	2006	$0				$0	5%	0.61	$0		1652	10	7	6	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		1662	10	7	6	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		1672	10	7	6	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		1682	10	7	5	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		1692	10	7	5	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		1703	10	7	5	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		1713	10	6	5	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		1723	10	6	5	
Assets commissioned in	2014	2014	$0				$0	5%	0.42	$0		1734	10	6	4	
Assets commissioned in	2015	2015	$0				$0	5%	0.40	$0		1744	10	6	4	
Assets commissioned in	2016	2016	$0				$0	5%	0.38	$0		1755	11	6	4	
Assets commissioned in	2017	2017	$0				$0	5%	0.36	$0		1765	11	6	4	
			$ -				$ -				$ -					
Future																
Assets planned in 2017/18	2018	2018		$0	$0		$0	5%	0.34	$0		1776	11	6	4	
Assets planned in 2018/19	2019	2019		$0	$0		$0	5%	0.33	$0		1786	11	5	3	
Assets planned in 2019/20	2020	2020		$0	$0		$0	5%	0.31	$0		1797	11	5	3	
Assets planned in 2020/21	2021	2021		$0	$0		$0	5%	0.30	$0		1808	11	5	3	
Assets planned in 2021/22	2022	2022		$0	$0		$0	5%	0.28	$0		1819	11	5	3	
Assets planned in 2022/23	2023	2023		$0	$0		$0	5%	0.27	$0		1830	11	5	3	
Assets planned in 2023/24	2024	2024		$0	$0		$0	5%	0.26	$0		1841	11	5	3	
Assets planned in 2024/25	2025	2025		$0	$0		$0	5%	0.24	$0		1852	11	5	3	
Assets planned in 2025/26	2026	2026		$0	$0		$0	5%	0.23	$0		1863	11	5	3	
Assets planned in 2026/27	2027	2027		$0	$0		$0	5%	0.22	$0		1874	11	4	2	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		1885	11	4	2	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		1897	11	4	2	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		1908	11	4	2	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		1919	11	4	2	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		1931	12	4	2	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		1942	12	4	2	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		1954	12	4	2	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		1966	12	4	2	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		1978	12	4	2	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		1990	12	4	2	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		2001	12	3	2	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		2013	12	3	1	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		2026	12	3	1	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		2038	12	3	1	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		2050	12	3	1	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		2062	12	3	1	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		2075	12	3	1	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		2087	12	3	1	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		2100	13	3	1	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		2112	13	3	1	
				$ -	$ -		$ -				$ -		347			
Subtotal (Assets post-1996)										$ -			575	292	208	$ -
													TOTAL CAPITAL CHARGE PER ET			$530
												TOTAL CAPITAL CHARGE PER ET (including shared assets)				$1,268

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Table 3: Lithgow City Council Water Supply Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Wallerawang						**27.2%**						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$207,637				$56,541	3%	1.00	$56,541						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		1004				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		1010	6	6	6	
Subtotal (Assets pre-1996)			$ 207,637				$ 56,541			**$ 56,541**	$ 56,541					**$ 294**
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		1016	6.1	6.1	6.1	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		1022	6.1	6.1	6.1	
Assets commissioned in	1997	1997	$6,715				$1,828	5%	0.95	$1,741		1028	6.2	6.0	5.9	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		1035	6.2	5.9	5.6	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		1041	6.2	5.7	5.4	
Assets commissioned in	2000	2000	$0				$0	5%	0.82	$0		1047	6.3	5.6	5.2	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		1053	6.3	5.5	5.0	
Assets commissioned in	2002	2002	$0				$0	5%	0.75	$0		1060	6.4	5.3	4.7	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		1066	6.4	5.2	4.5	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		1073	6.4	5.1	4.4	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		1079	6.5	5.0	4.2	
Assets commissioned in	2006	2006	$0				$0	5%	0.61	$0		1086	6.5	4.8	4.0	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		1092	6.6	4.7	3.8	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		1099	6.6	4.6	3.7	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		1105	6.6	4.5	3.5	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		1112	6.7	4.4	3.4	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		1119	6.7	4.3	3.2	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		1125	6.8	4.2	3.1	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		1132	6.8	4.1	3.0	
Assets commissioned in	2014	2014	$120,003				$32,678	5%	0.42	$13,578		1139	6.8	4.1	3.0	
Assets commissioned in	2015	2015	$0				$0	5%	0.40	$0		1146	6.9	4.0	2.9	
Assets commissioned in	2016	2016	$0				$0	5%	0.38	$0		1153	6.9	3.9	2.7	
Assets commissioned in	2017	2017	$0				$0	5%	0.36	$0		1160	7.0	3.7	2.5	
			$ 126,718				$ 34,506				$ 15,320					
Future																
Assets planned in 2017/18	2018	2018		$0	$0		$0	5%	0.34	$0		1167	7.0	3.6	2.4	
Assets planned in 2018/19	2019	2019		$0	$0		$0	5%	0.33	$0		1174	7.0	3.5	2.3	
Assets planned in 2019/20	2020	2020		$0	$0		$0	5%	0.31	$0		1181	7.0	3.5	2.2	
Assets planned in 2020/21	2021	2021		$0	$0		$0	5%	0.30	$0		1188	7.1	3.4	2.1	
Assets planned in 2021/22	2022	2022		$0	$0		$0	5%	0.28	$0		1195	7.1	3.3	2.0	
Assets planned in 2022/23	2023	2023		$0	$0		$0	5%	0.27	$0		1202	7.2	3.2	1.9	
Assets planned in 2023/24	2024	2024		$0	$0		$0	5%	0.26	$0		1209	7.2	3.2	1.8	
Assets planned in 2024/25	2025	2025		$0	$0		$0	5%	0.24	$0		1217	7.3	3.1	1.8	
Assets planned in 2025/26	2026	2026		$0	$0		$0	5%	0.23	$0		1224	7.3	3.0	1.7	
Assets planned in 2026/27	2027	2027		$0	$0		$0	5%	0.22	$0		1231	7.3	2.9	1.6	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		1239	7.4	2.9	1.6	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		1246	7.4	2.8	1.5	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		1254	7.5	2.7	1.4	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		1261	7.5	2.7	1.4	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		1269	7.6	2.6	1.3	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		1276	7.6	2.5	1.3	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		1284	7.7	2.5	1.2	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		1292	7.7	2.4	1.1	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		1299	7.8	2.4	1.1	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		1307	7.8	2.3	1.1	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		1315	7.8	2.3	1.0	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		1323	7.9	2.2	1.0	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		1331	7.9	2.2	0.9	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		1339	8.0	2.1	0.9	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		1347	8.0	2.1	0.9	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		1355	8.1	2.0	0.8	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		1363	8.1	2.0	0.8	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		1371	8.2	1.9	0.7	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		1380	8.2	1.9	0.7	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		1388	8.3	1.8	0.7	
				$ -	$ -		$ -				$ -		228			
Subtotal (Assets post-1996)										**$ 15,320**			**378**	**192**	**137**	**$ 112**
												TOTAL CAPITAL CHARGE PER ET				**$406**
											TOTAL CAPITAL CHARGE PER ET (including shared assets)					**$1,144**

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Table 3: Lithgow City Council Water Supply Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Shared						27.2%						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		7131				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0	$ -	7174	43.0	43.0	43.0	
Subtotal (Assets pre-1996)			$ -				$ -			$ -						$ -
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		7218	43.3	43.3	43.3	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		7261	43.6	43.6	43.6	
Assets commissioned in	1997	1997	$73,860				$20,113	5%	0.95	$19,155		7305	43.8	42.6	41.7	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		7349	44.1	41.6	40.0	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		7394	44.4	40.6	38.3	
Assets commissioned in	2000	2000	$0				$0	5%	0.82	$0		7438	44.6	39.7	36.7	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		7483	44.9	38.7	35.2	
Assets commissioned in	2002	2002	$0				$0	5%	0.75	$0		7528	45.2	37.8	33.7	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		7574	45.4	36.9	32.3	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		7619	45.7	36.1	30.9	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		7665	46.0	35.2	29.6	
Assets commissioned in	2006	2006	$6,715				$1,828	5%	0.61	$1,122		7712	46.3	34.4	28.4	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		7758	46.5	33.6	27.2	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		7805	46.8	32.8	26.1	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		7852	47.1	32.1	25.0	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		7900	47.4	31.3	23.9	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		7947	47.7	30.6	22.9	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		7995	48.0	29.9	22.0	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		8044	48.3	29.2	21.1	
Assets commissioned in	2014	2014	$119,767				$32,614	5%	0.42	$13,552		8092	48.6	29.4	21.2	
Assets commissioned in	2015	2015	$0				$0	5%	0.40	$0		8141	48.8	28.7	20.3	
Assets commissioned in	2016	2016	$6,715				$1,828	5%	0.38	$689		8190	49.1	28.0	19.4	
Assets commissioned in	2017	2017	$0				$0	5%	0.36	$0		8239	49.4	26.6	17.7	
			$ 207,056				$ 56,383				$ 34,518					
Future																
Assets planned in 2017/18	2018	2018		$1,060,000	$80,000		$310,431	5%	0.34	$106,121		8289	49.4	25.8	16.9	
Assets planned in 2018/19	2019	2019		$2,075,000	$112,500		$595,674	5%	0.33	$193,934		8339	49.7	25.2	16.2	
Assets planned in 2019/20	2020	2020		$600,000	$100,000		$190,616	5%	0.31	$59,104		8389	50.0	24.6	15.5	
Assets planned in 2020/21	2021	2021		$1,000,000	$100,000		$299,539	5%	0.30	$88,455		8439	50.3	24.0	14.9	
Assets planned in 2021/22	2022	2022		$550,000	$25,000		$156,577	5%	0.28	$44,036		8490	50.6	23.5	14.2	
Assets planned in 2022/23	2023	2023		$550,000	$25,000		$156,577	5%	0.27	$41,939		8541	50.9	22.9	13.6	
Assets planned in 2023/24	2024	2024		$550,000	$25,000		$156,577	5%	0.26	$39,942		8592	51.2	22.4	13.1	
Assets planned in 2024/25	2025	2025		$550,000	$25,000		$156,577	5%	0.24	$38,040		8643	51.6	21.9	12.5	
Assets planned in 2025/26	2026	2026		$550,000	$25,000		$156,577	5%	0.23	$36,228		8695	51.9	21.4	12.0	
Assets planned in 2026/27	2027	2027		$550,000	$25,000		$156,577	5%	0.22	$34,503		8747	52.2	20.9	11.5	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		8800	52.5	20.4	11.0	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		8853	52.8	19.9	10.6	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		8906	53.1	19.4	10.1	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		8959	53.4	19.0	9.7	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		9013	53.8	18.5	9.3	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		9067	54.1	18.1	8.9	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		9122	54.4	17.7	8.5	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		9176	54.7	17.3	8.2	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		9231	55.1	16.9	7.8	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		9287	55.4	16.5	7.5	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		9342	55.7	16.1	7.2	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		9398	56.1	15.7	6.9	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		9455	56.4	15.4	6.6	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		9512	56.7	15.0	6.3	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		9569	57.1	14.7	6.0	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		9626	57.4	14.3	5.8	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		9684	57.8	14.0	5.6	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		9742	58.1	13.7	5.3	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		9800	58.5	13.3	5.1	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		9859	58.8	13.0	4.9	
				$ 8,035,000	$ 542,500		$ 2,335,724				$ 682,302		1620			
Subtotal (Assets post-1996)										$ 716,821			2,685	1,364	972	$ 737
													TOTAL CAPITAL CHARGE PER ET			$737

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Table 4: Lithgow City Council Water Supply Developer Charge Calculation

CPI (Consumer Price Index), Sydney		
June 16 - June 17		2.2%

Service area	Capital Charge per ET (2017/18$)	% of highest	% of highest		DSP areas	Total number of new ETs in 30 years	PV of new ET	Proportion of PV of new ETs in each DSP area	Weighted Cap charge for each service area ($/ET)	Weighted cap charge for each DSP area ($/ET)	Reduction Amount ($/ET)	Calculated Developer Charge ($/ET) 2017/18	Calculated Developer Charge ($/ET) 2018/19	Council Proposed Developer Charge ($/ET) 2018/19
								Weighted Average Capital Charge for each DSP area						
Lithgow	$ 5,052	100%			WDSP1	1045	524	100.0%	$5,052	$5,052	$ 2,194	$ 2,858	$ 2,921	$ 2,921
Portland	$ 1,268	25%	100%		WDSP2	347	114	39.7%	$503	$1,193		$ -	$ -	-
Wallerawang	$ 1,144		90%			228	174	60.3%	$690					
							812							

Table 5: Lithgow City Council Water Reduction Amount Calculation

	Current estimated ($/ET)
Annual Water Bill	$ 780
Annual Water OMA Costs	$ 594
Net Income	$ 186

	2016/17 Special Schedules
Total Charges Incom	$ 6,427,000
Total Ets	8,239
Annual Bill per ET ($)	$ 780
Total OMA Cost	$ 4,892,000
OMA per ET ($)	$ 594

	Year	Total ETs	New ETs	PV Factor	PV of new ETs (@5%)	Cumulative new ETs	Net income from new ETs	PV of Net income from new Ets (@5%)	Reduction Amount ($/ET)
0	2017/18	8,289							
1	2018/19	8,339	50	1.00	50	50	$9,265	$9,265	
2	2019/20	8,389	50	0.95	48	100	$18,586	$17,701	
3	2020/21	8,439	50	0.91	46	150	$27,963	$25,363	
4	2021/22	8,490	51	0.86	44	201	$37,396	$32,304	
5	2022/23	8,541	51	0.82	42	252	$46,886	$38,573	
6	2023/24	8,592	51	0.78	40	303	$56,432	$44,216	
7	2024/25	8,643	52	0.75	38	354	$66,036	$49,277	
8	2025/26	8,695	52	0.71	37	406	$75,697	$53,797	
9	2026/27	8,747	52	0.68	35	458	$85,417	$57,814	
10	2027/28	8,800	52	0.64	34	511	$95,195	$61,363	
11	2028/29	8,853	53	0.61	32	564	$105,031	$64,480	
12	2029/30	8,906	53	0.58	31	617	$114,927	$67,195	
13	2030/31	8,959	53	0.56	30	670	$124,881	$69,539	
14	2031/32	9,013	54	0.53	29	724	$134,896	$71,538	
15	2032/33	9,067	54	0.51	27	778	$144,971	$73,220	
16	2033/34	9,122	54	0.48	26	833	$155,106	$74,608	
17	2034/35	9,176	55	0.46	25	887	$165,302	$75,727	
18	2035/36	9,231	55	0.44	24	942	$175,559	$76,596	
19	2036/37	9,287	55	0.42	23	998	$185,877	$77,236	
20	2037/38	9,342	56	0.40	22	1,053	$196,258	$77,666	
21	2038/39	9,398	56	0.38	21	1,110	$206,701	$77,903	
22	2039/40	9,455	56	0.36	20	1,166	$217,206	$77,964	
23	2040/41	9,512	57	0.34	19	1,223	$227,774	$77,865	
24	2041/42	9,569	57	0.33	19	1,280	$238,406	$77,618	
25	2042/43	9,626	57	0.31	18	1,337	$249,102	$77,239	
26	2043/44	9,684	58	0.30	17	1,395	$259,862	$76,738	
27	2044/45	9,742	58	0.28	16	1,453	$270,686	$76,128	
28	2045/46	9,800	58	0.27	16	1,511	$281,576	$75,420	
29	2046/47	9,859	59	0.26	15	1,570	$292,530	$74,623	
30	2047/48	9,918	59	0.24	14	1,629	$303,551	$73,747	
					858			$ 1,882,721	$ 2,194

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APPENDIX C

BACKGROUND DOCUMENT FOR SEWERAGE DSP 2018

The background document comprises:

Table 1 – Existing Assets

Table 2 – Future Assets

Table 3 – Capital Charge Calculation

Table 4 – Developer Charge Calculation

Table 5 - Reduction Amount Calculation

Table 6 - Cross-Subsidy Calculation

Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Shared all	Monitoring	Cement Works - Portland	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Submersible 50m head	Cement Works-Portland	1960	$ 304,056	$ 310,745	$ 310,745	$0	$0	$0	$0	$0	$0	$0	$310,745
Portland	Submersible 50m head	Cement Works-Portland	1960	$ 437,544	$ 447,170	$ 447,170	$0	$0	$0	$0	$0	$0	$0	$447,170
Shared all	Monitoring	Church of England - Portland	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Submersible 50m head	Church of England-Portland	1960	$ 304,056	$ 310,745	$ 310,745	$0	$0	$0	$0	$0	$0	$0	$310,745
Portland	Submersible 50m head	Church of England-Portland	1960	$ 437,544	$ 447,170	$ 447,170	$0	$0	$0	$0	$0	$0	$0	$447,170
Portland	Reticulation	DEP-264~MhP-1144	1960	$ 6,997	$ 7,151	$ -	$0	$0	$0	$0	$0	$0	$0	$7,151
Portland	Reticulation	DEP-265~MhP--E/5	1960	$ 7,823	$ 7,995	$ -	$0	$0	$0	$0	$0	$0	$0	$7,995
Portland	Reticulation	DEP-270~MhP--T/1	1960	$ 4,871	$ 4,978	$ -	$0	$0	$0	$0	$0	$0	$0	$4,978
Portland	Reticulation	DEP-AG~MhP-AE/5	1960	$ 5,366	$ 5,484	$ -	$0	$0	$0	$0	$0	$0	$0	$5,484
Portland	Reticulation	DEP-AS~MhP-AS/1	1960	$ 6,967	$ 7,120	$ -	$0	$0	$0	$0	$0	$0	$0	$7,120
Portland	Reticulation	DEP-AX~MhP-AX/1	1960	$ 4,070	$ 4,159	$ -	$0	$0	$0	$0	$0	$0	$0	$4,159
Portland	Reticulation	DEP-BD~MhP-AC/9	1960	$ 3,842	$ 3,926	$ -	$0	$0	$0	$0	$0	$0	$0	$3,926
Portland	Reticulation	DEP-BL~MhP-BL/1	1960	$ 4,729	$ 4,833	$ -	$0	$0	$0	$0	$0	$0	$0	$4,833
Portland	Reticulation	DEP-BT~MhP-BT/1	1960	$ 3,776	$ 3,859	$ -	$0	$0	$0	$0	$0	$0	$0	$3,859
Portland	Reticulation	DEP-BV~MhP-BV/2	1960	$ 8,453	$ 8,639	$ -	$0	$0	$0	$0	$0	$0	$0	$8,639
Portland	Reticulation	DEP-BZ~MhP-BZ/3	1960	$ 7,746	$ 7,916	$ -	$0	$0	$0	$0	$0	$0	$0	$7,916
Portland	Reticulation	DEP-CE~MhP-CE/1	1960	$ 8,217	$ 8,397	$ -	$0	$0	$0	$0	$0	$0	$0	$8,397
Portland	Reticulation	DEP-CF~MhP-BX/10	1960	$ 8,003	$ 8,179	$ -	$0	$0	$0	$0	$0	$0	$0	$8,179
Portland	Reticulation	DEP-CJ~MhP-CJ/1	1960	$ 7,866	$ 8,040	$ -	$0	$0	$0	$0	$0	$0	$0	$8,040
Portland	Reticulation	DEP-CK~MhP-BX/17	1960	$ 8,602	$ 8,791	$ -	$0	$0	$0	$0	$0	$0	$0	$8,791
Portland	Reticulation	DEP-CP~MhP-CN/2	1960	$ 4,774	$ 4,879	$ -	$0	$0	$0	$0	$0	$0	$0	$4,879
Portland	Reticulation	DEP-CS~MhP-CS/3	1960	$ 8,110	$ 8,288	$ -	$0	$0	$0	$0	$0	$0	$0	$8,288
Portland	Reticulation	DEP--D~MhP--D/3	1960	$ 5,367	$ 5,485	$ -	$0	$0	$0	$0	$0	$0	$0	$5,485
Portland	Reticulation	DEP-DD~MhP-DD/3	1960	$ 5,323	$ 5,441	$ -	$0	$0	$0	$0	$0	$0	$0	$5,441
Portland	Reticulation	DEP-DH~MhP-DA/10	1960	$ 4,362	$ 4,458	$ -	$0	$0	$0	$0	$0	$0	$0	$4,458
Portland	Reticulation	DEP-DU~MhP-DT/1	1960	$ 7,766	$ 7,937	$ -	$0	$0	$0	$0	$0	$0	$0	$7,937
Portland	Reticulation	DEP-DX~MhP-DX/14	1960	$ 2,568	$ 2,624	$ -	$0	$0	$0	$0	$0	$0	$0	$2,624
Portland	Reticulation	DEP-EA~MhP-EA/1	1960	$ 4,297	$ 4,391	$ -	$0	$0	$0	$0	$0	$0	$0	$4,391
Portland	Reticulation	DEP-EB~MhP-EA/1	1960	$ 4,503	$ 4,602	$ -	$0	$0	$0	$0	$0	$0	$0	$4,602
Portland	Reticulation	DEP-EE~MhP-EE/1	1960	$ 5,044	$ 5,155	$ -	$0	$0	$0	$0	$0	$0	$0	$5,155
Portland	Reticulation	DEP--H~MhP--F/3	1960	$ 8,030	$ 8,207	$ -	$0	$0	$0	$0	$0	$0	$0	$8,207
Portland	Reticulation	DEP--J~MhP--J/2	1960	$ 3,233	$ 3,304	$ -	$0	$0	$0	$0	$0	$0	$0	$3,304
Portland	Reticulation	DEP--P~MhP--A/4	1960	$ 10,576	$ 10,809	$ -	$0	$0	$0	$0	$0	$0	$0	$10,809
Portland	Reticulation	DEP--S~MhP--R/2	1960	$ 7,209	$ 7,368	$ -	$0	$0	$0	$0	$0	$0	$0	$7,368
Portland	Reticulation	DEP--T~MhP--T/8	1960	$ 3,810	$ 3,894	$ -	$0	$0	$0	$0	$0	$0	$0	$3,894
Portland	Reticulation	DEP--U~MhP--U/12	1960	$ 3,442	$ 3,517	$ -	$0	$0	$0	$0	$0	$0	$0	$3,517
Portland	Reticulation	DEP--W~MhP--W/4	1960	$ 5,735	$ 5,861	$ -	$0	$0	$0	$0	$0	$0	$0	$5,861
Portland	Reticulation	DEP--X~MhP--X/3	1960	$ 5,489	$ 5,610	$ -	$0	$0	$0	$0	$0	$0	$0	$5,610
Shared all	Monitoring	East Portland	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Submersible 50m head	East Portland	1970	$ 254,925	$ 260,533	$ 260,533	$0	$0	$0	$0	$0	$0	$0	$260,533
Portland	Submersible 50m head	East Portland	1970	$ 311,575	$ 318,430	$ 318,430	$0	$0	$0	$0	$0	$0	$0	$318,430
Portland	Submersible 25m head	Falnash St-Portland	2002	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$168,426	$0	$0	$0	$0	$0
Portland	Submersible 25m head	Falnash St-Portland	2002	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$168,426	$0	$0	$0	$0	$0
Shared all	Monitoring	Falnash Street - Portland	2002	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Submersible 50m head	High St-Portland	1970	$ 230,267	$ 235,333	$ 235,333	$0	$0	$0	$0	$0	$0	$0	$235,333
Portland	Submersible 50m head	High St-Portland	1970	$ 270,313	$ 276,260	$ 276,260	$0	$0	$0	$0	$0	$0	$0	$276,260
Shared all	Monitoring	High Street Portland	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Reticulation	MhP---/11~MhP---/9	1960	$ 14,943	$ 15,271	$ -	$0	$0	$0	$0	$0	$0	$0	$15,271
Portland	Reticulation	MhP---/12~MhP---/11	1960	$ 22,071	$ 22,556	$ -	$0	$0	$0	$0	$0	$0	$0	$22,556
Portland	Reticulation	MhP---/13~MhP---/12	1960	$ 10,374	$ 10,603	$ -	$0	$0	$0	$0	$0	$0	$0	$10,603
Portland	Reticulation	MhP---/14~MhP---/13	1960	$ 9,570	$ 9,781	$ -	$0	$0	$0	$0	$0	$0	$0	$9,781
Portland	Reticulation	MhP---/5~TP_PORTLAND	1960	$ 9,867	$ 10,084	$ -	$0	$0	$0	$0	$0	$0	$0	$10,084
Portland	Reticulation	MhP---/6~MhP---/5	1960	$ 14,946	$ 15,274	$ -	$0	$0	$0	$0	$0	$0	$0	$15,274
Portland	Reticulation	MhP---/7~MhP---/6	1960	$ 19,894	$ 20,332	$ -	$0	$0	$0	$0	$0	$0	$0	$20,332
Portland	Reticulation	MhP---/8~MhP---/7	1960	$ 11,786	$ 12,045	$ -	$0	$0	$0	$0	$0	$0	$0	$12,045
Portland	Reticulation	MhP---/9~MhP---/8	1960	$ 9,736	$ 9,951	$ -	$0	$0	$0	$0	$0	$0	$0	$9,951
Portland	Reticulation	MhP-1138~MhP-CM/2	1960	$ 3,889	$ 3,975	$ -	$0	$0	$0	$0	$0	$0	$0	$3,975
Portland	Reticulation	MhP-1139~MhP-1138	1960	$ 7,637	$ 7,805	$ -	$0	$0	$0	$0	$0	$0	$0	$7,805
Portland	Reticulation	MhP-1140~MhP-1139	1960	$ 7,672	$ 7,841	$ -	$0	$0	$0	$0	$0	$0	$0	$7,841
Portland	Reticulation	MhP-1141~MhP-1140	1960	$ 11,706	$ 11,963	$ -	$0	$0	$0	$0	$0	$0	$0	$11,963
Portland	Reticulation	MhP-1142~SPS1143	1960	$ 7,323	$ 7,484	$ -	$0	$0	$0	$0	$0	$0	$0	$7,484
Portland	Reticulation	MhP-1144~MhP-1142	1960	$ 18,477	$ 18,884	$ -	$0	$0	$0	$0	$0	$0	$0	$18,884
Portland	Rising Mains	MhP-479~MhP-BZ/2	1960	$ 9,817	$ 10,033	$ 10,033	$0	$0	$0	$0	$0	$0	$0	$10,033
Portland	Rising Mains	MhP-679~SPS678	1960	$ 4,806	$ 4,912	$ 4,912	$0	$0	$0	$0	$0	$0	$0	$4,912
Portland	Rising Mains	MhP-680~MhP-679	1960	$ 3,685	$ 3,766	$ 3,766	$0	$0	$0	$0	$0	$0	$0	$3,766
Portland	Rising Mains	MhP-681~MhP-680	1960	$ 51,840	$ 52,980	$ 52,980	$0	$0	$0	$0	$0	$0	$0	$52,980
Portland	Rising Mains	MhP--A/1~SPS447	1960	$ 1,385	$ 1,415	$ 1,415	$0	$0	$0	$0	$0	$0	$0	$1,415
Portland	Reticulation	MhP--A/10~MhP--A/9	1960	$ 20,891	$ 21,350	$ -	$0	$0	$0	$0	$0	$0	$0	$21,350
Portland	Reticulation	MhP--A/11~MhP--A/10	1960	$ 19,180	$ 19,602	$ -	$0	$0	$0	$0	$0	$0	$0	$19,602

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP--A/12~MhP--A/11	1960	$ 20,730	$ 21,186	$ -	$0	$0	$0	$0	$0	$0	$0	$21,186
Portland	Reticulation	MhP--A/13~MhP--A/12	1960	$ 20,386	$ 20,834	$ -	$0	$0	$0	$0	$0	$0	$0	$20,834
Portland	Reticulation	MhP--A/14~MhP--A/13	1960	$ 7,571	$ 7,738	$ -	$0	$0	$0	$0	$0	$0	$0	$7,738
Portland	Reticulation	MhP--A/15~MhP--A/14	1960	$ 16,248	$ 16,605	$ -	$0	$0	$0	$0	$0	$0	$0	$16,605
Portland	Reticulation	MhP--A/16~MhP--A/15	1960	$ 18,214	$ 18,615	$ -	$0	$0	$0	$0	$0	$0	$0	$18,615
Portland	Reticulation	MhP--A/17~MhP--A/16	1960	$ 17,324	$ 17,705	$ -	$0	$0	$0	$0	$0	$0	$0	$17,705
Portland	Reticulation	MhP--A/18~MhP-1144	1960	$ 20,990	$ 21,452	$ -	$0	$0	$0	$0	$0	$0	$0	$21,452
Portland	Reticulation	MhP--A/18~MhP--A/17	1960	$ 13,766	$ 14,069	$ -	$0	$0	$0	$0	$0	$0	$0	$14,069
Portland	Reticulation	MhP--A/2~MhP--A/1	1960	$ 13,191	$ 13,482	$ -	$0	$0	$0	$0	$0	$0	$0	$13,482
Portland	Reticulation	MhP--A/3~MhP--A/2	1960	$ 14,567	$ 14,888	$ -	$0	$0	$0	$0	$0	$0	$0	$14,888
Portland	Reticulation	MhP--A/4~MhP--A/3	1960	$ 20,315	$ 20,762	$ -	$0	$0	$0	$0	$0	$0	$0	$20,762
Portland	Reticulation	MhP--A/5~MhP--A/4	1960	$ 15,527	$ 15,869	$ -	$0	$0	$0	$0	$0	$0	$0	$15,869
Portland	Reticulation	MhP--A/6~MhP--A/5	1960	$ 5,202	$ 5,317	$ -	$0	$0	$0	$0	$0	$0	$0	$5,317
Portland	Reticulation	MhP--A/7~MhP--A/6	1960	$ 18,956	$ 19,373	$ -	$0	$0	$0	$0	$0	$0	$0	$19,373
Portland	Reticulation	MhP--A/8~MhP--A/7	1960	$ 10,206	$ 10,431	$ -	$0	$0	$0	$0	$0	$0	$0	$10,431
Portland	Reticulation	MhP--A/9~MhP--A/8	1960	$ 10,165	$ 10,389	$ -	$0	$0	$0	$0	$0	$0	$0	$10,389
Portland	Reticulation	MhP-AA/1~MhP--A/11	1960	$ 17,546	$ 17,932	$ -	$0	$0	$0	$0	$0	$0	$0	$17,932
Portland	Reticulation	MhP-AA/2~MhP-AA/1	1960	$ 11,916	$ 12,178	$ -	$0	$0	$0	$0	$0	$0	$0	$12,178
Portland	Reticulation	MhP-AA/3~MhP-AA/2	1960	$ 9,363	$ 9,569	$ -	$0	$0	$0	$0	$0	$0	$0	$9,569
Portland	Reticulation	MhP-AA/4~MhP-AA/3	1960	$ 16,252	$ 16,610	$ -	$0	$0	$0	$0	$0	$0	$0	$16,610
Portland	Reticulation	MhP-AA/5~MhP-AA/4	1960	$ 10,738	$ 10,974	$ -	$0	$0	$0	$0	$0	$0	$0	$10,974
Portland	Reticulation	MhP-AA/6~MhP-AA/5	1960	$ 8,399	$ 8,584	$ -	$0	$0	$0	$0	$0	$0	$0	$8,584
Portland	Reticulation	MhP-AA/7~MhP-AA/6	1960	$ 14,306	$ 14,621	$ -	$0	$0	$0	$0	$0	$0	$0	$14,621
Portland	Reticulation	MhP-AB/1~MhP-AA/3	1960	$ 14,764	$ 15,089	$ -	$0	$0	$0	$0	$0	$0	$0	$15,089
Portland	Reticulation	MhP-AC/1~MhP-AC/1A	1960	$ 5,304	$ 5,421	$ -	$0	$0	$0	$0	$0	$0	$0	$5,421
Portland	Reticulation	MhP-AC/10~MhP-AC/9	1960	$ 9,368	$ 9,574	$ -	$0	$0	$0	$0	$0	$0	$0	$9,574
Portland	Reticulation	MhP-AC/11~MhP-AC/10	1960	$ 9,190	$ 9,392	$ -	$0	$0	$0	$0	$0	$0	$0	$9,392
Portland	Reticulation	MhP-AC/12~MhP-AC/11	1960	$ 11,716	$ 11,974	$ -	$0	$0	$0	$0	$0	$0	$0	$11,974
Portland	Reticulation	MhP-AC/12A~MhP-AC/12	1960	$ 4,223	$ 4,316	$ -	$0	$0	$0	$0	$0	$0	$0	$4,316
Portland	Reticulation	MhP-AC/13~MhP-AC/12A	1960	$ 14,775	$ 15,100	$ -	$0	$0	$0	$0	$0	$0	$0	$15,100
Portland	Reticulation	MhP-AC/14~MhP-AC/13	1960	$ 14,503	$ 14,822	$ -	$0	$0	$0	$0	$0	$0	$0	$14,822
Portland	Reticulation	MhP-AC/15~MhP-AC/14	1960	$ 14,662	$ 14,984	$ -	$0	$0	$0	$0	$0	$0	$0	$14,984
Portland	Reticulation	MhP-AC/16~MhP-AC/15	1960	$ 16,250	$ 16,607	$ -	$0	$0	$0	$0	$0	$0	$0	$16,607
Portland	Reticulation	MhP-AC/17~MhP-AC/16	1960	$ 16,927	$ 17,299	$ -	$0	$0	$0	$0	$0	$0	$0	$17,299
Portland	Reticulation	MhP-AC/18~MhP-AC/17	1960	$ 5,861	$ 5,990	$ -	$0	$0	$0	$0	$0	$0	$0	$5,990
Portland	Reticulation	MhP-AC/19~MhP-AC/18	1960	$ 6,953	$ 7,106	$ -	$0	$0	$0	$0	$0	$0	$0	$7,106
Portland	Reticulation	MhP-AC/1A~SPS731	1960	$ 1,008	$ 1,030	$ -	$0	$0	$0	$0	$0	$0	$0	$1,030
Portland	Reticulation	MhP-AC/2~MhP-AC/1	1960	$ 15,450	$ 15,790	$ -	$0	$0	$0	$0	$0	$0	$0	$15,790
Portland	Reticulation	MhP-AC/20~MhP-AC/19	1960	$ 17,020	$ 17,394	$ -	$0	$0	$0	$0	$0	$0	$0	$17,394
Portland	Reticulation	MhP-AC/21~MhP-AC/20	1960	$ 10,642	$ 10,876	$ -	$0	$0	$0	$0	$0	$0	$0	$10,876
Portland	Reticulation	MhP-AC/22~MhP-AC/21	1960	$ 10,474	$ 10,705	$ -	$0	$0	$0	$0	$0	$0	$0	$10,705
Portland	Reticulation	MhP-AC/23~MhP-AC/22	1960	$ 20,032	$ 20,473	$ -	$0	$0	$0	$0	$0	$0	$0	$20,473
Portland	Reticulation	MhP-AC/24~MhP-AC/23	1960	$ 16,213	$ 16,569	$ -	$0	$0	$0	$0	$0	$0	$0	$16,569
Portland	Reticulation	MhP-AC/25~MhP-AC/24	1960	$ 12,873	$ 13,156	$ -	$0	$0	$0	$0	$0	$0	$0	$13,156
Portland	Reticulation	MhP-AC/26~MhP-AC/25	1960	$ 11,678	$ 11,935	$ -	$0	$0	$0	$0	$0	$0	$0	$11,935
Portland	Reticulation	MhP-AC/27~MhP-AC/26	1960	$ 25,236	$ 25,792	$ -	$0	$0	$0	$0	$0	$0	$0	$25,792
Portland	Reticulation	MhP-AC/28~MhP-AC/27	1960	$ 12,502	$ 12,777	$ -	$0	$0	$0	$0	$0	$0	$0	$12,777
Portland	Reticulation	MhP-AC/29~MhP-AC/28	1960	$ 16,010	$ 16,362	$ -	$0	$0	$0	$0	$0	$0	$0	$16,362
Portland	Reticulation	MhP-AC/3~MhP-AC/2	1960	$ 8,319	$ 8,502	$ -	$0	$0	$0	$0	$0	$0	$0	$8,502
Portland	Reticulation	MhP-AC/4~MhP-AC/3	1960	$ 6,111	$ 6,245	$ -	$0	$0	$0	$0	$0	$0	$0	$6,245
Portland	Reticulation	MhP-AC/5~MhP-AC/4	1960	$ 5,439	$ 5,559	$ -	$0	$0	$0	$0	$0	$0	$0	$5,559
Portland	Reticulation	MhP-AC/6~MhP-AC/5	1960	$ 2,021	$ 2,065	$ -	$0	$0	$0	$0	$0	$0	$0	$2,065
Portland	Reticulation	MhP-AC/7~MhP-AC/6	1960	$ 9,809	$ 10,025	$ -	$0	$0	$0	$0	$0	$0	$0	$10,025
Portland	Reticulation	MhP-AC/8~MhP-AC/7	1960	$ 12,330	$ 12,602	$ -	$0	$0	$0	$0	$0	$0	$0	$12,602
Portland	Reticulation	MhP-AC/9~MhP-AC/8	1960	$ 3,944	$ 4,030	$ -	$0	$0	$0	$0	$0	$0	$0	$4,030
Portland	Reticulation	MhP-AD/1~MhP-AC/1	1960	$ 4,686	$ 4,789	$ -	$0	$0	$0	$0	$0	$0	$0	$4,789
Portland	Reticulation	MhP-AD/10~MhP-AD/9	1960	$ 16,584	$ 16,948	$ -	$0	$0	$0	$0	$0	$0	$0	$16,948
Portland	Reticulation	MhP-AD/11~MhP-AD/10	1960	$ 13,571	$ 13,870	$ -	$0	$0	$0	$0	$0	$0	$0	$13,870
Portland	Reticulation	MhP-AD/12~MhP-AD/11	1960	$ 7,439	$ 7,603	$ -	$0	$0	$0	$0	$0	$0	$0	$7,603
Portland	Reticulation	MhP-AD/13~MhP-AD/12	1960	$ 13,987	$ 14,294	$ -	$0	$0	$0	$0	$0	$0	$0	$14,294
Portland	Reticulation	MhP-AD/14~MhP-AD/13	1960	$ 3,807	$ 3,891	$ -	$0	$0	$0	$0	$0	$0	$0	$3,891
Portland	Reticulation	MhP-AD/15~MhP-AD/14	1960	$ 19,818	$ 20,254	$ -	$0	$0	$0	$0	$0	$0	$0	$20,254
Portland	Reticulation	MhP-AD/16~MhP-AD/15	1960	$ 12,629	$ 12,907	$ -	$0	$0	$0	$0	$0	$0	$0	$12,907
Portland	Reticulation	MhP-AD/17~MhP-AD/16	1960	$ 15,683	$ 16,028	$ -	$0	$0	$0	$0	$0	$0	$0	$16,028
Portland	Reticulation	MhP-AD/18~MhP-AD/17	1960	$ 11,659	$ 11,915	$ -	$0	$0	$0	$0	$0	$0	$0	$11,915
Portland	Reticulation	MhP-AD/19~MhP-AD/18	1960	$ 5,754	$ 5,881	$ -	$0	$0	$0	$0	$0	$0	$0	$5,881
Portland	Reticulation	MhP-AD/1A~MhP-AD/1	1960	$ 4,988	$ 5,098	$ -	$0	$0	$0	$0	$0	$0	$0	$5,098
Portland	Reticulation	MhP-AD/2~MhP-AD/1A	1960	$ 1,819	$ 1,859	$ -	$0	$0	$0	$0	$0	$0	$0	$1,859
Portland	Reticulation	MhP-AD/20~MhP-AD/19	1960	$ 10,502	$ 10,733	$ -	$0	$0	$0	$0	$0	$0	$0	$10,733
Portland	Reticulation	MhP-AD/2A~MhP-AD/2	1960	$ 20,175	$ 20,619	$ -	$0	$0	$0	$0	$0	$0	$0	$20,619

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP-AD/3~MhP-AD/2A	1960	$ 6,737	$ 6,885	$ -	$0	$0	$0	$0	$0	$0	$0	$6,885
Portland	Reticulation	MhP-AD/3A~MhP-AD/3	1960	$ 1,847	$ 1,887	$ -	$0	$0	$0	$0	$0	$0	$0	$1,887
Portland	Reticulation	MhP-AD/4~MhP-AD/3A	1960	$ 12,357	$ 12,629	$ -	$0	$0	$0	$0	$0	$0	$0	$12,629
Portland	Reticulation	MhP-AD/5~MhP-AD/4	1960	$ 10,726	$ 10,962	$ -	$0	$0	$0	$0	$0	$0	$0	$10,962
Portland	Reticulation	MhP-AD/6~MhP-AD/5	1960	$ 17,546	$ 17,932	$ -	$0	$0	$0	$0	$0	$0	$0	$17,932
Portland	Reticulation	MhP-AD/7~MhP-AD/6	1960	$ 12,309	$ 12,580	$ -	$0	$0	$0	$0	$0	$0	$0	$12,580
Portland	Reticulation	MhP-AD/8~MhP-AD/7	1960	$ 14,546	$ 14,866	$ -	$0	$0	$0	$0	$0	$0	$0	$14,866
Portland	Reticulation	MhP-AD/9~MhP-AD/8	1960	$ 19,511	$ 19,940	$ -	$0	$0	$0	$0	$0	$0	$0	$19,940
Portland	Reticulation	MhP-AE/1~MhP-AD/5	1960	$ 13,733	$ 14,035	$ -	$0	$0	$0	$0	$0	$0	$0	$14,035
Portland	Reticulation	MhP-AE/10~MhP-AE/9	1960	$ 11,521	$ 11,774	$ -	$0	$0	$0	$0	$0	$0	$0	$11,774
Portland	Reticulation	MhP-AE/2~MhP-AE/1	1960	$ 12,836	$ 13,118	$ -	$0	$0	$0	$0	$0	$0	$0	$13,118
Portland	Reticulation	MhP-AE/3~MhP-AE/2	1960	$ 13,846	$ 14,151	$ -	$0	$0	$0	$0	$0	$0	$0	$14,151
Portland	Reticulation	MhP-AE/4~MhP-AE/3	1960	$ 17,182	$ 17,561	$ -	$0	$0	$0	$0	$0	$0	$0	$17,561
Portland	Reticulation	MhP-AE/5~MhP-AE/4	1960	$ 12,996	$ 13,282	$ -	$0	$0	$0	$0	$0	$0	$0	$13,282
Portland	Reticulation	MhP-AE/6~MhP-AE/5	1960	$ 4,694	$ 4,797	$ -	$0	$0	$0	$0	$0	$0	$0	$4,797
Portland	Reticulation	MhP-AE/7~MhP-AE/6	1960	$ 7,937	$ 8,112	$ -	$0	$0	$0	$0	$0	$0	$0	$8,112
Portland	Reticulation	MhP-AE/8~MhP-AE/7	1960	$ 10,117	$ 10,340	$ -	$0	$0	$0	$0	$0	$0	$0	$10,340
Portland	Reticulation	MhP-AE/9~MhP-AE/8	1960	$ 12,064	$ 12,329	$ -	$0	$0	$0	$0	$0	$0	$0	$12,329
Portland	Reticulation	MhP-AF/1~MhP-AE/2	1960	$ 11,782	$ 12,042	$ -	$0	$0	$0	$0	$0	$0	$0	$12,042
Portland	Reticulation	MhP-AF/2~MhP-AF/1	1960	$ 11,805	$ 12,064	$ -	$0	$0	$0	$0	$0	$0	$0	$12,064
Portland	Reticulation	MhP-AF/3~MhP-AF/2	1960	$ 20,915	$ 21,375	$ -	$0	$0	$0	$0	$0	$0	$0	$21,375
Portland	Reticulation	MhP-AF/4~MhP-AF/3	1960	$ 13,616	$ 13,915	$ -	$0	$0	$0	$0	$0	$0	$0	$13,915
Portland	Reticulation	MhP-AH/1~MhP-AD/7	1960	$ 15,848	$ 16,197	$ -	$0	$0	$0	$0	$0	$0	$0	$16,197
Portland	Reticulation	MhP-AH/10~MhP-AH/9	1960	$ 14,308	$ 14,623	$ -	$0	$0	$0	$0	$0	$0	$0	$14,623
Portland	Reticulation	MhP-AH/2~MhP-AH/1	1960	$ 6,016	$ 6,149	$ -	$0	$0	$0	$0	$0	$0	$0	$6,149
Portland	Reticulation	MhP-AH/3~MhP-AH/2	1960	$ 7,805	$ 7,977	$ -	$0	$0	$0	$0	$0	$0	$0	$7,977
Portland	Reticulation	MhP-AH/4~MhP-AH/3	1960	$ 15,119	$ 15,452	$ -	$0	$0	$0	$0	$0	$0	$0	$15,452
Portland	Reticulation	MhP-AH/5~MhP-AH/4	1960	$ 13,284	$ 13,576	$ -	$0	$0	$0	$0	$0	$0	$0	$13,576
Portland	Reticulation	MhP-AH/6~MhP-AH/5	1960	$ 8,700	$ 8,891	$ -	$0	$0	$0	$0	$0	$0	$0	$8,891
Portland	Reticulation	MhP-AH/7~MhP-AH/6	1960	$ 7,171	$ 7,328	$ -	$0	$0	$0	$0	$0	$0	$0	$7,328
Portland	Reticulation	MhP-AH/8~MhP-AH/7	1960	$ 6,876	$ 7,028	$ -	$0	$0	$0	$0	$0	$0	$0	$7,028
Portland	Reticulation	MhP-AH/9~MhP-AH/8	1960	$ 7,118	$ 7,275	$ -	$0	$0	$0	$0	$0	$0	$0	$7,275
Portland	Reticulation	MhP-AJ/1~MhP-AH/1	1960	$ 4,012	$ 4,100	$ -	$0	$0	$0	$0	$0	$0	$0	$4,100
Portland	Reticulation	MhP-AJ/2~MhP-AJ/1	1960	$ 15,639	$ 15,983	$ -	$0	$0	$0	$0	$0	$0	$0	$15,983
Portland	Reticulation	MhP-AJ/3~MhP-AJ/2	1960	$ 8,061	$ 8,239	$ -	$0	$0	$0	$0	$0	$0	$0	$8,239
Portland	Reticulation	MhP-AK/1~MhP-AH/3	1960	$ 19,658	$ 20,090	$ -	$0	$0	$0	$0	$0	$0	$0	$20,090
Portland	Reticulation	MhP-AL/1~MhP-AH/4	1960	$ 18,947	$ 19,364	$ -	$0	$0	$0	$0	$0	$0	$0	$19,364
Portland	Reticulation	MhP-AM/1~MhP-AH/6	1960	$ 10,458	$ 10,688	$ -	$0	$0	$0	$0	$0	$0	$0	$10,688
Portland	Reticulation	MhP-AN/1~MhP-AD/8	1960	$ 20,825	$ 21,283	$ -	$0	$0	$0	$0	$0	$0	$0	$21,283
Portland	Reticulation	MhP-AN/2~MhP-AN/1	1960	$ 9,060	$ 9,259	$ -	$0	$0	$0	$0	$0	$0	$0	$9,259
Portland	Reticulation	MhP-AP/1~MhP-AN/1	1960	$ 5,879	$ 6,008	$ -	$0	$0	$0	$0	$0	$0	$0	$6,008
Portland	Reticulation	MhP-AR/1~MhP-AD/12	1960	$ 19,640	$ 20,072	$ -	$0	$0	$0	$0	$0	$0	$0	$20,072
Portland	Reticulation	MhP-AS/1~MhP-AD/13	1960	$ 5,569	$ 5,692	$ -	$0	$0	$0	$0	$0	$0	$0	$5,692
Portland	Reticulation	MhP-AT/1~MhP-AD/13	1960	$ 19,863	$ 20,300	$ -	$0	$0	$0	$0	$0	$0	$0	$20,300
Portland	Reticulation	MhP-AT/2~MhP-AT/1	1960	$ 8,917	$ 9,113	$ -	$0	$0	$0	$0	$0	$0	$0	$9,113
Portland	Reticulation	MhP-AU/1~MhP-AD/15	1960	$ 20,368	$ 20,816	$ -	$0	$0	$0	$0	$0	$0	$0	$20,816
Portland	Reticulation	MhP-AV/1~MhP-AD/15	1960	$ 14,315	$ 14,630	$ -	$0	$0	$0	$0	$0	$0	$0	$14,630
Portland	Reticulation	MhP-AV/2~MhP-AV/1	1960	$ 15,273	$ 15,609	$ -	$0	$0	$0	$0	$0	$0	$0	$15,609
Portland	Reticulation	MhP-AV/3~MhP-AV/2	1960	$ 13,063	$ 13,350	$ -	$0	$0	$0	$0	$0	$0	$0	$13,350
Portland	Reticulation	MhP-AW/1~MhP-AD/16	1960	$ 19,486	$ 19,915	$ -	$0	$0	$0	$0	$0	$0	$0	$19,915
Portland	Reticulation	MhP-AX/1~MhP-AD/18	1960	$ 7,718	$ 7,888	$ -	$0	$0	$0	$0	$0	$0	$0	$7,888
Portland	Reticulation	MhP-AY/1~MhP-AC/1	1960	$ 13,355	$ 13,649	$ -	$0	$0	$0	$0	$0	$0	$0	$13,649
Portland	Reticulation	MhP-AY/2~MhP-AY/1	1960	$ 19,859	$ 20,296	$ -	$0	$0	$0	$0	$0	$0	$0	$20,296
Portland	Rising Mains	MhP--B/1~MhP--A/1	1960	$ 4,203	$ 4,296	$ 4,296	$0	$0	$0	$0	$0	$0	$0	$4,296
Portland	Rising Mains	MhP--B/2~MhP--B/1	1960	$ 13,454	$ 13,750	$ 13,750	$0	$0	$0	$0	$0	$0	$0	$13,750
Portland	Rising Mains	MhP--B/3~MhP--B/2	1960	$ 6,536	$ 6,680	$ 6,680	$0	$0	$0	$0	$0	$0	$0	$6,680
Portland	Rising Mains	MhP--B/4~MhP--B/3	1960	$ 10,530	$ 10,762	$ 10,762	$0	$0	$0	$0	$0	$0	$0	$10,762
Portland	Rising Mains	MhP--B/5~MhP--B/4	1960	$ 14,362	$ 14,678	$ 14,678	$0	$0	$0	$0	$0	$0	$0	$14,678
Portland	Reticulation	MhP-BA/1~MhP-AC/2	1960	$ 12,163	$ 12,431	$ -	$0	$0	$0	$0	$0	$0	$0	$12,431
Portland	Reticulation	MhP-BA/2~MhP-BA/1	1960	$ 16,617	$ 16,983	$ -	$0	$0	$0	$0	$0	$0	$0	$16,983
Portland	Reticulation	MhP-BE/1~MhP-AC/9	1960	$ 10,657	$ 10,892	$ -	$0	$0	$0	$0	$0	$0	$0	$10,892
Portland	Reticulation	MhP-BE/2~MhP-BE/1	1960	$ 8,451	$ 8,637	$ -	$0	$0	$0	$0	$0	$0	$0	$8,637
Portland	Reticulation	MhP-BE/3~MhP-BE/2	1960	$ 3,742	$ 3,825	$ -	$0	$0	$0	$0	$0	$0	$0	$3,825
Portland	Reticulation	MhP-BE/4~MhP-BE/3	1960	$ 10,490	$ 10,721	$ -	$0	$0	$0	$0	$0	$0	$0	$10,721
Portland	Reticulation	MhP-BE/5~MhP-BE/4	1960	$ 7,813	$ 7,985	$ -	$0	$0	$0	$0	$0	$0	$0	$7,985
Portland	Reticulation	MhP-BE/6~MhP-BE/5	1960	$ 13,504	$ 13,801	$ -	$0	$0	$0	$0	$0	$0	$0	$13,801
Portland	Reticulation	MhP-BE/7~MhP-BE/6	1960	$ 20,265	$ 20,711	$ -	$0	$0	$0	$0	$0	$0	$0	$20,711
Portland	Reticulation	MhP-BE/8~MhP-BE/7	1960	$ 15,649	$ 15,993	$ -	$0	$0	$0	$0	$0	$0	$0	$15,993
Portland	Reticulation	MhP-BF/1~MhP-BE/2	1960	$ 7,870	$ 8,043	$ -	$0	$0	$0	$0	$0	$0	$0	$8,043
Portland	Reticulation	MhP-BG/1~MhP-BE/4	1960	$ 15,348	$ 15,685	$ -	$0	$0	$0	$0	$0	$0	$0	$15,685

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP-BG/2~MhP-BG/1	1960	$ 13,614	$ 13,913	$ -	$0	$0	$0	$0	$0	$0	$0	$13,913
Portland	Reticulation	MhP-BG/3~MhP-BG/2	1960	$ 10,432	$ 10,662	$ -	$0	$0	$0	$0	$0	$0	$0	$10,662
Portland	Reticulation	MhP-BH/1~MhP-AC/14	1960	$ 7,972	$ 8,147	$ -	$0	$0	$0	$0	$0	$0	$0	$8,147
Portland	Reticulation	MhP-BH/2~MhP-BH/1	1960	$ 5,336	$ 5,453	$ -	$0	$0	$0	$0	$0	$0	$0	$5,453
Portland	Reticulation	MhP-BH/3~MhP-BH/2	1960	$ 8,794	$ 8,987	$ -	$0	$0	$0	$0	$0	$0	$0	$8,987
Portland	Reticulation	MhP-BH/4~MhP-BH/3	1960	$ 8,037	$ 8,214	$ -	$0	$0	$0	$0	$0	$0	$0	$8,214
Portland	Reticulation	MhP-BH/5~MhP-BH/4	1960	$ 10,653	$ 10,888	$ -	$0	$0	$0	$0	$0	$0	$0	$10,888
Portland	Reticulation	MhP-BJ/1~MhP-BH/2	1960	$ 15,953	$ 16,304	$ -	$0	$0	$0	$0	$0	$0	$0	$16,304
Portland	Reticulation	MhP-BJ/2~MhP-BJ/1	1960	$ 5,249	$ 5,364	$ -	$0	$0	$0	$0	$0	$0	$0	$5,364
Portland	Reticulation	MhP-BJ/3~MhP-BJ/2	1960	$ 5,671	$ 5,796	$ -	$0	$0	$0	$0	$0	$0	$0	$5,796
Portland	Reticulation	MhP-BL/1~MhP-AC/15	1960	$ 4,232	$ 4,325	$ -	$0	$0	$0	$0	$0	$0	$0	$4,325
Portland	Reticulation	MhP-BM/1~MhP-AC/17	1960	$ 16,405	$ 16,766	$ -	$0	$0	$0	$0	$0	$0	$0	$16,766
Portland	Reticulation	MhP-BM/1A~MhP-BM/1	1960	$ 10,292	$ 10,519	$ -	$0	$0	$0	$0	$0	$0	$0	$10,519
Portland	Reticulation	MhP-BM/2~MhP-BM/1A	1960	$ 11,088	$ 11,332	$ -	$0	$0	$0	$0	$0	$0	$0	$11,332
Portland	Reticulation	MhP-BM/3~MhP-BM/2	1960	$ 12,624	$ 12,901	$ -	$0	$0	$0	$0	$0	$0	$0	$12,901
Portland	Reticulation	MhP-BN/1~MhP-AC/19	1960	$ 9,592	$ 9,803	$ -	$0	$0	$0	$0	$0	$0	$0	$9,803
Portland	Reticulation	MhP-BN/2~MhP-BN/1	1960	$ 7,121	$ 7,277	$ -	$0	$0	$0	$0	$0	$0	$0	$7,277
Portland	Reticulation	MhP-BN/3~MhP-BN/2	1960	$ 2,784	$ 2,845	$ -	$0	$0	$0	$0	$0	$0	$0	$2,845
Portland	Reticulation	MhP-BN/4~MhP-BN/3	1960	$ 11,659	$ 11,915	$ -	$0	$0	$0	$0	$0	$0	$0	$11,915
Portland	Reticulation	MhP-BN/5~MhP-BN/4	1960	$ 9,169	$ 9,370	$ -	$0	$0	$0	$0	$0	$0	$0	$9,370
Portland	Reticulation	MhP-BP/1~MhP-AC/20	1960	$ 5,515	$ 5,637	$ -	$0	$0	$0	$0	$0	$0	$0	$5,637
Portland	Reticulation	MhP-BP/2~MhP-BP/1	1960	$ 11,144	$ 11,389	$ -	$0	$0	$0	$0	$0	$0	$0	$11,389
Portland	Reticulation	MhP-BP/3~MhP-BP/2	1960	$ 16,366	$ 16,726	$ -	$0	$0	$0	$0	$0	$0	$0	$16,726
Portland	Reticulation	MhP-BP/4~MhP-BP/3	1960	$ 11,125	$ 11,370	$ -	$0	$0	$0	$0	$0	$0	$0	$11,370
Portland	Reticulation	MhP-BP/5~MhP-BP/4	1960	$ 11,246	$ 11,493	$ -	$0	$0	$0	$0	$0	$0	$0	$11,493
Portland	Reticulation	MhP-BP/6~MhP-BP/5	1960	$ 16,210	$ 16,566	$ -	$0	$0	$0	$0	$0	$0	$0	$16,566
Portland	Reticulation	MhP-BR/1~MhP-BP/1	1960	$ 12,555	$ 12,831	$ -	$0	$0	$0	$0	$0	$0	$0	$12,831
Portland	Reticulation	MhP-BR/2~MhP-BR/1	1960	$ 13,762	$ 14,065	$ -	$0	$0	$0	$0	$0	$0	$0	$14,065
Portland	Reticulation	MhP-BS/1~MhP-BP/2	1960	$ 12,366	$ 12,638	$ -	$0	$0	$0	$0	$0	$0	$0	$12,638
Portland	Reticulation	MhP-BS/2~MhP-BS/1	1960	$ 16,963	$ 17,336	$ -	$0	$0	$0	$0	$0	$0	$0	$17,336
Portland	Reticulation	MhP-BT/1~MhP-BP/3	1960	$ 12,823	$ 13,105	$ -	$0	$0	$0	$0	$0	$0	$0	$13,105
Portland	Reticulation	MhP-BV/1~MhP-AC/24	1960	$ 6,652	$ 6,798	$ -	$0	$0	$0	$0	$0	$0	$0	$6,798
Portland	Reticulation	MhP-BV/2~MhP-BV/1	1960	$ 9,309	$ 9,514	$ -	$0	$0	$0	$0	$0	$0	$0	$9,514
Portland	Reticulation	MhP-BW/1~MhP-AC/25	1960	$ 8,097	$ 8,276	$ -	$0	$0	$0	$0	$0	$0	$0	$8,276
Portland	Reticulation	MhP-BW/2~MhP-BW/1	2002	$ 5,363	$ 5,481	$ -	$0	$0	$0	$0	$0	$0	$0	$5,481
Portland	Reticulation	MhP-BW/3~MhP-BW/2	2002	$ 20,301	$ 20,748	$ -	$0	$0	$0	$0	$0	$0	$0	$20,748
Portland	Reticulation	MhP-BW/4~MhP-BW/3	2002	$ 5,857	$ 5,986	$ -	$0	$0	$0	$0	$0	$0	$0	$5,986
Portland	Reticulation	MhP-BX/1~MhP---/14	1960	$ 16,138	$ 16,493	$ -	$0	$0	$0	$0	$0	$0	$0	$16,493
Portland	Reticulation	MhP-BX/10~MhP-BX/9	1960	$ 12,212	$ 12,480	$ -	$0	$0	$0	$0	$0	$0	$0	$12,480
Portland	Reticulation	MhP-BX/11~MhP-BX/10	1960	$ 7,319	$ 7,480	$ -	$0	$0	$0	$0	$0	$0	$0	$7,480
Portland	Reticulation	MhP-BX/12~MhP-BX/11	1960	$ 18,685	$ 19,096	$ -	$0	$0	$0	$0	$0	$0	$0	$19,096
Portland	Reticulation	MhP-BX/13~MhP-BX/12	1960	$ 19,887	$ 20,324	$ -	$0	$0	$0	$0	$0	$0	$0	$20,324
Portland	Reticulation	MhP-BX/14~MhP-BX/13	1960	$ 13,186	$ 13,476	$ -	$0	$0	$0	$0	$0	$0	$0	$13,476
Portland	Reticulation	MhP-BX/15~MhP-BX/14	1960	$ 13,722	$ 14,024	$ -	$0	$0	$0	$0	$0	$0	$0	$14,024
Portland	Reticulation	MhP-BX/16~MhP-BX/15	1960	$ 6,180	$ 6,316	$ -	$0	$0	$0	$0	$0	$0	$0	$6,316
Portland	Reticulation	MhP-BX/17~MhP-BX/16	1960	$ 10,189	$ 10,413	$ -	$0	$0	$0	$0	$0	$0	$0	$10,413
Portland	Reticulation	MhP-BX/18~MhP-BX/17	1960	$ 11,539	$ 11,793	$ -	$0	$0	$0	$0	$0	$0	$0	$11,793
Portland	Reticulation	MhP-BX/19~MhP-BX/18	1960	$ 20,321	$ 20,768	$ -	$0	$0	$0	$0	$0	$0	$0	$20,768
Portland	Reticulation	MhP-BX/2~MhP-BX/1	1960	$ 24,998	$ 25,548	$ -	$0	$0	$0	$0	$0	$0	$0	$25,548
Portland	Reticulation	MhP-BX/20~MhP-BX/19	1960	$ 16,872	$ 17,243	$ -	$0	$0	$0	$0	$0	$0	$0	$17,243
Portland	Reticulation	MhP-BX/3~MhP-BX/2	1960	$ 27,906	$ 28,520	$ -	$0	$0	$0	$0	$0	$0	$0	$28,520
Portland	Reticulation	MhP-BX/4~MhP-BX/3	1960	$ 21,704	$ 22,181	$ -	$0	$0	$0	$0	$0	$0	$0	$22,181
Portland	Reticulation	MhP-BX/5~MhP-BX/4	1960	$ 18,027	$ 18,424	$ -	$0	$0	$0	$0	$0	$0	$0	$18,424
Portland	Reticulation	MhP-BX/6~MhP-BX/5	1960	$ 16,874	$ 17,246	$ -	$0	$0	$0	$0	$0	$0	$0	$17,246
Portland	Reticulation	MhP-BX/7~MhP-BX/6	1960	$ 20,873	$ 21,332	$ -	$0	$0	$0	$0	$0	$0	$0	$21,332
Portland	Reticulation	MhP-BX/8~MhP-BX/7	1960	$ 19,519	$ 19,949	$ -	$0	$0	$0	$0	$0	$0	$0	$19,949
Portland	Reticulation	MhP-BX/9~MhP-BX/8	1960	$ 17,617	$ 18,005	$ -	$0	$0	$0	$0	$0	$0	$0	$18,005
Portland	Reticulation	MhP-BY/1~MhP-BX/8	1960	$ 17,448	$ 17,832	$ -	$0	$0	$0	$0	$0	$0	$0	$17,832
Portland	Reticulation	MhP-BY/2~MhP-BY/1	1960	$ 12,497	$ 12,772	$ -	$0	$0	$0	$0	$0	$0	$0	$12,772
Portland	Reticulation	MhP-BY/3~MhP-BY/2	1960	$ 6,200	$ 6,337	$ -	$0	$0	$0	$0	$0	$0	$0	$6,337
Portland	Reticulation	MhP-BY/4~MhP-BY/3	1960	$ 17,255	$ 17,634	$ -	$0	$0	$0	$0	$0	$0	$0	$17,634
Portland	Reticulation	MhP-BY/5~MhP-BY/4	1960	$ 14,845	$ 15,171	$ -	$0	$0	$0	$0	$0	$0	$0	$15,171
Portland	Reticulation	MhP-BY/6~MhP-BY/5	1960	$ 7,334	$ 7,495	$ -	$0	$0	$0	$0	$0	$0	$0	$7,495
Portland	Reticulation	MhP-BY/7~MhP-BY/6	1960	$ 5,398	$ 5,517	$ -	$0	$0	$0	$0	$0	$0	$0	$5,517
Portland	Reticulation	MhP-BY/8~MhP-BY/7	1960	$ 13,433	$ 13,729	$ -	$0	$0	$0	$0	$0	$0	$0	$13,729
Portland	Reticulation	MhP-BY/9~MhP-BY/8	1960	$ 12,170	$ 12,438	$ -	$0	$0	$0	$0	$0	$0	$0	$12,438
Portland	Reticulation	MhP-BZ/1~MhP-BY/3	1960	$ 12,223	$ 12,492	$ -	$0	$0	$0	$0	$0	$0	$0	$12,492
Portland	Reticulation	MhP-BZ/2~MhP-BZ/1	1960	$ 23,660	$ 24,181	$ -	$0	$0	$0	$0	$0	$0	$0	$24,181
Portland	Reticulation	MhP-BZ/3~MhP-BZ/2	1960	$ 9,788	$ 10,003	$ -	$0	$0	$0	$0	$0	$0	$0	$10,003
Portland	Reticulation	MhP--C/1~MhP--A/2	1960	$ 13,748	$ 14,050	$ -	$0	$0	$0	$0	$0	$0	$0	$14,050

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP--C/2~MhP--C/1	1960	$ 20,064	$ 20,505	$ -	$0	$0	$0	$0	$0	$0	$0	$20,505
Portland	Reticulation	MhP--C/3~MhP--C/2	1960	$ 14,726	$ 15,050	$ -	$0	$0	$0	$0	$0	$0	$0	$15,050
Portland	Reticulation	MhP--C/4~MhP--C/3	1960	$ 16,545	$ 16,909	$ -	$0	$0	$0	$0	$0	$0	$0	$16,909
Portland	Reticulation	MhP--C/5~MhP--C/4	1960	$ 13,748	$ 14,050	$ -	$0	$0	$0	$0	$0	$0	$0	$14,050
Portland	Reticulation	MhP--C/6~MhP--C/5	1960	$ 14,860	$ 15,187	$ -	$0	$0	$0	$0	$0	$0	$0	$15,187
Portland	Reticulation	MhP--C/7~MhP--C/6	1960	$ 10,863	$ 11,102	$ -	$0	$0	$0	$0	$0	$0	$0	$11,102
Portland	Reticulation	MhP-CA/1~MhP-BY/4	1960	$ 14,541	$ 14,861	$ -	$0	$0	$0	$0	$0	$0	$0	$14,861
Portland	Reticulation	MhP-CB/1~MhP-BY/4	1960	$ 18,805	$ 19,218	$ -	$0	$0	$0	$0	$0	$0	$0	$19,218
Portland	Reticulation	MhP-CC/1~MhP-BY/6	1960	$ 13,343	$ 13,637	$ -	$0	$0	$0	$0	$0	$0	$0	$13,637
Portland	Reticulation	MhP-CC/2~MhP-CC/1	1960	$ 5,759	$ 5,886	$ -	$0	$0	$0	$0	$0	$0	$0	$5,886
Portland	Reticulation	MhP-CC/3~MhP-CC/2	1960	$ 8,828	$ 9,022	$ -	$0	$0	$0	$0	$0	$0	$0	$9,022
Portland	Reticulation	MhP-CD/1~MhP-BY/7	1960	$ 13,829	$ 14,134	$ -	$0	$0	$0	$0	$0	$0	$0	$14,134
Portland	Reticulation	MhP-CE/1~MhP-BX/9	1960	$ 11,965	$ 12,228	$ -	$0	$0	$0	$0	$0	$0	$0	$12,228
Portland	Reticulation	MhP-CG/1~MhP-BX/12	1960	$ 12,681	$ 12,960	$ -	$0	$0	$0	$0	$0	$0	$0	$12,960
Portland	Reticulation	MhP-CG/2~MhP-CG/1	1960	$ 7,766	$ 7,937	$ -	$0	$0	$0	$0	$0	$0	$0	$7,937
Portland	Reticulation	MhP-CG/3~MhP-CG/2	1960	$ 19,637	$ 20,069	$ -	$0	$0	$0	$0	$0	$0	$0	$20,069
Portland	Reticulation	MhP-CG/4~MhP-CG/3	1960	$ 9,696	$ 9,909	$ -	$0	$0	$0	$0	$0	$0	$0	$9,909
Portland	Reticulation	MhP-CH/1~MhP-CG/2	1960	$ 20,767	$ 21,224	$ -	$0	$0	$0	$0	$0	$0	$0	$21,224
Portland	Reticulation	MhP-CJ/1~MhP-BX/12	1960	$ 5,329	$ 5,447	$ -	$0	$0	$0	$0	$0	$0	$0	$5,447
Portland	Reticulation	MhP-CL/1~MhP-BX/2	1960	$ 52,051	$ 53,197	$ -	$0	$0	$0	$0	$0	$0	$0	$53,197
Portland	Rising Mains	MhP-CL/10~MhP-CL/9	1960	$ 1,784	$ 1,824	$ 1,824	$0	$0	$0	$0	$0	$0	$0	$1,824
Portland	Rising Mains	MhP-CL/11~MhP-CL/10	1960	$ 9,627	$ 9,839	$ 9,839	$0	$0	$0	$0	$0	$0	$0	$9,839
Portland	Rising Mains	MhP-CL/12~MhP-CL/11	1960	$ 7,470	$ 7,634	$ 7,634	$0	$0	$0	$0	$0	$0	$0	$7,634
Portland	Rising Mains	MhP-CL/13~MhP-CL/12	1960	$ 15,026	$ 15,357	$ 15,357	$0	$0	$0	$0	$0	$0	$0	$15,357
Portland	Rising Mains	MhP-CL/14~MhP-CL/13	1960	$ 13,455	$ 13,751	$ 13,751	$0	$0	$0	$0	$0	$0	$0	$13,751
Portland	Rising Mains	MhP-CL/15~MhP-CL/14	1960	$ 3,494	$ 3,571	$ 3,571	$0	$0	$0	$0	$0	$0	$0	$3,571
Portland	Rising Mains	MhP-CL/16~MhP-CL/15	1960	$ 7,339	$ 7,501	$ 7,501	$0	$0	$0	$0	$0	$0	$0	$7,501
Portland	Rising Mains	MhP-CL/17~MhP-CL/16	1960	$ 7,405	$ 7,568	$ 7,568	$0	$0	$0	$0	$0	$0	$0	$7,568
Portland	Rising Mains	MhP-CL/18~MhP-CL/17	1960	$ 10,448	$ 10,677	$ 10,677	$0	$0	$0	$0	$0	$0	$0	$10,677
Portland	Rising Mains	MhP-CL/19~MhP-CL/18	1960	$ 3,818	$ 3,902	$ 3,902	$0	$0	$0	$0	$0	$0	$0	$3,902
Portland	Rising Mains	MhP-CL/2~MhP-CL/1	1960	$ 16,558	$ 16,923	$ 16,923	$0	$0	$0	$0	$0	$0	$0	$16,923
Portland	Rising Mains	MhP-CL/20~MhP-CL/19	1960	$ 3,926	$ 4,012	$ 4,012	$0	$0	$0	$0	$0	$0	$0	$4,012
Portland	Rising Mains	MhP-CL/21~MhP-CL/20	1960	$ 7,001	$ 7,155	$ 7,155	$0	$0	$0	$0	$0	$0	$0	$7,155
Portland	Rising Mains	MhP-CL/22~MhP-CL/21	1960	$ 6,931	$ 7,083	$ 7,083	$0	$0	$0	$0	$0	$0	$0	$7,083
Portland	Rising Mains	MhP-CL/23~MhP-CL/22	1960	$ 7,438	$ 7,601	$ 7,601	$0	$0	$0	$0	$0	$0	$0	$7,601
Portland	Rising Mains	MhP-CL/24~MhP-CL/23	1960	$ 11,095	$ 11,339	$ 11,339	$0	$0	$0	$0	$0	$0	$0	$11,339
Portland	Rising Mains	MhP-CL/25~MhP-CL/24	1960	$ 13,628	$ 13,928	$ 13,928	$0	$0	$0	$0	$0	$0	$0	$13,928
Portland	Reticulation	MhP-CL/26~MhP-CL/25	1960	$ 6,594	$ 6,739	$ -	$0	$0	$0	$0	$0	$0	$0	$6,739
Portland	Rising Mains	MhP-CL/3~MhP-CL/2	1960	$ 11,759	$ 12,017	$ 12,017	$0	$0	$0	$0	$0	$0	$0	$12,017
Portland	Rising Mains	MhP-CL/4~MhP-CL/3	1960	$ 6,845	$ 6,996	$ 6,996	$0	$0	$0	$0	$0	$0	$0	$6,996
Portland	Rising Mains	MhP-CL/5~MhP-CL/4	1960	$ 12,117	$ 12,384	$ 12,384	$0	$0	$0	$0	$0	$0	$0	$12,384
Portland	Rising Mains	MhP-CL/6~MhP-CL/5	1960	$ 12,261	$ 12,531	$ 12,531	$0	$0	$0	$0	$0	$0	$0	$12,531
Portland	Rising Mains	MhP-CL/7~MhP-CL/6	1960	$ 4,957	$ 5,066	$ 5,066	$0	$0	$0	$0	$0	$0	$0	$5,066
Portland	Rising Mains	MhP-CL/8~MhP-CL/7	1960	$ 7,478	$ 7,643	$ 7,643	$0	$0	$0	$0	$0	$0	$0	$7,643
Portland	Rising Mains	MhP-CL/9~MhP-CL/8	1960	$ 11,407	$ 11,658	$ 11,658	$0	$0	$0	$0	$0	$0	$0	$11,658
Portland	Reticulation	MhP-CM/1~MhP-CL/1	1960	$ 5,625	$ 5,748	$ -	$0	$0	$0	$0	$0	$0	$0	$5,748
Portland	Reticulation	MhP-CM/2~MhP-CM/1	1960	$ 13,234	$ 13,525	$ -	$0	$0	$0	$0	$0	$0	$0	$13,525
Portland	Reticulation	MhP-CM/3~MhP-CM/2	1960	$ 12,097	$ 12,364	$ -	$0	$0	$0	$0	$0	$0	$0	$12,364
Portland	Reticulation	MhP-CM/4~MhP-CM/3	1960	$ 7,119	$ 7,276	$ -	$0	$0	$0	$0	$0	$0	$0	$7,276
Portland	Reticulation	MhP-CM/5~MhP-CM/4	1960	$ 12,961	$ 13,246	$ -	$0	$0	$0	$0	$0	$0	$0	$13,246
Portland	Reticulation	MhP-CM/6~MhP-CM/5	1960	$ 8,920	$ 9,116	$ -	$0	$0	$0	$0	$0	$0	$0	$9,116
Portland	Reticulation	MhP-CM/7~MhP-CM/6	1960	$ 6,370	$ 6,510	$ -	$0	$0	$0	$0	$0	$0	$0	$6,510
Portland	Reticulation	MhP-CN/1~MhP-CL/9	1960	$ 20,772	$ 21,229	$ -	$0	$0	$0	$0	$0	$0	$0	$21,229
Portland	Reticulation	MhP-CN/2~MhP-CN/1	1960	$ 15,976	$ 16,328	$ -	$0	$0	$0	$0	$0	$0	$0	$16,328
Portland	Reticulation	MhP-CN/3~MhP-CN/2	1960	$ 6,605	$ 6,751	$ -	$0	$0	$0	$0	$0	$0	$0	$6,751
Portland	Reticulation	MhP-CN/4~MhP-CN/3	1960	$ 8,624	$ 8,814	$ -	$0	$0	$0	$0	$0	$0	$0	$8,814
Portland	Reticulation	MhP-CN/5~MhP-CN/4	1960	$ 9,055	$ 9,254	$ -	$0	$0	$0	$0	$0	$0	$0	$9,254
Portland	Reticulation	MhP-CN/6~MhP-CN/5	1960	$ 20,682	$ 21,137	$ -	$0	$0	$0	$0	$0	$0	$0	$21,137
Portland	Reticulation	MhP-CN/7~MhP-CN/6	1960	$ 17,012	$ 17,387	$ -	$0	$0	$0	$0	$0	$0	$0	$17,387
Portland	Reticulation	MhP-CR/1~MhP-CL/11	1960	$ 12,115	$ 12,381	$ -	$0	$0	$0	$0	$0	$0	$0	$12,381
Portland	Reticulation	MhP-CS/1~MhP-CL/13	1960	$ 18,834	$ 19,249	$ -	$0	$0	$0	$0	$0	$0	$0	$19,249
Portland	Reticulation	MhP-CS/2~MhP-CS/1	1960	$ 12,167	$ 12,434	$ -	$0	$0	$0	$0	$0	$0	$0	$12,434
Portland	Reticulation	MhP-CS/3~MhP-CS/2	1960	$ 14,729	$ 15,053	$ -	$0	$0	$0	$0	$0	$0	$0	$15,053
Portland	Rising Mains	MhP-CT/1~MhP-CL/16	1960	$ 7,458	$ 7,623	$ 7,623	$0	$0	$0	$0	$0	$0	$0	$7,623
Portland	Rising Mains	MhP-CT/2~MhP-CT/1	1960	$ 2,683	$ 2,742	$ 2,742	$0	$0	$0	$0	$0	$0	$0	$2,742
Portland	Rising Mains	MhP-CT/3~MhP-CT/2	1960	$ 11,426	$ 11,678	$ 11,678	$0	$0	$0	$0	$0	$0	$0	$11,678
Portland	Rising Mains	MhP-CT/4~MhP-CT/3	1960	$ 3,524	$ 3,602	$ 3,602	$0	$0	$0	$0	$0	$0	$0	$3,602
Portland	Rising Mains	MhP-CT/5~SPS694	1960	$ 1,359	$ 1,389	$ 1,389	$0	$0	$0	$0	$0	$0	$0	$1,389
Portland	Reticulation	MhP-CT/6~MhP-CT/5	1960	$ 7,594	$ 7,761	$ -	$0	$0	$0	$0	$0	$0	$0	$7,761
Portland	Reticulation	MhP-CT/7~MhP-CT/6	1960	$ 12,284	$ 12,554	$ -	$0	$0	$0	$0	$0	$0	$0	$12,554

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP-CT/8~MhP-CT/7	1960	$ 11,474	$ 11,726	$ -	$0	$0	$0	$0	$0	$0	$0	$11,726
Portland	Reticulation	MhP-CU/1~MhP-CT/2	1960	$ 16,233	$ 16,590	$ -	$0	$0	$0	$0	$0	$0	$0	$16,590
Portland	Reticulation	MhP-CV/1~MhP-CT/4	1960	$ 8,117	$ 8,296	$ -	$0	$0	$0	$0	$0	$0	$0	$8,296
Portland	Reticulation	MhP-CV/2~MhP-CV/1	1960	$ 14,291	$ 14,605	$ -	$0	$0	$0	$0	$0	$0	$0	$14,605
Portland	Reticulation	MhP-CW/1~MhP-CT/5	1960	$ 18,514	$ 18,921	$ -	$0	$0	$0	$0	$0	$0	$0	$18,921
Portland	Reticulation	MhP-CX/1~MhP-CL/18	1960	$ 10,487	$ 10,717	$ -	$0	$0	$0	$0	$0	$0	$0	$10,717
Portland	Reticulation	MhP-CX/2~MhP-CX/1	1960	$ 20,158	$ 20,601	$ -	$0	$0	$0	$0	$0	$0	$0	$20,601
Portland	Reticulation	MhP-CX/3~MhP-CX/2	1960	$ 9,341	$ 9,546	$ -	$0	$0	$0	$0	$0	$0	$0	$9,546
Portland	Reticulation	MhP-CX/4~MhP-CX/3	1960	$ 12,195	$ 12,463	$ -	$0	$0	$0	$0	$0	$0	$0	$12,463
Portland	Reticulation	MhP-CY/1~MhP-CL/21	1960	$ 16,201	$ 16,557	$ -	$0	$0	$0	$0	$0	$0	$0	$16,557
Portland	Reticulation	MhP-CZ/1~SPS619	1960	$ 8,971	$ 9,168	$ -	$0	$0	$0	$0	$0	$0	$0	$9,168
Portland	Reticulation	MhP-CZ/10~MhP-CZ/9	1960	$ 19,596	$ 20,027	$ -	$0	$0	$0	$0	$0	$0	$0	$20,027
Portland	Reticulation	MhP-CZ/11~MhP-CZ/10	1960	$ 11,967	$ 12,231	$ -	$0	$0	$0	$0	$0	$0	$0	$12,231
Portland	Reticulation	MhP-CZ/12~MhP-CZ/11	1960	$ 11,796	$ 12,056	$ -	$0	$0	$0	$0	$0	$0	$0	$12,056
Portland	Reticulation	MhP-CZ/13~MhP-CZ/12	1960	$ 19,763	$ 20,198	$ -	$0	$0	$0	$0	$0	$0	$0	$20,198
Portland	Reticulation	MhP-CZ/14~MhP-CZ/13	1960	$ 13,107	$ 13,396	$ -	$0	$0	$0	$0	$0	$0	$0	$13,396
Portland	Reticulation	MhP-CZ/15~MhP-CZ/14	1960	$ 15,991	$ 16,342	$ -	$0	$0	$0	$0	$0	$0	$0	$16,342
Portland	Reticulation	MhP-CZ/16~MhP-CZ/15	1960	$ 21,629	$ 22,104	$ -	$0	$0	$0	$0	$0	$0	$0	$22,104
Portland	Reticulation	MhP-CZ/17~MhP-CZ/16	1960	$ 14,041	$ 14,349	$ -	$0	$0	$0	$0	$0	$0	$0	$14,349
Portland	Reticulation	MhP-CZ/18~MhP-CZ/17	1960	$ 10,724	$ 10,960	$ -	$0	$0	$0	$0	$0	$0	$0	$10,960
Portland	Reticulation	MhP-CZ/2~MhP-CZ/1	1960	$ 16,022	$ 16,375	$ -	$0	$0	$0	$0	$0	$0	$0	$16,375
Portland	Reticulation	MhP-CZ/3~MhP-CZ/2	1960	$ 12,265	$ 12,535	$ -	$0	$0	$0	$0	$0	$0	$0	$12,535
Portland	Reticulation	MhP-CZ/4~MhP-CZ/3	1960	$ 15,855	$ 16,204	$ -	$0	$0	$0	$0	$0	$0	$0	$16,204
Portland	Reticulation	MhP-CZ/5~MhP-CZ/4	1960	$ 19,968	$ 20,407	$ -	$0	$0	$0	$0	$0	$0	$0	$20,407
Portland	Reticulation	MhP-CZ/6~MhP-CZ/5	1960	$ 5,225	$ 5,340	$ -	$0	$0	$0	$0	$0	$0	$0	$5,340
Portland	Reticulation	MhP-CZ/7~MhP-CZ/6	1960	$ 27,108	$ 27,704	$ -	$0	$0	$0	$0	$0	$0	$0	$27,704
Portland	Reticulation	MhP-CZ/8~MhP-CZ/7	1960	$ 6,209	$ 6,345	$ -	$0	$0	$0	$0	$0	$0	$0	$6,345
Portland	Reticulation	MhP-CZ/9~MhP-CZ/8	1960	$ 5,387	$ 5,506	$ -	$0	$0	$0	$0	$0	$0	$0	$5,506
Portland	Reticulation	MhP--D/1~MhP--C/3	1960	$ 18,726	$ 19,138	$ -	$0	$0	$0	$0	$0	$0	$0	$19,138
Portland	Reticulation	MhP--D/2~MhP--D/1	1960	$ 16,506	$ 16,869	$ -	$0	$0	$0	$0	$0	$0	$0	$16,869
Portland	Reticulation	MhP--D/3~MhP--D/2	1960	$ 12,732	$ 13,012	$ -	$0	$0	$0	$0	$0	$0	$0	$13,012
Portland	Reticulation	MhP-DA/1~MhP-CZ/1	1960	$ 1,893	$ 1,935	$ -	$0	$0	$0	$0	$0	$0	$0	$1,935
Portland	Reticulation	MhP-DA/10~MhP-DA/9	1960	$ 8,050	$ 8,227	$ -	$0	$0	$0	$0	$0	$0	$0	$8,227
Portland	Reticulation	MhP-DA/11~MhP-DA/10	1960	$ 15,602	$ 15,945	$ -	$0	$0	$0	$0	$0	$0	$0	$15,945
Portland	Reticulation	MhP-DA/12~MhP-DA/11	1960	$ 12,617	$ 12,895	$ -	$0	$0	$0	$0	$0	$0	$0	$12,895
Portland	Reticulation	MhP-DA/13~MhP-DA/12	1960	$ 9,498	$ 9,707	$ -	$0	$0	$0	$0	$0	$0	$0	$9,707
Portland	Reticulation	MhP-DA/14~MhP-DA/13	1960	$ 18,236	$ 18,637	$ -	$0	$0	$0	$0	$0	$0	$0	$18,637
Portland	Reticulation	MhP-DA/15~MhP-DA/14	1960	$ 7,971	$ 8,146	$ -	$0	$0	$0	$0	$0	$0	$0	$8,146
Portland	Reticulation	MhP-DA/16~MhP-DA/15	1960	$ 16,054	$ 16,407	$ -	$0	$0	$0	$0	$0	$0	$0	$16,407
Portland	Reticulation	MhP-DA/17~MhP-DA/16	1960	$ 19,133	$ 19,554	$ -	$0	$0	$0	$0	$0	$0	$0	$19,554
Portland	Reticulation	MhP-DA/18~MhP-DA/17	1960	$ 8,695	$ 8,886	$ -	$0	$0	$0	$0	$0	$0	$0	$8,886
Portland	Reticulation	MhP-DA/2~MhP-DA/1	1960	$ 18,323	$ 18,726	$ -	$0	$0	$0	$0	$0	$0	$0	$18,726
Portland	Reticulation	MhP-DA/3~MhP-DA/2	1960	$ 12,015	$ 12,279	$ -	$0	$0	$0	$0	$0	$0	$0	$12,279
Portland	Reticulation	MhP-DA/4~MhP-DA/3	1960	$ 8,515	$ 8,702	$ -	$0	$0	$0	$0	$0	$0	$0	$8,702
Portland	Reticulation	MhP-DA/5~MhP-DA/4	1960	$ 8,969	$ 9,167	$ -	$0	$0	$0	$0	$0	$0	$0	$9,167
Portland	Reticulation	MhP-DA/6~MhP-DA/5	1960	$ 3,358	$ 3,432	$ -	$0	$0	$0	$0	$0	$0	$0	$3,432
Portland	Reticulation	MhP-DA/7~MhP-DA/6	1960	$ 15,576	$ 15,918	$ -	$0	$0	$0	$0	$0	$0	$0	$15,918
Portland	Reticulation	MhP-DA/8~MhP-DA/7	1960	$ 14,915	$ 15,243	$ -	$0	$0	$0	$0	$0	$0	$0	$15,243
Portland	Reticulation	MhP-DA/9~MhP-DA/8	1960	$ 19,414	$ 19,841	$ -	$0	$0	$0	$0	$0	$0	$0	$19,841
Portland	Reticulation	MhP-DB/1~MhP-DA/2	1960	$ 17,924	$ 18,318	$ -	$0	$0	$0	$0	$0	$0	$0	$18,318
Portland	Reticulation	MhP-DB/2~MhP-DB/1	1960	$ 20,377	$ 20,825	$ -	$0	$0	$0	$0	$0	$0	$0	$20,825
Portland	Reticulation	MhP-DB/3~MhP-DB/2	1960	$ 14,162	$ 14,474	$ -	$0	$0	$0	$0	$0	$0	$0	$14,474
Portland	Reticulation	MhP-DB/4~MhP-DB/3	1960	$ 5,973	$ 6,105	$ -	$0	$0	$0	$0	$0	$0	$0	$6,105
Portland	Reticulation	MhP-DB/5~MhP-DB/4	1960	$ 11,042	$ 11,285	$ -	$0	$0	$0	$0	$0	$0	$0	$11,285
Portland	Reticulation	MhP-DB/6~MhP-DB/5	1960	$ 14,923	$ 15,251	$ -	$0	$0	$0	$0	$0	$0	$0	$15,251
Portland	Reticulation	MhP-DC/1~MhP-DB/1	1960	$ 12,901	$ 13,185	$ -	$0	$0	$0	$0	$0	$0	$0	$13,185
Portland	Reticulation	MhP-DC/2~MhP-DC/1	1960	$ 11,810	$ 12,070	$ -	$0	$0	$0	$0	$0	$0	$0	$12,070
Portland	Reticulation	MhP-DD/1~MhP-DB/1	1960	$ 2,212	$ 2,260	$ -	$0	$0	$0	$0	$0	$0	$0	$2,260
Portland	Reticulation	MhP-DD/2~MhP-DD/1	1960	$ 6,488	$ 6,630	$ -	$0	$0	$0	$0	$0	$0	$0	$6,630
Portland	Reticulation	MhP-DD/3~MhP-DD/2	1960	$ 12,750	$ 13,031	$ -	$0	$0	$0	$0	$0	$0	$0	$13,031
Portland	Reticulation	MhP-DE/1~MhP-DB/2	1960	$ 11,318	$ 11,567	$ -	$0	$0	$0	$0	$0	$0	$0	$11,567
Portland	Reticulation	MhP-DE/2~MhP-DE/1	1960	$ 10,759	$ 10,996	$ -	$0	$0	$0	$0	$0	$0	$0	$10,996
Portland	Reticulation	MhP-DE/3~MhP-DE/2	1960	$ 15,338	$ 15,675	$ -	$0	$0	$0	$0	$0	$0	$0	$15,675
Portland	Reticulation	MhP-DF/1~MhP-DB/2	1960	$ 8,472	$ 8,659	$ -	$0	$0	$0	$0	$0	$0	$0	$8,659
Portland	Reticulation	MhP-DG/1~MhP-DA/10	1960	$ 10,374	$ 10,603	$ -	$0	$0	$0	$0	$0	$0	$0	$10,603
Portland	Reticulation	MhP-DJ/1~MhP-DA/11	1960	$ 3,694	$ 3,776	$ -	$0	$0	$0	$0	$0	$0	$0	$3,776
Portland	Reticulation	MhP-DJ/2~MhP-DJ/1	1960	$ 19,177	$ 19,599	$ -	$0	$0	$0	$0	$0	$0	$0	$19,599
Portland	Reticulation	MhP-DJ/3~MhP-DJ/2	1960	$ 6,993	$ 7,147	$ -	$0	$0	$0	$0	$0	$0	$0	$7,147
Portland	Reticulation	MhP-DJ/4~MhP-DJ/3	1960	$ 9,344	$ 9,550	$ -	$0	$0	$0	$0	$0	$0	$0	$9,550
Portland	Reticulation	MhP-DL/1~MhP-DJ/2	1960	$ 9,202	$ 9,404	$ -	$0	$0	$0	$0	$0	$0	$0	$9,404

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP-DL/2~MhP-DL/1	1960	$ 7,216	$ 7,375	$ -	$0	$0	$0	$0	$0	$0	$0	$7,375
Portland	Reticulation	MhP-DL/3~MhP-DL/2	1960	$ 8,386	$ 8,570	$ -	$0	$0	$0	$0	$0	$0	$0	$8,570
Portland	Reticulation	MhP-DL/4~MhP-DL/3	1960	$ 21,634	$ 22,110	$ -	$0	$0	$0	$0	$0	$0	$0	$22,110
Portland	Reticulation	MhP-DL/5~MhP-DL/4	1960	$ 11,519	$ 11,772	$ -	$0	$0	$0	$0	$0	$0	$0	$11,772
Portland	Reticulation	MhP-DM/1~MhP-CZ/1	1960	$ 15,267	$ 15,603	$ -	$0	$0	$0	$0	$0	$0	$0	$15,603
Portland	Reticulation	MhP-DM/10~MhP-DM/9	1970	$ 8,806	$ 9,000	$ -	$0	$0	$0	$0	$0	$0	$0	$9,000
Portland	Reticulation	MhP-DM/11~MhP-DM/10	1970	$ 11,581	$ 11,836	$ -	$0	$0	$0	$0	$0	$0	$0	$11,836
Portland	Reticulation	MhP-DM/12~MhP-DM/11	1970	$ 12,715	$ 12,995	$ -	$0	$0	$0	$0	$0	$0	$0	$12,995
Portland	Reticulation	MhP-DM/2~MhP-DM/1	1970	$ 14,725	$ 15,049	$ -	$0	$0	$0	$0	$0	$0	$0	$15,049
Portland	Reticulation	MhP-DM/3~MhP-DM/2	1970	$ 16,464	$ 16,826	$ -	$0	$0	$0	$0	$0	$0	$0	$16,826
Portland	Reticulation	MhP-DM/4~MhP-DM/3	1970	$ 16,065	$ 16,419	$ -	$0	$0	$0	$0	$0	$0	$0	$16,419
Portland	Reticulation	MhP-DM/5~MhP-DM/4	1970	$ 21,953	$ 22,435	$ -	$0	$0	$0	$0	$0	$0	$0	$22,435
Portland	Reticulation	MhP-DM/6~MhP-DM/5	1970	$ 13,463	$ 13,759	$ -	$0	$0	$0	$0	$0	$0	$0	$13,759
Portland	Reticulation	MhP-DM/7~MhP-DM/6	1970	$ 16,662	$ 17,029	$ -	$0	$0	$0	$0	$0	$0	$0	$17,029
Portland	Reticulation	MhP-DM/8~MhP-DM/7	1970	$ 16,639	$ 17,006	$ -	$0	$0	$0	$0	$0	$0	$0	$17,006
Portland	Reticulation	MhP-DM/9~MhP-DM/8	1970	$ 12,983	$ 13,269	$ -	$0	$0	$0	$0	$0	$0	$0	$13,269
Portland	Reticulation	MhP-DN/1~MhP-DM/3	1960	$ 14,531	$ 14,851	$ -	$0	$0	$0	$0	$0	$0	$0	$14,851
Portland	Reticulation	MhP-DN/2~MhP-DN/1	1970	$ 20,533	$ 20,984	$ -	$0	$0	$0	$0	$0	$0	$0	$20,984
Portland	Reticulation	MhP-DN/3~MhP-DN/2	1970	$ 21,559	$ 22,033	$ -	$0	$0	$0	$0	$0	$0	$0	$22,033
Portland	Reticulation	MhP-DN/4~MhP-DN/3	1970	$ 20,638	$ 21,092	$ -	$0	$0	$0	$0	$0	$0	$0	$21,092
Portland	Reticulation	MhP-DN/5~MhP-DN/4	1970	$ 9,383	$ 9,590	$ -	$0	$0	$0	$0	$0	$0	$0	$9,590
Portland	Reticulation	MhP-DN/6~MhP-DN/5	1970	$ 17,838	$ 18,231	$ -	$0	$0	$0	$0	$0	$0	$0	$18,231
Portland	Reticulation	MhP-DN/7~MhP-DN/6	1970	$ 20,455	$ 20,905	$ -	$0	$0	$0	$0	$0	$0	$0	$20,905
Portland	Reticulation	MhP-DP/1~MhP-DN/5	1960	$ 12,850	$ 13,133	$ -	$0	$0	$0	$0	$0	$0	$0	$13,133
Portland	Reticulation	MhP-DR/1~MhP-DM/4	1960	$ 19,246	$ 19,669	$ -	$0	$0	$0	$0	$0	$0	$0	$19,669
Portland	Reticulation	MhP-DR/2~MhP-DR/1	1960	$ 22,214	$ 22,702	$ -	$0	$0	$0	$0	$0	$0	$0	$22,702
Portland	Reticulation	MhP-DR/3~MhP-DR/2	1960	$ 20,512	$ 20,963	$ -	$0	$0	$0	$0	$0	$0	$0	$20,963
Portland	Reticulation	MhP-DS/1~MhP-DM/6	1960	$ 20,766	$ 21,223	$ -	$0	$0	$0	$0	$0	$0	$0	$21,223
Portland	Reticulation	MhP-DS/2~MhP-DS/1	1960	$ 20,250	$ 20,695	$ -	$0	$0	$0	$0	$0	$0	$0	$20,695
Portland	Reticulation	MhP-DS/3~MhP-DS/2	1960	$ 16,873	$ 17,244	$ -	$0	$0	$0	$0	$0	$0	$0	$17,244
Portland	Reticulation	MhP-DT/1~MhP-CZ/2	1960	$ 15,386	$ 15,725	$ -	$0	$0	$0	$0	$0	$0	$0	$15,725
Portland	Reticulation	MhP-DT/2~MhP-DT/1	1960	$ 8,620	$ 8,810	$ -	$0	$0	$0	$0	$0	$0	$0	$8,810
Portland	Reticulation	MhP-DT/3~MhP-DT/2	1960	$ 8,291	$ 8,473	$ -	$0	$0	$0	$0	$0	$0	$0	$8,473
Portland	Reticulation	MhP-DT/4~MhP-DT/3	1960	$ 8,902	$ 9,098	$ -	$0	$0	$0	$0	$0	$0	$0	$9,098
Portland	Reticulation	MhP-DV/1~MhP-CZ/8	1960	$ 17,989	$ 18,385	$ -	$0	$0	$0	$0	$0	$0	$0	$18,385
Portland	Reticulation	MhP-DV/2~MhP-DV/1	1960	$ 16,929	$ 17,301	$ -	$0	$0	$0	$0	$0	$0	$0	$17,301
Portland	Reticulation	MhP-DW/1~MhP-DV/1	1960	$ 15,900	$ 16,250	$ -	$0	$0	$0	$0	$0	$0	$0	$16,250
Portland	Reticulation	MhP-DX/1~MhP-CZ/9	1960	$ 14,972	$ 15,301	$ -	$0	$0	$0	$0	$0	$0	$0	$15,301
Portland	Reticulation	MhP-DX/10~MhP-DX/9	1960	$ 12,050	$ 12,316	$ -	$0	$0	$0	$0	$0	$0	$0	$12,316
Portland	Reticulation	MhP-DX/11~MhP-DX/10	1960	$ 17,041	$ 17,416	$ -	$0	$0	$0	$0	$0	$0	$0	$17,416
Portland	Reticulation	MhP-DX/12~MhP-DX/11	1960	$ 7,397	$ 7,560	$ -	$0	$0	$0	$0	$0	$0	$0	$7,560
Portland	Reticulation	MhP-DX/13~MhP-DX/12	1960	$ 14,036	$ 14,345	$ -	$0	$0	$0	$0	$0	$0	$0	$14,345
Portland	Reticulation	MhP-DX/14~MhP-DX/13	1960	$ 16,383	$ 16,744	$ -	$0	$0	$0	$0	$0	$0	$0	$16,744
Portland	Reticulation	MhP-DX/2~MhP-DX/1	1960	$ 9,916	$ 10,134	$ -	$0	$0	$0	$0	$0	$0	$0	$10,134
Portland	Reticulation	MhP-DX/3~MhP-DX/2	1960	$ 13,414	$ 13,709	$ -	$0	$0	$0	$0	$0	$0	$0	$13,709
Portland	Reticulation	MhP-DX/4~MhP-DX/3	1960	$ 14,003	$ 14,311	$ -	$0	$0	$0	$0	$0	$0	$0	$14,311
Portland	Reticulation	MhP-DX/5~MhP-DX/4	1960	$ 10,270	$ 10,496	$ -	$0	$0	$0	$0	$0	$0	$0	$10,496
Portland	Reticulation	MhP-DX/7~MhP-DX/5	1960	$ 15,253	$ 15,589	$ -	$0	$0	$0	$0	$0	$0	$0	$15,589
Portland	Reticulation	MhP-DX/8~MhP-DX/7	1960	$ 25,198	$ 25,753	$ -	$0	$0	$0	$0	$0	$0	$0	$25,753
Portland	Reticulation	MhP-DX/9~MhP-DX/8	1960	$ 9,518	$ 9,727	$ -	$0	$0	$0	$0	$0	$0	$0	$9,727
Portland	Reticulation	MhP-DY/1~MhP-DX/4	1960	$ 8,502	$ 8,689	$ -	$0	$0	$0	$0	$0	$0	$0	$8,689
Portland	Reticulation	MhP-DY/2~MhP-DY/1	1960	$ 14,958	$ 15,288	$ -	$0	$0	$0	$0	$0	$0	$0	$15,288
Portland	Reticulation	MhP-DY/3~MhP-DY/2	1960	$ 10,810	$ 11,048	$ -	$0	$0	$0	$0	$0	$0	$0	$11,048
Portland	Reticulation	MhP-DY/4~MhP-DY/3	1960	$ 25,456	$ 26,016	$ -	$0	$0	$0	$0	$0	$0	$0	$26,016
Portland	Reticulation	MhP-DZ/1~MhP-DY/2	1960	$ 7,952	$ 8,127	$ -	$0	$0	$0	$0	$0	$0	$0	$8,127
Portland	Reticulation	MhP--E/1~MhP--A/4	1960	$ 19,323	$ 19,749	$ -	$0	$0	$0	$0	$0	$0	$0	$19,749
Portland	Reticulation	MhP--E/10~MhP--E/9	1960	$ 11,582	$ 11,837	$ -	$0	$0	$0	$0	$0	$0	$0	$11,837
Portland	Reticulation	MhP--E/11~MhP--E/10	1960	$ 13,950	$ 14,257	$ -	$0	$0	$0	$0	$0	$0	$0	$14,257
Portland	Reticulation	MhP--E/12~MhP--E/11	1960	$ 21,147	$ 21,612	$ -	$0	$0	$0	$0	$0	$0	$0	$21,612
Portland	Reticulation	MhP--E/13~MhP--E/12	1960	$ 15,359	$ 15,697	$ -	$0	$0	$0	$0	$0	$0	$0	$15,697
Portland	Reticulation	MhP--E/2~MhP--E/1	1960	$ 12,713	$ 12,993	$ -	$0	$0	$0	$0	$0	$0	$0	$12,993
Portland	Reticulation	MhP--E/3~MhP--E/2	1960	$ 8,635	$ 8,825	$ -	$0	$0	$0	$0	$0	$0	$0	$8,825
Portland	Reticulation	MhP--E/4~MhP--E/3	1960	$ 15,025	$ 15,356	$ -	$0	$0	$0	$0	$0	$0	$0	$15,356
Portland	Reticulation	MhP--E/5~MhP--E/4	1960	$ 15,320	$ 15,657	$ -	$0	$0	$0	$0	$0	$0	$0	$15,657
Portland	Reticulation	MhP--E/6~MhP--E/5	1960	$ 9,520	$ 9,730	$ -	$0	$0	$0	$0	$0	$0	$0	$9,730
Portland	Reticulation	MhP--E/7~MhP--E/6	1960	$ 21,190	$ 21,656	$ -	$0	$0	$0	$0	$0	$0	$0	$21,656
Portland	Reticulation	MhP--E/8~MhP--E/7	1960	$ 13,309	$ 13,602	$ -	$0	$0	$0	$0	$0	$0	$0	$13,602
Portland	Reticulation	MhP--E/9~MhP--E/8	1960	$ 3,790	$ 3,874	$ -	$0	$0	$0	$0	$0	$0	$0	$3,874
Portland	Reticulation	MhP-EA/1~MhP-DX/5	1960	$ 13,955	$ 14,262	$ -	$0	$0	$0	$0	$0	$0	$0	$14,262
Portland	Reticulation	MhP-EC/1~MhP-DX/8	1960	$ 15,683	$ 16,029	$ -	$0	$0	$0	$0	$0	$0	$0	$16,029

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Reticulation	MhP-EC/2~MhP-EC/1	1960	$ 14,287	$ 14,601	$ -	$0	$0	$0	$0	$0	$0	$0	$14,601
Portland	Reticulation	MhP-EE/1~MhP-DX/12	1960	$ 18,509	$ 18,916	$ -	$0	$0	$0	$0	$0	$0	$0	$18,916
Portland	Reticulation	MhP-EF/1~MhP-CZ/13	1960	$ 5,363	$ 5,481	$ -	$0	$0	$0	$0	$0	$0	$0	$5,481
Portland	Reticulation	MhP-EF/2~MhP-EF/1	1970	$ 15,216	$ 15,551	$ -	$0	$0	$0	$0	$0	$0	$0	$15,551
Portland	Reticulation	MhP-EF/3~MhP-EF/2	1970	$ 20,204	$ 20,649	$ -	$0	$0	$0	$0	$0	$0	$0	$20,649
Portland	Reticulation	MhP-EF/4~MhP-EF/3	1970	$ 16,364	$ 16,724	$ -	$0	$0	$0	$0	$0	$0	$0	$16,724
Portland	Reticulation	MhP-EG/1~MhP-EF/1	1960	$ 6,578	$ 6,722	$ -	$0	$0	$0	$0	$0	$0	$0	$6,722
Portland	Reticulation	MhP-EG/2~MhP-EG/1	1960	$ 5,654	$ 5,778	$ -	$0	$0	$0	$0	$0	$0	$0	$5,778
Portland	Reticulation	MhP-EG/3~MhP-EG/2	1960	$ 10,101	$ 10,323	$ -	$0	$0	$0	$0	$0	$0	$0	$10,323
Portland	Reticulation	MhP-EH/1~MhP-EF/2	1960	$ 12,012	$ 12,276	$ -	$0	$0	$0	$0	$0	$0	$0	$12,276
Portland	Reticulation	MhP-EH/2~MhP-EH/1	1970	$ 15,741	$ 16,087	$ -	$0	$0	$0	$0	$0	$0	$0	$16,087
Portland	Reticulation	MhP-EJ/1~MhP-CZ/15	1960	$ 15,333	$ 15,671	$ -	$0	$0	$0	$0	$0	$0	$0	$15,671
Portland	Reticulation	MhP-EK/1~MhP-BY/2	1960	$ 3,403	$ 3,478	$ -	$0	$0	$0	$0	$0	$0	$0	$3,478
Portland	Reticulation	MhP-EK/2~MhP-EK/1	1960	$ 6,783	$ 6,932	$ -	$0	$0	$0	$0	$0	$0	$0	$6,932
Portland	Reticulation	MhP-EN/1~MhP-AC/1A	1960	$ 13,772	$ 14,075	$ -	$0	$0	$0	$0	$0	$0	$0	$14,075
Portland	Reticulation	MhP-EN/2~MhP-EN/1	1960	$ 12,957	$ 13,242	$ -	$0	$0	$0	$0	$0	$0	$0	$13,242
Portland	Reticulation	MhP--F/1~MhP--E/2	1960	$ 10,071	$ 10,293	$ -	$0	$0	$0	$0	$0	$0	$0	$10,293
Portland	Reticulation	MhP--F/2~MhP--F/1	1960	$ 12,872	$ 13,156	$ -	$0	$0	$0	$0	$0	$0	$0	$13,156
Portland	Reticulation	MhP--F/3~MhP--F/2	1960	$ 9,553	$ 9,763	$ -	$0	$0	$0	$0	$0	$0	$0	$9,763
Portland	Reticulation	MhP--F/4~MhP--F/3	1960	$ 16,498	$ 16,861	$ -	$0	$0	$0	$0	$0	$0	$0	$16,861
Portland	Reticulation	MhP--G/1~MhP--F/2	1960	$ 8,090	$ 8,268	$ -	$0	$0	$0	$0	$0	$0	$0	$8,268
Portland	Reticulation	MhP--J/1~MhP--E/5	1960	$ 14,022	$ 14,330	$ -	$0	$0	$0	$0	$0	$0	$0	$14,330
Portland	Reticulation	MhP--J/2~MhP--J/1	1960	$ 5,941	$ 6,071	$ -	$0	$0	$0	$0	$0	$0	$0	$6,071
Portland	Reticulation	MhP--L/1~MhP--E/9	1960	$ 11,547	$ 11,801	$ -	$0	$0	$0	$0	$0	$0	$0	$11,801
Portland	Reticulation	MhP--M/1~MhP--E/10	1960	$ 4,124	$ 4,215	$ -	$0	$0	$0	$0	$0	$0	$0	$4,215
Portland	Reticulation	MhP--M/2~MhP--M/1	1960	$ 20,249	$ 20,694	$ -	$0	$0	$0	$0	$0	$0	$0	$20,694
Portland	Reticulation	MhP--N/1~MhP--M/1	1960	$ 12,263	$ 12,533	$ -	$0	$0	$0	$0	$0	$0	$0	$12,533
Portland	Reticulation	MhP--R/1~MhP--A/5	1960	$ 16,963	$ 17,337	$ -	$0	$0	$0	$0	$0	$0	$0	$17,337
Portland	Reticulation	MhP--R/2~MhP--R/1	1960	$ 7,594	$ 7,761	$ -	$0	$0	$0	$0	$0	$0	$0	$7,761
Portland	Reticulation	MhP--R/3~MhP--R/2	1960	$ 21,238	$ 21,705	$ -	$0	$0	$0	$0	$0	$0	$0	$21,705
Portland	Reticulation	MhP--R/4~MhP--R/3	1960	$ 16,539	$ 16,903	$ -	$0	$0	$0	$0	$0	$0	$0	$16,903
Portland	Reticulation	MhP--T/1~MhP--A/7	1960	$ 6,295	$ 6,434	$ -	$0	$0	$0	$0	$0	$0	$0	$6,434
Portland	Reticulation	MhP--T/2~MhP--T/1	1960	$ 15,218	$ 15,553	$ -	$0	$0	$0	$0	$0	$0	$0	$15,553
Portland	Reticulation	MhP--T/3~MhP--T/2	1960	$ 17,848	$ 18,241	$ -	$0	$0	$0	$0	$0	$0	$0	$18,241
Portland	Reticulation	MhP--T/4~MhP--T/3	1960	$ 10,252	$ 10,477	$ -	$0	$0	$0	$0	$0	$0	$0	$10,477
Portland	Reticulation	MhP--T/5~MhP--T/4	1960	$ 13,518	$ 13,816	$ -	$0	$0	$0	$0	$0	$0	$0	$13,816
Portland	Reticulation	MhP--T/6~MhP--T/5	1960	$ 22,155	$ 22,643	$ -	$0	$0	$0	$0	$0	$0	$0	$22,643
Portland	Reticulation	MhP--T/7~MhP--T/6	1960	$ 19,192	$ 19,614	$ -	$0	$0	$0	$0	$0	$0	$0	$19,614
Portland	Reticulation	MhP--T/8~MhP--T/7	1960	$ 15,988	$ 16,339	$ -	$0	$0	$0	$0	$0	$0	$0	$16,339
Portland	Reticulation	MhP--U/1~MhP--A/8	1960	$ 17,460	$ 17,844	$ -	$0	$0	$0	$0	$0	$0	$0	$17,844
Portland	Reticulation	MhP--U/10~MhP--U/9	1960	$ 14,023	$ 14,331	$ -	$0	$0	$0	$0	$0	$0	$0	$14,331
Portland	Reticulation	MhP--U/11~MhP--U/10	1960	$ 5,639	$ 5,763	$ -	$0	$0	$0	$0	$0	$0	$0	$5,763
Portland	Reticulation	MhP--U/12~MhP--U/11	1960	$ 12,689	$ 12,968	$ -	$0	$0	$0	$0	$0	$0	$0	$12,968
Portland	Reticulation	MhP--U/2~MhP--U/1	1960	$ 14,680	$ 15,003	$ -	$0	$0	$0	$0	$0	$0	$0	$15,003
Portland	Reticulation	MhP--U/3~MhP--U/2	1960	$ 19,425	$ 19,852	$ -	$0	$0	$0	$0	$0	$0	$0	$19,852
Portland	Reticulation	MhP--U/4~MhP--U/3	1990	$ 17,303	$ 17,683	$ -	$0	$0	$0	$0	$0	$0	$0	$17,683
Portland	Reticulation	MhP--U/5~MhP--U/4	1960	$ 8,768	$ 8,961	$ -	$0	$0	$0	$0	$0	$0	$0	$8,961
Portland	Reticulation	MhP--U/6~MhP--U/5	1960	$ 17,573	$ 17,960	$ -	$0	$0	$0	$0	$0	$0	$0	$17,960
Portland	Reticulation	MhP--U/7~MhP--U/6	1960	$ 16,288	$ 16,647	$ -	$0	$0	$0	$0	$0	$0	$0	$16,647
Portland	Reticulation	MhP--U/8~MhP--U/7	1960	$ 7,595	$ 7,762	$ -	$0	$0	$0	$0	$0	$0	$0	$7,762
Portland	Reticulation	MhP--U/9~MhP--U/8	1960	$ 9,049	$ 9,248	$ -	$0	$0	$0	$0	$0	$0	$0	$9,248
Portland	Reticulation	MhP--V/1~MhP--U/1	1960	$ 21,203	$ 21,669	$ -	$0	$0	$0	$0	$0	$0	$0	$21,669
Portland	Reticulation	MhP--V/2~MhP--V/1	1960	$ 16,628	$ 16,994	$ -	$0	$0	$0	$0	$0	$0	$0	$16,994
Portland	Reticulation	MhP--W/1~MhP--U/2	1960	$ 16,682	$ 17,049	$ -	$0	$0	$0	$0	$0	$0	$0	$17,049
Portland	Reticulation	MhP--W/2~MhP--W/1	1960	$ 4,913	$ 5,021	$ -	$0	$0	$0	$0	$0	$0	$0	$5,021
Portland	Reticulation	MhP--W/3~MhP--W/2	1960	$ 15,350	$ 15,688	$ -	$0	$0	$0	$0	$0	$0	$0	$15,688
Portland	Reticulation	MhP--W/4~MhP--W/3	1960	$ 12,691	$ 12,971	$ -	$0	$0	$0	$0	$0	$0	$0	$12,971
Portland	Reticulation	MhP--X/1~MhP--W/1	1960	$ 13,309	$ 13,602	$ -	$0	$0	$0	$0	$0	$0	$0	$13,602
Portland	Reticulation	MhP--X/2~MhP--X/1	1960	$ 8,063	$ 8,240	$ -	$0	$0	$0	$0	$0	$0	$0	$8,240
Portland	Reticulation	MhP--X/3~MhP--X/2	1960	$ 6,573	$ 6,718	$ -	$0	$0	$0	$0	$0	$0	$0	$6,718
Portland	Reticulation	MhP--Z/1~MhP--U/7	1960	$ 8,050	$ 8,227	$ -	$0	$0	$0	$0	$0	$0	$0	$8,227
Portland	Reticulation	MhP--Z/2~MhP--Z/1	1960	$ 12,044	$ 12,309	$ -	$0	$0	$0	$0	$0	$0	$0	$12,309
Portland	Submersible 25m head	Murray St-Portland	1970	$ 164,800	$ 168,426	$ 168,426	$0	$0	$0	$0	$0	$0	$0	$168,426
Portland	Submersible 25m head	Murray St-Portland	1970	$ 164,800	$ 168,426	$ 168,426	$0	$0	$0	$0	$0	$0	$0	$168,426
Shared all	Monitoring	Murray Street Portland	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Portland	Biological Treatment	Portland WWTP Biological Treatmen	1960	$ 37,500	$ 38,325	$ 38,325	$0	$0	$0	$0	$0	$0	$0	$38,325
Portland	Biological Treatment	Portland WWTP Biological Treatmen	1960	$ 521,615	$ 533,091	$ 533,091	$0	$0	$0	$0	$0	$0	$0	$533,091
Portland	Preliminary	Portland WWTP Preliminary Treatme	1960	$ 15,000	$ 15,330	$ 15,330	$0	$0	$0	$0	$0	$0	$0	$15,330
Portland	Preliminary	Portland WWTP Preliminary Treatme	1960	$ 37,500	$ 38,325	$ 38,325	$0	$0	$0	$0	$0	$0	$0	$38,325
Portland	Preliminary	Portland WWTP Preliminary Treatme	1960	$ 52,500	$ 53,655	$ 53,655	$0	$0	$0	$0	$0	$0	$0	$53,655

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Portland	Clarification	Portland WWTP Primary Clarification	1960	$ 52,500	$ 53,655	$ 53,655	$0	$0	$0	$0	$0	$0	$0	$53,655
Portland	Clarification	Portland WWTP Primary Clarification	1960	$ 236,040	$ 241,233	$ 241,233	$0	$0	$0	$0	$0	$0	$0	$241,233
Portland	Process	Portland WWTP Process Systems El	1960	$ 97,500	$ 99,645	$ 99,645	$0	$0	$0	$0	$0	$0	$0	$99,645
Portland	Process	Portland WWTP Process Systems M	1960	$ 240,000	$ 245,280	$ 245,280	$0	$0	$0	$0	$0	$0	$0	$245,280
Portland	Clarification	Portland WWTP Secondary Clarificat	1960	$ 22,500	$ 22,995	$ 22,995	$0	$0	$0	$0	$0	$0	$0	$22,995
Portland	Clarification	Portland WWTP Secondary Clarificat	1960	$ 52,500	$ 53,655	$ 53,655	$0	$0	$0	$0	$0	$0	$0	$53,655
Portland	Clarification	Portland WWTP Secondary Clarificat	1960	$ 213,990	$ 218,698	$ 218,698	$0	$0	$0	$0	$0	$0	$0	$218,698
Portland	Siteworks	Portland WWTP Siteworks Buildings	1960	$ 180,000	$ 183,960	$ 183,960	$0	$0	$0	$0	$0	$0	$0	$183,960
Portland	Siteworks	Portland WWTP Siteworks Buildings	1960	$ 37,500	$ 38,325	$ 38,325	$0	$0	$0	$0	$0	$0	$0	$38,325
Portland	Siteworks	Portland WWTP Siteworks Buildings	1960	$ 30,000	$ 30,660	$ 30,660	$0	$0	$0	$0	$0	$0	$0	$30,660
Portland	Siteworks	Portland WWTP Siteworks Services	1960	$ 97,500	$ 99,645	$ 99,645	$0	$0	$0	$0	$0	$0	$0	$99,645
Portland	Siteworks	Portland WWTP Siteworks Services	1960	$ 37,500	$ 38,325	$ 38,325	$0	$0	$0	$0	$0	$0	$0	$38,325
Portland	Siteworks	Portland WWTP Siteworks Services	1960	$ 67,500	$ 68,985	$ 68,985	$0	$0	$0	$0	$0	$0	$0	$68,985
Portland	Sludge Lagoons	Portland WWTP Sludge Digestion Sl	1960	$ 18,000	$ 18,396	$ 18,396	$0	$0	$0	$0	$0	$0	$0	$18,396
Portland	Sludge Lagoons	Portland WWTP Sludge Digestion Sl	1960	$ 121,500	$ 124,173	$ 124,173	$0	$0	$0	$0	$0	$0	$0	$124,173
Portland	Sludge Lagoons	Portland WWTP Sludge Digestion Sl	1960	$ 738,462	$ 754,708	$ 754,708	$0	$0	$0	$0	$0	$0	$0	$754,708
Portland	Rising Mains	SPS1143~MhP--U/12	1960	$ 25,019	$ 25,569	$ 25,569	$0	$0	$0	$0	$0	$0	$0	$25,569
Portland	Rising Mains	SPS447~MhP-479	1960	$ 58,412	$ 59,697	$ 59,697	$0	$0	$0	$0	$0	$0	$0	$59,697
Portland	Rising Mains	SPS619~MhP-681	1960	$ 3,649	$ 3,730	$ 3,730	$0	$0	$0	$0	$0	$0	$0	$3,730
Portland	Rising Mains	SPS678~MhP-CL/25	1960	$ 5,349	$ 5,466	$ 5,466	$0	$0	$0	$0	$0	$0	$0	$5,466
Portland	Rising Mains	SPS694~MhP-CT/4	1960	$ 5,662	$ 5,787	$ 5,787	$0	$0	$0	$0	$0	$0	$0	$5,787
Portland	Rising Mains	SPS731~MhP--B/5	1960	$ 32,571	$ 33,288	$ 33,288	$0	$0	$0	$0	$0	$0	$0	$33,288
Wallerawang	Reticulation	DEW-1392~MhW-1184	2005	$ 4,718	$ 4,821	$ -	$0	$0	$0	$0	$0	$0	$0	$4,821
Wallerawang	Reticulation	DEW-226~MhW-257	1965	$ 3,358	$ 3,432	$ -	$0	$0	$0	$0	$0	$0	$0	$3,432
Wallerawang	Reticulation	DEW-227~MhW-246	1983	$ 5,100	$ 5,212	$ -	$0	$0	$0	$0	$0	$0	$0	$5,212
Wallerawang	Reticulation	DEW-236~MhW-1167	2005	$ 6,072	$ 6,205	$ -	$0	$0	$0	$0	$0	$0	$0	$6,205
Wallerawang	Reticulation	DEW-238~MhW-1241	2005	$ 9,863	$ 10,080	$ -	$0	$0	$0	$0	$0	$0	$0	$10,080
Wallerawang	Reticulation	DEW-239~MhW-1238	2005	$ 12,865	$ 13,148	$ -	$0	$0	$0	$0	$0	$0	$0	$13,148
Wallerawang	Reticulation	DEW-240~MhW-1267	2005	$ 13,163	$ 13,453	$ -	$0	$0	$0	$0	$0	$0	$0	$13,453
Wallerawang	Reticulation	DEW-241~MhW-1272	2005	$ 9,473	$ 9,682	$ -	$0	$0	$0	$0	$0	$0	$0	$9,682
Wallerawang	Reticulation	DEW-242~MhW-1279	2005	$ 5,773	$ 5,900	$ -	$0	$0	$0	$0	$0	$0	$0	$5,900
Wallerawang	Reticulation	DEW-243~MhW-1276	2005	$ 7,265	$ 7,425	$ -	$0	$0	$0	$0	$0	$0	$0	$7,425
Wallerawang	Reticulation	DEW-244~MhW-1284	2005	$ 5,613	$ 5,736	$ -	$0	$0	$0	$0	$0	$0	$0	$5,736
Wallerawang	Reticulation	DEW-245~MhW-1291	2005	$ 7,803	$ 7,975	$ -	$0	$0	$0	$0	$0	$0	$0	$7,975
Wallerawang	Reticulation	DEW-249~MhW-252	2005	$ 4,516	$ 4,615	$ -	$0	$0	$0	$0	$0	$0	$0	$4,615
Wallerawang	Reticulation	DEW-250~MhW-1286	2005	$ 3,919	$ 4,006	$ -	$0	$0	$0	$0	$0	$0	$0	$4,006
Wallerawang	Reticulation	DEW-251~MhW-1327	2005	$ 10,083	$ 10,305	$ -	$0	$0	$0	$0	$0	$0	$0	$10,305
Wallerawang	Reticulation	DEW-252~MhW-1327	2005	$ 4,656	$ 4,759	$ -	$0	$0	$0	$0	$0	$0	$0	$4,759
Wallerawang	Reticulation	DEW-253~MhW-1257	2005	$ 8,252	$ 8,433	$ -	$0	$0	$0	$0	$0	$0	$0	$8,433
Wallerawang	Reticulation	DEW-254~MhW-831	1965	$ 10,662	$ 10,896	$ -	$0	$0	$0	$0	$0	$0	$0	$10,896
Wallerawang	Reticulation	DEW-256~MhW-1295	2005	$ 10,934	$ 11,175	$ -	$0	$0	$0	$0	$0	$0	$0	$11,175
Wallerawang	Reticulation	DEW-257~MhW-1183	2005	$ 3,932	$ 4,019	$ -	$0	$0	$0	$0	$0	$0	$0	$4,019
Wallerawang	Reticulation	DEW-258~MhW-1176	2005	$ 3,476	$ 3,552	$ -	$0	$0	$0	$0	$0	$0	$0	$3,552
Wallerawang	Reticulation	DEW-259~MhW-1300	1965	$ 19,972	$ 20,411	$ -	$0	$0	$0	$0	$0	$0	$0	$20,411
Wallerawang	Reticulation	DEW-260~MhW-259	2005	$ 10,131	$ 10,354	$ -	$0	$0	$0	$0	$0	$0	$0	$10,354
Wallerawang	Reticulation	DEW-AB~MhW-AB/3	1965	$ 7,400	$ 7,563	$ -	$0	$0	$0	$0	$0	$0	$0	$7,563
Wallerawang	Reticulation	DEW-AG~MhW-AG/4	1965	$ 4,042	$ 4,131	$ -	$0	$0	$0	$0	$0	$0	$0	$4,131
Wallerawang	Reticulation	DEW-AH~MhW-AH/1	1965	$ 6,156	$ 6,291	$ -	$0	$0	$0	$0	$0	$0	$0	$6,291
Wallerawang	Reticulation	DEW-AK~MhW-AK/2	1965	$ 12,513	$ 12,788	$ -	$0	$0	$0	$0	$0	$0	$0	$12,788
Wallerawang	Reticulation	DEW-AL~MhW-AL/6	1965	$ 5,518	$ 5,640	$ -	$0	$0	$0	$0	$0	$0	$0	$5,640
Wallerawang	Reticulation	DEW--B~MhW--B/10	1965	$ 6,332	$ 6,471	$ -	$0	$0	$0	$0	$0	$0	$0	$6,471
Wallerawang	Reticulation	DEW--F~MhW--E/4	1965	$ 5,511	$ 5,632	$ -	$0	$0	$0	$0	$0	$0	$0	$5,632
Wallerawang	Reticulation	DEW--G~MhW--E/3	1965	$ 4,065	$ 4,154	$ -	$0	$0	$0	$0	$0	$0	$0	$4,154
Wallerawang	Reticulation	DEW--H~MhW--H/1	1965	$ 5,488	$ 5,608	$ -	$0	$0	$0	$0	$0	$0	$0	$5,608
Wallerawang	Reticulation	DEW--J~MhW--J/1	1965	$ 7,097	$ 7,253	$ -	$0	$0	$0	$0	$0	$0	$0	$7,253
Wallerawang	Reticulation	DEW--K~MhW--K/5	1965	$ 13,625	$ 13,924	$ -	$0	$0	$0	$0	$0	$0	$0	$13,924
Wallerawang	Reticulation	DEW--L~MhW--L/12	1965	$ 8,441	$ 8,626	$ -	$0	$0	$0	$0	$0	$0	$0	$8,626
Wallerawang	Reticulation	DEW--M~MhW--M/1	1965	$ 444	$ 453	$ -	$0	$0	$0	$0	$0	$0	$0	$453
Wallerawang	Reticulation	DEW--N~MhW--N/8	1965	$ 11,036	$ 11,279	$ -	$0	$0	$0	$0	$0	$0	$0	$11,279
Wallerawang	Reticulation	DEW--T~MhW--T/8	1965	$ 12,398	$ 12,671	$ -	$0	$0	$0	$0	$0	$0	$0	$12,671
Wallerawang	Reticulation	DEW--U~MhW--T/7	1965	$ 7,897	$ 8,071	$ -	$0	$0	$0	$0	$0	$0	$0	$8,071
Wallerawang	Reticulation	DEW--W~MhW--W/1	1965	$ 9,139	$ 9,340	$ -	$0	$0	$0	$0	$0	$0	$0	$9,340
Wallerawang	Submersible 25m head	Duncan St	1970	$ 207,648	$ 212,216	$ 212,216	$0	$0	$0	$0	$0	$0	$0	$212,216
Wallerawang	Submersible 25m head	Duncan St	1970	$ 224,952	$ 229,901	$ 229,901	$0	$0	$0	$0	$0	$0	$0	$229,901
Shared all	Monitoring	Duncan Street	2015	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Lake Wallace	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Wallerawang	Submersible 25m head	Lake Wallace	1978	$ 207,648	$ 212,216	$ 212,216	$0	$0	$0	$0	$0	$0	$0	$212,216
Wallerawang	Submersible 25m head	Lake Wallace	1978	$ 224,952	$ 229,901	$ 229,901	$0	$0	$0	$0	$0	$0	$0	$229,901
Shared all	Monitoring	Maddox Lane	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Wallerawang	Submersible 25m head	Maddox Lane	1970	$ 164,800	$ 168,426	$ 168,426	$0	$0	$0	$0	$0	$0	$0	$168,426

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Submersible 25m head	Maddox Lane	1970	$ 164,800	$ 168,426	$ 168,426	$0	$0	$0	$0	$0	$0	$0	$168,426
Wallerawang	Reticulation	Mh900~Mh910	1960	$ 15,564	$ 15,906	$ -	$0	$0	$0	$0	$0	$0	$0	$15,906
Wallerawang	Reticulation	Mh910~Mh911	1960	$ 16,299	$ 16,658	$ -	$0	$0	$0	$0	$0	$0	$0	$16,658
Wallerawang	Reticulation	Mh911~Mh912	1960	$ 15,686	$ 16,031	$ -	$0	$0	$0	$0	$0	$0	$0	$16,031
Wallerawang	Reticulation	Mh912~Mh913	1960	$ 15,915	$ 16,265	$ -	$0	$0	$0	$0	$0	$0	$0	$16,265
Wallerawang	Reticulation	Mh915~Mh963	1960	$ 21,609	$ 22,085	$ -	$0	$0	$0	$0	$0	$0	$0	$22,085
Wallerawang	Reticulation	Mh923~Mh937	1960	$ 11,970	$ 12,233	$ -	$0	$0	$0	$0	$0	$0	$0	$12,233
Wallerawang	Reticulation	Mh930~Mh932	1960	$ 6,860	$ 7,011	$ -	$0	$0	$0	$0	$0	$0	$0	$7,011
Wallerawang	Reticulation	Mh931~Mh933	1960	$ 9,580	$ 9,791	$ -	$0	$0	$0	$0	$0	$0	$0	$9,791
Wallerawang	Reticulation	Mh932~Mh931	1960	$ 6,537	$ 6,681	$ -	$0	$0	$0	$0	$0	$0	$0	$6,681
Wallerawang	Reticulation	Mh933~Mh937	1960	$ 12,196	$ 12,465	$ -	$0	$0	$0	$0	$0	$0	$0	$12,465
Wallerawang	Reticulation	Mh940~Mh941	1960	$ 16,522	$ 16,885	$ -	$0	$0	$0	$0	$0	$0	$0	$16,885
Wallerawang	Reticulation	Mh941~Mh962	1960	$ 15,881	$ 16,230	$ -	$0	$0	$0	$0	$0	$0	$0	$16,230
Wallerawang	Reticulation	Mh942~Mh939	1960	$ 15,862	$ 16,211	$ -	$0	$0	$0	$0	$0	$0	$0	$16,211
Wallerawang	Reticulation	Mh943~Mh944	1960	$ 15,422	$ 15,761	$ -	$0	$0	$0	$0	$0	$0	$0	$15,761
Wallerawang	Reticulation	Mh944~Mh942	1960	$ 17,539	$ 17,925	$ -	$0	$0	$0	$0	$0	$0	$0	$17,925
Wallerawang	Reticulation	Mh945~Mh943	1960	$ 14,433	$ 14,750	$ -	$0	$0	$0	$0	$0	$0	$0	$14,750
Wallerawang	Reticulation	Mh946~Mh945	1960	$ 14,169	$ 14,481	$ -	$0	$0	$0	$0	$0	$0	$0	$14,481
Wallerawang	Reticulation	Mh947~Mh946	1960	$ 11,271	$ 11,519	$ -	$0	$0	$0	$0	$0	$0	$0	$11,519
Wallerawang	Reticulation	Mh948~Mh947	1960	$ 13,348	$ 13,641	$ -	$0	$0	$0	$0	$0	$0	$0	$13,641
Wallerawang	Reticulation	Mh949~Mh948	1960	$ 11,981	$ 12,245	$ -	$0	$0	$0	$0	$0	$0	$0	$12,245
Wallerawang	Reticulation	Mh950~Mh949	1960	$ 22,137	$ 22,624	$ -	$0	$0	$0	$0	$0	$0	$0	$22,624
Wallerawang	Reticulation	Mh951~Mh950	1960	$ 19,512	$ 19,941	$ -	$0	$0	$0	$0	$0	$0	$0	$19,941
Wallerawang	Reticulation	Mh952~Mh935	1960	$ 2,693	$ 2,753	$ -	$0	$0	$0	$0	$0	$0	$0	$2,753
Wallerawang	Reticulation	Mh953~Mh952	1960	$ 9,425	$ 9,632	$ -	$0	$0	$0	$0	$0	$0	$0	$9,632
Wallerawang	Reticulation	Mh954~Mh955	1960	$ 5,538	$ 5,660	$ -	$0	$0	$0	$0	$0	$0	$0	$5,660
Wallerawang	Reticulation	Mh954~Mh955	1960	$ 5,538	$ 5,660	$ -	$0	$0	$0	$0	$0	$0	$0	$5,660
Wallerawang	Reticulation	Mh955~Mh956	1960	$ 15,071	$ 15,403	$ -	$0	$0	$0	$0	$0	$0	$0	$15,403
Wallerawang	Reticulation	Mh955~Mh956	1960	$ 15,071	$ 15,403	$ -	$0	$0	$0	$0	$0	$0	$0	$15,403
Wallerawang	Reticulation	Mh956~Mh957	1960	$ 16,033	$ 16,386	$ -	$0	$0	$0	$0	$0	$0	$0	$16,386
Wallerawang	Reticulation	Mh956~Mh957	1960	$ 16,033	$ 16,386	$ -	$0	$0	$0	$0	$0	$0	$0	$16,386
Wallerawang	Reticulation	Mh957~Mh958	1960	$ 4,054	$ 4,143	$ -	$0	$0	$0	$0	$0	$0	$0	$4,143
Wallerawang	Reticulation	Mh958~Mh959	1960	$ 4,859	$ 4,966	$ -	$0	$0	$0	$0	$0	$0	$0	$4,966
Wallerawang	Reticulation	Mh959~SPS965	1960	$ 2,466	$ 2,520	$ -	$0	$0	$0	$0	$0	$0	$0	$2,520
Wallerawang	Reticulation	Mh960~Mh958	1960	$ 19,516	$ 19,945	$ -	$0	$0	$0	$0	$0	$0	$0	$19,945
Wallerawang	Reticulation	Mh961~Mh960	1960	$ 19,060	$ 19,480	$ -	$0	$0	$0	$0	$0	$0	$0	$19,480
Wallerawang	Reticulation	Mh962~Mh961	1960	$ 19,496	$ 19,925	$ -	$0	$0	$0	$0	$0	$0	$0	$19,925
Wallerawang	Reticulation	Mh963~SPS964	1960	$ 3,641	$ 3,721	$ -	$0	$0	$0	$0	$0	$0	$0	$3,721
Wallerawang	Reticulation	MhW-1151~MhW-1158	2005	$ 2,007	$ 2,051	$ -	$0	$0	$0	$0	$0	$0	$0	$2,051
Wallerawang	Reticulation	MhW-1152~MhW-1161	2005	$ 17,052	$ 17,427	$ -	$0	$0	$0	$0	$0	$0	$0	$17,427
Wallerawang	Reticulation	MhW-1153~MhW-1157	2005	$ 7,859	$ 8,032	$ -	$0	$0	$0	$0	$0	$0	$0	$8,032
Wallerawang	Reticulation	MhW-1154~MhW-1156	2005	$ 21,132	$ 21,597	$ -	$0	$0	$0	$0	$0	$0	$0	$21,597
Wallerawang	Reticulation	MhW-1155~MhW-1151	2005	$ 19,648	$ 20,080	$ -	$0	$0	$0	$0	$0	$0	$0	$20,080
Wallerawang	Reticulation	MhW-1156~MhW-1155	2005	$ 4,781	$ 4,886	$ -	$0	$0	$0	$0	$0	$0	$0	$4,886
Wallerawang	Reticulation	MhW-1157~MhW-1156	2005	$ 8,402	$ 8,587	$ -	$0	$0	$0	$0	$0	$0	$0	$8,587
Wallerawang	Reticulation	MhW-1158~MhW-AE/8	1965	$ 18,488	$ 18,894	$ -	$0	$0	$0	$0	$0	$0	$0	$18,894
Wallerawang	Reticulation	MhW-1159~MhW-1158	2005	$ 11,304	$ 11,553	$ -	$0	$0	$0	$0	$0	$0	$0	$11,553
Wallerawang	Reticulation	MhW-1160~MhW-1159	2005	$ 10,458	$ 10,688	$ -	$0	$0	$0	$0	$0	$0	$0	$10,688
Wallerawang	Reticulation	MhW-1161~MhW-1158	2005	$ 18,799	$ 19,212	$ -	$0	$0	$0	$0	$0	$0	$0	$19,212
Wallerawang	Reticulation	MhW-1162~MhW-1164	2005	$ 14,979	$ 15,308	$ -	$0	$0	$0	$0	$0	$0	$0	$15,308
Wallerawang	Reticulation	MhW-1163~MhW-1162	2005	$ 4,519	$ 4,618	$ -	$0	$0	$0	$0	$0	$0	$0	$4,618
Wallerawang	Reticulation	MhW-1164~MhW-1165	2005	$ 10,812	$ 11,050	$ -	$0	$0	$0	$0	$0	$0	$0	$11,050
Wallerawang	Reticulation	MhW-1165~MhW-1169	2005	$ 9,491	$ 9,700	$ -	$0	$0	$0	$0	$0	$0	$0	$9,700
Wallerawang	Reticulation	MhW-1166~MhW-AH/1a	2005	$ 13,898	$ 14,203	$ -	$0	$0	$0	$0	$0	$0	$0	$14,203
Wallerawang	Reticulation	MhW-1167~MhW-1154	2005	$ 1,788	$ 1,827	$ -	$0	$0	$0	$0	$0	$0	$0	$1,827
Wallerawang	Reticulation	MhW-1168~MhW-1154	2005	$ 8,425	$ 8,611	$ -	$0	$0	$0	$0	$0	$0	$0	$8,611
Wallerawang	Reticulation	MhW-1169~MhW-1168	2005	$ 3,040	$ 3,106	$ -	$0	$0	$0	$0	$0	$0	$0	$3,106
Wallerawang	Reticulation	MhW-1170~MhW-1168	2005	$ 4,641	$ 4,743	$ -	$0	$0	$0	$0	$0	$0	$0	$4,743
Wallerawang	Reticulation	MhW-1171~MhW-1170	2005	$ 13,770	$ 14,073	$ -	$0	$0	$0	$0	$0	$0	$0	$14,073
Wallerawang	Reticulation	MhW-1172~MhW-1165	2005	$ 23,929	$ 24,456	$ -	$0	$0	$0	$0	$0	$0	$0	$24,456
Wallerawang	Reticulation	MhW-1173~MhW-1164	2005	$ 28,494	$ 29,121	$ -	$0	$0	$0	$0	$0	$0	$0	$29,121
Wallerawang	Reticulation	MhW-1174~MhW-1163	2005	$ 23,338	$ 23,851	$ -	$0	$0	$0	$0	$0	$0	$0	$23,851
Wallerawang	Reticulation	MhW-1175~MhW-1172	2005	$ 16,748	$ 17,117	$ -	$0	$0	$0	$0	$0	$0	$0	$17,117
Wallerawang	Reticulation	MhW-1176~MhW-1177	2005	$ 3,731	$ 3,813	$ -	$0	$0	$0	$0	$0	$0	$0	$3,813
Wallerawang	Reticulation	MhW-1177~MhW-1174	2005	$ 13,459	$ 13,755	$ -	$0	$0	$0	$0	$0	$0	$0	$13,755
Wallerawang	Reticulation	MhW-1178~MhW-1177	2005	$ 918	$ 938	$ -	$0	$0	$0	$0	$0	$0	$0	$938
Wallerawang	Reticulation	MhW-1179~MhW-1178	2005	$ 6,885	$ 7,036	$ -	$0	$0	$0	$0	$0	$0	$0	$7,036
Wallerawang	Reticulation	MhW-1180~MhW-1171	2005	$ 26,948	$ 27,541	$ -	$0	$0	$0	$0	$0	$0	$0	$27,541
Wallerawang	Reticulation	MhW-1181~MhW-1173	2005	$ 23,748	$ 24,271	$ -	$0	$0	$0	$0	$0	$0	$0	$24,271
Wallerawang	Reticulation	MhW-1182~MhW-1296	2005	$ 2,769	$ 2,830	$ -	$0	$0	$0	$0	$0	$0	$0	$2,830

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Reticulation	MhW-1183~MhW-1181	2005	$ 19,798	$ 20,234	$ -	$0	$0	$0	$0	$0	$0	$0	$20,234
Wallerawang	Reticulation	MhW-1184~MhW-1185	2005	$ 9,537	$ 9,747	$ -	$0	$0	$0	$0	$0	$0	$0	$9,747
Wallerawang	Reticulation	MhW-1185~MhW-1187	2005	$ 7,686	$ 7,855	$ -	$0	$0	$0	$0	$0	$0	$0	$7,855
Wallerawang	Reticulation	MhW-1186~MhW-1185	2005	$ 6,107	$ 6,242	$ -	$0	$0	$0	$0	$0	$0	$0	$6,242
Wallerawang	Reticulation	MhW-1187~MhW-1188	2005	$ 8,951	$ 9,147	$ -	$0	$0	$0	$0	$0	$0	$0	$9,147
Wallerawang	Reticulation	MhW-1188~MhW-1189	2005	$ 8,945	$ 9,142	$ -	$0	$0	$0	$0	$0	$0	$0	$9,142
Wallerawang	Reticulation	MhW-1189~MhW-1179	2005	$ 12,543	$ 12,819	$ -	$0	$0	$0	$0	$0	$0	$0	$12,819
Wallerawang	Reticulation	MhW-1190~MhW-1186	2005	$ 20,665	$ 21,120	$ -	$0	$0	$0	$0	$0	$0	$0	$21,120
Wallerawang	Reticulation	MhW-1191~MhW-1188	2005	$ 29,998	$ 30,658	$ -	$0	$0	$0	$0	$0	$0	$0	$30,658
Wallerawang	Reticulation	MhW-1192~MhW-1191	2005	$ 9,088	$ 9,288	$ -	$0	$0	$0	$0	$0	$0	$0	$9,288
Wallerawang	Reticulation	MhW-1193~MhW-1192	2005	$ 23,113	$ 23,622	$ -	$0	$0	$0	$0	$0	$0	$0	$23,622
Wallerawang	Reticulation	MhW-1194~MhW-1193	2005	$ 22,024	$ 22,509	$ -	$0	$0	$0	$0	$0	$0	$0	$22,509
Wallerawang	Reticulation	MhW-1195~MhW-1194	2005	$ 5,174	$ 5,288	$ -	$0	$0	$0	$0	$0	$0	$0	$5,288
Wallerawang	Reticulation	MhW-1231~MhW--L/5	2005	$ 17,116	$ 17,492	$ -	$0	$0	$0	$0	$0	$0	$0	$17,492
Wallerawang	Reticulation	MhW-1232~MhW-1231	2005	$ 21,558	$ 22,032	$ -	$0	$0	$0	$0	$0	$0	$0	$22,032
Wallerawang	Reticulation	MhW-1233~MhW-1232	2005	$ 20,846	$ 21,305	$ -	$0	$0	$0	$0	$0	$0	$0	$21,305
Wallerawang	Reticulation	MhW-1237~MhW-1239	2005	$ 11,205	$ 11,451	$ -	$0	$0	$0	$0	$0	$0	$0	$11,451
Wallerawang	Reticulation	MhW-1238~MhW-1237	2005	$ 3,596	$ 3,675	$ -	$0	$0	$0	$0	$0	$0	$0	$3,675
Wallerawang	Reticulation	MhW-1239~MhW-1240	2005	$ 9,320	$ 9,525	$ -	$0	$0	$0	$0	$0	$0	$0	$9,525
Wallerawang	Reticulation	MhW-1240~MhW-1242	2005	$ 13,293	$ 13,586	$ -	$0	$0	$0	$0	$0	$0	$0	$13,586
Wallerawang	Reticulation	MhW-1241~MhW-1240	2005	$ 14,719	$ 15,042	$ -	$0	$0	$0	$0	$0	$0	$0	$15,042
Wallerawang	Reticulation	MhW-1242~MhW-1243	2005	$ 17,592	$ 17,979	$ -	$0	$0	$0	$0	$0	$0	$0	$17,979
Wallerawang	Reticulation	MhW-1243~MhW-1245	2005	$ 10,532	$ 10,763	$ -	$0	$0	$0	$0	$0	$0	$0	$10,763
Wallerawang	Reticulation	MhW-1244~MhW-1243	2005	$ 8,744	$ 8,936	$ -	$0	$0	$0	$0	$0	$0	$0	$8,936
Wallerawang	Reticulation	MhW-1245~MhW-1246	2005	$ 13,245	$ 13,536	$ -	$0	$0	$0	$0	$0	$0	$0	$13,536
Wallerawang	Reticulation	MhW-1246~MhW-1247	2005	$ 17,246	$ 17,625	$ -	$0	$0	$0	$0	$0	$0	$0	$17,625
Wallerawang	Reticulation	MhW-1247~MhW-1248	2005	$ 28,790	$ 29,423	$ -	$0	$0	$0	$0	$0	$0	$0	$29,423
Wallerawang	Reticulation	MhW-1248~MhW-1249	2005	$ 25,128	$ 25,681	$ -	$0	$0	$0	$0	$0	$0	$0	$25,681
Wallerawang	Reticulation	MhW-1249~MhW--A/21	2005	$ 26,551	$ 27,135	$ -	$0	$0	$0	$0	$0	$0	$0	$27,135
Wallerawang	Reticulation	MhW-1251~MhW--C/1	2005	$ 4,496	$ 4,595	$ -	$0	$0	$0	$0	$0	$0	$0	$4,595
Wallerawang	Reticulation	MhW-1252~MhW-1251	2005	$ 12,232	$ 12,501	$ -	$0	$0	$0	$0	$0	$0	$0	$12,501
Wallerawang	Reticulation	MhW-1253~MhW-1252	2005	$ 28,749	$ 29,381	$ -	$0	$0	$0	$0	$0	$0	$0	$29,381
Wallerawang	Reticulation	MhW-1254~MhW-1255	2005	$ 7,382	$ 7,545	$ -	$0	$0	$0	$0	$0	$0	$0	$7,545
Wallerawang	Reticulation	MhW-1255~MhW-1260	2005	$ 9,068	$ 9,267	$ -	$0	$0	$0	$0	$0	$0	$0	$9,267
Wallerawang	Reticulation	MhW-1256~MhW-251	1983	$ 8,629	$ 8,819	$ -	$0	$0	$0	$0	$0	$0	$0	$8,819
Wallerawang	Reticulation	MhW-1257~MhW-258	2005	$ 13,836	$ 14,141	$ -	$0	$0	$0	$0	$0	$0	$0	$14,141
Wallerawang	Reticulation	MhW-1258~MhW-1259	2005	$ 14,736	$ 15,061	$ -	$0	$0	$0	$0	$0	$0	$0	$15,061
Wallerawang	Reticulation	MhW-1259~MhW-1253	2005	$ 17,312	$ 17,693	$ -	$0	$0	$0	$0	$0	$0	$0	$17,693
Wallerawang	Reticulation	MhW-1260~MhW-1259	2005	$ 23,085	$ 23,593	$ -	$0	$0	$0	$0	$0	$0	$0	$23,593
Wallerawang	Reticulation	MhW-1261~MhW-1262	2005	$ 21,884	$ 22,366	$ -	$0	$0	$0	$0	$0	$0	$0	$22,366
Wallerawang	Reticulation	MhW-1262~MhW-1263	2005	$ 13,066	$ 13,354	$ -	$0	$0	$0	$0	$0	$0	$0	$13,354
Wallerawang	Reticulation	MhW-1263~MhW-1264	2005	$ 6,286	$ 6,424	$ -	$0	$0	$0	$0	$0	$0	$0	$6,424
Wallerawang	Reticulation	MhW-1264~MhW-1267	2005	$ 15,700	$ 16,046	$ -	$0	$0	$0	$0	$0	$0	$0	$16,046
Wallerawang	Reticulation	MhW-1266~SPS1265	2005	$ 6,061	$ 6,195	$ -	$0	$0	$0	$0	$0	$0	$0	$6,195
Wallerawang	Reticulation	MhW-1267~MhW-1266	2005	$ 14,790	$ 15,115	$ -	$0	$0	$0	$0	$0	$0	$0	$15,115
Wallerawang	Reticulation	MhW-1268~MhW-1263	2005	$ 14,099	$ 14,409	$ -	$0	$0	$0	$0	$0	$0	$0	$14,409
Wallerawang	Reticulation	MhW-1269~MhW-1268	2005	$ 11,406	$ 11,657	$ -	$0	$0	$0	$0	$0	$0	$0	$11,657
Wallerawang	Reticulation	MhW-1270~MhW-1263	2005	$ 27,785	$ 28,396	$ -	$0	$0	$0	$0	$0	$0	$0	$28,396
Wallerawang	Reticulation	MhW-1271~MhW-1270	2005	$ 7,296	$ 7,456	$ -	$0	$0	$0	$0	$0	$0	$0	$7,456
Wallerawang	Reticulation	MhW-1272~MhW-1270	2005	$ 15,157	$ 15,491	$ -	$0	$0	$0	$0	$0	$0	$0	$15,491
Wallerawang	Reticulation	MhW-1273~MhW-1272	2005	$ 18,312	$ 18,714	$ -	$0	$0	$0	$0	$0	$0	$0	$18,714
Wallerawang	Reticulation	MhW-1274~MhW-1271	2005	$ 6,732	$ 6,880	$ -	$0	$0	$0	$0	$0	$0	$0	$6,880
Wallerawang	Reticulation	MhW-1275~MhW-1274	2005	$ 8,441	$ 8,626	$ -	$0	$0	$0	$0	$0	$0	$0	$8,626
Wallerawang	Reticulation	MhW-1276~MhW-1275	2005	$ 8,168	$ 8,347	$ -	$0	$0	$0	$0	$0	$0	$0	$8,347
Wallerawang	Reticulation	MhW-1277~MhW-1276	2005	$ 6,740	$ 6,888	$ -	$0	$0	$0	$0	$0	$0	$0	$6,888
Wallerawang	Reticulation	MhW-1278~MhW-1277	2005	$ 12,725	$ 13,004	$ -	$0	$0	$0	$0	$0	$0	$0	$13,004
Wallerawang	Reticulation	MhW-1279~MhW-1280	2005	$ 17,794	$ 18,185	$ -	$0	$0	$0	$0	$0	$0	$0	$18,185
Wallerawang	Reticulation	MhW-1280~MhW-1269	2005	$ 9,754	$ 9,968	$ -	$0	$0	$0	$0	$0	$0	$0	$9,968
Wallerawang	Reticulation	MhW-1281~MhW-1279	2005	$ 9,050	$ 9,249	$ -	$0	$0	$0	$0	$0	$0	$0	$9,249
Wallerawang	Reticulation	MhW-1282~MhW-1281	2005	$ 12,243	$ 12,512	$ -	$0	$0	$0	$0	$0	$0	$0	$12,512
Wallerawang	Reticulation	MhW-1283~MhW-1269	2005	$ 16,106	$ 16,460	$ -	$0	$0	$0	$0	$0	$0	$0	$16,460
Wallerawang	Reticulation	MhW-1284~MhW-1285	2005	$ 6,100	$ 6,234	$ -	$0	$0	$0	$0	$0	$0	$0	$6,234
Wallerawang	Reticulation	MhW-1285~MhW-1283	2005	$ 9,432	$ 9,640	$ -	$0	$0	$0	$0	$0	$0	$0	$9,640
Wallerawang	Reticulation	MhW-1286~MhW-1283	2005	$ 10,205	$ 10,430	$ -	$0	$0	$0	$0	$0	$0	$0	$10,430
Wallerawang	Reticulation	MhW-1287~MhW-1286	2005	$ 7,892	$ 8,066	$ -	$0	$0	$0	$0	$0	$0	$0	$8,066
Wallerawang	Reticulation	MhW-1288~MhW-1287	2005	$ 8,084	$ 8,261	$ -	$0	$0	$0	$0	$0	$0	$0	$8,261
Wallerawang	Reticulation	MhW-1289~MhW-1288	2005	$ 13,395	$ 13,690	$ -	$0	$0	$0	$0	$0	$0	$0	$13,690
Wallerawang	Reticulation	MhW-1290~MhW-1289	2005	$ 3,499	$ 3,576	$ -	$0	$0	$0	$0	$0	$0	$0	$3,576
Wallerawang	Reticulation	MhW-1291~MhW-1290	2005	$ 3,833	$ 3,917	$ -	$0	$0	$0	$0	$0	$0	$0	$3,917
Wallerawang	Reticulation	MhW-1292~MhW--V/12	2005	$ 16,524	$ 16,888	$ -	$0	$0	$0	$0	$0	$0	$0	$16,888

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Reticulation	MhW-1293~MhW-1292	2005	$ 11,238	$ 11,485	$ -	$0	$0	$0	$0	$0	$0	$0	$11,485
Wallerawang	Reticulation	MhW-1294~MhW-1293	2005	$ 12,615	$ 12,892	$ -	$0	$0	$0	$0	$0	$0	$0	$12,892
Wallerawang	Reticulation	MhW-1295~MhW-1294	2005	$ 13,206	$ 13,497	$ -	$0	$0	$0	$0	$0	$0	$0	$13,497
Wallerawang	Reticulation	MhW-1296~MhW-1180	2005	$ 30,791	$ 31,469	$ -	$0	$0	$0	$0	$0	$0	$0	$31,469
Wallerawang	Reticulation	MhW-1297~MhW-1296	2005	$ 10,486	$ 10,716	$ -	$0	$0	$0	$0	$0	$0	$0	$10,716
Wallerawang	Reticulation	MhW-1298~MhW-1297	2005	$ 11,985	$ 12,249	$ -	$0	$0	$0	$0	$0	$0	$0	$12,249
Wallerawang	Reticulation	MhW-1299~MhW-1156	2005	$ 22,137	$ 22,624	$ -	$0	$0	$0	$0	$0	$0	$0	$22,624
Wallerawang	Reticulation	MhW-1300~MhW-AF/1	1965	$ 7,512	$ 7,678	$ -	$0	$0	$0	$0	$0	$0	$0	$7,678
Wallerawang	Reticulation	MhW-1301~MhW-1161	2005	$ 6,543	$ 6,687	$ -	$0	$0	$0	$0	$0	$0	$0	$6,687
Wallerawang	Reticulation	MhW-1302~MhW-1303	2005	$ 4,294	$ 4,389	$ -	$0	$0	$0	$0	$0	$0	$0	$4,389
Wallerawang	Reticulation	MhW-1303~MhW-1157	2005	$ 7,941	$ 8,115	$ -	$0	$0	$0	$0	$0	$0	$0	$8,115
Wallerawang	Reticulation	MhW-1304~MhW-1305	2005	$ 7,349	$ 7,511	$ -	$0	$0	$0	$0	$0	$0	$0	$7,511
Wallerawang	Reticulation	MhW-1305~MhW-1168	2005	$ 2,749	$ 2,809	$ -	$0	$0	$0	$0	$0	$0	$0	$2,809
Wallerawang	Reticulation	MhW-1306~MhW-1302	2005	$ 80,631	$ 82,405	$ -	$0	$0	$0	$0	$0	$0	$0	$82,405
Wallerawang	Reticulation	MhW-1307~MhW-1306	2005	$ 38,602	$ 39,451	$ -	$0	$0	$0	$0	$0	$0	$0	$39,451
Wallerawang	Reticulation	MhW-1326~MhW-259	2005	$ 12,630	$ 12,908	$ -	$0	$0	$0	$0	$0	$0	$0	$12,908
Wallerawang	Reticulation	MhW-1327~MhW-1258	2005	$ 10,572	$ 10,805	$ -	$0	$0	$0	$0	$0	$0	$0	$10,805
Wallerawang	Reticulation	MhW-236~MhW-237	1965	$ 13,380	$ 13,674	$ -	$0	$0	$0	$0	$0	$0	$0	$13,674
Wallerawang	Reticulation	MhW-237~MhW--A/32	1965	$ 3,256	$ 3,328	$ -	$0	$0	$0	$0	$0	$0	$0	$3,328
Wallerawang	Reticulation	MhW-238~MhW-236	1965	$ 17,164	$ 17,542	$ -	$0	$0	$0	$0	$0	$0	$0	$17,542
Wallerawang	Reticulation	MhW-239~MhW-237	1965	$ 11,251	$ 11,498	$ -	$0	$0	$0	$0	$0	$0	$0	$11,498
Wallerawang	Reticulation	MhW-241~MhW-236	1965	$ 14,997	$ 15,326	$ -	$0	$0	$0	$0	$0	$0	$0	$15,326
Wallerawang	Reticulation	MhW-242~MhW-241	1965	$ 11,557	$ 11,811	$ -	$0	$0	$0	$0	$0	$0	$0	$11,811
Wallerawang	Reticulation	MhW-243~MhW-242	1965	$ 14,173	$ 14,485	$ -	$0	$0	$0	$0	$0	$0	$0	$14,485
Wallerawang	Reticulation	MhW-244~MhW-243	1965	$ 15,320	$ 15,657	$ -	$0	$0	$0	$0	$0	$0	$0	$15,657
Wallerawang	Reticulation	MhW-246~MhW-247	1983	$ 16,065	$ 16,418	$ -	$0	$0	$0	$0	$0	$0	$0	$16,418
Wallerawang	Reticulation	MhW-247~MhW-248	1983	$ 13,515	$ 13,812	$ -	$0	$0	$0	$0	$0	$0	$0	$13,812
Wallerawang	Reticulation	MhW-248~MhW-249	1983	$ 15,683	$ 16,028	$ -	$0	$0	$0	$0	$0	$0	$0	$16,028
Wallerawang	Reticulation	MhW-249~MhW-1261	1983	$ 9,851	$ 10,067	$ -	$0	$0	$0	$0	$0	$0	$0	$10,067
Wallerawang	Reticulation	MhW-250~MhW-248	1983	$ 4,616	$ 4,717	$ -	$0	$0	$0	$0	$0	$0	$0	$4,717
Wallerawang	Reticulation	MhW-251~MhW-250	1983	$ 15,657	$ 16,001	$ -	$0	$0	$0	$0	$0	$0	$0	$16,001
Wallerawang	Reticulation	MhW-252~MhW-253	1983	$ 14,216	$ 14,529	$ -	$0	$0	$0	$0	$0	$0	$0	$14,529
Wallerawang	Reticulation	MhW-253~MhW-254	1983	$ 14,563	$ 14,883	$ -	$0	$0	$0	$0	$0	$0	$0	$14,883
Wallerawang	Reticulation	MhW-254~MhW-255	1983	$ 14,787	$ 15,113	$ -	$0	$0	$0	$0	$0	$0	$0	$15,113
Wallerawang	Reticulation	MhW-255~MhW-258	1983	$ 16,754	$ 17,122	$ -	$0	$0	$0	$0	$0	$0	$0	$17,122
Wallerawang	Reticulation	MhW-256~MhW-255	1983	$ 18,360	$ 18,764	$ -	$0	$0	$0	$0	$0	$0	$0	$18,764
Wallerawang	Reticulation	MhW-257~MhW-256	1983	$ 11,625	$ 11,881	$ -	$0	$0	$0	$0	$0	$0	$0	$11,881
Wallerawang	Reticulation	MhW-258~MhW-1253	2005	$ 23,519	$ 24,036	$ -	$0	$0	$0	$0	$0	$0	$0	$24,036
Wallerawang	Reticulation	MhW-259~MhW-1254	2005	$ 20,171	$ 20,614	$ -	$0	$0	$0	$0	$0	$0	$0	$20,614
Wallerawang	Rising Mains	MhW-762~SPS763	1965	$ 983	$ 1,005	$ 1,005	$0	$0	$0	$0	$0	$0	$0	$1,005
Wallerawang	Rising Mains	MhW-764~MhW-793	1965	$ 19,781	$ 20,216	$ 20,216	$0	$0	$0	$0	$0	$0	$0	$20,216
Wallerawang	Reticulation	MhW-783~MhW-784	1965	$ 24,345	$ 24,880	$ -	$0	$0	$0	$0	$0	$0	$0	$24,880
Wallerawang	Reticulation	MhW-784~MhW--B/3	1960	$ 6,691	$ 6,838	$ -	$0	$0	$0	$0	$0	$0	$0	$6,838
Wallerawang	Rising Mains	MhW-790~TP_WANG	2005	$ 145,784	$ 148,991	$ 148,991	$148,991	$0	$0	$148,991	$0	$0	$0	$0
Wallerawang	Rising Mains	MhW-791~MhW-790	2005	$ 24,593	$ 25,134	$ 25,134	$25,134	$0	$0	$25,134	$0	$0	$0	$0
Wallerawang	Rising Mains	MhW-792~MhW-791	1965	$ 23,020	$ 23,527	$ 23,527	$0	$0	$0	$0	$0	$0	$0	$23,527
Wallerawang	Rising Mains	MhW-793~MhW-792	1965	$ 17,740	$ 18,130	$ 18,130	$0	$0	$0	$0	$0	$0	$0	$18,130
Wallerawang	Reticulation	MhW-831~MhW--A/21	2005	$ 19,464	$ 19,892	$ -	$0	$0	$0	$0	$0	$0	$0	$19,892
Wallerawang	Reticulation	MhW--A/1~MhW-762	1965	$ 2,853	$ 2,916	$ -	$0	$0	$0	$0	$0	$0	$0	$2,916
Wallerawang	Reticulation	MhW--A/10~MhW--A/9	1965	$ 20,635	$ 21,089	$ -	$0	$0	$0	$0	$0	$0	$0	$21,089
Wallerawang	Reticulation	MhW--A/11~MhW--A/10	1965	$ 15,621	$ 15,965	$ -	$0	$0	$0	$0	$0	$0	$0	$15,965
Wallerawang	Reticulation	MhW--A/12~MhW--A/11	1965	$ 15,476	$ 15,816	$ -	$0	$0	$0	$0	$0	$0	$0	$15,816
Wallerawang	Reticulation	MhW--A/13~MhW--A/12	1965	$ 15,700	$ 16,046	$ -	$0	$0	$0	$0	$0	$0	$0	$16,046
Wallerawang	Reticulation	MhW--A/14~MhW--A/13	1965	$ 20,737	$ 21,193	$ -	$0	$0	$0	$0	$0	$0	$0	$21,193
Wallerawang	Reticulation	MhW--A/15~MhW--A/14	1965	$ 20,635	$ 21,089	$ -	$0	$0	$0	$0	$0	$0	$0	$21,089
Wallerawang	Reticulation	MhW--A/16~MhW--A/15	1965	$ 12,281	$ 12,551	$ -	$0	$0	$0	$0	$0	$0	$0	$12,551
Wallerawang	Reticulation	MhW--A/17~MhW--A/16	1965	$ 11,883	$ 12,144	$ -	$0	$0	$0	$0	$0	$0	$0	$12,144
Wallerawang	Reticulation	MhW--A/18~MhW--A/17	1965	$ 16,998	$ 17,372	$ -	$0	$0	$0	$0	$0	$0	$0	$17,372
Wallerawang	Reticulation	MhW--A/19~MhW--A/18	1965	$ 17,286	$ 17,667	$ -	$0	$0	$0	$0	$0	$0	$0	$17,667
Wallerawang	Reticulation	MhW--A/2~MhW--A/1	1965	$ 8,976	$ 9,173	$ -	$0	$0	$0	$0	$0	$0	$0	$9,173
Wallerawang	Reticulation	MhW--A/20~MhW--A/19	1965	$ 20,566	$ 21,018	$ -	$0	$0	$0	$0	$0	$0	$0	$21,018
Wallerawang	Reticulation	MhW--A/21~MhW--A/20	1965	$ 20,675	$ 21,130	$ -	$0	$0	$0	$0	$0	$0	$0	$21,130
Wallerawang	Reticulation	MhW--A/22~MhW--A/21	1965	$ 15,522	$ 15,863	$ -	$0	$0	$0	$0	$0	$0	$0	$15,863
Wallerawang	Reticulation	MhW--A/23~MhW--A/22	1965	$ 15,241	$ 15,577	$ -	$0	$0	$0	$0	$0	$0	$0	$15,577
Wallerawang	Reticulation	MhW--A/24~MhW--A/23	1965	$ 15,405	$ 15,743	$ -	$0	$0	$0	$0	$0	$0	$0	$15,743
Wallerawang	Reticulation	MhW--A/25~MhW--A/24	1965	$ 13,166	$ 13,455	$ -	$0	$0	$0	$0	$0	$0	$0	$13,455
Wallerawang	Reticulation	MhW--A/26~MhW--A/25	1965	$ 13,245	$ 13,536	$ -	$0	$0	$0	$0	$0	$0	$0	$13,536
Wallerawang	Reticulation	MhW--A/27~MhW--A/26	1965	$ 20,596	$ 21,049	$ -	$0	$0	$0	$0	$0	$0	$0	$21,049
Wallerawang	Reticulation	MhW--A/28~MhW--A/27	1965	$ 20,489	$ 20,940	$ -	$0	$0	$0	$0	$0	$0	$0	$20,940
Wallerawang	Reticulation	MhW--A/29~MhW--A/28	1965	$ 13,905	$ 14,211	$ -	$0	$0	$0	$0	$0	$0	$0	$14,211

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Reticulation	MhW--A/29A~MhW--A/29	1965	$ 1,997	$ 2,041	$ -	$0	$0	$0	$0	$0	$0	$0	$2,041
Wallerawang	Reticulation	MhW--A/3~MhW--A/2	1965	$ 8,976	$ 9,173	$ -	$0	$0	$0	$0	$0	$0	$0	$9,173
Wallerawang	Reticulation	MhW--A/30~MhW--A/29A	1965	$ 8,084	$ 8,261	$ -	$0	$0	$0	$0	$0	$0	$0	$8,261
Wallerawang	Reticulation	MhW--A/31~MhW--A/30	1965	$ 20,186	$ 20,630	$ -	$0	$0	$0	$0	$0	$0	$0	$20,630
Wallerawang	Reticulation	MhW--A/32~MhW--A/31	1965	$ 14,581	$ 14,902	$ -	$0	$0	$0	$0	$0	$0	$0	$14,902
Wallerawang	Reticulation	MhW--A/33~MhW--A/32	1965	$ 13,678	$ 13,979	$ -	$0	$0	$0	$0	$0	$0	$0	$13,979
Wallerawang	Reticulation	MhW--A/34~MhW--A/33	1965	$ 19,944	$ 20,382	$ -	$0	$0	$0	$0	$0	$0	$0	$20,382
Wallerawang	Reticulation	MhW--A/35~MhW--A/34	1965	$ 20,543	$ 20,995	$ -	$0	$0	$0	$0	$0	$0	$0	$20,995
Wallerawang	Reticulation	MhW--A/4~MhW--A/3	1965	$ 14,209	$ 14,521	$ -	$0	$0	$0	$0	$0	$0	$0	$14,521
Wallerawang	Reticulation	MhW--A/5~MhW--A/4	1965	$ 12,350	$ 12,621	$ -	$0	$0	$0	$0	$0	$0	$0	$12,621
Wallerawang	Reticulation	MhW--A/6~MhW--A/5	1965	$ 12,281	$ 12,551	$ -	$0	$0	$0	$0	$0	$0	$0	$12,551
Wallerawang	Reticulation	MhW--A/7~MhW--A/6	1965	$ 18,709	$ 19,121	$ -	$0	$0	$0	$0	$0	$0	$0	$19,121
Wallerawang	Reticulation	MhW--A/8~MhW--A/7	1965	$ 8,736	$ 8,928	$ -	$0	$0	$0	$0	$0	$0	$0	$8,928
Wallerawang	Reticulation	MhW--A/9~MhW--A/8	1965	$ 20,479	$ 20,930	$ -	$0	$0	$0	$0	$0	$0	$0	$20,930
Wallerawang	Reticulation	MhW-AA/1~MhW--V/7	1965	$ 18,175	$ 18,574	$ -	$0	$0	$0	$0	$0	$0	$0	$18,574
Wallerawang	Reticulation	MhW-AA/2~MhW-AA/1	1965	$ 18,592	$ 19,001	$ -	$0	$0	$0	$0	$0	$0	$0	$19,001
Wallerawang	Reticulation	MhW-AB/1~MhW--V/5	1965	$ 12,429	$ 12,702	$ -	$0	$0	$0	$0	$0	$0	$0	$12,702
Wallerawang	Reticulation	MhW-AB/2~MhW-AB/1	1965	$ 11,799	$ 12,058	$ -	$0	$0	$0	$0	$0	$0	$0	$12,058
Wallerawang	Reticulation	MhW-AB/3~MhW-AB/2	1965	$ 14,186	$ 14,498	$ -	$0	$0	$0	$0	$0	$0	$0	$14,498
Wallerawang	Reticulation	MhW-AC/1~MhW--V/1	1965	$ 11,146	$ 11,391	$ -	$0	$0	$0	$0	$0	$0	$0	$11,391
Wallerawang	Reticulation	MhW-AD/1~MhW--A/22	1965	$ 16,221	$ 16,577	$ -	$0	$0	$0	$0	$0	$0	$0	$16,577
Wallerawang	Reticulation	MhW-AD/2~MhW-AD/1	1965	$ 20,247	$ 20,692	$ -	$0	$0	$0	$0	$0	$0	$0	$20,692
Wallerawang	Reticulation	MhW-AD/3~MhW-AD/2	1965	$ 20,668	$ 21,122	$ -	$0	$0	$0	$0	$0	$0	$0	$21,122
Wallerawang	Reticulation	MhW-AD/4~MhW-AD/3	1965	$ 20,357	$ 20,804	$ -	$0	$0	$0	$0	$0	$0	$0	$20,804
Wallerawang	Reticulation	MhW-AD/5~MhW-AD/4	1965	$ 19,059	$ 19,478	$ -	$0	$0	$0	$0	$0	$0	$0	$19,478
Wallerawang	Reticulation	MhW-AD/6~MhW-AD/5	1965	$ 5,393	$ 5,512	$ -	$0	$0	$0	$0	$0	$0	$0	$5,512
Wallerawang	Reticulation	MhW-AE/1~SPS1313	1965	$ 1,165	$ 1,191	$ -	$0	$0	$0	$0	$0	$0	$0	$1,191
Wallerawang	Reticulation	MhW-AE/10~MhW-AE/9	1965	$ 20,426	$ 20,875	$ -	$0	$0	$0	$0	$0	$0	$0	$20,875
Wallerawang	Reticulation	MhW-AE/11~MhW-AE/10	1965	$ 18,220	$ 18,621	$ -	$0	$0	$0	$0	$0	$0	$0	$18,621
Wallerawang	Reticulation	MhW-AE/12~MhW-AE/11	1965	$ 9,157	$ 9,359	$ -	$0	$0	$0	$0	$0	$0	$0	$9,359
Wallerawang	Reticulation	MhW-AE/2~MhW-AE/1	1965	$ 5,564	$ 5,687	$ -	$0	$0	$0	$0	$0	$0	$0	$5,687
Wallerawang	Reticulation	MhW-AE/3~MhW-AE/2	1965	$ 5,906	$ 6,036	$ -	$0	$0	$0	$0	$0	$0	$0	$6,036
Wallerawang	Reticulation	MhW-AE/4~MhW-AE/3	1965	$ 8,798	$ 8,991	$ -	$0	$0	$0	$0	$0	$0	$0	$8,991
Wallerawang	Reticulation	MhW-AE/5~MhW-AE/4	1965	$ 5,924	$ 6,054	$ -	$0	$0	$0	$0	$0	$0	$0	$6,054
Wallerawang	Reticulation	MhW-AE/6~MhW-AE/5	1965	$ 14,479	$ 14,797	$ -	$0	$0	$0	$0	$0	$0	$0	$14,797
Wallerawang	Reticulation	MhW-AE/7~MhW-AE/6	1965	$ 2,892	$ 2,955	$ -	$0	$0	$0	$0	$0	$0	$0	$2,955
Wallerawang	Reticulation	MhW-AE/8~MhW-AE/7	1965	$ 19,253	$ 19,676	$ -	$0	$0	$0	$0	$0	$0	$0	$19,676
Wallerawang	Reticulation	MhW-AE/9~MhW-AE/8	1965	$ 20,535	$ 20,987	$ -	$0	$0	$0	$0	$0	$0	$0	$20,987
Wallerawang	Reticulation	MhW-AF/1~MhW-AE/10	1965	$ 10,881	$ 11,120	$ -	$0	$0	$0	$0	$0	$0	$0	$11,120
Wallerawang	Reticulation	MhW-AG/1~MhW-AE/6	1965	$ 18,847	$ 19,262	$ -	$0	$0	$0	$0	$0	$0	$0	$19,262
Wallerawang	Reticulation	MhW-AG/2~MhW-AG/1	1965	$ 18,847	$ 19,262	$ -	$0	$0	$0	$0	$0	$0	$0	$19,262
Wallerawang	Reticulation	MhW-AG/3~MhW-AG/2	1965	$ 20,714	$ 21,169	$ -	$0	$0	$0	$0	$0	$0	$0	$21,169
Wallerawang	Reticulation	MhW-AG/4~MhW-AG/3	1965	$ 20,316	$ 20,763	$ -	$0	$0	$0	$0	$0	$0	$0	$20,763
Wallerawang	Reticulation	MhW-AH/1~MhW-AH/1a	1965	$ 3,698	$ 3,779	$ -	$0	$0	$0	$0	$0	$0	$0	$3,779
Wallerawang	Reticulation	MhW-AH/1a~MhW-AG/2	1965	$ 19,469	$ 19,898	$ -	$0	$0	$0	$0	$0	$0	$0	$19,898
Wallerawang	Reticulation	MhW-AJ/1~MhW-AE/4	1965	$ 20,675	$ 21,130	$ -	$0	$0	$0	$0	$0	$0	$0	$21,130
Wallerawang	Reticulation	MhW-AJ/2~MhW-AJ/1	1965	$ 20,193	$ 20,638	$ -	$0	$0	$0	$0	$0	$0	$0	$20,638
Wallerawang	Reticulation	MhW-AK/1~MhW-AE/3	1965	$ 10,019	$ 10,239	$ -	$0	$0	$0	$0	$0	$0	$0	$10,239
Wallerawang	Reticulation	MhW-AK/2~MhW-AK/1	1965	$ 6,125	$ 6,260	$ -	$0	$0	$0	$0	$0	$0	$0	$6,260
Wallerawang	Reticulation	MhW-AL/1~MhW-AE/1	1965	$ 15,621	$ 15,965	$ -	$0	$0	$0	$0	$0	$0	$0	$15,965
Wallerawang	Reticulation	MhW-AL/2~MhW-AL/1	1965	$ 18,266	$ 18,667	$ -	$0	$0	$0	$0	$0	$0	$0	$18,667
Wallerawang	Reticulation	MhW-AL/3~MhW-AL/2	1965	$ 6,015	$ 6,148	$ -	$0	$0	$0	$0	$0	$0	$0	$6,148
Wallerawang	Reticulation	MhW-AL/4~MhW-AL/3	1965	$ 20,596	$ 21,049	$ -	$0	$0	$0	$0	$0	$0	$0	$21,049
Wallerawang	Reticulation	MhW-AL/5~MhW-AL/4	1965	$ 20,505	$ 20,956	$ -	$0	$0	$0	$0	$0	$0	$0	$20,956
Wallerawang	Reticulation	MhW-AL/6~MhW-AL/5	1965	$ 20,596	$ 21,049	$ -	$0	$0	$0	$0	$0	$0	$0	$21,049
Wallerawang	Reticulation	MhW-AM/1~MhW--B/4	1965	$ 21,739	$ 22,217	$ -	$0	$0	$0	$0	$0	$0	$0	$22,217
Wallerawang	Reticulation	MhW-AM/2~MhW-AM/1	1965	$ 17,488	$ 17,873	$ -	$0	$0	$0	$0	$0	$0	$0	$17,873
Wallerawang	Reticulation	MhW-AN/1~MhW--A/33	1965	$ 14,729	$ 15,053	$ -	$0	$0	$0	$0	$0	$0	$0	$15,053
Wallerawang	Reticulation	MhW--B/1~MhW--A/1	1965	$ 9,810	$ 10,026	$ -	$0	$0	$0	$0	$0	$0	$0	$10,026
Wallerawang	Reticulation	MhW--B/10~MhW--B/9	1965	$ 16,108	$ 16,463	$ -	$0	$0	$0	$0	$0	$0	$0	$16,463
Wallerawang	Reticulation	MhW--B/2~MhW--B/1	1965	$ 20,232	$ 20,677	$ -	$0	$0	$0	$0	$0	$0	$0	$20,677
Wallerawang	Reticulation	MhW--B/3~MhW--B/2	1965	$ 20,464	$ 20,914	$ -	$0	$0	$0	$0	$0	$0	$0	$20,914
Wallerawang	Reticulation	MhW--B/4~MhW--B/3	1965	$ 15,879	$ 16,228	$ -	$0	$0	$0	$0	$0	$0	$0	$16,228
Wallerawang	Reticulation	MhW--B/5~MhW--B/4	1965	$ 21,910	$ 22,392	$ -	$0	$0	$0	$0	$0	$0	$0	$22,392
Wallerawang	Reticulation	MhW--B/6~MhW--B/5	1965	$ 20,418	$ 20,867	$ -	$0	$0	$0	$0	$0	$0	$0	$20,867
Wallerawang	Reticulation	MhW--B/7~MhW--B/6	1965	$ 20,589	$ 21,042	$ -	$0	$0	$0	$0	$0	$0	$0	$21,042
Wallerawang	Reticulation	MhW--B/8~MhW--B/7	1965	$ 20,364	$ 20,812	$ -	$0	$0	$0	$0	$0	$0	$0	$20,812
Wallerawang	Reticulation	MhW--B/9~MhW--B/8	1965	$ 6,217	$ 6,354	$ -	$0	$0	$0	$0	$0	$0	$0	$6,354
Wallerawang	Reticulation	MhW--C/1~MhW--A/8	1965	$ 19,982	$ 20,421	$ -	$0	$0	$0	$0	$0	$0	$0	$20,421
Wallerawang	Reticulation	MhW--C/1~MhW--A/8	1965	$ 26,772	$ 27,361	$ -	$0	$0	$0	$0	$0	$0	$0	$27,361

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Reticulation	MhW--C/2~MhW--C/1	1965	$ 12,668	$ 12,947	$ -	$0	$0	$0	$0	$0	$0	$0	$12,947
Wallerawang	Reticulation	MhW--C/3~MhW--C/2	1965	$ 14,721	$ 15,045	$ -	$0	$0	$0	$0	$0	$0	$0	$15,045
Wallerawang	Reticulation	MhW--C/4~MhW--C/3	1965	$ 14,879	$ 15,207	$ -	$0	$0	$0	$0	$0	$0	$0	$15,207
Wallerawang	Reticulation	MhW--C/5~MhW--C/4	1965	$ 15,305	$ 15,642	$ -	$0	$0	$0	$0	$0	$0	$0	$15,642
Wallerawang	Reticulation	MhW--C/6~MhW--C/5	1965	$ 20,224	$ 20,669	$ -	$0	$0	$0	$0	$0	$0	$0	$20,669
Wallerawang	Reticulation	MhW--D/1~MhW--C/2	1965	$ 20,171	$ 20,614	$ -	$0	$0	$0	$0	$0	$0	$0	$20,614
Wallerawang	Reticulation	MhW--D/2~MhW--D/1	1965	$ 10,679	$ 10,914	$ -	$0	$0	$0	$0	$0	$0	$0	$10,914
Wallerawang	Reticulation	MhW--D/3~MhW--D/2	1965	$ 19,579	$ 20,010	$ -	$0	$0	$0	$0	$0	$0	$0	$20,010
Wallerawang	Reticulation	MhW--E/1~MhW--A/13	1965	$ 13,556	$ 13,854	$ -	$0	$0	$0	$0	$0	$0	$0	$13,854
Wallerawang	Reticulation	MhW--E/2~MhW--E/1	1965	$ 20,767	$ 21,224	$ -	$0	$0	$0	$0	$0	$0	$0	$21,224
Wallerawang	Reticulation	MhW--E/3~MhW--E/2	1965	$ 16,284	$ 16,643	$ -	$0	$0	$0	$0	$0	$0	$0	$16,643
Wallerawang	Reticulation	MhW--E/4~MhW--E/3	1965	$ 9,545	$ 9,755	$ -	$0	$0	$0	$0	$0	$0	$0	$9,755
Wallerawang	Reticulation	MhW--E/5~MhW--E/4	1965	$ 15,777	$ 16,124	$ -	$0	$0	$0	$0	$0	$0	$0	$16,124
Wallerawang	Reticulation	MhW--H/1~MhW--E/1	1965	$ 19,416	$ 19,843	$ -	$0	$0	$0	$0	$0	$0	$0	$19,843
Wallerawang	Reticulation	MhW--J/1~MhW--A/15	1965	$ 12,770	$ 13,051	$ -	$0	$0	$0	$0	$0	$0	$0	$13,051
Wallerawang	Reticulation	MhW--K/1~MhW--A/16	1965	$ 9,124	$ 9,325	$ -	$0	$0	$0	$0	$0	$0	$0	$9,325
Wallerawang	Reticulation	MhW--K/2~MhW--K/1	1965	$ 12,171	$ 12,439	$ -	$0	$0	$0	$0	$0	$0	$0	$12,439
Wallerawang	Reticulation	MhW--K/3~MhW--K/2	1965	$ 7,268	$ 7,427	$ -	$0	$0	$0	$0	$0	$0	$0	$7,427
Wallerawang	Reticulation	MhW--K/4~MhW--K/3	1965	$ 12,311	$ 12,582	$ -	$0	$0	$0	$0	$0	$0	$0	$12,582
Wallerawang	Reticulation	MhW--K/5~MhW--K/4	1965	$ 11,169	$ 11,415	$ -	$0	$0	$0	$0	$0	$0	$0	$11,415
Wallerawang	Reticulation	MhW--L/1~MhW--A/17	1965	$ 7,579	$ 7,745	$ -	$0	$0	$0	$0	$0	$0	$0	$7,745
Wallerawang	Reticulation	MhW--L/10~MhW--L/9	1965	$ 17,223	$ 17,602	$ -	$0	$0	$0	$0	$0	$0	$0	$17,602
Wallerawang	Reticulation	MhW--L/11~MhW--L/10	1965	$ 18,972	$ 19,389	$ -	$0	$0	$0	$0	$0	$0	$0	$19,389
Wallerawang	Reticulation	MhW--L/12~MhW--L/11	1965	$ 9,328	$ 9,533	$ -	$0	$0	$0	$0	$0	$0	$0	$9,533
Wallerawang	Reticulation	MhW--L/2~MhW--L/1	1965	$ 20,448	$ 20,898	$ -	$0	$0	$0	$0	$0	$0	$0	$20,898
Wallerawang	Reticulation	MhW--L/3~MhW--L/2	1965	$ 19,370	$ 19,796	$ -	$0	$0	$0	$0	$0	$0	$0	$19,796
Wallerawang	Reticulation	MhW--L/4~MhW--L/3	1965	$ 11,590	$ 11,845	$ -	$0	$0	$0	$0	$0	$0	$0	$11,845
Wallerawang	Reticulation	MhW--L/5~MhW--L/4	1965	$ 19,408	$ 19,835	$ -	$0	$0	$0	$0	$0	$0	$0	$19,835
Wallerawang	Reticulation	MhW--L/6~MhW--L/5	1965	$ 16,338	$ 16,697	$ -	$0	$0	$0	$0	$0	$0	$0	$16,697
Wallerawang	Reticulation	MhW--L/7~MhW--L/6	1965	$ 20,520	$ 20,971	$ -	$0	$0	$0	$0	$0	$0	$0	$20,971
Wallerawang	Reticulation	MhW--L/8~MhW--L/7	1965	$ 7,928	$ 8,102	$ -	$0	$0	$0	$0	$0	$0	$0	$8,102
Wallerawang	Reticulation	MhW--L/9~MhW--L/8	1965	$ 20,923	$ 21,383	$ -	$0	$0	$0	$0	$0	$0	$0	$21,383
Wallerawang	Reticulation	MhW--M/1~MhW--L/5	1965	$ 13,385	$ 13,679	$ -	$0	$0	$0	$0	$0	$0	$0	$13,679
Wallerawang	Reticulation	MhW--N/1~MhW--L/3	1965	$ 12,554	$ 12,830	$ -	$0	$0	$0	$0	$0	$0	$0	$12,830
Wallerawang	Reticulation	MhW--N/2~MhW--N/1	1965	$ 11,503	$ 11,756	$ -	$0	$0	$0	$0	$0	$0	$0	$11,756
Wallerawang	Reticulation	MhW--N/3~MhW--N/2	1965	$ 13,089	$ 13,377	$ -	$0	$0	$0	$0	$0	$0	$0	$13,377
Wallerawang	Reticulation	MhW--N/4~MhW--N/3	1965	$ 12,895	$ 13,179	$ -	$0	$0	$0	$0	$0	$0	$0	$13,179
Wallerawang	Reticulation	MhW--N/5~MhW--N/4	1965	$ 14,520	$ 14,839	$ -	$0	$0	$0	$0	$0	$0	$0	$14,839
Wallerawang	Reticulation	MhW--N/6~MhW--N/5	1965	$ 13,882	$ 14,188	$ -	$0	$0	$0	$0	$0	$0	$0	$14,188
Wallerawang	Reticulation	MhW--N/7~MhW--N/6	1965	$ 20,520	$ 20,971	$ -	$0	$0	$0	$0	$0	$0	$0	$20,971
Wallerawang	Reticulation	MhW--N/8~MhW--N/7	1965	$ 14,456	$ 14,774	$ -	$0	$0	$0	$0	$0	$0	$0	$14,774
Wallerawang	Reticulation	MhW--P/1~MhW--N/1	1965	$ 4,733	$ 4,837	$ -	$0	$0	$0	$0	$0	$0	$0	$4,837
Wallerawang	Reticulation	MhW--P/2~MhW--P/1	1965	$ 7,788	$ 7,959	$ -	$0	$0	$0	$0	$0	$0	$0	$7,959
Wallerawang	Reticulation	MhW--P/3~MhW--P/2	1965	$ 18,459	$ 18,866	$ -	$0	$0	$0	$0	$0	$0	$0	$18,866
Wallerawang	Reticulation	MhW--P/4~MhW--P/3	1965	$ 17,067	$ 17,443	$ -	$0	$0	$0	$0	$0	$0	$0	$17,443
Wallerawang	Reticulation	MhW--P/5~MhW--P/4	1965	$ 3,218	$ 3,289	$ -	$0	$0	$0	$0	$0	$0	$0	$3,289
Wallerawang	Reticulation	MhW--P/6~MhW--P/5	1965	$ 20,441	$ 20,890	$ -	$0	$0	$0	$0	$0	$0	$0	$20,890
Wallerawang	Reticulation	MhW--P/7~MhW--P/6	1965	$ 20,627	$ 21,081	$ -	$0	$0	$0	$0	$0	$0	$0	$21,081
Wallerawang	Reticulation	MhW--R/1~MhW--P/1	1965	$ 20,627	$ 21,081	$ -	$0	$0	$0	$0	$0	$0	$0	$21,081
Wallerawang	Reticulation	MhW--R/2~MhW--R/1	1965	$ 13,352	$ 13,646	$ -	$0	$0	$0	$0	$0	$0	$0	$13,646
Wallerawang	Reticulation	MhW--S/2~MhW--N/1	1965	$ 12,645	$ 12,924	$ -	$0	$0	$0	$0	$0	$0	$0	$12,924
Wallerawang	Reticulation	MhW--S/3~MhW--S/2	1965	$ 12,584	$ 12,861	$ -	$0	$0	$0	$0	$0	$0	$0	$12,861
Wallerawang	Reticulation	MhW--T/1~MhW--L/3	1965	$ 2,899	$ 2,963	$ -	$0	$0	$0	$0	$0	$0	$0	$2,963
Wallerawang	Reticulation	MhW--T/2~MhW--T/1	1965	$ 2,247	$ 2,296	$ -	$0	$0	$0	$0	$0	$0	$0	$2,296
Wallerawang	Reticulation	MhW--T/3~MhW--T/2	1965	$ 6,793	$ 6,943	$ -	$0	$0	$0	$0	$0	$0	$0	$6,943
Wallerawang	Reticulation	MhW--T/4~MhW--T/3	1965	$ 14,114	$ 14,425	$ -	$0	$0	$0	$0	$0	$0	$0	$14,425
Wallerawang	Reticulation	MhW--T/5~MhW--T/4	1965	$ 20,930	$ 21,391	$ -	$0	$0	$0	$0	$0	$0	$0	$21,391
Wallerawang	Reticulation	MhW--T/6~MhW--T/5	1965	$ 20,403	$ 20,851	$ -	$0	$0	$0	$0	$0	$0	$0	$20,851
Wallerawang	Reticulation	MhW--T/7~MhW--T/6	1965	$ 20,675	$ 21,130	$ -	$0	$0	$0	$0	$0	$0	$0	$21,130
Wallerawang	Reticulation	MhW--T/8~MhW--T/7	1965	$ 20,627	$ 21,081	$ -	$0	$0	$0	$0	$0	$0	$0	$21,081
Wallerawang	Reticulation	MhW--V/1~MhW--A/21	1965	$ 17,876	$ 18,269	$ -	$0	$0	$0	$0	$0	$0	$0	$18,269
Wallerawang	Reticulation	MhW--V/10~MhW--V/9	1965	$ 14,589	$ 14,909	$ -	$0	$0	$0	$0	$0	$0	$0	$14,909
Wallerawang	Reticulation	MhW--V/11~MhW--V/10	1965	$ 6,630	$ 6,776	$ -	$0	$0	$0	$0	$0	$0	$0	$6,776
Wallerawang	Reticulation	MhW--V/12~MhW--V/11	1965	$ 15,545	$ 15,887	$ -	$0	$0	$0	$0	$0	$0	$0	$15,887
Wallerawang	Reticulation	MhW--V/13~MhW--V/12	1965	$ 18,788	$ 19,202	$ -	$0	$0	$0	$0	$0	$0	$0	$19,202
Wallerawang	Reticulation	MhW--V/14~MhW--V/13	1965	$ 19,275	$ 19,700	$ -	$0	$0	$0	$0	$0	$0	$0	$19,700
Wallerawang	Reticulation	MhW--V/15~MhW--V/14	1965	$ 18,763	$ 19,176	$ -	$0	$0	$0	$0	$0	$0	$0	$19,176
Wallerawang	Reticulation	MhW--V/2~MhW--V/1	1965	$ 7,563	$ 7,730	$ -	$0	$0	$0	$0	$0	$0	$0	$7,730
Wallerawang	Reticulation	MhW--V/3~MhW--V/2	1965	$ 10,027	$ 10,247	$ -	$0	$0	$0	$0	$0	$0	$0	$10,247
Wallerawang	Reticulation	MhW--V/4~MhW--V/3	1965	$ 12,281	$ 12,551	$ -	$0	$0	$0	$0	$0	$0	$0	$12,551

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Reticulation	MhW--V/5~MhW--V/4	1965	$ 13,484	$ 13,781	$ -	$0	$0	$0	$0	$0	$0	$0	$13,781
Wallerawang	Reticulation	MhW--V/6~MhW--V/5	1965	$ 11,013	$ 11,256	$ -	$0	$0	$0	$0	$0	$0	$0	$11,256
Wallerawang	Reticulation	MhW--V/7~MhW--V/6	1965	$ 8,820	$ 9,014	$ -	$0	$0	$0	$0	$0	$0	$0	$9,014
Wallerawang	Reticulation	MhW--V/8~MhW--V/7	1965	$ 19,859	$ 20,296	$ -	$0	$0	$0	$0	$0	$0	$0	$20,296
Wallerawang	Reticulation	MhW--V/9~MhW--V/8	1965	$ 17,978	$ 18,373	$ -	$0	$0	$0	$0	$0	$0	$0	$18,373
Wallerawang	Reticulation	MhW--W/1~MhW--V/12	1965	$ 14,285	$ 14,599	$ -	$0	$0	$0	$0	$0	$0	$0	$14,599
Wallerawang	Reticulation	MhW--X/1~MhW--V/11	1965	$ 20,301	$ 20,747	$ -	$0	$0	$0	$0	$0	$0	$0	$20,747
Wallerawang	Reticulation	MhW--X/2~MhW--X/1	1965	$ 20,193	$ 20,638	$ -	$0	$0	$0	$0	$0	$0	$0	$20,638
Wallerawang	Reticulation	MhW--X/3~MhW--X/2	1965	$ 18,031	$ 18,428	$ -	$0	$0	$0	$0	$0	$0	$0	$18,428
Wallerawang	Reticulation	MhW--X/4~MhW--X/3	1965	$ 6,592	$ 6,737	$ -	$0	$0	$0	$0	$0	$0	$0	$6,737
Wallerawang	Reticulation	MhW--Y/1~MhW--V/9	1965	$ 19,610	$ 20,041	$ -	$0	$0	$0	$0	$0	$0	$0	$20,041
Wallerawang	Reticulation	MhW--Y/2~MhW--Y/1	1965	$ 19,408	$ 19,835	$ -	$0	$0	$0	$0	$0	$0	$0	$19,835
Wallerawang	Reticulation	MhW--Z/1~MhW--V/8	1965	$ 17,666	$ 18,055	$ -	$0	$0	$0	$0	$0	$0	$0	$18,055
Wallerawang	Reticulation	MhW--Z/2~MhW--Z/1	1965	$ 17,674	$ 18,063	$ -	$0	$0	$0	$0	$0	$0	$0	$18,063
Wallerawang	Reticulation	MhW--Z/3~MhW--Z/2	1965	$ 17,238	$ 17,617	$ -	$0	$0	$0	$0	$0	$0	$0	$17,617
Wallerawang	Reticulation	MhW--Z/4~MhW--Z/3	1965	$ 19,648	$ 20,080	$ -	$0	$0	$0	$0	$0	$0	$0	$20,080
Wallerawang	Submersible 25m head	Portland Rd	1965	$ 230,267	$ 235,333	$ 235,333	$0	$0	$0	$0	$0	$0	$0	$235,333
Wallerawang	Submersible 25m head	Portland Rd	1965	$ 270,313	$ 276,260	$ 276,260	$0	$0	$0	$0	$0	$0	$0	$276,260
Shared all	Monitoring	Portland Road	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Pump Station 1	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Wallerawang	Submersible 25m head	Pump Station 1	1980	$ 292,005	$ 298,429	$ 298,429	$0	$0	$0	$0	$0	$0	$0	$298,429
Wallerawang	Submersible 25m head	Pump Station 1	1964	$ 403,245	$ 412,116	$ 412,116	$0	$0	$0	$0	$0	$0	$0	$412,116
Wallerawang	Rising Mains	SPS1265~MhW--K/2	2005	$ 73,074	$ 74,681	$ 74,681	$74,681	$0	$0	$74,681	$0	$0	$0	$0
Wallerawang	Rising Mains	SPS1313~MhW--B/9	2005	$ 45,942	$ 46,953	$ 46,953	$46,953	$0	$0	$46,953	$0	$0	$0	$0
Wallerawang	Reticulation	SPS1328~MhW-AN/1	1965	$ 18,115	$ 18,514	$ -	$0	$0	$0	$0	$0	$0	$0	$18,514
Wallerawang	Rising Mains	SPS3001~MhW--K/2	2005	$ 143,690	$ 146,851	$ 146,851	$146,851	$0	$0	$146,851	$0	$0	$0	$0
Wallerawang	Rising Mains	SPS3002~SPS3001	2005	$ 20,699	$ 21,155	$ 21,155	$21,155	$0	$0	$21,155	$0	$0	$0	$0
Wallerawang	Rising Mains	SPS763~MhW-764	1965	$ 2,860	$ 2,923	$ 2,923	$0	$0	$0	$0	$0	$0	$0	$2,923
Wallerawang	Rising Mains	SPS965~MhW-762	2005	$ 174,778	$ 178,623	$ 178,623	$178,623	$0	$0	$178,623	$0	$0	$0	$0
Shared all	Monitoring	Stadium	2003	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Wallerawang	Submersible 25m head	Stadium	2003	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$0	$168,426	$0	$0	$0	$0
Wallerawang	Submersible 25m head	Stadium	2003	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$0	$168,426	$0	$0	$0	$0
Shared all	Monitoring	Wallerawang School	1998	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Wallerawang	Submersible 25m head	Wallerawang School	1998	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$0	$168,426	$0	$0	$0	$0
Wallerawang	Submersible 25m head	Wallerawang School	1998	$ 164,800	$ 168,426	$ 168,426	$168,426	$0	$0	$168,426	$0	$0	$0	$0
Wallerawang	Chemical Dosing	Wallerawang WWTP Chemical Dosir	2012	$ 122,590	$ 125,287	$ 125,287	$125,287	$0	$0	$125,287	$0	$0	$0	$0
Wallerawang	Chemical Dosing	Wallerawang WWTP Chemical Dosir	2012	$ 204,750	$ 209,255	$ 209,255	$209,255	$0	$0	$209,255	$0	$0	$0	$0
Wallerawang	Chemical Dosing	Wallerawang WWTP Chemical Dosir	2012	$ 420,550	$ 429,802	$ 429,802	$429,802	$0	$0	$429,802	$0	$0	$0	$0
Wallerawang	Disinfection	Wallerawang WWTP Disinfection UV	2012	$ 9,360	$ 9,566	$ 9,566	$9,566	$0	$0	$9,566	$0	$0	$0	$0
Wallerawang	Disinfection	Wallerawang WWTP Disinfection UV	2012	$ 65,000	$ 66,430	$ 66,430	$66,430	$0	$0	$66,430	$0	$0	$0	$0
Wallerawang	Disinfection	Wallerawang WWTP Disinfection UV	2012	$ 91,000	$ 93,002	$ 93,002	$93,002	$0	$0	$93,002	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 174,655	$ 178,497	$ 178,497	$178,497	$0	$0	$178,497	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 9,750	$ 9,965	$ 9,965	$9,965	$0	$0	$9,965	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 20,800	$ 21,258	$ 21,258	$21,258	$0	$0	$21,258	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 23,400	$ 23,915	$ 23,915	$23,915	$0	$0	$23,915	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 5,850	$ 5,979	$ 5,979	$5,979	$0	$0	$5,979	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Reuse	2012	$ 28,600	$ 29,229	$ 29,229	$29,229	$0	$0	$29,229	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Storag	2012	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$33,215	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Storag	2012	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$33,215	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Storag	2012	$ 570,375	$ 582,923	$ 582,923	$582,923	$0	$0	$582,923	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Transfe	2012	$ 9,750	$ 9,965	$ 9,965	$9,965	$0	$0	$9,965	$0	$0	$0	$0
Wallerawang	Effluent Reuse	Wallerawang WWTP Effluent Transfe	2012	$ 52,000	$ 53,144	$ 53,144	$53,144	$0	$0	$53,144	$0	$0	$0	$0
Wallerawang	Aeration Tank Single Strea	Wallerawang WWTP IDEAT Process	2012	$ 182,000	$ 186,004	$ 186,004	$186,004	$0	$0	$186,004	$0	$0	$0	$0
Wallerawang	Aeration Tank Single Strea	Wallerawang WWTP IDEAT Process	2012	$ 409,500	$ 418,509	$ 418,509	$418,509	$0	$0	$418,509	$0	$0	$0	$0
Wallerawang	Aeration Tank Single Strea	Wallerawang WWTP IDEAT Process	2012	$ 1,133,546	$ 1,158,484	$ 1,158,484	$1,158,484	$0	$0	$1,158,484	$0	$0	$0	$0
Wallerawang	Preliminary	Wallerawang WWTP Preliminary Tre	2012	$ 84,500	$ 86,359	$ 86,359	$86,359	$0	$0	$86,359	$0	$0	$0	$0
Wallerawang	Preliminary	Wallerawang WWTP Preliminary Tre	2012	$ 205,563	$ 210,085	$ 210,085	$210,085	$0	$0	$210,085	$0	$0	$0	$0
Wallerawang	Preliminary	Wallerawang WWTP Preliminary Tre	2012	$ 247,000	$ 252,434	$ 252,434	$252,434	$0	$0	$252,434	$0	$0	$0	$0
Wallerawang	Process	Wallerawang WWTP Process Proces	2012	$ 110,500	$ 112,931	$ 112,931	$112,931	$0	$0	$112,931	$0	$0	$0	$0
Wallerawang	Process	Wallerawang WWTP Process Proces	2012	$ 377,000	$ 385,294	$ 385,294	$385,294	$0	$0	$385,294	$0	$0	$0	$0
Wallerawang	Process	Wallerawang WWTP Process Proces	2012	$ 826,800	$ 844,990	$ 844,990	$844,990	$0	$0	$844,990	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Build	2012	$ 433,160	$ 442,690	$ 442,690	$442,690	$0	$0	$442,690	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Build	2012	$ 84,500	$ 86,359	$ 86,359	$86,359	$0	$0	$86,359	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Build	2012	$ 91,000	$ 93,002	$ 93,002	$93,002	$0	$0	$93,002	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Serv	2012	$ 631,800	$ 645,700	$ 645,700	$645,700	$0	$0	$645,700	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Serv	2012	$ 75,400	$ 77,059	$ 77,059	$77,059	$0	$0	$77,059	$0	$0	$0	$0
Wallerawang	Siteworks	Wallerawang WWTP Siteworks Serv	2012	$ 116,350	$ 118,910	$ 118,910	$118,910	$0	$0	$118,910	$0	$0	$0	$0
Wallerawang	Sludge Lagoons	Wallerawang WWTP Sludge Treatme	2012	$ 58,500	$ 59,787	$ 59,787	$59,787	$0	$0	$59,787	$0	$0	$0	$0
Wallerawang	Sludge Lagoons	Wallerawang WWTP Sludge Treatme	2012	$ 188,500	$ 192,647	$ 192,647	$192,647	$0	$0	$192,647	$0	$0	$0	$0
Wallerawang	Sludge Lagoons	Wallerawang WWTP Sludge Treatme	2012	$ 561,600	$ 573,955	$ 573,955	$573,955	$0	$0	$573,955	$0	$0	$0	$0

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Wallerawang	Supernatant Recovery	Wallerawang WWTP Supernatant Re	2012	$ 28,600	$ 29,229	$ 29,229	$29,229	$0	$0	$29,229	$0	$0	$0	$0
Wallerawang	Supernatant Recovery	Wallerawang WWTP Supernatant Re	2012	$ 51,350	$ 52,480	$ 52,480	$52,480	$0	$0	$52,480	$0	$0	$0	$0
Wallerawang	Supernatant Recovery	Wallerawang WWTP Supernatant Re	2012	$ 84,500	$ 86,359	$ 86,359	$86,359	$0	$0	$86,359	$0	$0	$0	$0
Shared all	Monitoring	Pump Station 2	1997	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Shared all	Monitoring	Pump Station 3	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Farmers Creek	1998	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Hutchinson Street	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Magpie Hollow	2000	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Methven Street	2004	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Prison	2015	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Shared all	Monitoring	State Mine	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Windarra Place	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Prison	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Pump Station 2	2004	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Lithgow	Submersible 25m head	Farmers Creek	1986	$ 181,692	$ 185,689	$ 185,689	$0	$0	$0	$0	$0	$0	$0	$185,689
Lithgow	Submersible 25m head	Farmers Creek	1986	$ 189,108	$ 193,268	$ 193,268	$0	$0	$0	$0	$0	$0	$0	$193,268
Lithgow	Submersible 25m head	Hutchinson St	1994	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Hutchinson St	1994	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Magpie Hollow	2000	$ 194,361	$ 198,637	$ 198,637	$198,637	$198,637	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Magpie Hollow	2000	$ 186,739	$ 190,847	$ 190,847	$190,847	$190,847	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Methven	1982	$ 267,388	$ 273,271	$ 273,271	$0	$0	$0	$0	$0	$0	$0	$273,271
Lithgow	Submersible 25m head	Methven	1982	$ 340,312	$ 347,799	$ 347,799	$0	$0	$0	$0	$0	$0	$0	$347,799
Lithgow	Submersible 50m head	Prison	1992	$ 626,240	$ 640,017	$ 640,017	$640,017	$640,017	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 50m head	Prison	1992	$ 352,260	$ 360,010	$ 360,010	$360,010	$360,010	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Pump Station 2	1975	$ 430,870	$ 440,349	$ 440,349	$0	$0	$0	$0	$0	$0	$0	$440,349
Lithgow	Submersible 25m head	Pump Station 2	1975	$ 765,990	$ 782,842	$ 782,842	$0	$0	$0	$0	$0	$0	$0	$782,842
Lithgow	Submersible 25m head	Pump Station 3	1976	$ 337,840	$ 345,272	$ 345,272	$0	$0	$0	$0	$0	$0	$0	$345,272
Lithgow	Submersible 25m head	Pump Station 3	1976	$ 486,160	$ 496,856	$ 496,856	$0	$0	$0	$0	$0	$0	$0	$496,856
Lithgow	Submersible 25m head	State Mine	1996	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	State Mine	1996	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Windarra Place	1998	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Windarra Place	1998	$ 164,800	$ 168,426	$ 168,426	$168,426	$168,426	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	Hospital Pump Station Upgrade	2016	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 25m head	South Littleton Pump Station Upgrad	2016	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Submersible 50m head	Sewer Pump Butriss Place	2017	$ 13,141	$ 13,430	$ 13,430	$13,430	$13,430	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	DE1~Mh3/12C	1970	$ 6,233	$ 6,370	$ -	$0	$0	$0	$0	$0	$0	$0	$6,370
Lithgow	Reticulation	DE102~Mh5/102	1912	$ 22,777	$ 23,278	$ -	$0	$0	$0	$0	$0	$0	$0	$23,278
Lithgow	Reticulation	DE104~Mh1341	2004	$ 2,715	$ 2,775	$ -	$0	$0	$0	$0	$0	$0	$0	$2,775
Lithgow	Reticulation	DE105~Mh1348	2004	$ 6,094	$ 6,228	$ -	$0	$0	$0	$0	$0	$0	$0	$6,228
Lithgow	Reticulation	DE106~Mh1330	2004	$ 6,413	$ 6,554	$ -	$0	$0	$0	$0	$0	$0	$0	$6,554
Lithgow	Reticulation	DE107~Mh1338	2004	$ 4,164	$ 4,256	$ -	$0	$0	$0	$0	$0	$0	$0	$4,256
Lithgow	Reticulation	DE109~Mh3/27z	1942	$ 3,811	$ 3,895	$ -	$0	$0	$0	$0	$0	$0	$0	$3,895
Lithgow	Reticulation	DE112~Mh2/1	1954	$ 16,700	$ 17,068	$ -	$0	$0	$0	$0	$0	$0	$0	$17,068
Lithgow	Reticulation	DE113~Mh63	1980	$ 5,367	$ 5,485	$ -	$0	$0	$0	$0	$0	$0	$0	$5,485
Lithgow	Reticulation	DE114~Mh2067	1980	$ 6,570	$ 6,714	$ -	$0	$0	$0	$0	$0	$0	$0	$6,714
Lithgow	Reticulation	DE115~Mh2062	1980	$ 6,841	$ 6,992	$ -	$0	$0	$0	$0	$0	$0	$0	$6,992
Lithgow	Reticulation	DE116~Mh2063	1980	$ 5,181	$ 5,295	$ -	$0	$0	$0	$0	$0	$0	$0	$5,295
Lithgow	Reticulation	DE117~Mh2058	1980	$ 11,958	$ 12,221	$ -	$0	$0	$0	$0	$0	$0	$0	$12,221
Lithgow	Reticulation	DE118~Mh2069	1980	$ 24,300	$ 24,835	$ -	$0	$0	$0	$0	$0	$0	$0	$24,835
Lithgow	Reticulation	DE119~Mh2070	1980	$ 7,828	$ 8,001	$ -	$0	$0	$0	$0	$0	$0	$0	$8,001
Lithgow	Reticulation	DE120~Mh1046	1940	$ 7,196	$ 7,354	$ -	$0	$0	$0	$0	$0	$0	$0	$7,354
Lithgow	Reticulation	DE123~Mh3/9a	1910	$ 20,784	$ 21,241	$ -	$0	$0	$0	$0	$0	$0	$0	$21,241
Lithgow	Reticulation	DE124~Mh3/6AD	1910	$ 8,964	$ 9,161	$ -	$0	$0	$0	$0	$0	$0	$0	$9,161
Lithgow	Reticulation	DE125~Mh5/46	1912	$ 8,765	$ 8,958	$ -	$0	$0	$0	$0	$0	$0	$0	$8,958
Lithgow	Reticulation	DE126~Mh3/6G	1910	$ 5,885	$ 6,015	$ -	$0	$0	$0	$0	$0	$0	$0	$6,015
Lithgow	Reticulation	DE127~Mh3/6U	1910	$ 10,745	$ 10,981	$ -	$0	$0	$0	$0	$0	$0	$0	$10,981
Lithgow	Reticulation	DE128~Mh5/144	1930	$ 7,957	$ 8,132	$ -	$0	$0	$0	$0	$0	$0	$0	$8,132
Lithgow	Reticulation	DE129~Mh5/75	1912	$ 13,853	$ 14,158	$ -	$0	$0	$0	$0	$0	$0	$0	$14,158
Lithgow	Reticulation	DE13~Mh180	1940	$ 10,336	$ 10,563	$ -	$0	$0	$0	$0	$0	$0	$0	$10,563
Lithgow	Reticulation	DE130~Mh5/75	1912	$ 4,744	$ 4,849	$ -	$0	$0	$0	$0	$0	$0	$0	$4,849
Lithgow	Reticulation	DE131~Mh5/108	1912	$ 16,189	$ 16,546	$ -	$0	$0	$0	$0	$0	$0	$0	$16,546
Lithgow	Reticulation	DE132~Mh5/118	1912	$ 24,740	$ 25,284	$ -	$0	$0	$0	$0	$0	$0	$0	$25,284
Lithgow	Reticulation	DE133~Mh5/78	1912	$ 7,280	$ 7,440	$ -	$0	$0	$0	$0	$0	$0	$0	$7,440
Lithgow	Reticulation	DE134~Mh52	1930	$ 3,570	$ 3,649	$ -	$0	$0	$0	$0	$0	$0	$0	$3,649
Lithgow	Reticulation	DE135~Mh5/131	1912	$ 7,380	$ 7,543	$ -	$0	$0	$0	$0	$0	$0	$0	$7,543
Lithgow	Reticulation	DE136~Mh5/115	1912	$ 5,468	$ 5,588	$ -	$0	$0	$0	$0	$0	$0	$0	$5,588
Lithgow	Reticulation	DE137~Mh5/117	1912	$ 11,823	$ 12,083	$ -	$0	$0	$0	$0	$0	$0	$0	$12,083
Lithgow	Reticulation	DE138~Mh5/114	1912	$ 7,606	$ 7,774	$ -	$0	$0	$0	$0	$0	$0	$0	$7,774
Lithgow	Reticulation	DE139~Mh5/104	1912	$ 43,333	$ 44,286	$ -	$0	$0	$0	$0	$0	$0	$0	$44,286
Lithgow	Reticulation	DE1393~Mh9/80	1980	$ 11,849	$ 12,110	$ -	$0	$0	$0	$0	$0	$0	$0	$12,110

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	DE1394~Mh9/92	1970	$ 19,485	$ 19,914	$ -	$0	$0	$0	$0	$0	$0	$0	$19,914
Lithgow	Reticulation	DE1395~Mh6/38	1940	$ 35,519	$ 36,301	$ -	$0	$0	$0	$0	$0	$0	$0	$36,301
Lithgow	Reticulation	DE14~Mh181	1940	$ 10,798	$ 11,036	$ -	$0	$0	$0	$0	$0	$0	$0	$11,036
Lithgow	Reticulation	DE140~Mh5/120	1912	$ 5,766	$ 5,893	$ -	$0	$0	$0	$0	$0	$0	$0	$5,893
Lithgow	Reticulation	DE141~Mh5/88	1912	$ 7,660	$ 7,829	$ -	$0	$0	$0	$0	$0	$0	$0	$7,829
Lithgow	Reticulation	DE142~Mh1374	1885	$ 11,539	$ 11,793	$ -	$0	$0	$0	$0	$0	$0	$0	$11,793
Lithgow	Reticulation	DE143~Mh1373	1885	$ 18,356	$ 18,760	$ -	$0	$0	$0	$0	$0	$0	$0	$18,760
Lithgow	Reticulation	DE145~Mh5/80	1912	$ 10,285	$ 10,511	$ -	$0	$0	$0	$0	$0	$0	$0	$10,511
Lithgow	Reticulation	DE146~Mh6/65	1912	$ 9,004	$ 9,202	$ -	$0	$0	$0	$0	$0	$0	$0	$9,202
Lithgow	Reticulation	DE147~Mh5/116	1912	$ 2,496	$ 2,551	$ -	$0	$0	$0	$0	$0	$0	$0	$2,551
Lithgow	Reticulation	DE148~Mh983	1930	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	DE149~Mh6/46	1940	$ 2,750	$ 2,811	$ -	$0	$0	$0	$0	$0	$0	$0	$2,811
Lithgow	Reticulation	DE150~Mh6/31	1885	$ 2,770	$ 2,831	$ -	$0	$0	$0	$0	$0	$0	$0	$2,831
Lithgow	Reticulation	DE151~Mh1036	1940	$ 6,032	$ 6,165	$ -	$0	$0	$0	$0	$0	$0	$0	$6,165
Lithgow	Reticulation	DE152~Mh6/59	1885	$ 12,604	$ 12,881	$ -	$0	$0	$0	$0	$0	$0	$0	$12,881
Lithgow	Reticulation	DE153~Mh7/84	1905	$ 6,115	$ 6,249	$ -	$0	$0	$0	$0	$0	$0	$0	$6,249
Lithgow	Reticulation	DE154~Mh7/91	1905	$ 15,971	$ 16,322	$ -	$0	$0	$0	$0	$0	$0	$0	$16,322
Lithgow	Reticulation	DE155~Mh7/89	1905	$ 4,190	$ 4,282	$ -	$0	$0	$0	$0	$0	$0	$0	$4,282
Lithgow	Reticulation	DE156~Mh7/83	1905	$ 9,969	$ 10,189	$ -	$0	$0	$0	$0	$0	$0	$0	$10,189
Lithgow	Reticulation	DE157~Mh7/31	1940	$ 18,837	$ 19,252	$ -	$0	$0	$0	$0	$0	$0	$0	$19,252
Lithgow	Reticulation	DE158~Mh9/31	1940	$ 4,068	$ 4,157	$ -	$0	$0	$0	$0	$0	$0	$0	$4,157
Lithgow	Reticulation	DE159~J3	1885	$ 32,802	$ 33,524	$ -	$0	$0	$0	$0	$0	$0	$0	$33,524
Lithgow	Reticulation	DE16~Mh2003	1942	$ 10,338	$ 10,566	$ -	$0	$0	$0	$0	$0	$0	$0	$10,566
Lithgow	Reticulation	DE160~J2	1885	$ 18,868	$ 19,283	$ -	$0	$0	$0	$0	$0	$0	$0	$19,283
Lithgow	Reticulation	DE161~Mh7/27	1885	$ 34,820	$ 35,586	$ -	$0	$0	$0	$0	$0	$0	$0	$35,586
Lithgow	Reticulation	DE162~Mh7/23	1885	$ 13,805	$ 14,109	$ -	$0	$0	$0	$0	$0	$0	$0	$14,109
Lithgow	Reticulation	DE163~Mh9/49	1970	$ 11,382	$ 11,633	$ -	$0	$0	$0	$0	$0	$0	$0	$11,633
Lithgow	Reticulation	DE164~Mh9/47	1970	$ 13,291	$ 13,583	$ -	$0	$0	$0	$0	$0	$0	$0	$13,583
Lithgow	Reticulation	DE165~Mh9/46	1970	$ 13,993	$ 14,301	$ -	$0	$0	$0	$0	$0	$0	$0	$14,301
Lithgow	Reticulation	DE166~Mh9/107	1970	$ 7,294	$ 7,454	$ -	$0	$0	$0	$0	$0	$0	$0	$7,454
Lithgow	Reticulation	DE167~Mh9/103	1890	$ 5,832	$ 5,960	$ -	$0	$0	$0	$0	$0	$0	$0	$5,960
Lithgow	Reticulation	DE168~Mh9/103	1890	$ 9,688	$ 9,901	$ -	$0	$0	$0	$0	$0	$0	$0	$9,901
Lithgow	Reticulation	DE169~Mh9/99	2003	$ 10,457	$ 10,687	$ -	$0	$0	$0	$0	$0	$0	$0	$10,687
Lithgow	Reticulation	DE17~Mh2007	1942	$ 9,015	$ 9,213	$ -	$0	$0	$0	$0	$0	$0	$0	$9,213
Lithgow	Reticulation	DE170~Mh9/96	2003	$ 8,208	$ 8,388	$ -	$0	$0	$0	$0	$0	$0	$0	$8,388
Lithgow	Reticulation	DE171~Mh9/116	1970	$ 9,842	$ 10,059	$ -	$0	$0	$0	$0	$0	$0	$0	$10,059
Lithgow	Reticulation	DE172~Mh11/37	1960	$ 7,883	$ 8,056	$ -	$0	$0	$0	$0	$0	$0	$0	$8,056
Lithgow	Reticulation	DE173~Mh11/30	1960	$ 5,592	$ 5,715	$ -	$0	$0	$0	$0	$0	$0	$0	$5,715
Lithgow	Reticulation	DE174~Mh11/46	1890	$ 6,479	$ 6,621	$ -	$0	$0	$0	$0	$0	$0	$0	$6,621
Lithgow	Reticulation	DE175~Mh89	1905	$ 11,648	$ 11,904	$ -	$0	$0	$0	$0	$0	$0	$0	$11,904
Lithgow	Reticulation	DE176~Mh2041	1930	$ 20,952	$ 21,413	$ -	$0	$0	$0	$0	$0	$0	$0	$21,413
Lithgow	Reticulation	DE177~Mh11/83	1940	$ 1,271	$ 1,299	$ -	$0	$0	$0	$0	$0	$0	$0	$1,299
Lithgow	Reticulation	DE178~Mh2094	1930	$ 24,812	$ 25,358	$ -	$0	$0	$0	$0	$0	$0	$0	$25,358
Lithgow	Reticulation	DE179~Mh2097	1930	$ 6,514	$ 6,658	$ -	$0	$0	$0	$0	$0	$0	$0	$6,658
Lithgow	Reticulation	DE18~Mh2006	1942	$ 3,306	$ 3,379	$ -	$0	$0	$0	$0	$0	$0	$0	$3,379
Lithgow	Reticulation	DE180~Mh1/63	1930	$ 11,548	$ 11,802	$ -	$0	$0	$0	$0	$0	$0	$0	$11,802
Lithgow	Reticulation	DE181~Mh10/34	1930	$ 2,124	$ 2,171	$ -	$0	$0	$0	$0	$0	$0	$0	$2,171
Lithgow	Reticulation	DE182~Mh10/39	1930	$ 13,558	$ 13,857	$ -	$0	$0	$0	$0	$0	$0	$0	$13,857
Lithgow	Reticulation	DE183~Mh2126	1890	$ 17,099	$ 17,475	$ -	$0	$0	$0	$0	$0	$0	$0	$17,475
Lithgow	Reticulation	DE184~J5	1890	$ 22,708	$ 23,207	$ -	$0	$0	$0	$0	$0	$0	$0	$23,207
Lithgow	Reticulation	DE185~Mh2125	1890	$ 20,342	$ 20,790	$ -	$0	$0	$0	$0	$0	$0	$0	$20,790
Lithgow	Reticulation	DE186~Mh96a	1890	$ 15,873	$ 16,222	$ -	$0	$0	$0	$0	$0	$0	$0	$16,222
Lithgow	Reticulation	DE187~Mh2127	1890	$ 4,342	$ 4,438	$ -	$0	$0	$0	$0	$0	$0	$0	$4,438
Lithgow	Reticulation	DE188~Mh2136	1890	$ 4,463	$ 4,562	$ -	$0	$0	$0	$0	$0	$0	$0	$4,562
Lithgow	Reticulation	DE189~Mh9/80	1980	$ 7,872	$ 8,045	$ -	$0	$0	$0	$0	$0	$0	$0	$8,045
Lithgow	Reticulation	DE19~Mh2005	1942	$ 8,556	$ 8,745	$ -	$0	$0	$0	$0	$0	$0	$0	$8,745
Lithgow	Reticulation	DE190~Mh9/81	1980	$ 7,649	$ 7,817	$ -	$0	$0	$0	$0	$0	$0	$0	$7,817
Lithgow	Reticulation	DE191~Mh2143	1996	$ 7,200	$ 7,359	$ -	$0	$0	$0	$0	$0	$0	$0	$7,359
Lithgow	Reticulation	DE192~Mh2139	1890	$ 4,176	$ 4,268	$ -	$0	$0	$0	$0	$0	$0	$0	$4,268
Lithgow	Reticulation	DE193~Mh2118	1940	$ 1,803	$ 1,843	$ -	$0	$0	$0	$0	$0	$0	$0	$1,843
Lithgow	Reticulation	DE194~Mh2100	1940	$ 9,164	$ 9,365	$ -	$0	$0	$0	$0	$0	$0	$0	$9,365
Lithgow	Reticulation	DE195~Mh2046	1940	$ 4,965	$ 5,074	$ -	$0	$0	$0	$0	$0	$0	$0	$5,074
Lithgow	Reticulation	DE196~Mh10/12	1940	$ 4,082	$ 4,172	$ -	$0	$0	$0	$0	$0	$0	$0	$4,172
Lithgow	Reticulation	DE197~Mh10/30	1940	$ 16,287	$ 16,645	$ -	$0	$0	$0	$0	$0	$0	$0	$16,645
Lithgow	Reticulation	DE198~Mh10/30	1940	$ 10,609	$ 10,842	$ -	$0	$0	$0	$0	$0	$0	$0	$10,842
Lithgow	Reticulation	DE199~Mh1/86	1940	$ 6,907	$ 7,059	$ -	$0	$0	$0	$0	$0	$0	$0	$7,059
Lithgow	Reticulation	DE20~Mh24	1942	$ 8,490	$ 8,677	$ -	$0	$0	$0	$0	$0	$0	$0	$8,677
Lithgow	Reticulation	DE200~Mh11/72	1890	$ 4,771	$ 4,876	$ -	$0	$0	$0	$0	$0	$0	$0	$4,876
Lithgow	Reticulation	DE201~Mh8-4/2809	1994	$ 10,943	$ 11,184	$ -	$0	$0	$0	$0	$0	$0	$0	$11,184
Lithgow	Reticulation	DE202~Mh9/30	1885	$ 4,920	$ 5,029	$ -	$0	$0	$0	$0	$0	$0	$0	$5,029

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	DE203~Mh11/49b	1890	$ 34,179	$ 34,931	$ -	$0	$0	$0	$0	$0	$0	$0	$34,931
Lithgow	Reticulation	DE204~Mh2114	1890	$ 16,707	$ 17,075	$ -	$0	$0	$0	$0	$0	$0	$0	$17,075
Lithgow	Reticulation	DE205~Mh96c	1890	$ 18,846	$ 19,261	$ -	$0	$0	$0	$0	$0	$0	$0	$19,261
Lithgow	Reticulation	DE206~Mh8/31b	1930	$ 7,801	$ 7,972	$ -	$0	$0	$0	$0	$0	$0	$0	$7,972
Lithgow	Reticulation	DE207~Mh2095	1930	$ 6,973	$ 7,127	$ -	$0	$0	$0	$0	$0	$0	$0	$7,127
Lithgow	Reticulation	DE208~Mh11/49h	1890	$ 6,266	$ 6,404	$ -	$0	$0	$0	$0	$0	$0	$0	$6,404
Lithgow	Reticulation	DE209~Mh11/45	1890	$ 5,200	$ 5,315	$ -	$0	$0	$0	$0	$0	$0	$0	$5,315
Lithgow	Reticulation	DE21~Mh2008	1942	$ 7,261	$ 7,421	$ -	$0	$0	$0	$0	$0	$0	$0	$7,421
Lithgow	Reticulation	DE210~Mh2148	1996	$ 2,039	$ 2,084	$ -	$0	$0	$0	$0	$0	$0	$0	$2,084
Lithgow	Reticulation	DE211~Mh1012	1990	$ 10,126	$ 10,348	$ -	$0	$0	$0	$0	$0	$0	$0	$10,348
Lithgow	Reticulation	DE212~Mh1024	1990	$ 5,873	$ 6,002	$ -	$0	$0	$0	$0	$0	$0	$0	$6,002
Lithgow	Reticulation	DE213~Mh997	1990	$ 8,930	$ 9,127	$ -	$0	$0	$0	$0	$0	$0	$0	$9,127
Lithgow	Reticulation	DE214~Mh1006	1990	$ 18,539	$ 18,946	$ -	$0	$0	$0	$0	$0	$0	$0	$18,946
Lithgow	Reticulation	DE215~Mh1007	1990	$ 14,592	$ 14,913	$ -	$0	$0	$0	$0	$0	$0	$0	$14,913
Lithgow	Reticulation	DE216~Mh1011	1990	$ 16,020	$ 16,373	$ -	$0	$0	$0	$0	$0	$0	$0	$16,373
Lithgow	Reticulation	DE217~Mh1031	1990	$ 11,816	$ 12,076	$ -	$0	$0	$0	$0	$0	$0	$0	$12,076
Lithgow	Reticulation	DE218~MhA7a	2001	$ 3,872	$ 3,957	$ -	$0	$0	$0	$0	$0	$0	$0	$3,957
Lithgow	Reticulation	DE219~MhB2	2001	$ 7,608	$ 7,776	$ -	$0	$0	$0	$0	$0	$0	$0	$7,776
Lithgow	Reticulation	DE22~Mh2010	1942	$ 5,853	$ 5,982	$ -	$0	$0	$0	$0	$0	$0	$0	$5,982
Lithgow	Reticulation	DE220~MhA6a	2001	$ 2,416	$ 2,469	$ -	$0	$0	$0	$0	$0	$0	$0	$2,469
Lithgow	Reticulation	DE221~Mh1029	1990	$ 15,554	$ 15,896	$ -	$0	$0	$0	$0	$0	$0	$0	$15,896
Lithgow	Reticulation	DE222~Mh4/15	1930	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	DE223~Mh2057	1905	$ 8,602	$ 8,791	$ -	$0	$0	$0	$0	$0	$0	$0	$8,791
Lithgow	Reticulation	DE23~Mh39	1942	$ 7,509	$ 7,674	$ -	$0	$0	$0	$0	$0	$0	$0	$7,674
Lithgow	Reticulation	DE24~Mh42	1942	$ 10,903	$ 11,143	$ -	$0	$0	$0	$0	$0	$0	$0	$11,143
Lithgow	Reticulation	DE25~Mh43	1942	$ 6,777	$ 6,926	$ -	$0	$0	$0	$0	$0	$0	$0	$6,926
Lithgow	Reticulation	DE26~Mh34	1942	$ 13,958	$ 14,265	$ -	$0	$0	$0	$0	$0	$0	$0	$14,265
Lithgow	Reticulation	DE27~Mh36	1942	$ 8,977	$ 9,175	$ -	$0	$0	$0	$0	$0	$0	$0	$9,175
Lithgow	Reticulation	DE28~Mh3/27AU	1942	$ 11,134	$ 11,379	$ -	$0	$0	$0	$0	$0	$0	$0	$11,379
Lithgow	Reticulation	DE29~Mh3/23BQ	1915	$ 14,066	$ 14,376	$ -	$0	$0	$0	$0	$0	$0	$0	$14,376
Lithgow	Reticulation	DE3~Mh2/159	1975	$ 15,906	$ 16,256	$ -	$0	$0	$0	$0	$0	$0	$0	$16,256
Lithgow	Reticulation	DE30~Mh3/23BK	1915	$ 8,992	$ 9,190	$ -	$0	$0	$0	$0	$0	$0	$0	$9,190
Lithgow	Reticulation	DE300~Mh2300	1980	$ 21,185	$ 21,651	$ -	$0	$0	$0	$0	$0	$0	$0	$21,651
Lithgow	Reticulation	DE301~Mh2301	1980	$ 11,346	$ 11,596	$ -	$0	$0	$0	$0	$0	$0	$0	$11,596
Lithgow	Reticulation	DE31~Mh3/27AL	1915	$ 6,589	$ 6,734	$ -	$0	$0	$0	$0	$0	$0	$0	$6,734
Lithgow	Reticulation	DE32~Mh3/23BF	1915	$ 10,417	$ 10,647	$ -	$0	$0	$0	$0	$0	$0	$0	$10,647
Lithgow	Reticulation	DE33~Mh3/23AZ	1915	$ 16,722	$ 17,090	$ -	$0	$0	$0	$0	$0	$0	$0	$17,090
Lithgow	Reticulation	DE34~Mh3/27U	1915	$ 15,109	$ 15,441	$ -	$0	$0	$0	$0	$0	$0	$0	$15,441
Lithgow	Reticulation	DE35~Mh3/27U	1915	$ 9,464	$ 9,672	$ -	$0	$0	$0	$0	$0	$0	$0	$9,672
Lithgow	Reticulation	DE36~Mh3/27R	1915	$ 14,749	$ 15,073	$ -	$0	$0	$0	$0	$0	$0	$0	$15,073
Lithgow	Reticulation	DE37~Mh3/27R	1915	$ 9,226	$ 9,429	$ -	$0	$0	$0	$0	$0	$0	$0	$9,429
Lithgow	Reticulation	DE38~Mh3/27P	1915	$ 4,693	$ 4,796	$ -	$0	$0	$0	$0	$0	$0	$0	$4,796
Lithgow	Reticulation	DE39~Mh3/27N	1915	$ 3,450	$ 3,526	$ -	$0	$0	$0	$0	$0	$0	$0	$3,526
Lithgow	Reticulation	DE40~Mh3/26M	1915	$ 4,844	$ 4,950	$ -	$0	$0	$0	$0	$0	$0	$0	$4,950
Lithgow	Reticulation	DE41~Mh3/26Y	1915	$ 10,943	$ 11,184	$ -	$0	$0	$0	$0	$0	$0	$0	$11,184
Lithgow	Reticulation	DE42~Mh3/26W	1915	$ 7,521	$ 7,687	$ -	$0	$0	$0	$0	$0	$0	$0	$7,687
Lithgow	Reticulation	DE43~Mh3/26U	1915	$ 3,285	$ 3,357	$ -	$0	$0	$0	$0	$0	$0	$0	$3,357
Lithgow	Reticulation	DE44~Mh3/26O	1915	$ 12,338	$ 12,609	$ -	$0	$0	$0	$0	$0	$0	$0	$12,609
Lithgow	Reticulation	DE45~Mh3/26R	1915	$ 4,870	$ 4,977	$ -	$0	$0	$0	$0	$0	$0	$0	$4,977
Lithgow	Reticulation	DE46~Mh3/26Y	1915	$ 21,965	$ 22,448	$ -	$0	$0	$0	$0	$0	$0	$0	$22,448
Lithgow	Reticulation	DE47~Mh3/26I	1915	$ 13,743	$ 14,045	$ -	$0	$0	$0	$0	$0	$0	$0	$14,045
Lithgow	Reticulation	DE48~Mh3/26G	1915	$ 10,318	$ 10,545	$ -	$0	$0	$0	$0	$0	$0	$0	$10,545
Lithgow	Reticulation	DE49~Mh3/27AI	1915	$ 9,517	$ 9,726	$ -	$0	$0	$0	$0	$0	$0	$0	$9,726
Lithgow	Reticulation	DE50~Mh3/27E	1915	$ 4,145	$ 4,236	$ -	$0	$0	$0	$0	$0	$0	$0	$4,236
Lithgow	Reticulation	DE52~Mh3/27X	1915	$ 11,022	$ 11,265	$ -	$0	$0	$0	$0	$0	$0	$0	$11,265
Lithgow	Reticulation	DE53~Mh3/23AZ	1915	$ 11,035	$ 11,277	$ -	$0	$0	$0	$0	$0	$0	$0	$11,277
Lithgow	Reticulation	DE54~Mh3/23AW	1915	$ 12,068	$ 12,333	$ -	$0	$0	$0	$0	$0	$0	$0	$12,333
Lithgow	Reticulation	DE55~Mh3/23AE	1915	$ 15,428	$ 15,767	$ -	$0	$0	$0	$0	$0	$0	$0	$15,767
Lithgow	Reticulation	DE56~Mh3/23C	1970	$ 7,843	$ 8,015	$ -	$0	$0	$0	$0	$0	$0	$0	$8,015
Lithgow	Reticulation	DE57~Mh3/21D	1970	$ 16,012	$ 16,364	$ -	$0	$0	$0	$0	$0	$0	$0	$16,364
Lithgow	Reticulation	DE58~Mh3/17G	1970	$ 5,574	$ 5,696	$ -	$0	$0	$0	$0	$0	$0	$0	$5,696
Lithgow	Reticulation	DE59~Mh3/17D	1970	$ 17,878	$ 18,272	$ -	$0	$0	$0	$0	$0	$0	$0	$18,272
Lithgow	Reticulation	DE6~Mh2/160	1975	$ 6,882	$ 7,033	$ -	$0	$0	$0	$0	$0	$0	$0	$7,033
Lithgow	Reticulation	DE61~Mh2/207	1975	$ 5,390	$ 5,509	$ -	$0	$0	$0	$0	$0	$0	$0	$5,509
Lithgow	Reticulation	DE62~Mh3/6AB	1910	$ 16,802	$ 17,172	$ -	$0	$0	$0	$0	$0	$0	$0	$17,172
Lithgow	Reticulation	DE63~Mh3/10C	1910	$ 15,761	$ 16,108	$ -	$0	$0	$0	$0	$0	$0	$0	$16,108
Lithgow	Reticulation	DE64~Mh3/6O	1970	$ 9,017	$ 9,215	$ -	$0	$0	$0	$0	$0	$0	$0	$9,215
Lithgow	Reticulation	DE65~Mh3/15B	1970	$ 8,288	$ 8,470	$ -	$0	$0	$0	$0	$0	$0	$0	$8,470
Lithgow	Reticulation	DE66~Mh3/15D	1970	$ 7,728	$ 7,898	$ -	$0	$0	$0	$0	$0	$0	$0	$7,898
Lithgow	Reticulation	DE67~Mh5/101	1912	$ 7,165	$ 7,323	$ -	$0	$0	$0	$0	$0	$0	$0	$7,323

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	DE68~Mh5/101	1912	$ 13,689	$ 13,991	$ -	$0	$0	$0	$0	$0	$0	$0	$13,991
Lithgow	Reticulation	DE75~Mh3/8A	1910	$ 18,475	$ 18,881	$ -	$0	$0	$0	$0	$0	$0	$0	$18,881
Lithgow	Reticulation	DE82~Mh3/23E	1970	$ 16,600	$ 16,965	$ -	$0	$0	$0	$0	$0	$0	$0	$16,965
Lithgow	Reticulation	DE83~Mh3/23BS	1915	$ 8,969	$ 9,166	$ -	$0	$0	$0	$0	$0	$0	$0	$9,166
Lithgow	Reticulation	DE84~Mh3/27AS	1942	$ 16,010	$ 16,362	$ -	$0	$0	$0	$0	$0	$0	$0	$16,362
Lithgow	Reticulation	DE85~Mh1040	1942	$ 7,506	$ 7,671	$ -	$0	$0	$0	$0	$0	$0	$0	$7,671
Lithgow	Reticulation	DE86~Mh1038	1940	$ 13,532	$ 13,830	$ -	$0	$0	$0	$0	$0	$0	$0	$13,830
Lithgow	Reticulation	DE87~Mh991	1940	$ 8,218	$ 8,399	$ -	$0	$0	$0	$0	$0	$0	$0	$8,399
Lithgow	Reticulation	DE88~Mh35	1940	$ 1,381	$ 1,411	$ -	$0	$0	$0	$0	$0	$0	$0	$1,411
Lithgow	Reticulation	DE89~Mh1040	1940	$ 8,521	$ 8,709	$ -	$0	$0	$0	$0	$0	$0	$0	$8,709
Lithgow	Reticulation	DE94~Mh3/17G	1940	$ 6,928	$ 7,081	$ -	$0	$0	$0	$0	$0	$0	$0	$7,081
Lithgow	Reticulation	DE95~Mh3/27d	1940	$ 20,555	$ 21,007	$ -	$0	$0	$0	$0	$0	$0	$0	$21,007
Lithgow	Reticulation	DE96~Mh3/6R	1940	$ 4,583	$ 4,684	$ -	$0	$0	$0	$0	$0	$0	$0	$4,684
Lithgow	Reticulation	DE97~Mh3/27AE	1940	$ 12,551	$ 12,827	$ -	$0	$0	$0	$0	$0	$0	$0	$12,827
Lithgow	Reticulation	DE98~Mh3/27AE	1940	$ 21,089	$ 21,553	$ -	$0	$0	$0	$0	$0	$0	$0	$21,553
Lithgow	Reticulation	DE99~Mh3/152b	1910	$ 6,661	$ 6,807	$ -	$0	$0	$0	$0	$0	$0	$0	$6,807
Lithgow	Reticulation	DEP/A13~MhP/A12	2006	$ 9,249	$ 9,452	$ -	$0	$0	$0	$0	$0	$0	$0	$9,452
Lithgow	Reticulation	DEP/B3~MhP/B2	2006	$ 11,567	$ 11,821	$ -	$0	$0	$0	$0	$0	$0	$0	$11,821
Lithgow	Reticulation	J2~Mh7/26	1885	$ 14,052	$ 14,361	$ -	$0	$0	$0	$0	$0	$0	$0	$14,361
Lithgow	Reticulation	J3~Mh7/24a	1885	$ 14,375	$ 14,691	$ -	$0	$0	$0	$0	$0	$0	$0	$14,691
Lithgow	Reticulation	J4~Mh2116	1890	$ 5,443	$ 5,563	$ -	$0	$0	$0	$0	$0	$0	$0	$5,563
Lithgow	Reticulation	J5~Mh96a	1890	$ 13,342	$ 13,635	$ -	$0	$0	$0	$0	$0	$0	$0	$13,635
Lithgow	Rising Mains	J6~SPS2154	1942	$ 342,888	$ 350,432	$ 350,432	$0	$0	$0	$0	$0	$0	$0	$350,432
Lithgow	Rising Mains	J9~SPS1390	1930	$ 1,067,059	$ 1,090,534	$ 1,090,534	$0	$0	$0	$0	$0	$0	$0	$1,090,534
Lithgow	Rising Mains	Mh1/10~Mh1/9a	1930	$ 37,386	$ 38,208	$ 38,208	$0	$0	$0	$0	$0	$0	$0	$38,208
Lithgow	Rising Mains	Mh1/11~Mh1/10	1930	$ 37,250	$ 38,069	$ 38,069	$0	$0	$0	$0	$0	$0	$0	$38,069
Lithgow	Rising Mains	Mh1/12~Mh1/11	1930	$ 37,101	$ 37,917	$ 37,917	$0	$0	$0	$0	$0	$0	$0	$37,917
Lithgow	Rising Mains	Mh1/13~Mh1/12	1930	$ 38,981	$ 39,839	$ 39,839	$0	$0	$0	$0	$0	$0	$0	$39,839
Lithgow	Rising Mains	Mh1/14~Mh1/13	1930	$ 28,307	$ 28,929	$ 28,929	$0	$0	$0	$0	$0	$0	$0	$28,929
Lithgow	Rising Mains	Mh1/15~Mh1/14	1930	$ 26,780	$ 27,369	$ 27,369	$0	$0	$0	$0	$0	$0	$0	$27,369
Lithgow	Rising Mains	Mh1/16~Mh1/15	1930	$ 34,581	$ 35,341	$ 35,341	$0	$0	$0	$0	$0	$0	$0	$35,341
Lithgow	Rising Mains	Mh1/17~Mh1/16	1930	$ 28,515	$ 29,142	$ 29,142	$0	$0	$0	$0	$0	$0	$0	$29,142
Lithgow	Rising Mains	Mh1/18~Mh1/17	1930	$ 13,441	$ 13,736	$ 13,736	$0	$0	$0	$0	$0	$0	$0	$13,736
Lithgow	Rising Mains	Mh1/19~Mh1/18	1930	$ 35,601	$ 36,384	$ 36,384	$0	$0	$0	$0	$0	$0	$0	$36,384
Lithgow	Rising Mains	Mh1/1b~MhINLET	1900	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1/20~Mh1/19	1930	$ 37,562	$ 38,388	$ 38,388	$0	$0	$0	$0	$0	$0	$0	$38,388
Lithgow	Rising Mains	Mh1/21~Mh1/20	1930	$ 37,562	$ 38,389	$ 38,389	$0	$0	$0	$0	$0	$0	$0	$38,389
Lithgow	Rising Mains	Mh1/22~Mh1/21	1930	$ 20,460	$ 20,910	$ 20,910	$0	$0	$0	$0	$0	$0	$0	$20,910
Lithgow	Rising Mains	Mh1/23~Mh1/22	1930	$ 17,648	$ 18,036	$ 18,036	$0	$0	$0	$0	$0	$0	$0	$18,036
Lithgow	Rising Mains	Mh1/24~Mh1/23	1930	$ 22,590	$ 23,087	$ 23,087	$0	$0	$0	$0	$0	$0	$0	$23,087
Lithgow	Rising Mains	Mh1/25~SPS2156	1930	$ 25,318	$ 25,875	$ 25,875	$0	$0	$0	$0	$0	$0	$0	$25,875
Lithgow	Rising Mains	Mh1/26~Mh1/25	1930	$ 17,685	$ 18,075	$ 18,075	$0	$0	$0	$0	$0	$0	$0	$18,075
Lithgow	Rising Mains	Mh1/27~Mh1/26	1930	$ 27,333	$ 27,934	$ 27,934	$0	$0	$0	$0	$0	$0	$0	$27,934
Lithgow	Rising Mains	Mh1/28~Mh1/27	1930	$ 20,577	$ 21,030	$ 21,030	$0	$0	$0	$0	$0	$0	$0	$21,030
Lithgow	Rising Mains	Mh1/29~Mh1/28	1930	$ 21,110	$ 21,574	$ 21,574	$0	$0	$0	$0	$0	$0	$0	$21,574
Lithgow	Rising Mains	Mh1/30~Mh1/29	1930	$ 27,057	$ 27,653	$ 27,653	$0	$0	$0	$0	$0	$0	$0	$27,653
Lithgow	Rising Mains	Mh1/31~Mh1/30	1930	$ 25,251	$ 25,806	$ 25,806	$0	$0	$0	$0	$0	$0	$0	$25,806
Lithgow	Rising Mains	Mh1/32~Mh1/31	1930	$ 10,408	$ 10,637	$ 10,637	$0	$0	$0	$0	$0	$0	$0	$10,637
Lithgow	Rising Mains	Mh1/33~Mh1/32	1930	$ 25,192	$ 25,746	$ 25,746	$0	$0	$0	$0	$0	$0	$0	$25,746
Lithgow	Rising Mains	Mh1/34~Mh1/33	1930	$ 12,035	$ 12,300	$ 12,300	$0	$0	$0	$0	$0	$0	$0	$12,300
Lithgow	Rising Mains	Mh1/35~Mh1/34	1930	$ 18,709	$ 19,120	$ 19,120	$0	$0	$0	$0	$0	$0	$0	$19,120
Lithgow	Rising Mains	Mh1/36~Mh1/35	1930	$ 27,297	$ 27,898	$ 27,898	$0	$0	$0	$0	$0	$0	$0	$27,898
Lithgow	Rising Mains	Mh1/37~Mh1/36	1930	$ 19,877	$ 20,314	$ 20,314	$0	$0	$0	$0	$0	$0	$0	$20,314
Lithgow	Rising Mains	Mh1/38~Mh1/37	1930	$ 19,100	$ 19,520	$ 19,520	$0	$0	$0	$0	$0	$0	$0	$19,520
Lithgow	Rising Mains	Mh1/39~Mh1/38	1930	$ 27,377	$ 27,980	$ 27,980	$0	$0	$0	$0	$0	$0	$0	$27,980
Lithgow	Rising Mains	Mh1/3b~Mh1/3c	1900	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1/3c~Mh1/1b	1900	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1/4~Mh1/3b	1900	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1/40~Mh1/39	1930	$ 23,473	$ 23,989	$ 23,989	$0	$0	$0	$0	$0	$0	$0	$23,989
Lithgow	Rising Mains	Mh1/41~Mh1/40	1930	$ 15,141	$ 15,474	$ 15,474	$0	$0	$0	$0	$0	$0	$0	$15,474
Lithgow	Rising Mains	Mh1/42~Mh1/41	1930	$ 8,303	$ 8,486	$ 8,486	$0	$0	$0	$0	$0	$0	$0	$8,486
Lithgow	Rising Mains	Mh1/43~Mh1/42	1930	$ 13,490	$ 13,787	$ 13,787	$0	$0	$0	$0	$0	$0	$0	$13,787
Lithgow	Rising Mains	Mh1/44~Mh1/43	1930	$ 11,964	$ 12,227	$ 12,227	$0	$0	$0	$0	$0	$0	$0	$12,227
Lithgow	Rising Mains	Mh1/45~Mh1/44	1930	$ 16,665	$ 17,031	$ 17,031	$0	$0	$0	$0	$0	$0	$0	$17,031
Lithgow	Rising Mains	Mh1/46~Mh1/45	1930	$ 14,140	$ 14,451	$ 14,451	$0	$0	$0	$0	$0	$0	$0	$14,451
Lithgow	Rising Mains	Mh1/47~Mh1/46	1930	$ 17,283	$ 17,663	$ 17,663	$0	$0	$0	$0	$0	$0	$0	$17,663
Lithgow	Rising Mains	Mh1/48~Mh1/47	1930	$ 16,145	$ 16,501	$ 16,501	$0	$0	$0	$0	$0	$0	$0	$16,501
Lithgow	Rising Mains	Mh1/49~Mh1/48	1930	$ 27,413	$ 28,016	$ 28,016	$0	$0	$0	$0	$0	$0	$0	$28,016
Lithgow	Reticulation	Mh1/51~SPS2157	1940	$ 5,121	$ 5,234	$ -	$0	$0	$0	$0	$0	$0	$0	$5,234
Lithgow	Rising Mains	Mh1/52~SPS2157	1930	$ 33,538	$ 34,276	$ 34,276	$0	$0	$0	$0	$0	$0	$0	$34,276

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Rising Mains	Mh1/53~Mh1/52	1930	$ 19,454	$ 19,882	$ 19,882	$0	$0	$0	$0	$0	$0	$0	$19,882
Lithgow	Rising Mains	Mh1/54~Mh1/53	1930	$ 19,478	$ 19,907	$ 19,907	$0	$0	$0	$0	$0	$0	$0	$19,907
Lithgow	Rising Mains	Mh1/55~Mh1/54	1930	$ 22,175	$ 22,663	$ 22,663	$0	$0	$0	$0	$0	$0	$0	$22,663
Lithgow	Rising Mains	Mh1/56~Mh1/55	1930	$ 20,064	$ 20,506	$ 20,506	$0	$0	$0	$0	$0	$0	$0	$20,506
Lithgow	Rising Mains	Mh1/57~Mh1/56	1930	$ 26,676	$ 27,263	$ 27,263	$0	$0	$0	$0	$0	$0	$0	$27,263
Lithgow	Rising Mains	Mh1/58~Mh1/57	1930	$ 27,361	$ 27,963	$ 27,963	$0	$0	$0	$0	$0	$0	$0	$27,963
Lithgow	Rising Mains	Mh1/59~Mh1/58	1930	$ 12,178	$ 12,446	$ 12,446	$0	$0	$0	$0	$0	$0	$0	$12,446
Lithgow	Rising Mains	Mh1/60~Mh1/59	1930	$ 25,295	$ 25,851	$ 25,851	$0	$0	$0	$0	$0	$0	$0	$25,851
Lithgow	Rising Mains	Mh1/61~Mh1/60	1930	$ 28,259	$ 28,881	$ 28,881	$0	$0	$0	$0	$0	$0	$0	$28,881
Lithgow	Rising Mains	Mh1/62~Mh1/61	1930	$ 17,189	$ 17,567	$ 17,567	$0	$0	$0	$0	$0	$0	$0	$17,567
Lithgow	Rising Mains	Mh1/63~Mh1/62	1930	$ 23,694	$ 24,216	$ 24,216	$0	$0	$0	$0	$0	$0	$0	$24,216
Lithgow	Rising Mains	Mh1/64~Mh1/63	1930	$ 22,200	$ 22,689	$ 22,689	$0	$0	$0	$0	$0	$0	$0	$22,689
Lithgow	Rising Mains	Mh1/65~Mh1/64	1930	$ 15,684	$ 16,029	$ 16,029	$0	$0	$0	$0	$0	$0	$0	$16,029
Lithgow	Rising Mains	Mh1/66~Mh1/65	1930	$ 22,782	$ 23,284	$ 23,284	$0	$0	$0	$0	$0	$0	$0	$23,284
Lithgow	Rising Mains	Mh1/67~Mh1/66	1930	$ 24,115	$ 24,646	$ 24,646	$0	$0	$0	$0	$0	$0	$0	$24,646
Lithgow	Rising Mains	Mh1/68~Mh1/67	1930	$ 22,776	$ 23,277	$ 23,277	$0	$0	$0	$0	$0	$0	$0	$23,277
Lithgow	Rising Mains	Mh1/69~Mh2150	1930	$ 6,281	$ 6,419	$ 6,419	$0	$0	$0	$0	$0	$0	$0	$6,419
Lithgow	Rising Mains	Mh1/70~Mh1/69	1930	$ 14,576	$ 14,897	$ 14,897	$0	$0	$0	$0	$0	$0	$0	$14,897
Lithgow	Rising Mains	Mh1/71~Mh1/70	1930	$ 13,911	$ 14,217	$ 14,217	$0	$0	$0	$0	$0	$0	$0	$14,217
Lithgow	Rising Mains	Mh1/72~Mh1/71	1930	$ 13,457	$ 13,754	$ 13,754	$0	$0	$0	$0	$0	$0	$0	$13,754
Lithgow	Rising Mains	Mh1/73~Mh1/72	1930	$ 10,999	$ 11,241	$ 11,241	$0	$0	$0	$0	$0	$0	$0	$11,241
Lithgow	Rising Mains	Mh1/74~Mh1/73	1930	$ 11,022	$ 11,264	$ 11,264	$0	$0	$0	$0	$0	$0	$0	$11,264
Lithgow	Rising Mains	Mh1/75~Mh1/74	1930	$ 10,542	$ 10,774	$ 10,774	$0	$0	$0	$0	$0	$0	$0	$10,774
Lithgow	Rising Mains	Mh1/76~Mh1/75	1930	$ 16,997	$ 17,371	$ 17,371	$0	$0	$0	$0	$0	$0	$0	$17,371
Lithgow	Rising Mains	Mh1/77~Mh1/76	1890	$ 16,995	$ 17,369	$ 17,369	$0	$0	$0	$0	$0	$0	$0	$17,369
Lithgow	Rising Mains	Mh1/78~Mh1/77	1890	$ 14,129	$ 14,440	$ 14,440	$0	$0	$0	$0	$0	$0	$0	$14,440
Lithgow	Rising Mains	Mh1/79~Mh1/78	1890	$ 15,104	$ 15,437	$ 15,437	$0	$0	$0	$0	$0	$0	$0	$15,437
Lithgow	Rising Mains	Mh1/80~Mh1/79	1890	$ 14,120	$ 14,430	$ 14,430	$0	$0	$0	$0	$0	$0	$0	$14,430
Lithgow	Rising Mains	Mh1/81~Mh1/80	1890	$ 5,280	$ 5,396	$ 5,396	$0	$0	$0	$0	$0	$0	$0	$5,396
Lithgow	Rising Mains	Mh1/82~Mh1/81	1890	$ 12,745	$ 13,026	$ 13,026	$0	$0	$0	$0	$0	$0	$0	$13,026
Lithgow	Rising Mains	Mh1/83~Mh1/82	1890	$ 17,814	$ 18,206	$ 18,206	$0	$0	$0	$0	$0	$0	$0	$18,206
Lithgow	Rising Mains	Mh1/84~Mh1/83	1890	$ 12,723	$ 13,002	$ 13,002	$0	$0	$0	$0	$0	$0	$0	$13,002
Lithgow	Rising Mains	Mh1/85~Mh1/84	1890	$ 16,263	$ 16,620	$ 16,620	$0	$0	$0	$0	$0	$0	$0	$16,620
Lithgow	Rising Mains	Mh1/86~Mh1/85	1890	$ 18,405	$ 18,810	$ 18,810	$0	$0	$0	$0	$0	$0	$0	$18,810
Lithgow	Rising Mains	Mh1/87~Mh1/86	1890	$ 17,602	$ 17,990	$ 17,990	$0	$0	$0	$0	$0	$0	$0	$17,990
Lithgow	Rising Mains	Mh1/88~Mh1/87	1890	$ 9,669	$ 9,882	$ 9,882	$0	$0	$0	$0	$0	$0	$0	$9,882
Lithgow	Rising Mains	Mh1/89~Mh1/88	1890	$ 12,758	$ 13,039	$ 13,039	$0	$0	$0	$0	$0	$0	$0	$13,039
Lithgow	Rising Mains	Mh1/90~Mh1/89	1890	$ 9,356	$ 9,562	$ 9,562	$0	$0	$0	$0	$0	$0	$0	$9,562
Lithgow	Rising Mains	Mh1/91~Mh1/90	1890	$ 18,843	$ 19,258	$ 19,258	$0	$0	$0	$0	$0	$0	$0	$19,258
Lithgow	Rising Mains	Mh1/92~Mh1/91	1890	$ 14,464	$ 14,782	$ 14,782	$0	$0	$0	$0	$0	$0	$0	$14,782
Lithgow	Rising Mains	Mh1/93~Mh1/92	1890	$ 1,618	$ 1,653	$ 1,653	$0	$0	$0	$0	$0	$0	$0	$1,653
Lithgow	Rising Mains	Mh1/94~Mh1/93	1890	$ 5,709	$ 5,835	$ 5,835	$0	$0	$0	$0	$0	$0	$0	$5,835
Lithgow	Rising Mains	Mh1~SPS1214	1942	$ 6,650	$ 6,797	$ 6,797	$0	$0	$0	$0	$0	$0	$0	$6,797
Lithgow	Reticulation	Mh10/10~Mh10/5	1930	$ 19,286	$ 19,710	$ -	$0	$0	$0	$0	$0	$0	$0	$19,710
Lithgow	Reticulation	Mh10/11~Mh10/10	1930	$ 15,558	$ 15,900	$ -	$0	$0	$0	$0	$0	$0	$0	$15,900
Lithgow	Reticulation	Mh10/12~Mh10/11	1930	$ 10,880	$ 11,120	$ -	$0	$0	$0	$0	$0	$0	$0	$11,120
Lithgow	Reticulation	Mh10/13~Mh10/10	1930	$ 19,849	$ 20,286	$ -	$0	$0	$0	$0	$0	$0	$0	$20,286
Lithgow	Reticulation	Mh10/15~Mh10/10	1930	$ 17,847	$ 18,240	$ -	$0	$0	$0	$0	$0	$0	$0	$18,240
Lithgow	Reticulation	Mh10/16~Mh10/15	1930	$ 18,659	$ 19,070	$ -	$0	$0	$0	$0	$0	$0	$0	$19,070
Lithgow	Reticulation	Mh10/17~Mh10/15	1930	$ 10,202	$ 10,427	$ -	$0	$0	$0	$0	$0	$0	$0	$10,427
Lithgow	Reticulation	Mh10/18~Mh10/17	1930	$ 13,571	$ 13,869	$ -	$0	$0	$0	$0	$0	$0	$0	$13,869
Lithgow	Reticulation	Mh10/19~Mh10/18	1930	$ 4,604	$ 4,705	$ -	$0	$0	$0	$0	$0	$0	$0	$4,705
Lithgow	Rising Mains	Mh10/1a~Mh1/62	1930	$ 16,442	$ 16,803	$ 16,803	$0	$0	$0	$0	$0	$0	$0	$16,803
Lithgow	Rising Mains	Mh10/2~Mh10/1a	1930	$ 13,626	$ 13,926	$ 13,926	$0	$0	$0	$0	$0	$0	$0	$13,926
Lithgow	Reticulation	Mh10/20~Mh10/2	1930	$ 11,926	$ 12,188	$ -	$0	$0	$0	$0	$0	$0	$0	$12,188
Lithgow	Reticulation	Mh10/21~Mh10/20	1930	$ 15,097	$ 15,429	$ -	$0	$0	$0	$0	$0	$0	$0	$15,429
Lithgow	Reticulation	Mh10/22~Mh10/3	1930	$ 19,079	$ 19,498	$ -	$0	$0	$0	$0	$0	$0	$0	$19,498
Lithgow	Reticulation	Mh10/23~Mh10/22	1930	$ 4,346	$ 4,442	$ -	$0	$0	$0	$0	$0	$0	$0	$4,442
Lithgow	Reticulation	Mh10/24~Mh10/23	1930	$ 13,908	$ 14,214	$ -	$0	$0	$0	$0	$0	$0	$0	$14,214
Lithgow	Reticulation	Mh10/25~Mh10/24	1930	$ 15,638	$ 15,982	$ -	$0	$0	$0	$0	$0	$0	$0	$15,982
Lithgow	Reticulation	Mh10/26~Mh10/25	1930	$ 9,596	$ 9,807	$ -	$0	$0	$0	$0	$0	$0	$0	$9,807
Lithgow	Reticulation	Mh10/27~Mh10/26	1930	$ 9,284	$ 9,489	$ -	$0	$0	$0	$0	$0	$0	$0	$9,489
Lithgow	Reticulation	Mh10/28~Mh10/27	1930	$ 17,081	$ 17,457	$ -	$0	$0	$0	$0	$0	$0	$0	$17,457
Lithgow	Reticulation	Mh10/29~Mh10/28	1930	$ 6,939	$ 7,092	$ -	$0	$0	$0	$0	$0	$0	$0	$7,092
Lithgow	Rising Mains	Mh10/3~Mh10/2	1930	$ 17,303	$ 17,684	$ 17,684	$0	$0	$0	$0	$0	$0	$0	$17,684
Lithgow	Reticulation	Mh10/30~Mh10/28	1930	$ 14,920	$ 15,248	$ -	$0	$0	$0	$0	$0	$0	$0	$15,248
Lithgow	Reticulation	Mh10/31~Mh10/30	1930	$ 20,719	$ 21,175	$ -	$0	$0	$0	$0	$0	$0	$0	$21,175
Lithgow	Reticulation	Mh10/32~Mh10/31	1930	$ 7,473	$ 7,637	$ -	$0	$0	$0	$0	$0	$0	$0	$7,637
Lithgow	Reticulation	Mh10/33~Mh10/27	1930	$ 20,414	$ 20,863	$ -	$0	$0	$0	$0	$0	$0	$0	$20,863
Lithgow	Reticulation	Mh10/34~Mh10/33	1930	$ 11,906	$ 12,168	$ -	$0	$0	$0	$0	$0	$0	$0	$12,168

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh10/36~Mh10/34	1930	$ 8,502	$ 8,689	$ -	$0	$0	$0	$0	$0	$0	$0	$8,689
Lithgow	Reticulation	Mh10/37~Mh10/34	1930	$ 12,537	$ 12,812	$ -	$0	$0	$0	$0	$0	$0	$0	$12,812
Lithgow	Reticulation	Mh10/38a~Mh10/37	1930	$ 21,022	$ 21,485	$ -	$0	$0	$0	$0	$0	$0	$0	$21,485
Lithgow	Reticulation	Mh10/38b~Mh10/38a	1930	$ 13,158	$ 13,448	$ -	$0	$0	$0	$0	$0	$0	$0	$13,448
Lithgow	Reticulation	Mh10/39~Mh10/38b	1930	$ 5,159	$ 5,273	$ -	$0	$0	$0	$0	$0	$0	$0	$5,273
Lithgow	Reticulation	Mh10/4~Mh10/3	1930	$ 14,560	$ 14,881	$ -	$0	$0	$0	$0	$0	$0	$0	$14,881
Lithgow	Reticulation	Mh10/40~Mh10/39	1930	$ 20,655	$ 21,109	$ -	$0	$0	$0	$0	$0	$0	$0	$21,109
Lithgow	Reticulation	Mh10/41~Mh10/40	1930	$ 20,984	$ 21,446	$ -	$0	$0	$0	$0	$0	$0	$0	$21,446
Lithgow	Reticulation	Mh10/42~Mh10/41	1930	$ 16,558	$ 16,922	$ -	$0	$0	$0	$0	$0	$0	$0	$16,922
Lithgow	Reticulation	Mh10/43~Mh10/42	1930	$ 22,071	$ 22,557	$ -	$0	$0	$0	$0	$0	$0	$0	$22,557
Lithgow	Reticulation	Mh10/44~Mh10/43	1930	$ 7,800	$ 7,972	$ -	$0	$0	$0	$0	$0	$0	$0	$7,972
Lithgow	Reticulation	Mh10/5~Mh1053	1930	$ 15,758	$ 16,105	$ -	$0	$0	$0	$0	$0	$0	$0	$16,105
Lithgow	Reticulation	Mh10/6~Mh10/5	1930	$ 5,916	$ 6,046	$ -	$0	$0	$0	$0	$0	$0	$0	$6,046
Lithgow	Reticulation	Mh10/7~Mh10/6	1930	$ 17,447	$ 17,831	$ -	$0	$0	$0	$0	$0	$0	$0	$17,831
Lithgow	Reticulation	Mh10/8~Mh10/7	1930	$ 21,303	$ 21,772	$ -	$0	$0	$0	$0	$0	$0	$0	$21,772
Lithgow	Reticulation	Mh10/9~Mh10/8	1930	$ 9,785	$ 10,000	$ -	$0	$0	$0	$0	$0	$0	$0	$10,000
Lithgow	Reticulation	Mh10~Mh9	1942	$ 10,740	$ 10,977	$ -	$0	$0	$0	$0	$0	$0	$0	$10,977
Lithgow	Reticulation	Mh1000~Mh1001	1990	$ 21,326	$ 21,795	$ -	$0	$0	$0	$0	$0	$0	$0	$21,795
Lithgow	Reticulation	Mh1001~Mh1002	1990	$ 16,842	$ 17,212	$ -	$0	$0	$0	$0	$0	$0	$0	$17,212
Lithgow	Reticulation	Mh1002~Mh1026	1990	$ 29,732	$ 30,386	$ -	$0	$0	$0	$0	$0	$0	$0	$30,386
Lithgow	Reticulation	Mh1003~Mh1000	1990	$ 26,994	$ 27,588	$ -	$0	$0	$0	$0	$0	$0	$0	$27,588
Lithgow	Reticulation	Mh1004~Mh1000	1990	$ 21,131	$ 21,596	$ -	$0	$0	$0	$0	$0	$0	$0	$21,596
Lithgow	Reticulation	Mh1005~Mh1003	1990	$ 23,270	$ 23,782	$ -	$0	$0	$0	$0	$0	$0	$0	$23,782
Lithgow	Reticulation	Mh1006~Mh1005	1990	$ 13,474	$ 13,770	$ -	$0	$0	$0	$0	$0	$0	$0	$13,770
Lithgow	Reticulation	Mh1007~Mh1004	1990	$ 23,511	$ 24,028	$ -	$0	$0	$0	$0	$0	$0	$0	$24,028
Lithgow	Reticulation	Mh1008~Mh1001	1990	$ 20,468	$ 20,919	$ -	$0	$0	$0	$0	$0	$0	$0	$20,919
Lithgow	Reticulation	Mh1009~Mh1008	1990	$ 20,584	$ 21,037	$ -	$0	$0	$0	$0	$0	$0	$0	$21,037
Lithgow	Reticulation	Mh1010~Mh1002	1990	$ 29,504	$ 30,153	$ -	$0	$0	$0	$0	$0	$0	$0	$30,153
Lithgow	Reticulation	Mh1011~Mh1010	1990	$ 19,413	$ 19,840	$ -	$0	$0	$0	$0	$0	$0	$0	$19,840
Lithgow	Reticulation	Mh1012~Mh1013	1990	$ 14,533	$ 14,853	$ -	$0	$0	$0	$0	$0	$0	$0	$14,853
Lithgow	Reticulation	Mh1013~Mh1014	1990	$ 9,083	$ 9,283	$ -	$0	$0	$0	$0	$0	$0	$0	$9,283
Lithgow	Reticulation	Mh1014~Mh1015	1990	$ 19,844	$ 20,281	$ -	$0	$0	$0	$0	$0	$0	$0	$20,281
Lithgow	Reticulation	Mh1015~Mh1016	1990	$ 15,513	$ 15,854	$ -	$0	$0	$0	$0	$0	$0	$0	$15,854
Lithgow	Reticulation	Mh1016~Mh1017	1990	$ 21,983	$ 22,466	$ -	$0	$0	$0	$0	$0	$0	$0	$22,466
Lithgow	Reticulation	Mh1017~Mh1385	1990	$ 7,722	$ 7,892	$ -	$0	$0	$0	$0	$0	$0	$0	$7,892
Lithgow	Reticulation	Mh1018~Mh1019	1990	$ 12,905	$ 13,189	$ -	$0	$0	$0	$0	$0	$0	$0	$13,189
Lithgow	Reticulation	Mh1019~J6	1990	$ 1,877	$ 1,918	$ -	$0	$0	$0	$0	$0	$0	$0	$1,918
Lithgow	Reticulation	Mh1020~Mh1019	1990	$ 30,603	$ 31,277	$ -	$0	$0	$0	$0	$0	$0	$0	$31,277
Lithgow	Reticulation	Mh1021~Mh1020	1990	$ 15,009	$ 15,339	$ -	$0	$0	$0	$0	$0	$0	$0	$15,339
Lithgow	Reticulation	Mh1022~Mh1023	1990	$ 14,140	$ 14,451	$ -	$0	$0	$0	$0	$0	$0	$0	$14,451
Lithgow	Reticulation	Mh1023~Mh1014	1990	$ 13,889	$ 14,194	$ -	$0	$0	$0	$0	$0	$0	$0	$14,194
Lithgow	Reticulation	Mh1024~Mh1022	1990	$ 15,129	$ 15,461	$ -	$0	$0	$0	$0	$0	$0	$0	$15,461
Lithgow	Reticulation	Mh1025~Mh999	1990	$ 19,518	$ 19,947	$ -	$0	$0	$0	$0	$0	$0	$0	$19,947
Lithgow	Reticulation	Mh1026~Mh1025	1990	$ 4,638	$ 4,740	$ -	$0	$0	$0	$0	$0	$0	$0	$4,740
Lithgow	Reticulation	Mh1027~Mh1026	1990	$ 18,342	$ 18,745	$ -	$0	$0	$0	$0	$0	$0	$0	$18,745
Lithgow	Reticulation	Mh1028~Mh1009	1990	$ 26,438	$ 27,020	$ -	$0	$0	$0	$0	$0	$0	$0	$27,020
Lithgow	Reticulation	Mh1029~Mh1030	1990	$ 19,037	$ 19,456	$ -	$0	$0	$0	$0	$0	$0	$0	$19,456
Lithgow	Reticulation	Mh1030~Mh1028	1990	$ 16,559	$ 16,923	$ -	$0	$0	$0	$0	$0	$0	$0	$16,923
Lithgow	Reticulation	Mh1031~Mh1032	1990	$ 19,921	$ 20,359	$ -	$0	$0	$0	$0	$0	$0	$0	$20,359
Lithgow	Reticulation	Mh1032~Mh1033	1990	$ 16,447	$ 16,809	$ -	$0	$0	$0	$0	$0	$0	$0	$16,809
Lithgow	Reticulation	Mh1033~Mh1027	1990	$ 23,946	$ 24,473	$ -	$0	$0	$0	$0	$0	$0	$0	$24,473
Lithgow	Rising Mains	Mh1034~Mh1376	2002	$ 14,831	$ 15,158	$ 15,158	$15,158	$15,158	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Mh1035~Mh5/63	1912	$ 5,127	$ 5,240	$ -	$0	$0	$0	$0	$0	$0	$0	$5,240
Lithgow	Reticulation	Mh1036~Mh7/16	1940	$ 10,808	$ 11,045	$ -	$0	$0	$0	$0	$0	$0	$0	$11,045
Lithgow	Reticulation	Mh1037~Mh7/15	1940	$ 25,373	$ 25,931	$ -	$0	$0	$0	$0	$0	$0	$0	$25,931
Lithgow	Reticulation	Mh1038~Mh3/14	1910	$ 10,544	$ 10,776	$ -	$0	$0	$0	$0	$0	$0	$0	$10,776
Lithgow	Reticulation	Mh1039~Mh2013	1940	$ 4,146	$ 4,237	$ -	$0	$0	$0	$0	$0	$0	$0	$4,237
Lithgow	Reticulation	Mh1040~Mh1039	1940	$ 4,243	$ 4,336	$ -	$0	$0	$0	$0	$0	$0	$0	$4,336
Lithgow	Rising Mains	Mh1041~Mh1	1942	$ 8,007	$ 8,183	$ 8,183	$0	$0	$0	$0	$0	$0	$0	$8,183
Lithgow	Reticulation	Mh1049~Mh9/74	1940	$ 12,713	$ 12,993	$ -	$0	$0	$0	$0	$0	$0	$0	$12,993
Lithgow	Reticulation	Mh1050~Mh9/72	1890	$ 20,069	$ 20,511	$ -	$0	$0	$0	$0	$0	$0	$0	$20,511
Lithgow	Reticulation	Mh1051~Mh245	1940	$ 10,783	$ 11,020	$ -	$0	$0	$0	$0	$0	$0	$0	$11,020
Lithgow	Reticulation	Mh1052~Mh2112	1890	$ 11,823	$ 12,083	$ -	$0	$0	$0	$0	$0	$0	$0	$12,083
Lithgow	Reticulation	Mh1053~Mh1054	1940	$ 9,322	$ 9,527	$ -	$0	$0	$0	$0	$0	$0	$0	$9,527
Lithgow	Reticulation	Mh1054~Mh10/1a	1930	$ 5,978	$ 6,110	$ -	$0	$0	$0	$0	$0	$0	$0	$6,110
Lithgow	Reticulation	Mh1055~Mh10/13	1930	$ 10,511	$ 10,742	$ -	$0	$0	$0	$0	$0	$0	$0	$10,742
Lithgow	Reticulation	Mh1056~Mh1057	1940	$ 21,675	$ 22,151	$ -	$0	$0	$0	$0	$0	$0	$0	$22,151

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh1057~Mh1058	1940	$ 20,168	$ 20,611	$ -	$0	$0	$0	$0	$0	$0	$0	$20,611
Lithgow	Reticulation	Mh1058~Mh8/27	1940	$ 8,498	$ 8,685	$ -	$0	$0	$0	$0	$0	$0	$0	$8,685
Lithgow	Reticulation	Mh1059~Mh8/16	1930	$ 6,981	$ 7,134	$ -	$0	$0	$0	$0	$0	$0	$0	$7,134
Lithgow	Reticulation	Mh1060~Mh8/17	1940	$ 3,831	$ 3,915	$ -	$0	$0	$0	$0	$0	$0	$0	$3,915
Lithgow	Reticulation	Mh1061~Mh96	1930	$ 14,039	$ 14,348	$ -	$0	$0	$0	$0	$0	$0	$0	$14,348
Lithgow	Reticulation	Mh1062~Mh1/51	1940	$ 12,062	$ 12,327	$ -	$0	$0	$0	$0	$0	$0	$0	$12,327
Lithgow	Reticulation	Mh1063~Mh1062	1940	$ 11,702	$ 11,960	$ -	$0	$0	$0	$0	$0	$0	$0	$11,960
Lithgow	Reticulation	Mh1064~Mh11/39	1890	$ 6,666	$ 6,812	$ -	$0	$0	$0	$0	$0	$0	$0	$6,812
Lithgow	Reticulation	Mh1065~Mh1064	1940	$ 12,844	$ 13,126	$ -	$0	$0	$0	$0	$0	$0	$0	$13,126
Lithgow	Reticulation	Mh1066~Mh11/54	1890	$ 12,004	$ 12,268	$ -	$0	$0	$0	$0	$0	$0	$0	$12,268
Lithgow	Reticulation	Mh1067~Mh9/70	1970	$ 20,994	$ 21,456	$ -	$0	$0	$0	$0	$0	$0	$0	$21,456
Lithgow	Reticulation	Mh1068~Mh9/61	1970	$ 11,906	$ 12,168	$ -	$0	$0	$0	$0	$0	$0	$0	$12,168
Lithgow	Reticulation	Mh1069~Mh9/52	1885	$ 15,627	$ 15,971	$ -	$0	$0	$0	$0	$0	$0	$0	$15,971
Lithgow	Reticulation	Mh1070~Mh7/48	1885	$ 8,629	$ 8,818	$ -	$0	$0	$0	$0	$0	$0	$0	$8,818
Lithgow	Reticulation	Mh1071~Mh7/29	1885	$ 17,301	$ 17,681	$ -	$0	$0	$0	$0	$0	$0	$0	$17,681
Lithgow	Reticulation	Mh1072~Mh7/42	1885	$ 19,263	$ 19,687	$ -	$0	$0	$0	$0	$0	$0	$0	$19,687
Lithgow	Reticulation	Mh1073~Mh7/43	1940	$ 8,235	$ 8,416	$ -	$0	$0	$0	$0	$0	$0	$0	$8,416
Lithgow	Reticulation	Mh1074~Mh6/38	1885	$ 9,843	$ 10,060	$ -	$0	$0	$0	$0	$0	$0	$0	$10,060
Lithgow	Reticulation	Mh1075~Mh6/20	1885	$ 17,895	$ 18,289	$ -	$0	$0	$0	$0	$0	$0	$0	$18,289
Lithgow	Reticulation	Mh1076~Mh4/15	1930	$ 17,507	$ 17,892	$ -	$0	$0	$0	$0	$0	$0	$0	$17,892
Lithgow	Reticulation	Mh1077~Mh4/32	1930	$ 18,939	$ 19,356	$ -	$0	$0	$0	$0	$0	$0	$0	$19,356
Lithgow	Reticulation	Mh1078~Mh52	1940	$ 13,962	$ 14,269	$ -	$0	$0	$0	$0	$0	$0	$0	$14,269
Lithgow	Reticulation	Mh1079~Mh5/64	1912	$ 14,870	$ 15,197	$ -	$0	$0	$0	$0	$0	$0	$0	$15,197
Lithgow	Reticulation	Mh1080~Mh5/130	1912	$ 17,697	$ 18,086	$ -	$0	$0	$0	$0	$0	$0	$0	$18,086
Lithgow	Rising Mains	Mh11/10~Mh11/9	1890	$ 13,485	$ 13,782	$ 13,782	$0	$0	$0	$0	$0	$0	$0	$13,782
Lithgow	Rising Mains	Mh11/11~Mh11/10	1890	$ 9,413	$ 9,620	$ 9,620	$0	$0	$0	$0	$0	$0	$0	$9,620
Lithgow	Rising Mains	Mh11/12~Mh11/11	1890	$ 17,035	$ 17,410	$ 17,410	$0	$0	$0	$0	$0	$0	$0	$17,410
Lithgow	Rising Mains	Mh11/13~Mh11/12	1890	$ 16,971	$ 17,344	$ 17,344	$0	$0	$0	$0	$0	$0	$0	$17,344
Lithgow	Rising Mains	Mh11/14~Mh11/13	1890	$ 17,913	$ 18,307	$ 18,307	$0	$0	$0	$0	$0	$0	$0	$18,307
Lithgow	Rising Mains	Mh11/15~Mh11/14	1890	$ 16,380	$ 16,740	$ 16,740	$0	$0	$0	$0	$0	$0	$0	$16,740
Lithgow	Rising Mains	Mh11/16~Mh11/15	1890	$ 12,794	$ 13,076	$ 13,076	$0	$0	$0	$0	$0	$0	$0	$13,076
Lithgow	Rising Mains	Mh11/17~Mh11/16	1890	$ 13,289	$ 13,581	$ 13,581	$0	$0	$0	$0	$0	$0	$0	$13,581
Lithgow	Rising Mains	Mh11/18~Mh11/17	1890	$ 18,211	$ 18,611	$ 18,611	$0	$0	$0	$0	$0	$0	$0	$18,611
Lithgow	Reticulation	Mh11/19~Mh11/18	1890	$ 9,856	$ 10,073	$ -	$0	$0	$0	$0	$0	$0	$0	$10,073
Lithgow	Rising Mains	Mh11/1a~Mh1/70	1930	$ 25,059	$ 25,610	$ 25,610	$0	$0	$0	$0	$0	$0	$0	$25,610
Lithgow	Rising Mains	Mh11/2~Mh11/1a	1930	$ 15,904	$ 16,254	$ 16,254	$0	$0	$0	$0	$0	$0	$0	$16,254
Lithgow	Reticulation	Mh11/20~Mh11/19	1890	$ 17,967	$ 18,362	$ -	$0	$0	$0	$0	$0	$0	$0	$18,362
Lithgow	Reticulation	Mh11/21~Mh11/20	1890	$ 20,519	$ 20,971	$ -	$0	$0	$0	$0	$0	$0	$0	$20,971
Lithgow	Reticulation	Mh11/22~Mh11/21	1890	$ 20,401	$ 20,849	$ -	$0	$0	$0	$0	$0	$0	$0	$20,849
Lithgow	Reticulation	Mh11/23~Mh11/22	1890	$ 17,124	$ 17,501	$ -	$0	$0	$0	$0	$0	$0	$0	$17,501
Lithgow	Reticulation	Mh11/24~Mh11/22	1890	$ 7,543	$ 7,709	$ -	$0	$0	$0	$0	$0	$0	$0	$7,709
Lithgow	Reticulation	Mh11/25~Mh11/24	1960	$ 5,484	$ 5,605	$ -	$0	$0	$0	$0	$0	$0	$0	$5,605
Lithgow	Reticulation	Mh11/26~Mh11/25	1960	$ 7,664	$ 7,833	$ -	$0	$0	$0	$0	$0	$0	$0	$7,833
Lithgow	Reticulation	Mh11/27~Mh11/26	1960	$ 6,615	$ 6,761	$ -	$0	$0	$0	$0	$0	$0	$0	$6,761
Lithgow	Reticulation	Mh11/28~Mh11/26	1960	$ 15,217	$ 15,551	$ -	$0	$0	$0	$0	$0	$0	$0	$15,551
Lithgow	Reticulation	Mh11/29~Mh11/28	1960	$ 7,984	$ 8,159	$ -	$0	$0	$0	$0	$0	$0	$0	$8,159
Lithgow	Rising Mains	Mh11/3~Mh11/2	1930	$ 20,330	$ 20,778	$ 20,778	$0	$0	$0	$0	$0	$0	$0	$20,778
Lithgow	Reticulation	Mh11/30~Mh11/28	1960	$ 7,250	$ 7,409	$ -	$0	$0	$0	$0	$0	$0	$0	$7,409
Lithgow	Reticulation	Mh11/31~Mh11/30	1960	$ 15,398	$ 15,736	$ -	$0	$0	$0	$0	$0	$0	$0	$15,736
Lithgow	Reticulation	Mh11/32~Mh11/31	1960	$ 17,776	$ 18,167	$ -	$0	$0	$0	$0	$0	$0	$0	$18,167
Lithgow	Reticulation	Mh11/33~Mh11/19	1890	$ 12,369	$ 12,641	$ -	$0	$0	$0	$0	$0	$0	$0	$12,641
Lithgow	Reticulation	Mh11/34~Mh11/33	1960	$ 11,256	$ 11,503	$ -	$0	$0	$0	$0	$0	$0	$0	$11,503
Lithgow	Reticulation	Mh11/35~Mh11/34	1960	$ 6,416	$ 6,557	$ -	$0	$0	$0	$0	$0	$0	$0	$6,557
Lithgow	Reticulation	Mh11/36~Mh11/35	1960	$ 14,109	$ 14,419	$ -	$0	$0	$0	$0	$0	$0	$0	$14,419
Lithgow	Reticulation	Mh11/37~Mh11/36	1960	$ 16,099	$ 16,453	$ -	$0	$0	$0	$0	$0	$0	$0	$16,453
Lithgow	Reticulation	Mh11/38~Mh11/35	1960	$ 21,091	$ 21,555	$ -	$0	$0	$0	$0	$0	$0	$0	$21,555
Lithgow	Reticulation	Mh11/39~Mh11/18	1890	$ 4,370	$ 4,466	$ -	$0	$0	$0	$0	$0	$0	$0	$4,466
Lithgow	Rising Mains	Mh11/4~Mh11/3	1930	$ 18,279	$ 18,682	$ 18,682	$0	$0	$0	$0	$0	$0	$0	$18,682
Lithgow	Reticulation	Mh11/40~Mh11/41	1890	$ 8,807	$ 9,001	$ -	$0	$0	$0	$0	$0	$0	$0	$9,001
Lithgow	Reticulation	Mh11/41~Mh1064	1890	$ 8,185	$ 8,365	$ -	$0	$0	$0	$0	$0	$0	$0	$8,365
Lithgow	Reticulation	Mh11/43~Mh1064	1890	$ 13,594	$ 13,893	$ -	$0	$0	$0	$0	$0	$0	$0	$13,893
Lithgow	Reticulation	Mh11/44~Mh11/17	1890	$ 11,215	$ 11,462	$ -	$0	$0	$0	$0	$0	$0	$0	$11,462
Lithgow	Reticulation	Mh11/45~Mh11/44	1890	$ 5,159	$ 5,273	$ -	$0	$0	$0	$0	$0	$0	$0	$5,273
Lithgow	Reticulation	Mh11/46~Mh11/44	1890	$ 9,070	$ 9,270	$ -	$0	$0	$0	$0	$0	$0	$0	$9,270
Lithgow	Reticulation	Mh11/47~Mh11/15	1890	$ 6,527	$ 6,670	$ -	$0	$0	$0	$0	$0	$0	$0	$6,670

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh11/48~Mh11/47	1890	$ 11,852	$ 12,112	$ -	$0	$0	$0	$0	$0	$0	$0	$12,112
Lithgow	Reticulation	Mh11/49a~Mh11/47	1890	$ 8,347	$ 8,531	$ -	$0	$0	$0	$0	$0	$0	$0	$8,531
Lithgow	Reticulation	Mh11/49b~Mh11/49e	1890	$ 2,629	$ 2,687	$ -	$0	$0	$0	$0	$0	$0	$0	$2,687
Lithgow	Reticulation	Mh11/49c~Mh11/49d	1890	$ 5,345	$ 5,463	$ -	$0	$0	$0	$0	$0	$0	$0	$5,463
Lithgow	Reticulation	Mh11/49d~Mh11/14	1890	$ 2,617	$ 2,674	$ -	$0	$0	$0	$0	$0	$0	$0	$2,674
Lithgow	Reticulation	Mh11/49e~Mh11/49c	1890	$ 15,575	$ 15,917	$ -	$0	$0	$0	$0	$0	$0	$0	$15,917
Lithgow	Reticulation	Mh11/49f~Mh11/49c	1890	$ 8,645	$ 8,835	$ -	$0	$0	$0	$0	$0	$0	$0	$8,835
Lithgow	Reticulation	Mh11/49g~Mh11/49c	1890	$ 10,522	$ 10,754	$ -	$0	$0	$0	$0	$0	$0	$0	$10,754
Lithgow	Reticulation	Mh11/49h~Mh11/49g	1890	$ 12,055	$ 12,321	$ -	$0	$0	$0	$0	$0	$0	$0	$12,321
Lithgow	Rising Mains	Mh11/5~Mh11/4	1930	$ 18,397	$ 18,801	$ 18,801	$0	$0	$0	$0	$0	$0	$0	$18,801
Lithgow	Reticulation	Mh11/50~Mh11/49a	1890	$ 8,687	$ 8,878	$ -	$0	$0	$0	$0	$0	$0	$0	$8,878
Lithgow	Reticulation	Mh11/51~Mh11/50	1890	$ 4,329	$ 4,424	$ -	$0	$0	$0	$0	$0	$0	$0	$4,424
Lithgow	Reticulation	Mh11/52~Mh11/51	1890	$ 13,223	$ 13,514	$ -	$0	$0	$0	$0	$0	$0	$0	$13,514
Lithgow	Reticulation	Mh11/53~Mh11/11	1890	$ 16,686	$ 17,053	$ -	$0	$0	$0	$0	$0	$0	$0	$17,053
Lithgow	Reticulation	Mh11/54~Mh11/53	1890	$ 6,461	$ 6,603	$ -	$0	$0	$0	$0	$0	$0	$0	$6,603
Lithgow	Reticulation	Mh11/55~Mh1066	1890	$ 18,355	$ 18,759	$ -	$0	$0	$0	$0	$0	$0	$0	$18,759
Lithgow	Reticulation	Mh11/56~Mh11/54	1890	$ 12,908	$ 13,192	$ -	$0	$0	$0	$0	$0	$0	$0	$13,192
Lithgow	Reticulation	Mh11/57~Mh11/56	1890	$ 13,173	$ 13,462	$ -	$0	$0	$0	$0	$0	$0	$0	$13,462
Lithgow	Reticulation	Mh11/58~Mh11/57	1890	$ 8,086	$ 8,264	$ -	$0	$0	$0	$0	$0	$0	$0	$8,264
Lithgow	Reticulation	Mh11/59~Mh11/54	1890	$ 13,786	$ 14,089	$ -	$0	$0	$0	$0	$0	$0	$0	$14,089
Lithgow	Rising Mains	Mh11/6~Mh11/5	1930	$ 16,181	$ 16,537	$ 16,537	$0	$0	$0	$0	$0	$0	$0	$16,537
Lithgow	Reticulation	Mh11/60~Mh11/59	1890	$ 12,535	$ 12,811	$ -	$0	$0	$0	$0	$0	$0	$0	$12,811
Lithgow	Reticulation	Mh11/61~Mh11/60	1890	$ 18,948	$ 19,365	$ -	$0	$0	$0	$0	$0	$0	$0	$19,365
Lithgow	Reticulation	Mh11/62~Mh11/59	1890	$ 27,750	$ 28,360	$ -	$0	$0	$0	$0	$0	$0	$0	$28,360
Lithgow	Reticulation	Mh11/63~Mh11/62	1890	$ 6,106	$ 6,241	$ -	$0	$0	$0	$0	$0	$0	$0	$6,241
Lithgow	Reticulation	Mh11/64~Mh11/62	1890	$ 10,745	$ 10,982	$ -	$0	$0	$0	$0	$0	$0	$0	$10,982
Lithgow	Reticulation	Mh11/65~Mh11/64	1890	$ 7,115	$ 7,271	$ -	$0	$0	$0	$0	$0	$0	$0	$7,271
Lithgow	Reticulation	Mh11/66~Mh11/65	1890	$ 10,864	$ 11,103	$ -	$0	$0	$0	$0	$0	$0	$0	$11,103
Lithgow	Reticulation	Mh11/67~Mh11/59	1890	$ 14,514	$ 14,833	$ -	$0	$0	$0	$0	$0	$0	$0	$14,833
Lithgow	Reticulation	Mh11/68~Mh11/67	1890	$ 15,397	$ 15,736	$ -	$0	$0	$0	$0	$0	$0	$0	$15,736
Lithgow	Reticulation	Mh11/69~Mh11/68	1890	$ 12,441	$ 12,714	$ -	$0	$0	$0	$0	$0	$0	$0	$12,714
Lithgow	Rising Mains	Mh11/7~Mh11/6	1930	$ 18,127	$ 18,525	$ 18,525	$0	$0	$0	$0	$0	$0	$0	$18,525
Lithgow	Reticulation	Mh11/70~Mh11/69	1890	$ 3,402	$ 3,477	$ -	$0	$0	$0	$0	$0	$0	$0	$3,477
Lithgow	Reticulation	Mh11/71~Mh11/67	1890	$ 21,045	$ 21,508	$ -	$0	$0	$0	$0	$0	$0	$0	$21,508
Lithgow	Reticulation	Mh11/72~Mh11/71	1890	$ 16,607	$ 16,973	$ -	$0	$0	$0	$0	$0	$0	$0	$16,973
Lithgow	Reticulation	Mh11/73~Mh11/10	1890	$ 10,217	$ 10,441	$ -	$0	$0	$0	$0	$0	$0	$0	$10,441
Lithgow	Reticulation	Mh11/74~Mh11/73	1890	$ 10,341	$ 10,568	$ -	$0	$0	$0	$0	$0	$0	$0	$10,568
Lithgow	Reticulation	Mh11/75~Mh11/74	1890	$ 10,544	$ 10,776	$ -	$0	$0	$0	$0	$0	$0	$0	$10,776
Lithgow	Reticulation	Mh11/76~Mh11/75	1890	$ 9,073	$ 9,273	$ -	$0	$0	$0	$0	$0	$0	$0	$9,273
Lithgow	Reticulation	Mh11/77~Mh11/76	1890	$ 20,157	$ 20,600	$ -	$0	$0	$0	$0	$0	$0	$0	$20,600
Lithgow	Reticulation	Mh11/78~Mh11/77	1890	$ 15,986	$ 16,338	$ -	$0	$0	$0	$0	$0	$0	$0	$16,338
Lithgow	Reticulation	Mh11/79~Mh11/78	1890	$ 16,727	$ 17,095	$ -	$0	$0	$0	$0	$0	$0	$0	$17,095
Lithgow	Rising Mains	Mh11/8~Mh11/7	1890	$ 12,542	$ 12,818	$ 12,818	$0	$0	$0	$0	$0	$0	$0	$12,818
Lithgow	Reticulation	Mh11/80~Mh11/79	1890	$ 14,798	$ 15,123	$ -	$0	$0	$0	$0	$0	$0	$0	$15,123
Lithgow	Reticulation	Mh11/81~Mh11/80	1890	$ 16,116	$ 16,470	$ -	$0	$0	$0	$0	$0	$0	$0	$16,470
Lithgow	Reticulation	Mh11/82~Mh11/81	1890	$ 11,959	$ 12,222	$ -	$0	$0	$0	$0	$0	$0	$0	$12,222
Lithgow	Reticulation	Mh11/83~Mh11/82	1890	$ 11,448	$ 11,700	$ -	$0	$0	$0	$0	$0	$0	$0	$11,700
Lithgow	Reticulation	Mh11/84~Mh11/81	1890	$ 8,710	$ 8,902	$ -	$0	$0	$0	$0	$0	$0	$0	$8,902
Lithgow	Rising Mains	Mh11/9~Mh11/8	1890	$ 17,468	$ 17,852	$ 17,852	$0	$0	$0	$0	$0	$0	$0	$17,852
Lithgow	Reticulation	Mh1135~Mh234	1996	$ 6,455	$ 6,597	$ -	$0	$0	$0	$0	$0	$0	$0	$6,597
Lithgow	Reticulation	Mh1136~Mh1137	2003	$ 13,160	$ 13,450	$ -	$0	$0	$0	$0	$0	$0	$0	$13,450
Lithgow	Reticulation	Mh1137~Mh9/25	2003	$ 5,190	$ 5,304	$ -	$0	$0	$0	$0	$0	$0	$0	$5,304
Lithgow	Reticulation	Mh1150~Mh1215	2004	$ 3,299	$ 3,371	$ -	$0	$0	$0	$0	$0	$0	$0	$3,371
Lithgow	Reticulation	Mh1196~Mh1197	1940	$ 2,909	$ 2,973	$ -	$0	$0	$0	$0	$0	$0	$0	$2,973
Lithgow	Reticulation	Mh1197~Mh11/48	1940	$ 17,174	$ 17,552	$ -	$0	$0	$0	$0	$0	$0	$0	$17,552
Lithgow	Reticulation	Mh1199~Mh1367	1940	$ 14,242	$ 14,556	$ -	$0	$0	$0	$0	$0	$0	$0	$14,556
Lithgow	Reticulation	Mh1200~Mh1199	1940	$ 4,538	$ 4,638	$ -	$0	$0	$0	$0	$0	$0	$0	$4,638
Lithgow	Reticulation	Mh1201~Mh2014	1930	$ 10,298	$ 10,524	$ -	$0	$0	$0	$0	$0	$0	$0	$10,524
Lithgow	Reticulation	Mh1202~Mh1391	1940	$ 7,091	$ 7,247	$ -	$0	$0	$0	$0	$0	$0	$0	$7,247
Lithgow	Rising Mains	Mh1203~SPS2156	1930	$ 221,907	$ 226,789	$ 226,789	$0	$0	$0	$0	$0	$0	$0	$226,789
Lithgow	Rising Mains	Mh1204~Mh1209	1930	$ 11,772	$ 12,031	$ 12,031	$0	$0	$0	$0	$0	$0	$0	$12,031
Lithgow	Rising Mains	Mh1205~Mh1204	1930	$ 8,697	$ 8,888	$ 8,888	$0	$0	$0	$0	$0	$0	$0	$8,888
Lithgow	Rising Mains	Mh1206~Mh1205	1930	$ 16,183	$ 16,539	$ 16,539	$0	$0	$0	$0	$0	$0	$0	$16,539
Lithgow	Rising Mains	Mh1207~Mh1206	1930	$ 24,592	$ 25,133	$ 25,133	$0	$0	$0	$0	$0	$0	$0	$25,133
Lithgow	Rising Mains	Mh1208~Mh1207	1930	$ 21,408	$ 21,879	$ 21,879	$0	$0	$0	$0	$0	$0	$0	$21,879

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Rising Mains	Mh1209~Mh1203	1930	$ 12,265	$ 12,535	$ 12,535	$0	$0	$0	$0	$0	$0	$0	$12,535
Lithgow	Rising Mains	Mh1211~Mh1208	1930	$ 45,567	$ 46,570	$ 46,570	$0	$0	$0	$0	$0	$0	$0	$46,570
Lithgow	Rising Mains	Mh1212~Mh1211	1930	$ 1,847	$ 1,887	$ 1,887	$0	$0	$0	$0	$0	$0	$0	$1,887
Lithgow	Rising Mains	Mh1213~Mh1212	1930	$ 2,214	$ 2,263	$ 2,263	$0	$0	$0	$0	$0	$0	$0	$2,263
Lithgow	Reticulation	Mh1215~Mh1216	2004	$ 22,533	$ 23,029	$ -	$0	$0	$0	$0	$0	$0	$0	$23,029
Lithgow	Reticulation	Mh1216~Mh3/27AD	2004	$ 9,977	$ 10,196	$ -	$0	$0	$0	$0	$0	$0	$0	$10,196
Lithgow	Reticulation	Mh124~Mh59	1980	$ 8,229	$ 8,410	$ -	$0	$0	$0	$0	$0	$0	$0	$8,410
Lithgow	Reticulation	Mh13~Mh14	1942	$ 5,840	$ 5,968	$ -	$0	$0	$0	$0	$0	$0	$0	$5,968
Lithgow	Reticulation	Mh1329~Mh1349	2004	$ 25,575	$ 26,138	$ -	$0	$0	$0	$0	$0	$0	$0	$26,138
Lithgow	Reticulation	Mh1330~Mh1331	2004	$ 12,385	$ 12,657	$ -	$0	$0	$0	$0	$0	$0	$0	$12,657
Lithgow	Reticulation	Mh1331~Mh1336	2004	$ 29,214	$ 29,856	$ -	$0	$0	$0	$0	$0	$0	$0	$29,856
Lithgow	Reticulation	Mh1332~Mh1331	2004	$ 4,181	$ 4,273	$ -	$0	$0	$0	$0	$0	$0	$0	$4,273
Lithgow	Reticulation	Mh1333~Mh1337	2004	$ 6,199	$ 6,335	$ -	$0	$0	$0	$0	$0	$0	$0	$6,335
Lithgow	Reticulation	Mh1334~Mh1329	2004	$ 20,311	$ 20,758	$ -	$0	$0	$0	$0	$0	$0	$0	$20,758
Lithgow	Reticulation	Mh1335~Mh1332	2004	$ 26,075	$ 26,648	$ -	$0	$0	$0	$0	$0	$0	$0	$26,648
Lithgow	Reticulation	Mh1336~Mh1346	2004	$ 8,807	$ 9,001	$ -	$0	$0	$0	$0	$0	$0	$0	$9,001
Lithgow	Reticulation	Mh1337~Mh1349	2004	$ 10,204	$ 10,429	$ -	$0	$0	$0	$0	$0	$0	$0	$10,429
Lithgow	Reticulation	Mh1338~Mh1339	2004	$ 21,675	$ 22,152	$ -	$0	$0	$0	$0	$0	$0	$0	$22,152
Lithgow	Reticulation	Mh1339~Mh1341	2004	$ 13,559	$ 13,857	$ -	$0	$0	$0	$0	$0	$0	$0	$13,857
Lithgow	Reticulation	Mh1340~Mh1347	2004	$ 12,346	$ 12,618	$ -	$0	$0	$0	$0	$0	$0	$0	$12,618
Lithgow	Reticulation	Mh1341~Mh1333	2004	$ 5,715	$ 5,841	$ -	$0	$0	$0	$0	$0	$0	$0	$5,841
Lithgow	Reticulation	Mh1342~Mh1337	2004	$ 20,006	$ 20,446	$ -	$0	$0	$0	$0	$0	$0	$0	$20,446
Lithgow	Reticulation	Mh1343~Mh1349	2004	$ 10,054	$ 10,275	$ -	$0	$0	$0	$0	$0	$0	$0	$10,275
Lithgow	Reticulation	Mh1344~Mh27	2004	$ 7,432	$ 7,596	$ -	$0	$0	$0	$0	$0	$0	$0	$7,596
Lithgow	Reticulation	Mh1345~Mh1344	2004	$ 15,400	$ 15,739	$ -	$0	$0	$0	$0	$0	$0	$0	$15,739
Lithgow	Reticulation	Mh1346~Mh1345	2004	$ 9,710	$ 9,923	$ -	$0	$0	$0	$0	$0	$0	$0	$9,923
Lithgow	Reticulation	Mh1347~Mh1348	2004	$ 6,394	$ 6,535	$ -	$0	$0	$0	$0	$0	$0	$0	$6,535
Lithgow	Reticulation	Mh1348~Mh1343	2004	$ 4,023	$ 4,112	$ -	$0	$0	$0	$0	$0	$0	$0	$4,112
Lithgow	Reticulation	Mh1349~Mh1346	2004	$ 4,683	$ 4,786	$ -	$0	$0	$0	$0	$0	$0	$0	$4,786
Lithgow	Reticulation	Mh1352~Mh1221	1940	$ 25,473	$ 26,033	$ -	$0	$0	$0	$0	$0	$0	$0	$26,033
Lithgow	Reticulation	Mh1353~Mh1352	1940	$ 11,519	$ 11,772	$ -	$0	$0	$0	$0	$0	$0	$0	$11,772
Lithgow	Reticulation	Mh1362~Mh5/135	1930	$ 7,993	$ 8,168	$ -	$0	$0	$0	$0	$0	$0	$0	$8,168
Lithgow	Reticulation	Mh1363~Mh5/135	1930	$ 38,813	$ 39,667	$ -	$0	$0	$0	$0	$0	$0	$0	$39,667
Lithgow	Reticulation	Mh1364~Mh1363	1930	$ 17,751	$ 18,142	$ -	$0	$0	$0	$0	$0	$0	$0	$18,142
Lithgow	Reticulation	Mh1365~Mh1364	1930	$ 2,224	$ 2,273	$ -	$0	$0	$0	$0	$0	$0	$0	$2,273
Lithgow	Reticulation	Mh1366~Mh1/33	1940	$ 3,722	$ 3,804	$ -	$0	$0	$0	$0	$0	$0	$0	$3,804
Lithgow	Reticulation	Mh1367~Mh1366	1940	$ 8,598	$ 8,787	$ -	$0	$0	$0	$0	$0	$0	$0	$8,787
Lithgow	Reticulation	Mh1368~Mh1375	1885	$ 18,189	$ 18,589	$ -	$0	$0	$0	$0	$0	$0	$0	$18,589
Lithgow	Reticulation	Mh1369~Mh1368	1885	$ 23,098	$ 23,606	$ -	$0	$0	$0	$0	$0	$0	$0	$23,606
Lithgow	Reticulation	Mh1370~Mh1369	1885	$ 26,475	$ 27,058	$ -	$0	$0	$0	$0	$0	$0	$0	$27,058
Lithgow	Reticulation	Mh1371~Mh1370	1885	$ 16,234	$ 16,591	$ -	$0	$0	$0	$0	$0	$0	$0	$16,591
Lithgow	Reticulation	Mh1372~Mh1370	1885	$ 12,401	$ 12,674	$ -	$0	$0	$0	$0	$0	$0	$0	$12,674
Lithgow	Reticulation	Mh1373~Mh1372	1885	$ 23,513	$ 24,030	$ -	$0	$0	$0	$0	$0	$0	$0	$24,030
Lithgow	Reticulation	Mh1374~Mh1371	1885	$ 19,444	$ 19,872	$ -	$0	$0	$0	$0	$0	$0	$0	$19,872
Lithgow	Rising Mains	Mh1376~Mh1379	2002	$ 16,355	$ 16,715	$ 16,715	$16,715	$16,715	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1378~Mh1380	2002	$ 10,016	$ 10,236	$ 10,236	$10,236	$10,236	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1379~Mh1378	2002	$ 13,281	$ 13,573	$ 13,573	$13,573	$13,573	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1380~Mh211	2002	$ 5,793	$ 5,920	$ 5,920	$5,920	$5,920	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh1381~Mh1382	1912	$ 11,151	$ 11,397	$ 11,397	$0	$0	$0	$0	$0	$0	$0	$11,397
Lithgow	Rising Mains	Mh1382~Mh1383	1912	$ 10,261	$ 10,487	$ 10,487	$0	$0	$0	$0	$0	$0	$0	$10,487
Lithgow	Rising Mains	Mh1383~Mh6/12	1912	$ 8,219	$ 8,399	$ 8,399	$0	$0	$0	$0	$0	$0	$0	$8,399
Lithgow	Reticulation	Mh1384~Mh997	1990	$ 24,442	$ 24,980	$ -	$0	$0	$0	$0	$0	$0	$0	$24,980
Lithgow	Reticulation	Mh1385~Mh1018	1990	$ 12,624	$ 12,901	$ -	$0	$0	$0	$0	$0	$0	$0	$12,901
Lithgow	Reticulation	Mh1386~Mh1017	1990	$ 16,330	$ 16,689	$ -	$0	$0	$0	$0	$0	$0	$0	$16,689
Lithgow	Reticulation	Mh1387~Mh1386	1990	$ 12,852	$ 13,134	$ -	$0	$0	$0	$0	$0	$0	$0	$13,134
Lithgow	Reticulation	Mh1391~Mh1200	1940	$ 17,553	$ 17,939	$ -	$0	$0	$0	$0	$0	$0	$0	$17,939
Lithgow	Reticulation	Mh1-4/2809~Mh2091	1996	$ 15,036	$ 15,367	$ -	$0	$0	$0	$0	$0	$0	$0	$15,367
Lithgow	Reticulation	Mh14~Mh2005	1942	$ 5,310	$ 5,426	$ -	$0	$0	$0	$0	$0	$0	$0	$5,426
Lithgow	Reticulation	Mh2/1~Mh58	1954	$ 20,189	$ 20,633	$ -	$0	$0	$0	$0	$0	$0	$0	$20,633
Lithgow	Rising Mains	Mh2/179~SPS1227	1975	$ 1,403	$ 1,434	$ 1,434	$0	$0	$0	$0	$0	$0	$0	$1,434
Lithgow	Rising Mains	Mh2/185~Mh2/179	1975	$ 25,896	$ 26,466	$ 26,466	$0	$0	$0	$0	$0	$0	$0	$26,466
Lithgow	Rising Mains	Mh2/186~Mh2/185	1975	$ 4,702	$ 4,806	$ 4,806	$0	$0	$0	$0	$0	$0	$0	$4,806
Lithgow	Rising Mains	Mh2/188a~Mh2/186	1975	$ 8,687	$ 8,878	$ 8,878	$0	$0	$0	$0	$0	$0	$0	$8,878
Lithgow	Rising Mains	Mh2/188b~Mh2/188a	1975	$ 14,866	$ 15,193	$ 15,193	$0	$0	$0	$0	$0	$0	$0	$15,193
Lithgow	Rising Mains	Mh2/190~Mh2/188b	1975	$ 24,628	$ 25,169	$ 25,169	$0	$0	$0	$0	$0	$0	$0	$25,169

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Rising Mains	Mh2/191~Mh2/190	1975	$ 1,296	$ 1,324	$ 1,324	$0	$0	$0	$0	$0	$0	$0	$1,324
Lithgow	Rising Mains	Mh2/192~Mh2/191	1975	$ 4,724	$ 4,828	$ 4,828	$0	$0	$0	$0	$0	$0	$0	$4,828
Lithgow	Rising Mains	Mh2/193~Mh2/192	1975	$ 5,987	$ 6,119	$ 6,119	$0	$0	$0	$0	$0	$0	$0	$6,119
Lithgow	Rising Mains	Mh2/194~Mh2/193	1975	$ 17,271	$ 17,651	$ 17,651	$0	$0	$0	$0	$0	$0	$0	$17,651
Lithgow	Rising Mains	Mh2/195~Mh2/194	1975	$ 7,560	$ 7,727	$ 7,727	$0	$0	$0	$0	$0	$0	$0	$7,727
Lithgow	Rising Mains	Mh2/196~Mh2/195	1975	$ 9,488	$ 9,697	$ 9,697	$0	$0	$0	$0	$0	$0	$0	$9,697
Lithgow	Rising Mains	Mh2/198~Mh2/196	1975	$ 4,778	$ 4,883	$ 4,883	$0	$0	$0	$0	$0	$0	$0	$4,883
Lithgow	Rising Mains	Mh2/199~Mh2/198	1975	$ 4,956	$ 5,065	$ 5,065	$0	$0	$0	$0	$0	$0	$0	$5,065
Lithgow	Rising Mains	Mh2/200~Mh2/199	1975	$ 5,770	$ 5,897	$ 5,897	$0	$0	$0	$0	$0	$0	$0	$5,897
Lithgow	Rising Mains	Mh2/201~Mh2/200	1975	$ 12,512	$ 12,787	$ 12,787	$0	$0	$0	$0	$0	$0	$0	$12,787
Lithgow	Rising Mains	Mh2/202~Mh2/201	1975	$ 5,612	$ 5,736	$ 5,736	$0	$0	$0	$0	$0	$0	$0	$5,736
Lithgow	Reticulation	Mh2/204~Mh2/203	1975	$ 6,988	$ 7,142	$ -	$0	$0	$0	$0	$0	$0	$0	$7,142
Lithgow	Reticulation	Mh2/208~Mh2/207	1975	$ 6,896	$ 7,047	$ -	$0	$0	$0	$0	$0	$0	$0	$7,047
Lithgow	Reticulation	Mh2/209~Mh2/208	1975	$ 14,737	$ 15,061	$ -	$0	$0	$0	$0	$0	$0	$0	$15,061
Lithgow	Reticulation	Mh2/210~Mh2/209	1975	$ 10,841	$ 11,080	$ -	$0	$0	$0	$0	$0	$0	$0	$11,080
Lithgow	Rising Mains	Mh2/213~Mh2/202	1975	$ 3,526	$ 3,604	$ 3,604	$0	$0	$0	$0	$0	$0	$0	$3,604
Lithgow	Rising Mains	Mh2/214~Mh2/213	1975	$ 4,078	$ 4,168	$ 4,168	$0	$0	$0	$0	$0	$0	$0	$4,168
Lithgow	Rising Mains	Mh2/215~Mh2/214	1975	$ 9,330	$ 9,535	$ 9,535	$0	$0	$0	$0	$0	$0	$0	$9,535
Lithgow	Rising Mains	Mh2/216~Mh2/215	1975	$ 13,444	$ 13,740	$ 13,740	$0	$0	$0	$0	$0	$0	$0	$13,740
Lithgow	Rising Mains	Mh2/217~Mh2/216	1975	$ 4,492	$ 4,591	$ 4,591	$0	$0	$0	$0	$0	$0	$0	$4,591
Lithgow	Rising Mains	Mh2/218~Mh2/217	1975	$ 3,909	$ 3,994	$ 3,994	$0	$0	$0	$0	$0	$0	$0	$3,994
Lithgow	Rising Mains	Mh2/219~Mh2/218	1975	$ 3,583	$ 3,662	$ 3,662	$0	$0	$0	$0	$0	$0	$0	$3,662
Lithgow	Rising Mains	Mh2/220~Mh2/219	1975	$ 10,559	$ 10,791	$ 10,791	$0	$0	$0	$0	$0	$0	$0	$10,791
Lithgow	Rising Mains	Mh2/221~Mh2/220	1975	$ 11,092	$ 11,336	$ 11,336	$0	$0	$0	$0	$0	$0	$0	$11,336
Lithgow	Reticulation	Mh2/222~Mh2/190	1975	$ 8,042	$ 8,218	$ -	$0	$0	$0	$0	$0	$0	$0	$8,218
Lithgow	Reticulation	Mh2/36~Mh2/35	1954	$ 16,999	$ 17,372	$ -	$0	$0	$0	$0	$0	$0	$0	$17,372
Lithgow	Reticulation	Mh2/3a~Mh2/1	1954	$ 16,963	$ 17,337	$ -	$0	$0	$0	$0	$0	$0	$0	$17,337
Lithgow	Reticulation	Mh2/41~Mh2/40	1954	$ 14,556	$ 14,876	$ -	$0	$0	$0	$0	$0	$0	$0	$14,876
Lithgow	Reticulation	Mh2/42~Mh2/41	1954	$ 10,991	$ 11,232	$ -	$0	$0	$0	$0	$0	$0	$0	$11,232
Lithgow	Reticulation	Mh2/43~Mh2/42	1954	$ 20,377	$ 20,825	$ -	$0	$0	$0	$0	$0	$0	$0	$20,825
Lithgow	Reticulation	Mh2/44~Mh2/40	1954	$ 14,888	$ 15,216	$ -	$0	$0	$0	$0	$0	$0	$0	$15,216
Lithgow	Reticulation	Mh2/45~Mh2/44	1954	$ 7,826	$ 7,998	$ -	$0	$0	$0	$0	$0	$0	$0	$7,998
Lithgow	Reticulation	Mh2/46~Mh2/44	1954	$ 6,736	$ 6,884	$ -	$0	$0	$0	$0	$0	$0	$0	$6,884
Lithgow	Reticulation	Mh2/47~Mh2/40	1954	$ 17,288	$ 17,668	$ -	$0	$0	$0	$0	$0	$0	$0	$17,668
Lithgow	Reticulation	Mh2/48~Mh2/47	1954	$ 12,274	$ 12,544	$ -	$0	$0	$0	$0	$0	$0	$0	$12,544
Lithgow	Reticulation	Mh2/49~Mh2/48	1954	$ 4,310	$ 4,405	$ -	$0	$0	$0	$0	$0	$0	$0	$4,405
Lithgow	Reticulation	Mh2/50~Mh2/49	1954	$ 13,185	$ 13,475	$ -	$0	$0	$0	$0	$0	$0	$0	$13,475
Lithgow	Reticulation	Mh2/51~Mh2/50	1954	$ 13,876	$ 14,182	$ -	$0	$0	$0	$0	$0	$0	$0	$14,182
Lithgow	Reticulation	Mh2/52~Mh2/51	1954	$ 5,526	$ 5,648	$ -	$0	$0	$0	$0	$0	$0	$0	$5,648
Lithgow	Rising Mains	Mh2/7~Mh2/6	1954	$ 9,445	$ 9,653	$ 9,653	$0	$0	$0	$0	$0	$0	$0	$9,653
Lithgow	Rising Mains	Mh2~Mh1041	1930	$ 6,011	$ 6,143	$ 6,143	$0	$0	$0	$0	$0	$0	$0	$6,143
Lithgow	Rising Mains	Mh2002~Mh6	1942	$ 11,291	$ 11,540	$ 11,540	$0	$0	$0	$0	$0	$0	$0	$11,540
Lithgow	Reticulation	Mh2003~Mh10	1942	$ 8,669	$ 8,859	$ -	$0	$0	$0	$0	$0	$0	$0	$8,859
Lithgow	Reticulation	Mh2004~Mh13	1942	$ 11,155	$ 11,401	$ -	$0	$0	$0	$0	$0	$0	$0	$11,401
Lithgow	Reticulation	Mh2005~Mh24	1942	$ 7,864	$ 8,037	$ -	$0	$0	$0	$0	$0	$0	$0	$8,037
Lithgow	Reticulation	Mh2006~Mh13	1942	$ 5,856	$ 5,985	$ -	$0	$0	$0	$0	$0	$0	$0	$5,985
Lithgow	Reticulation	Mh2007~Mh2006	1942	$ 2,889	$ 2,953	$ -	$0	$0	$0	$0	$0	$0	$0	$2,953
Lithgow	Reticulation	Mh2008~Mh2009	1942	$ 11,322	$ 11,571	$ -	$0	$0	$0	$0	$0	$0	$0	$11,571
Lithgow	Reticulation	Mh2009~Mh2010	1942	$ 15,787	$ 16,134	$ -	$0	$0	$0	$0	$0	$0	$0	$16,134
Lithgow	Reticulation	Mh201~Mh200	1940	$ 12,306	$ 12,577	$ -	$0	$0	$0	$0	$0	$0	$0	$12,577
Lithgow	Reticulation	Mh2010~Mh2011	1942	$ 4,198	$ 4,290	$ -	$0	$0	$0	$0	$0	$0	$0	$4,290
Lithgow	Reticulation	Mh2011~Mh2012	1942	$ 17,404	$ 17,787	$ -	$0	$0	$0	$0	$0	$0	$0	$17,787
Lithgow	Reticulation	Mh2012~Mh25	1942	$ 13,349	$ 13,643	$ -	$0	$0	$0	$0	$0	$0	$0	$13,643
Lithgow	Reticulation	Mh2013~Mh33	1942	$ 14,280	$ 14,594	$ -	$0	$0	$0	$0	$0	$0	$0	$14,594
Lithgow	Reticulation	Mh2014~Mh1202	1940	$ 42,949	$ 43,894	$ -	$0	$0	$0	$0	$0	$0	$0	$43,894
Lithgow	Reticulation	Mh2015~Mh2016	1930	$ 4,864	$ 4,971	$ -	$0	$0	$0	$0	$0	$0	$0	$4,971
Lithgow	Reticulation	Mh2016~Mh2017	1930	$ 8,842	$ 9,037	$ -	$0	$0	$0	$0	$0	$0	$0	$9,037
Lithgow	Reticulation	Mh2017~Mh2017b	1930	$ 7,873	$ 8,046	$ -	$0	$0	$0	$0	$0	$0	$0	$8,046
Lithgow	Reticulation	Mh2017b~Mh2018	1930	$ 13,456	$ 13,752	$ -	$0	$0	$0	$0	$0	$0	$0	$13,752
Lithgow	Reticulation	Mh2018~Mh2024	1930	$ 2,286	$ 2,336	$ -	$0	$0	$0	$0	$0	$0	$0	$2,336
Lithgow	Reticulation	Mh2019~Mh2024	1930	$ 4,213	$ 4,305	$ -	$0	$0	$0	$0	$0	$0	$0	$4,305
Lithgow	Reticulation	Mh2020~Mh2021	1930	$ 3,318	$ 3,391	$ -	$0	$0	$0	$0	$0	$0	$0	$3,391
Lithgow	Reticulation	Mh2021~Mh2016	1930	$ 8,452	$ 8,638	$ -	$0	$0	$0	$0	$0	$0	$0	$8,638
Lithgow	Reticulation	Mh2022~Mh2015	1930	$ 5,002	$ 5,112	$ -	$0	$0	$0	$0	$0	$0	$0	$5,112
Lithgow	Reticulation	Mh2023~Mh2015	1930	$ 7,810	$ 7,982	$ -	$0	$0	$0	$0	$0	$0	$0	$7,982
Lithgow	Reticulation	Mh2024~Mh2037	1930	$ 2,364	$ 2,416	$ -	$0	$0	$0	$0	$0	$0	$0	$2,416

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh2025~Mh2029	1930	$ 12,453	$ 12,727	$ -	$0	$0	$0	$0	$0	$0	$0	$12,727
Lithgow	Reticulation	Mh2026~Mh2025	1930	$ 16,442	$ 16,804	$ -	$0	$0	$0	$0	$0	$0	$0	$16,804
Lithgow	Reticulation	Mh2027~Mh2026	1930	$ 14,519	$ 14,838	$ -	$0	$0	$0	$0	$0	$0	$0	$14,838
Lithgow	Reticulation	Mh2028~Mh2027	1930	$ 6,156	$ 6,292	$ -	$0	$0	$0	$0	$0	$0	$0	$6,292
Lithgow	Reticulation	Mh2029~Mh2030	1930	$ 20,544	$ 20,996	$ -	$0	$0	$0	$0	$0	$0	$0	$20,996
Lithgow	Reticulation	Mh2030~Mh1/51	1930	$ 5,703	$ 5,828	$ -	$0	$0	$0	$0	$0	$0	$0	$5,828
Lithgow	Reticulation	Mh2031~Mh64	1996	$ 11,838	$ 12,098	$ -	$0	$0	$0	$0	$0	$0	$0	$12,098
Lithgow	Reticulation	Mh2032~Mh64	1996	$ 17,607	$ 17,994	$ -	$0	$0	$0	$0	$0	$0	$0	$17,994
Lithgow	Reticulation	Mh2033~Mh1/46	1930	$ 5,176	$ 5,290	$ -	$0	$0	$0	$0	$0	$0	$0	$5,290
Lithgow	Reticulation	Mh2034~Mh2035	1930	$ 10,999	$ 11,241	$ -	$0	$0	$0	$0	$0	$0	$0	$11,241
Lithgow	Rising Mains	Mh2035~Mh1/44	1930	$ 10,532	$ 10,764	$ 10,764	$0	$0	$0	$0	$0	$0	$0	$10,764
Lithgow	Reticulation	Mh2036~Mh2035	1930	$ 30,555	$ 31,228	$ -	$0	$0	$0	$0	$0	$0	$0	$31,228
Lithgow	Reticulation	Mh2037~Mh2036	1930	$ 4,585	$ 4,685	$ -	$0	$0	$0	$0	$0	$0	$0	$4,685
Lithgow	Reticulation	Mh2038~Mh2039	1930	$ 8,221	$ 8,402	$ -	$0	$0	$0	$0	$0	$0	$0	$8,402
Lithgow	Reticulation	Mh2039~Mh2034	1930	$ 16,321	$ 16,681	$ -	$0	$0	$0	$0	$0	$0	$0	$16,681
Lithgow	Reticulation	Mh2040~Mh2033	1930	$ 6,344	$ 6,483	$ -	$0	$0	$0	$0	$0	$0	$0	$6,483
Lithgow	Reticulation	Mh2041~Mh9/1a	1930	$ 12,928	$ 13,213	$ -	$0	$0	$0	$0	$0	$0	$0	$13,213
Lithgow	Reticulation	Mh2042~Mh2043	1930	$ 17,310	$ 17,691	$ -	$0	$0	$0	$0	$0	$0	$0	$17,691
Lithgow	Reticulation	Mh2043~Mh2054	1930	$ 15,203	$ 15,538	$ -	$0	$0	$0	$0	$0	$0	$0	$15,538
Lithgow	Reticulation	Mh2044~Mh2045	1930	$ 6,570	$ 6,714	$ -	$0	$0	$0	$0	$0	$0	$0	$6,714
Lithgow	Reticulation	Mh2045~Mh2042	1930	$ 14,874	$ 15,201	$ -	$0	$0	$0	$0	$0	$0	$0	$15,201
Lithgow	Reticulation	Mh2046~Mh2047	1930	$ 15,438	$ 15,777	$ -	$0	$0	$0	$0	$0	$0	$0	$15,777
Lithgow	Reticulation	Mh2047~Mh2042	1930	$ 11,676	$ 11,933	$ -	$0	$0	$0	$0	$0	$0	$0	$11,933
Lithgow	Reticulation	Mh2048~Mh2047	1930	$ 9,603	$ 9,815	$ -	$0	$0	$0	$0	$0	$0	$0	$9,815
Lithgow	Reticulation	Mh2049~Mh2048	1930	$ 29,528	$ 30,178	$ -	$0	$0	$0	$0	$0	$0	$0	$30,178
Lithgow	Reticulation	Mh2050~Mh2049	1930	$ 9,231	$ 9,434	$ -	$0	$0	$0	$0	$0	$0	$0	$9,434
Lithgow	Reticulation	Mh2051~Mh2052	1930	$ 17,855	$ 18,248	$ -	$0	$0	$0	$0	$0	$0	$0	$18,248
Lithgow	Reticulation	Mh2052~Mh2042	1930	$ 20,489	$ 20,940	$ -	$0	$0	$0	$0	$0	$0	$0	$20,940
Lithgow	Reticulation	Mh2053~Mh2050	1930	$ 14,501	$ 14,820	$ -	$0	$0	$0	$0	$0	$0	$0	$14,820
Lithgow	Reticulation	Mh2054~Mh2056	1930	$ 15,810	$ 16,158	$ -	$0	$0	$0	$0	$0	$0	$0	$16,158
Lithgow	Reticulation	Mh2055~Mh1/58	1930	$ 18,295	$ 18,698	$ -	$0	$0	$0	$0	$0	$0	$0	$18,698
Lithgow	Reticulation	Mh2056~Mh2055	1930	$ 15,396	$ 15,734	$ -	$0	$0	$0	$0	$0	$0	$0	$15,734
Lithgow	Reticulation	Mh2057~Mh79	1905	$ 20,613	$ 21,067	$ -	$0	$0	$0	$0	$0	$0	$0	$21,067
Lithgow	Reticulation	Mh2058~SPS2153	1980	$ 26,224	$ 26,801	$ -	$0	$0	$0	$0	$0	$0	$0	$26,801
Lithgow	Reticulation	Mh2059~Mh2058	1980	$ 9,139	$ 9,340	$ -	$0	$0	$0	$0	$0	$0	$0	$9,340
Lithgow	Reticulation	Mh2060~Mh2059	1980	$ 3,662	$ 3,742	$ -	$0	$0	$0	$0	$0	$0	$0	$3,742
Lithgow	Reticulation	Mh2061~Mh2060	1980	$ 12,749	$ 13,029	$ -	$0	$0	$0	$0	$0	$0	$0	$13,029
Lithgow	Reticulation	Mh2062~Mh2061	1980	$ 5,996	$ 6,128	$ -	$0	$0	$0	$0	$0	$0	$0	$6,128
Lithgow	Reticulation	Mh2063~Mh2061	1980	$ 10,755	$ 10,991	$ -	$0	$0	$0	$0	$0	$0	$0	$10,991
Lithgow	Reticulation	Mh2064~Mh2060	1980	$ 19,029	$ 19,447	$ -	$0	$0	$0	$0	$0	$0	$0	$19,447
Lithgow	Reticulation	Mh2065~Mh2064	1980	$ 4,528	$ 4,628	$ -	$0	$0	$0	$0	$0	$0	$0	$4,628
Lithgow	Reticulation	Mh2066~Mh2065	1980	$ 7,048	$ 7,203	$ -	$0	$0	$0	$0	$0	$0	$0	$7,203
Lithgow	Reticulation	Mh2067~Mh2066	1980	$ 4,334	$ 4,429	$ -	$0	$0	$0	$0	$0	$0	$0	$4,429
Lithgow	Reticulation	Mh2068~Mh2069	1980	$ 27,645	$ 28,253	$ -	$0	$0	$0	$0	$0	$0	$0	$28,253
Lithgow	Reticulation	Mh2069~SPS2153	1980	$ 21,002	$ 21,464	$ -	$0	$0	$0	$0	$0	$0	$0	$21,464
Lithgow	Reticulation	Mh2070~Mh60	1980	$ 21,665	$ 22,142	$ -	$0	$0	$0	$0	$0	$0	$0	$22,142
Lithgow	Reticulation	Mh2071~Mh2090	1996	$ 15,147	$ 15,481	$ -	$0	$0	$0	$0	$0	$0	$0	$15,481
Lithgow	Reticulation	Mh2072~Mh2071	1996	$ 14,672	$ 14,994	$ -	$0	$0	$0	$0	$0	$0	$0	$14,994
Lithgow	Reticulation	Mh2073~Mh2072	1996	$ 11,918	$ 12,180	$ -	$0	$0	$0	$0	$0	$0	$0	$12,180
Lithgow	Reticulation	Mh2074~Mh2073	1996	$ 11,372	$ 11,622	$ -	$0	$0	$0	$0	$0	$0	$0	$11,622
Lithgow	Reticulation	Mh2075~Mh2074	1996	$ 10,321	$ 10,548	$ -	$0	$0	$0	$0	$0	$0	$0	$10,548
Lithgow	Reticulation	Mh2076~Mh2075	1996	$ 13,797	$ 14,101	$ -	$0	$0	$0	$0	$0	$0	$0	$14,101
Lithgow	Reticulation	Mh2077~Mh2084	1996	$ 18,189	$ 18,589	$ -	$0	$0	$0	$0	$0	$0	$0	$18,589
Lithgow	Reticulation	Mh2078~Mh2079	1996	$ 6,308	$ 6,447	$ -	$0	$0	$0	$0	$0	$0	$0	$6,447
Lithgow	Reticulation	Mh2079~Mh2092	1996	$ 8,521	$ 8,709	$ -	$0	$0	$0	$0	$0	$0	$0	$8,709
Lithgow	Reticulation	Mh2080~Mh231	1996	$ 10,602	$ 10,836	$ -	$0	$0	$0	$0	$0	$0	$0	$10,836
Lithgow	Reticulation	Mh2081~Mh67	1996	$ 12,287	$ 12,557	$ -	$0	$0	$0	$0	$0	$0	$0	$12,557
Lithgow	Reticulation	Mh2082~Mh2083	1996	$ 14,096	$ 14,406	$ -	$0	$0	$0	$0	$0	$0	$0	$14,406
Lithgow	Reticulation	Mh2083~Mh2086	1996	$ 17,694	$ 18,084	$ -	$0	$0	$0	$0	$0	$0	$0	$18,084
Lithgow	Reticulation	Mh2084~Mh2085	1996	$ 15,136	$ 15,469	$ -	$0	$0	$0	$0	$0	$0	$0	$15,469
Lithgow	Reticulation	Mh2085~Mh2083	1996	$ 19,108	$ 19,528	$ -	$0	$0	$0	$0	$0	$0	$0	$19,528
Lithgow	Reticulation	Mh2086~Mh2087	1996	$ 15,975	$ 16,326	$ -	$0	$0	$0	$0	$0	$0	$0	$16,326
Lithgow	Reticulation	Mh2087~Mh2088	1996	$ 15,071	$ 15,402	$ -	$0	$0	$0	$0	$0	$0	$0	$15,402
Lithgow	Reticulation	Mh2088~Mh2076	1996	$ 19,033	$ 19,451	$ -	$0	$0	$0	$0	$0	$0	$0	$19,451
Lithgow	Reticulation	Mh2089~Mh2082	1996	$ 15,717	$ 16,062	$ -	$0	$0	$0	$0	$0	$0	$0	$16,062
Lithgow	Reticulation	Mh209~Mh210	2002	$ 18,163	$ 18,563	$ -	$0	$0	$0	$0	$0	$0	$0	$18,563
Lithgow	Reticulation	Mh2090~Mh2032	1996	$ 20,541	$ 20,993	$ -	$0	$0	$0	$0	$0	$0	$0	$20,993
Lithgow	Reticulation	Mh2091~Mh2090	1996	$ 13,317	$ 13,610	$ -	$0	$0	$0	$0	$0	$0	$0	$13,610
Lithgow	Reticulation	Mh2092~Mh2080	1996	$ 13,181	$ 13,471	$ -	$0	$0	$0	$0	$0	$0	$0	$13,471
Lithgow	Reticulation	Mh2093~Mh2094	1930	$ 1,485	$ 1,518	$ -	$0	$0	$0	$0	$0	$0	$0	$1,518

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh2094~Mh1/42	1930	$ 10,136	$ 10,359	$ -	$0	$0	$0	$0	$0	$0	$0	$10,359
Lithgow	Reticulation	Mh2095~Mh2093	1930	$ 17,971	$ 18,366	$ -	$0	$0	$0	$0	$0	$0	$0	$18,366
Lithgow	Reticulation	Mh2096~Mh2040	1930	$ 14,112	$ 14,422	$ -	$0	$0	$0	$0	$0	$0	$0	$14,422
Lithgow	Reticulation	Mh2097~Mh2096	1930	$ 14,382	$ 14,699	$ -	$0	$0	$0	$0	$0	$0	$0	$14,699
Lithgow	Reticulation	Mh2098~Mh1/61	1930	$ 15,994	$ 16,346	$ -	$0	$0	$0	$0	$0	$0	$0	$16,346
Lithgow	Reticulation	Mh2099~Mh2098	1930	$ 11,420	$ 11,671	$ -	$0	$0	$0	$0	$0	$0	$0	$11,671
Lithgow	Rising Mains	Mh210~Mh211	2002	$ 16,981	$ 17,355	$ 17,355	$17,355	$17,355	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Mh2100~Mh2099	1930	$ 13,875	$ 14,180	$ -	$0	$0	$0	$0	$0	$0	$0	$14,180
Lithgow	Reticulation	Mh2101~Mh2100	1930	$ 19,082	$ 19,502	$ -	$0	$0	$0	$0	$0	$0	$0	$19,502
Lithgow	Reticulation	Mh2102~Mh2103	1890	$ 10,813	$ 11,051	$ -	$0	$0	$0	$0	$0	$0	$0	$11,051
Lithgow	Reticulation	Mh2103~Mh2104	1890	$ 14,899	$ 15,227	$ -	$0	$0	$0	$0	$0	$0	$0	$15,227
Lithgow	Reticulation	Mh2104~Mh1/85	1890	$ 15,772	$ 16,119	$ -	$0	$0	$0	$0	$0	$0	$0	$16,119
Lithgow	Reticulation	Mh2105~Mh1/81	1890	$ 5,252	$ 5,368	$ -	$0	$0	$0	$0	$0	$0	$0	$5,368
Lithgow	Reticulation	Mh2106~Mh2105	1890	$ 10,733	$ 10,969	$ -	$0	$0	$0	$0	$0	$0	$0	$10,969
Lithgow	Reticulation	Mh2107~Mh2106	1890	$ 7,365	$ 7,527	$ -	$0	$0	$0	$0	$0	$0	$0	$7,527
Lithgow	Reticulation	Mh2108~Mh1/84	1890	$ 15,565	$ 15,908	$ -	$0	$0	$0	$0	$0	$0	$0	$15,908
Lithgow	Reticulation	Mh2109~Mh2108	1890	$ 7,797	$ 7,969	$ -	$0	$0	$0	$0	$0	$0	$0	$7,969
Lithgow	Reticulation	Mh210a~Mh11/27	1960	$ 49,124	$ 50,205	$ -	$0	$0	$0	$0	$0	$0	$0	$50,205
Lithgow	Rising Mains	Mh211~Mh226	2001	$ 9,805	$ 10,021	$ 10,021	$10,021	$10,021	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Mh2110~Mh1/87	1890	$ 6,434	$ 6,575	$ -	$0	$0	$0	$0	$0	$0	$0	$6,575
Lithgow	Reticulation	Mh2111~Mh2110	1890	$ 2,816	$ 2,878	$ -	$0	$0	$0	$0	$0	$0	$0	$2,878
Lithgow	Reticulation	Mh2112~Mh2111	1890	$ 20,375	$ 20,823	$ -	$0	$0	$0	$0	$0	$0	$0	$20,823
Lithgow	Reticulation	Mh2113~Mh1052	1890	$ 12,402	$ 12,675	$ -	$0	$0	$0	$0	$0	$0	$0	$12,675
Lithgow	Reticulation	Mh2114~Mh1/93	1890	$ 17,979	$ 18,374	$ -	$0	$0	$0	$0	$0	$0	$0	$18,374
Lithgow	Reticulation	Mh2115~Mh2114	1890	$ 18,561	$ 18,969	$ -	$0	$0	$0	$0	$0	$0	$0	$18,969
Lithgow	Reticulation	Mh2116~Mh2115	1890	$ 13,857	$ 14,162	$ -	$0	$0	$0	$0	$0	$0	$0	$14,162
Lithgow	Reticulation	Mh2117~J4	1890	$ 2,220	$ 2,269	$ -	$0	$0	$0	$0	$0	$0	$0	$2,269
Lithgow	Reticulation	Mh2118~J4	1890	$ 9,981	$ 10,200	$ -	$0	$0	$0	$0	$0	$0	$0	$10,200
Lithgow	Reticulation	Mh2119~Mh2122	1890	$ 10,947	$ 11,188	$ -	$0	$0	$0	$0	$0	$0	$0	$11,188
Lithgow	Reticulation	Mh2120~Mh2121	1890	$ 13,919	$ 14,226	$ -	$0	$0	$0	$0	$0	$0	$0	$14,226
Lithgow	Reticulation	Mh2121~Mh2134	1890	$ 12,741	$ 13,022	$ -	$0	$0	$0	$0	$0	$0	$0	$13,022
Lithgow	Reticulation	Mh2122~Mh2137	1890	$ 18,392	$ 18,797	$ -	$0	$0	$0	$0	$0	$0	$0	$18,797
Lithgow	Reticulation	Mh2123~Mh2124	1890	$ 16,358	$ 16,718	$ -	$0	$0	$0	$0	$0	$0	$0	$16,718
Lithgow	Reticulation	Mh2124~Mh2125	1890	$ 19,070	$ 19,490	$ -	$0	$0	$0	$0	$0	$0	$0	$19,490
Lithgow	Reticulation	Mh2125~J5	1890	$ 2,529	$ 2,585	$ -	$0	$0	$0	$0	$0	$0	$0	$2,585
Lithgow	Reticulation	Mh2126~Mh2124	1890	$ 4,149	$ 4,240	$ -	$0	$0	$0	$0	$0	$0	$0	$4,240
Lithgow	Reticulation	Mh2127~Mh2128	1890	$ 20,530	$ 20,982	$ -	$0	$0	$0	$0	$0	$0	$0	$20,982
Lithgow	Reticulation	Mh2128~Mh2113	1890	$ 20,810	$ 21,267	$ -	$0	$0	$0	$0	$0	$0	$0	$21,267
Lithgow	Reticulation	Mh2129~Mh2130	1890	$ 19,310	$ 19,735	$ -	$0	$0	$0	$0	$0	$0	$0	$19,735
Lithgow	Reticulation	Mh2130~Mh2112	1890	$ 23,205	$ 23,716	$ -	$0	$0	$0	$0	$0	$0	$0	$23,716
Lithgow	Reticulation	Mh2131~Mh2132	1890	$ 19,903	$ 20,341	$ -	$0	$0	$0	$0	$0	$0	$0	$20,341
Lithgow	Reticulation	Mh2132~Mh2111	1890	$ 18,394	$ 18,798	$ -	$0	$0	$0	$0	$0	$0	$0	$18,798
Lithgow	Reticulation	Mh2133~Mh2132	1890	$ 12,794	$ 13,075	$ -	$0	$0	$0	$0	$0	$0	$0	$13,075
Lithgow	Reticulation	Mh2134~Mh2138	1890	$ 6,295	$ 6,434	$ -	$0	$0	$0	$0	$0	$0	$0	$6,434
Lithgow	Reticulation	Mh2135~Mh2134	1890	$ 3,261	$ 3,333	$ -	$0	$0	$0	$0	$0	$0	$0	$3,333
Lithgow	Reticulation	Mh2136~Mh2135	1940	$ 9,857	$ 10,074	$ -	$0	$0	$0	$0	$0	$0	$0	$10,074
Lithgow	Reticulation	Mh2137~Mh2137b	1890	$ 7,072	$ 7,227	$ -	$0	$0	$0	$0	$0	$0	$0	$7,227
Lithgow	Reticulation	Mh2137b~Mh2134	1890	$ 4,475	$ 4,573	$ -	$0	$0	$0	$0	$0	$0	$0	$4,573
Lithgow	Reticulation	Mh2138~Mh2123	1890	$ 13,245	$ 13,537	$ -	$0	$0	$0	$0	$0	$0	$0	$13,537
Lithgow	Reticulation	Mh2139~Mh2137	1890	$ 12,206	$ 12,475	$ -	$0	$0	$0	$0	$0	$0	$0	$12,475
Lithgow	Reticulation	Mh2140~Mh2150	1996	$ 12,222	$ 12,491	$ -	$0	$0	$0	$0	$0	$0	$0	$12,491
Lithgow	Reticulation	Mh2141~Mh2140	1996	$ 8,798	$ 8,991	$ -	$0	$0	$0	$0	$0	$0	$0	$8,991
Lithgow	Reticulation	Mh2142~Mh2141	1996	$ 6,328	$ 6,467	$ -	$0	$0	$0	$0	$0	$0	$0	$6,467
Lithgow	Reticulation	Mh2143~Mh2142	1996	$ 14,213	$ 14,525	$ -	$0	$0	$0	$0	$0	$0	$0	$14,525
Lithgow	Reticulation	Mh2148~Mh2149	1996	$ 22,378	$ 22,871	$ -	$0	$0	$0	$0	$0	$0	$0	$22,871
Lithgow	Reticulation	Mh2149~Mh1/70	1996	$ 2,549	$ 2,605	$ -	$0	$0	$0	$0	$0	$0	$0	$2,605
Lithgow	Rising Mains	Mh2150~Mh1/68	1930	$ 13,453	$ 13,749	$ 13,749	$0	$0	$0	$0	$0	$0	$0	$13,749
Lithgow	Reticulation	Mh2151~Mh2041	1930	$ 6,980	$ 7,134	$ -	$0	$0	$0	$0	$0	$0	$0	$7,134
Lithgow	Reticulation	Mh221~Mh1/65	2000	$ 3,695	$ 3,776	$ -	$0	$0	$0	$0	$0	$0	$0	$3,776
Lithgow	Reticulation	Mh222~Mh221	2000	$ 7,903	$ 8,077	$ -	$0	$0	$0	$0	$0	$0	$0	$8,077
Lithgow	Reticulation	Mh223~Mh221	2000	$ 4,576	$ 4,676	$ -	$0	$0	$0	$0	$0	$0	$0	$4,676
Lithgow	Reticulation	Mh224~Mh223	2000	$ 10,706	$ 10,942	$ -	$0	$0	$0	$0	$0	$0	$0	$10,942
Lithgow	Reticulation	Mh225~Mh222	2000	$ 26,266	$ 26,844	$ -	$0	$0	$0	$0	$0	$0	$0	$26,844
Lithgow	Rising Mains	Mh226~Mh227	2001	$ 16,747	$ 17,115	$ 17,115	$17,115	$17,115	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh227~Mh229	2001	$ 12,689	$ 12,968	$ 12,968	$12,968	$12,968	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh228~Mh230	2001	$ 8,586	$ 8,775	$ 8,775	$8,775	$8,775	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	Mh229~Mh228	2001	$ 12,739	$ 13,019	$ 13,019	$13,019	$13,019	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Mh23~Mh2012	1942	$ 5,695	$ 5,820	$ -	$0	$0	$0	$0	$0	$0	$0	$5,820
Lithgow	Rising Mains	Mh230~Mh1381	1912	$ 9,215	$ 9,417	$ 9,417	$0	$0	$0	$0	$0	$0	$0	$9,417
Lithgow	Reticulation	Mh2300~SPS2153	1980	$ 20,112	$ 20,554	$ -	$0	$0	$0	$0	$0	$0	$0	$20,554

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh231~Mh2081	1996	$ 10,343	$ 10,571	$ -	$0	$0	$0	$0	$0	$0	$0	$10,571
Lithgow	Reticulation	Mh232~Mh235	1996	$ 16,048	$ 16,401	$ -	$0	$0	$0	$0	$0	$0	$0	$16,401
Lithgow	Reticulation	Mh233~Mh232	1996	$ 15,533	$ 15,875	$ -	$0	$0	$0	$0	$0	$0	$0	$15,875
Lithgow	Reticulation	Mh234~Mh233	1996	$ 15,841	$ 16,190	$ -	$0	$0	$0	$0	$0	$0	$0	$16,190
Lithgow	Reticulation	Mh235~Mh231	1996	$ 10,579	$ 10,812	$ -	$0	$0	$0	$0	$0	$0	$0	$10,812
Lithgow	Reticulation	Mh2-4/2809~Mh1-4/2809	1994	$ 16,095	$ 16,449	$ -	$0	$0	$0	$0	$0	$0	$0	$16,449
Lithgow	Reticulation	Mh24~Mh23	1942	$ 14,048	$ 14,357	$ -	$0	$0	$0	$0	$0	$0	$0	$14,357
Lithgow	Reticulation	Mh245~Mh9/84	1970	$ 29,211	$ 29,853	$ -	$0	$0	$0	$0	$0	$0	$0	$29,853
Lithgow	Reticulation	Mh25~Mh26	1942	$ 15,417	$ 15,756	$ -	$0	$0	$0	$0	$0	$0	$0	$15,756
Lithgow	Reticulation	Mh26~Mh27	1942	$ 10,595	$ 10,828	$ -	$0	$0	$0	$0	$0	$0	$0	$10,828
Lithgow	Reticulation	Mh27~Mh28	1942	$ 5,459	$ 5,579	$ -	$0	$0	$0	$0	$0	$0	$0	$5,579
Lithgow	Reticulation	Mh28~Mh29	1942	$ 5,635	$ 5,759	$ -	$0	$0	$0	$0	$0	$0	$0	$5,759
Lithgow	Reticulation	Mh29~Mh1150	1942	$ 8,732	$ 8,924	$ -	$0	$0	$0	$0	$0	$0	$0	$8,924
Lithgow	Reticulation	Mh3/10A~Mh3/10	1910	$ 19,918	$ 20,356	$ -	$0	$0	$0	$0	$0	$0	$0	$20,356
Lithgow	Reticulation	Mh3/10B~Mh3/10A	1910	$ 6,410	$ 6,551	$ -	$0	$0	$0	$0	$0	$0	$0	$6,551
Lithgow	Reticulation	Mh3/10C~Mh3/10B	1910	$ 18,372	$ 18,776	$ -	$0	$0	$0	$0	$0	$0	$0	$18,776
Lithgow	Reticulation	Mh3/12A~Mh3/12	1910	$ 6,560	$ 6,704	$ -	$0	$0	$0	$0	$0	$0	$0	$6,704
Lithgow	Reticulation	Mh3/12B~Mh3/12A	1970	$ 10,847	$ 11,085	$ -	$0	$0	$0	$0	$0	$0	$0	$11,085
Lithgow	Reticulation	Mh3/12C~Mh3/12B	1970	$ 21,211	$ 21,677	$ -	$0	$0	$0	$0	$0	$0	$0	$21,677
Lithgow	Reticulation	Mh3/14A~Mh3/14	1910	$ 11,890	$ 12,151	$ -	$0	$0	$0	$0	$0	$0	$0	$12,151
Lithgow	Reticulation	Mh3/14B~Mh3/14A	1970	$ 23,699	$ 24,221	$ -	$0	$0	$0	$0	$0	$0	$0	$24,221
Lithgow	Reticulation	Mh3/14C~Mh3/14B	1940	$ 11,957	$ 12,220	$ -	$0	$0	$0	$0	$0	$0	$0	$12,220
Lithgow	Reticulation	Mh3/14D~Mh3/14C	1940	$ 4,441	$ 4,539	$ -	$0	$0	$0	$0	$0	$0	$0	$4,539
Lithgow	Reticulation	Mh3/14E~Mh3/14D	1970	$ 15,234	$ 15,569	$ -	$0	$0	$0	$0	$0	$0	$0	$15,569
Lithgow	Reticulation	Mh3/14F~Mh3/14E	1970	$ 14,704	$ 15,027	$ -	$0	$0	$0	$0	$0	$0	$0	$15,027
Lithgow	Reticulation	Mh3/14G~Mh3/14D	1970	$ 12,970	$ 13,256	$ -	$0	$0	$0	$0	$0	$0	$0	$13,256
Lithgow	Reticulation	Mh3/14H~Mh3/14G	1970	$ 12,305	$ 12,576	$ -	$0	$0	$0	$0	$0	$0	$0	$12,576
Lithgow	Reticulation	Mh3/14I~Mh3/14A	1970	$ 10,604	$ 10,838	$ -	$0	$0	$0	$0	$0	$0	$0	$10,838
Lithgow	Reticulation	Mh3/14J~Mh3/14I	1940	$ 1,908	$ 1,950	$ -	$0	$0	$0	$0	$0	$0	$0	$1,950
Lithgow	Reticulation	Mh3/14K~Mh3/14J	1940	$ 13,076	$ 13,363	$ -	$0	$0	$0	$0	$0	$0	$0	$13,363
Lithgow	Reticulation	Mh3/14L~Mh3/14J	1940	$ 10,230	$ 10,455	$ -	$0	$0	$0	$0	$0	$0	$0	$10,455
Lithgow	Reticulation	Mh3/14M~Mh3/14L	1940	$ 3,504	$ 3,581	$ -	$0	$0	$0	$0	$0	$0	$0	$3,581
Lithgow	Reticulation	Mh3/14N~Mh3/14M	1970	$ 16,264	$ 16,621	$ -	$0	$0	$0	$0	$0	$0	$0	$16,621
Lithgow	Reticulation	Mh3/14O~Mh3/14N	1970	$ 23,407	$ 23,922	$ -	$0	$0	$0	$0	$0	$0	$0	$23,922
Lithgow	Reticulation	Mh3/14P~Mh3/14O	1970	$ 19,518	$ 19,948	$ -	$0	$0	$0	$0	$0	$0	$0	$19,948
Lithgow	Reticulation	Mh3/14Q~Mh3/14P	1970	$ 20,031	$ 20,471	$ -	$0	$0	$0	$0	$0	$0	$0	$20,471
Lithgow	Reticulation	Mh3/14R~Mh3/14Q	1970	$ 18,204	$ 18,604	$ -	$0	$0	$0	$0	$0	$0	$0	$18,604
Lithgow	Reticulation	Mh3/14S~Mh3/14M	1970	$ 24,440	$ 24,977	$ -	$0	$0	$0	$0	$0	$0	$0	$24,977
Lithgow	Reticulation	Mh3/14T~Mh3/14S	1970	$ 12,087	$ 12,353	$ -	$0	$0	$0	$0	$0	$0	$0	$12,353
Lithgow	Reticulation	Mh3/152a~Mh1038	1940	$ 10,188	$ 10,412	$ -	$0	$0	$0	$0	$0	$0	$0	$10,412
Lithgow	Reticulation	Mh3/152b~Mh3/152a	1910	$ 2,441	$ 2,494	$ -	$0	$0	$0	$0	$0	$0	$0	$2,494
Lithgow	Reticulation	Mh3/15A~Mh3/15	1970	$ 10,652	$ 10,886	$ -	$0	$0	$0	$0	$0	$0	$0	$10,886
Lithgow	Reticulation	Mh3/15B~Mh3/15A	1970	$ 10,240	$ 10,465	$ -	$0	$0	$0	$0	$0	$0	$0	$10,465
Lithgow	Reticulation	Mh3/15D~Mh3/15A	1970	$ 8,921	$ 9,117	$ -	$0	$0	$0	$0	$0	$0	$0	$9,117
Lithgow	Reticulation	Mh3/17A~Mh3/17	1970	$ 19,495	$ 19,924	$ -	$0	$0	$0	$0	$0	$0	$0	$19,924
Lithgow	Reticulation	Mh3/17B~Mh3/17A	1940	$ 15,563	$ 15,906	$ -	$0	$0	$0	$0	$0	$0	$0	$15,906
Lithgow	Reticulation	Mh3/17C~Mh3/17A	1970	$ 17,999	$ 18,395	$ -	$0	$0	$0	$0	$0	$0	$0	$18,395
Lithgow	Reticulation	Mh3/17D~Mh3/17A	1970	$ 29,113	$ 29,753	$ -	$0	$0	$0	$0	$0	$0	$0	$29,753
Lithgow	Reticulation	Mh3/17F~Mh3/17D	1970	$ 13,254	$ 13,545	$ -	$0	$0	$0	$0	$0	$0	$0	$13,545
Lithgow	Reticulation	Mh3/17G~Mh3/17F	1970	$ 14,955	$ 15,284	$ -	$0	$0	$0	$0	$0	$0	$0	$15,284
Lithgow	Reticulation	Mh3/19A~Mh3/19	1970	$ 7,665	$ 7,833	$ -	$0	$0	$0	$0	$0	$0	$0	$7,833
Lithgow	Reticulation	Mh3/19B~Mh3/19A	1970	$ 16,734	$ 17,102	$ -	$0	$0	$0	$0	$0	$0	$0	$17,102
Lithgow	Rising Mains	Mh3/20~Mh3/19	1970	$ 4,760	$ 4,865	$ 4,865	$0	$0	$0	$0	$0	$0	$0	$4,865
Lithgow	Reticulation	Mh3/20A~Mh3/20	1940	$ 22,256	$ 22,745	$ -	$0	$0	$0	$0	$0	$0	$0	$22,745
Lithgow	Reticulation	Mh3/21A~Mh3/21	1970	$ 15,357	$ 15,695	$ -	$0	$0	$0	$0	$0	$0	$0	$15,695
Lithgow	Reticulation	Mh3/21B~Mh3/21A	1970	$ 15,777	$ 16,124	$ -	$0	$0	$0	$0	$0	$0	$0	$16,124
Lithgow	Reticulation	Mh3/21C~Mh3/21B	1970	$ 16,093	$ 16,447	$ -	$0	$0	$0	$0	$0	$0	$0	$16,447
Lithgow	Reticulation	Mh3/21D~Mh3/21C	1970	$ 19,479	$ 19,907	$ -	$0	$0	$0	$0	$0	$0	$0	$19,907
Lithgow	Reticulation	Mh3/21F~Mh3/21	1970	$ 7,094	$ 7,250	$ -	$0	$0	$0	$0	$0	$0	$0	$7,250
Lithgow	Reticulation	Mh3/21G~Mh3/21F	1970	$ 7,698	$ 7,868	$ -	$0	$0	$0	$0	$0	$0	$0	$7,868
Lithgow	Reticulation	Mh3/21H~Mh3/21G	1970	$ 14,950	$ 15,279	$ -	$0	$0	$0	$0	$0	$0	$0	$15,279
Lithgow	Reticulation	Mh3/21I~Mh3/21H	1970	$ 31,116	$ 31,801	$ -	$0	$0	$0	$0	$0	$0	$0	$31,801
Lithgow	Rising Mains	Mh3/23~Mh3/22	1970	$ 21,677	$ 22,154	$ 22,154	$0	$0	$0	$0	$0	$0	$0	$22,154
Lithgow	Rising Mains	Mh3/23A~Mh3/23	1970	$ 16,989	$ 17,363	$ 17,363	$0	$0	$0	$0	$0	$0	$0	$17,363
Lithgow	Reticulation	Mh3/23AA~Mh3/23Z	1915	$ 14,529	$ 14,849	$ -	$0	$0	$0	$0	$0	$0	$0	$14,849
Lithgow	Reticulation	Mh3/23AB~Mh3/23X	1915	$ 18,378	$ 18,782	$ -	$0	$0	$0	$0	$0	$0	$0	$18,782
Lithgow	Reticulation	Mh3/23AC~Mh3/23AB	1915	$ 14,371	$ 14,688	$ -	$0	$0	$0	$0	$0	$0	$0	$14,688
Lithgow	Reticulation	Mh3/23AD~Mh3/23AC	1915	$ 14,892	$ 15,219	$ -	$0	$0	$0	$0	$0	$0	$0	$15,219
Lithgow	Reticulation	Mh3/23AE~Mh3/23AD	1915	$ 9,575	$ 9,785	$ -	$0	$0	$0	$0	$0	$0	$0	$9,785
Lithgow	Reticulation	Mh3/23AH~Mh323AG	1915	$ 12,425	$ 12,698	$ -	$0	$0	$0	$0	$0	$0	$0	$12,698

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh3/23AI~Mh3/23AH	1915	$ 11,956	$ 12,219	$ -	$0	$0	$0	$0	$0	$0	$0	$12,219
Lithgow	Reticulation	Mh3/23AJ~Mh3/23AH	1915	$ 19,367	$ 19,793	$ -	$0	$0	$0	$0	$0	$0	$0	$19,793
Lithgow	Reticulation	Mh3/23AK~Mh3/23AJ	1915	$ 7,763	$ 7,934	$ -	$0	$0	$0	$0	$0	$0	$0	$7,934
Lithgow	Reticulation	Mh3/23AL~Mh3/23AK	1915	$ 9,596	$ 9,807	$ -	$0	$0	$0	$0	$0	$0	$0	$9,807
Lithgow	Reticulation	Mh3/23AM~Mh3/23AK	1915	$ 16,075	$ 16,429	$ -	$0	$0	$0	$0	$0	$0	$0	$16,429
Lithgow	Reticulation	Mh3/23AN~Mh3/23AM	1915	$ 10,324	$ 10,551	$ -	$0	$0	$0	$0	$0	$0	$0	$10,551
Lithgow	Reticulation	Mh3/23AO~Mh3/23AJ	1915	$ 3,707	$ 3,789	$ -	$0	$0	$0	$0	$0	$0	$0	$3,789
Lithgow	Reticulation	Mh3/23AP~Mh3/23AO	1915	$ 12,514	$ 12,789	$ -	$0	$0	$0	$0	$0	$0	$0	$12,789
Lithgow	Reticulation	Mh3/23AQ~Mh3/23AP	1915	$ 7,796	$ 7,968	$ -	$0	$0	$0	$0	$0	$0	$0	$7,968
Lithgow	Reticulation	Mh3/23AR~Mh3/23AP	1915	$ 13,066	$ 13,354	$ -	$0	$0	$0	$0	$0	$0	$0	$13,354
Lithgow	Reticulation	Mh3/23AS~Mh3/23AR	1915	$ 4,337	$ 4,432	$ -	$0	$0	$0	$0	$0	$0	$0	$4,432
Lithgow	Reticulation	Mh3/23AT~Mh3/23AR	1915	$ 3,427	$ 3,503	$ -	$0	$0	$0	$0	$0	$0	$0	$3,503
Lithgow	Reticulation	Mh3/23AU~Mh3/23AO	1915	$ 18,232	$ 18,633	$ -	$0	$0	$0	$0	$0	$0	$0	$18,633
Lithgow	Reticulation	Mh3/23AV~Mh3/23AU	1915	$ 8,342	$ 8,525	$ -	$0	$0	$0	$0	$0	$0	$0	$8,525
Lithgow	Reticulation	Mh3/23AW~Mh3/23AV	1915	$ 17,050	$ 17,425	$ -	$0	$0	$0	$0	$0	$0	$0	$17,425
Lithgow	Reticulation	Mh3/23AY~Mh3/23AV	1915	$ 10,112	$ 10,335	$ -	$0	$0	$0	$0	$0	$0	$0	$10,335
Lithgow	Reticulation	Mh3/23AZ~Mh3/23AY	1915	$ 10,183	$ 10,407	$ -	$0	$0	$0	$0	$0	$0	$0	$10,407
Lithgow	Rising Mains	Mh3/23B~Mh3/23A	1970	$ 14,703	$ 15,026	$ 15,026	$0	$0	$0	$0	$0	$0	$0	$15,026
Lithgow	Reticulation	Mh3/23BC~Mh3/23AV	1915	$ 3,163	$ 3,233	$ -	$0	$0	$0	$0	$0	$0	$0	$3,233
Lithgow	Reticulation	Mh3/23BD~Mh3/23BC	1915	$ 9,065	$ 9,264	$ -	$0	$0	$0	$0	$0	$0	$0	$9,264
Lithgow	Reticulation	Mh3/23BE~Mh3/23BD	1915	$ 15,140	$ 15,473	$ -	$0	$0	$0	$0	$0	$0	$0	$15,473
Lithgow	Reticulation	Mh3/23BF~Mh3/23BE	1915	$ 11,563	$ 11,818	$ -	$0	$0	$0	$0	$0	$0	$0	$11,818
Lithgow	Reticulation	Mh3/23BH~Mh3/23BC	1915	$ 16,621	$ 16,986	$ -	$0	$0	$0	$0	$0	$0	$0	$16,986
Lithgow	Reticulation	Mh3/23BI~Mh3/23BH	1915	$ 12,551	$ 12,828	$ -	$0	$0	$0	$0	$0	$0	$0	$12,828
Lithgow	Reticulation	Mh3/23BJ~Mh3/23BI	1915	$ 15,314	$ 15,651	$ -	$0	$0	$0	$0	$0	$0	$0	$15,651
Lithgow	Reticulation	Mh3/23BK~Mh3/23BJ	1915	$ 18,847	$ 19,262	$ -	$0	$0	$0	$0	$0	$0	$0	$19,262
Lithgow	Reticulation	Mh3/23BM~Mh3/23BI	1915	$ 11,529	$ 11,783	$ -	$0	$0	$0	$0	$0	$0	$0	$11,783
Lithgow	Reticulation	Mh3/23BN~Mh3/23BM	1915	$ 16,026	$ 16,379	$ -	$0	$0	$0	$0	$0	$0	$0	$16,379
Lithgow	Reticulation	Mh3/23BO~Mh3/23BN	1915	$ 9,045	$ 9,244	$ -	$0	$0	$0	$0	$0	$0	$0	$9,244
Lithgow	Reticulation	Mh3/23BP~Mh3/23BO	1915	$ 6,197	$ 6,334	$ -	$0	$0	$0	$0	$0	$0	$0	$6,334
Lithgow	Reticulation	Mh3/23BQ~Mh3/23BP	1915	$ 8,034	$ 8,211	$ -	$0	$0	$0	$0	$0	$0	$0	$8,211
Lithgow	Reticulation	Mh3/23BS~Mh3/23	1970	$ 11,996	$ 12,260	$ -	$0	$0	$0	$0	$0	$0	$0	$12,260
Lithgow	Reticulation	Mh3/23C~Mh3/23B	1970	$ 16,007	$ 16,359	$ -	$0	$0	$0	$0	$0	$0	$0	$16,359
Lithgow	Reticulation	Mh3/23E~Mh3/23B	1970	$ 9,997	$ 10,217	$ -	$0	$0	$0	$0	$0	$0	$0	$10,217
Lithgow	Reticulation	Mh3/23G~Mh3/23E	1970	$ 9,077	$ 9,276	$ -	$0	$0	$0	$0	$0	$0	$0	$9,276
Lithgow	Reticulation	Mh3/23H~Mh3/23G	1970	$ 5,054	$ 5,165	$ -	$0	$0	$0	$0	$0	$0	$0	$5,165
Lithgow	Reticulation	Mh3/23I~Mh3/23E	1970	$ 6,398	$ 6,538	$ -	$0	$0	$0	$0	$0	$0	$0	$6,538
Lithgow	Reticulation	Mh3/23J~Mh3/23I	1940	$ 3,802	$ 3,885	$ -	$0	$0	$0	$0	$0	$0	$0	$3,885
Lithgow	Reticulation	Mh3/23K~Mh3/23J	1915	$ 8,655	$ 8,846	$ -	$0	$0	$0	$0	$0	$0	$0	$8,846
Lithgow	Reticulation	Mh3/23L~Mh3/23J	1915	$ 5,891	$ 6,021	$ -	$0	$0	$0	$0	$0	$0	$0	$6,021
Lithgow	Reticulation	Mh3/23M~Mh3/23L	1915	$ 9,470	$ 9,679	$ -	$0	$0	$0	$0	$0	$0	$0	$9,679
Lithgow	Reticulation	Mh3/23N~Mh3/23M	1915	$ 11,358	$ 11,608	$ -	$0	$0	$0	$0	$0	$0	$0	$11,608
Lithgow	Reticulation	Mh3/23O~Mh3/23N	1915	$ 5,633	$ 5,757	$ -	$0	$0	$0	$0	$0	$0	$0	$5,757
Lithgow	Reticulation	Mh3/23P~Mh3/23L	1915	$ 17,560	$ 17,946	$ -	$0	$0	$0	$0	$0	$0	$0	$17,946
Lithgow	Reticulation	Mh3/23Q~Mh3/23P	1915	$ 3,954	$ 4,041	$ -	$0	$0	$0	$0	$0	$0	$0	$4,041
Lithgow	Reticulation	Mh3/23R~Mh3/23Q	1915	$ 8,090	$ 8,268	$ -	$0	$0	$0	$0	$0	$0	$0	$8,268
Lithgow	Reticulation	Mh3/23S~Mh3/23R	1915	$ 6,946	$ 7,099	$ -	$0	$0	$0	$0	$0	$0	$0	$7,099
Lithgow	Reticulation	Mh3/23T~Mh3/23S	1915	$ 10,132	$ 10,355	$ -	$0	$0	$0	$0	$0	$0	$0	$10,355
Lithgow	Reticulation	Mh3/23U~Mh3/23T	1915	$ 11,057	$ 11,300	$ -	$0	$0	$0	$0	$0	$0	$0	$11,300
Lithgow	Reticulation	Mh3/23V~Mh3/23S	1915	$ 8,137	$ 8,316	$ -	$0	$0	$0	$0	$0	$0	$0	$8,316
Lithgow	Reticulation	Mh3/23W~Mh3/23V	1915	$ 7,848	$ 8,021	$ -	$0	$0	$0	$0	$0	$0	$0	$8,021
Lithgow	Reticulation	Mh3/23X~Mh3/23W	1915	$ 22,920	$ 23,424	$ -	$0	$0	$0	$0	$0	$0	$0	$23,424
Lithgow	Reticulation	Mh3/23Y~Mh3/23X	1915	$ 6,722	$ 6,870	$ -	$0	$0	$0	$0	$0	$0	$0	$6,870
Lithgow	Reticulation	Mh3/23Z~Mh3/23Y	1915	$ 18,233	$ 18,634	$ -	$0	$0	$0	$0	$0	$0	$0	$18,634
Lithgow	Rising Mains	Mh3/24~Mh3/23	1970	$ 20,915	$ 21,375	$ 21,375	$0	$0	$0	$0	$0	$0	$0	$21,375
Lithgow	Rising Mains	Mh3/25~Mh3/24	1915	$ 13,686	$ 13,987	$ 13,987	$0	$0	$0	$0	$0	$0	$0	$13,987
Lithgow	Reticulation	Mh3/25A~Mh3/25	1915	$ 4,059	$ 4,149	$ -	$0	$0	$0	$0	$0	$0	$0	$4,149
Lithgow	Reticulation	Mh3/25B~Mh3/25A	1915	$ 23,323	$ 23,836	$ -	$0	$0	$0	$0	$0	$0	$0	$23,836
Lithgow	Reticulation	Mh3/25C~Mh3/25B	1915	$ 8,272	$ 8,454	$ -	$0	$0	$0	$0	$0	$0	$0	$8,454
Lithgow	Rising Mains	Mh3/26~Mh3/25	1915	$ 3,556	$ 3,635	$ 3,635	$0	$0	$0	$0	$0	$0	$0	$3,635
Lithgow	Reticulation	Mh3/26A~Mh3/26	1915	$ 11,341	$ 11,590	$ -	$0	$0	$0	$0	$0	$0	$0	$11,590
Lithgow	Reticulation	Mh3/26B~Mh3/26A	1915	$ 4,229	$ 4,322	$ -	$0	$0	$0	$0	$0	$0	$0	$4,322
Lithgow	Reticulation	Mh3/26C~Mh3/26A	1915	$ 15,556	$ 15,898	$ -	$0	$0	$0	$0	$0	$0	$0	$15,898
Lithgow	Reticulation	Mh3/26D~Mh3/26	1915	$ 8,329	$ 8,512	$ -	$0	$0	$0	$0	$0	$0	$0	$8,512
Lithgow	Reticulation	Mh3/26E~Mh3/26D	1915	$ 17,537	$ 17,922	$ -	$0	$0	$0	$0	$0	$0	$0	$17,922
Lithgow	Reticulation	Mh3/26F~Mh3/26E	1940	$ 7,524	$ 7,689	$ -	$0	$0	$0	$0	$0	$0	$0	$7,689
Lithgow	Reticulation	Mh3/26G~Mh3/26F	1940	$ 16,651	$ 17,018	$ -	$0	$0	$0	$0	$0	$0	$0	$17,018
Lithgow	Reticulation	Mh3/26I~Mh3/26G	1915	$ 11,154	$ 11,400	$ -	$0	$0	$0	$0	$0	$0	$0	$11,400
Lithgow	Reticulation	Mh3/26K~Mh3/26I	1915	$ 8,557	$ 8,745	$ -	$0	$0	$0	$0	$0	$0	$0	$8,745
Lithgow	Reticulation	Mh3/26L~Mh3/26K	1915	$ 9,773	$ 9,988	$ -	$0	$0	$0	$0	$0	$0	$0	$9,988

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh3/26M~Mh3/26L	1915	$ 10,518	$ 10,750	$ -	$0	$0	$0	$0	$0	$0	$0	$10,750
Lithgow	Reticulation	Mh3/26O~Mh3/26K	1915	$ 4,119	$ 4,210	$ -	$0	$0	$0	$0	$0	$0	$0	$4,210
Lithgow	Reticulation	Mh3/26Q~Mh3/26O	1915	$ 10,807	$ 11,045	$ -	$0	$0	$0	$0	$0	$0	$0	$11,045
Lithgow	Reticulation	Mh3/26R~Mh3/26Q	1915	$ 11,619	$ 11,875	$ -	$0	$0	$0	$0	$0	$0	$0	$11,875
Lithgow	Reticulation	Mh3/26T~Mh3/26Q	1915	$ 4,198	$ 4,290	$ -	$0	$0	$0	$0	$0	$0	$0	$4,290
Lithgow	Reticulation	Mh3/26U~Mh3/26T	1915	$ 6,381	$ 6,522	$ -	$0	$0	$0	$0	$0	$0	$0	$6,522
Lithgow	Reticulation	Mh3/26W~Mh3/26U	1915	$ 6,580	$ 6,725	$ -	$0	$0	$0	$0	$0	$0	$0	$6,725
Lithgow	Reticulation	Mh3/26Y~Mh3/26Q	1915	$ 17,173	$ 17,551	$ -	$0	$0	$0	$0	$0	$0	$0	$17,551
Lithgow	Rising Mains	Mh3/27~Mh3/26	1915	$ 16,035	$ 16,388	$ 16,388	$0	$0	$0	$0	$0	$0	$0	$16,388
Lithgow	Reticulation	Mh3/27a~Mh3/27AU	1942	$ 5,051	$ 5,162	$ -	$0	$0	$0	$0	$0	$0	$0	$5,162
Lithgow	Reticulation	Mh3/27AB~Mh3/27X	1940	$ 11,123	$ 11,368	$ -	$0	$0	$0	$0	$0	$0	$0	$11,368
Lithgow	Reticulation	Mh3/27AC~Mh3/27AB	1940	$ 10,390	$ 10,619	$ -	$0	$0	$0	$0	$0	$0	$0	$10,619
Lithgow	Reticulation	Mh3/27AD~Mh3/27AC	1940	$ 11,317	$ 11,566	$ -	$0	$0	$0	$0	$0	$0	$0	$11,566
Lithgow	Reticulation	Mh3/27AE~Mh3/27AD	1940	$ 18,034	$ 18,431	$ -	$0	$0	$0	$0	$0	$0	$0	$18,431
Lithgow	Reticulation	Mh3/27AH~Mh3/27L	1915	$ 9,271	$ 9,475	$ -	$0	$0	$0	$0	$0	$0	$0	$9,475
Lithgow	Reticulation	Mh3/27AI~Mh3/27AH	1915	$ 3,308	$ 3,381	$ -	$0	$0	$0	$0	$0	$0	$0	$3,381
Lithgow	Reticulation	Mh3/27AK~Mh3/27AH	1915	$ 19,047	$ 19,466	$ -	$0	$0	$0	$0	$0	$0	$0	$19,466
Lithgow	Reticulation	Mh3/27AL~Mh3/27AI	1915	$ 21,764	$ 22,243	$ -	$0	$0	$0	$0	$0	$0	$0	$22,243
Lithgow	Reticulation	Mh3/27AN~Mh3/27AK	1915	$ 17,518	$ 17,903	$ -	$0	$0	$0	$0	$0	$0	$0	$17,903
Lithgow	Reticulation	Mh3/27AO~Mh3/27AN	1915	$ 11,972	$ 12,235	$ -	$0	$0	$0	$0	$0	$0	$0	$12,235
Lithgow	Reticulation	Mh3/27AP~Mh3/27AO	1915	$ 17,087	$ 17,463	$ -	$0	$0	$0	$0	$0	$0	$0	$17,463
Lithgow	Reticulation	Mh3/27AQ~Mh3/27AP	1915	$ 8,378	$ 8,562	$ -	$0	$0	$0	$0	$0	$0	$0	$8,562
Lithgow	Reticulation	Mh3/27AR~Mh3/27AQ	1942	$ 17,361	$ 17,743	$ -	$0	$0	$0	$0	$0	$0	$0	$17,743
Lithgow	Reticulation	Mh3/27AS~Mh3/27AR	1942	$ 5,948	$ 6,078	$ -	$0	$0	$0	$0	$0	$0	$0	$6,078
Lithgow	Reticulation	Mh3/27AT~Mh3/27AR	1942	$ 11,941	$ 12,204	$ -	$0	$0	$0	$0	$0	$0	$0	$12,204
Lithgow	Reticulation	Mh3/27AU~Mh3/27AT	1942	$ 6,300	$ 6,439	$ -	$0	$0	$0	$0	$0	$0	$0	$6,439
Lithgow	Reticulation	Mh3/27b~Mh3/27	1915	$ 13,398	$ 13,692	$ -	$0	$0	$0	$0	$0	$0	$0	$13,692
Lithgow	Reticulation	Mh3/27d~Mh3/27X	1915	$ 16,866	$ 17,237	$ -	$0	$0	$0	$0	$0	$0	$0	$17,237
Lithgow	Reticulation	Mh3/27E~Mh3/27y	1915	$ 13,184	$ 13,474	$ -	$0	$0	$0	$0	$0	$0	$0	$13,474
Lithgow	Reticulation	Mh3/27G~Mh3/27y	1915	$ 5,520	$ 5,641	$ -	$0	$0	$0	$0	$0	$0	$0	$5,641
Lithgow	Reticulation	Mh3/27H~Mh3/27G	1915	$ 6,798	$ 6,948	$ -	$0	$0	$0	$0	$0	$0	$0	$6,948
Lithgow	Reticulation	Mh3/27I~Mh3/27H	1915	$ 4,120	$ 4,211	$ -	$0	$0	$0	$0	$0	$0	$0	$4,211
Lithgow	Reticulation	Mh3/27J~Mh3/27I	1915	$ 16,157	$ 16,512	$ -	$0	$0	$0	$0	$0	$0	$0	$16,512
Lithgow	Reticulation	Mh3/27K~Mh3/27I	1915	$ 17,631	$ 18,019	$ -	$0	$0	$0	$0	$0	$0	$0	$18,019
Lithgow	Reticulation	Mh3/27L~Mh3/27G	1915	$ 9,212	$ 9,415	$ -	$0	$0	$0	$0	$0	$0	$0	$9,415
Lithgow	Reticulation	Mh3/27M~Mh3/27L	1915	$ 9,933	$ 10,152	$ -	$0	$0	$0	$0	$0	$0	$0	$10,152
Lithgow	Reticulation	Mh3/27N~Mh3/27M	1915	$ 12,411	$ 12,684	$ -	$0	$0	$0	$0	$0	$0	$0	$12,684
Lithgow	Reticulation	Mh3/27P~Mh3/27N	1915	$ 11,495	$ 11,748	$ -	$0	$0	$0	$0	$0	$0	$0	$11,748
Lithgow	Reticulation	Mh3/27R~Mh3/27P	1915	$ 11,769	$ 12,028	$ -	$0	$0	$0	$0	$0	$0	$0	$12,028
Lithgow	Reticulation	Mh3/27U~Mh3/27R	1915	$ 10,010	$ 10,230	$ -	$0	$0	$0	$0	$0	$0	$0	$10,230
Lithgow	Reticulation	Mh3/27v~Mh3/27b	1915	$ 19,780	$ 20,216	$ -	$0	$0	$0	$0	$0	$0	$0	$20,216
Lithgow	Reticulation	Mh3/27w~Mh3/27v	1915	$ 7,316	$ 7,477	$ -	$0	$0	$0	$0	$0	$0	$0	$7,477
Lithgow	Reticulation	Mh3/27X~Mh3/27U	1915	$ 12,143	$ 12,410	$ -	$0	$0	$0	$0	$0	$0	$0	$12,410
Lithgow	Reticulation	Mh3/27y~Mh3/27	1915	$ 13,571	$ 13,869	$ -	$0	$0	$0	$0	$0	$0	$0	$13,869
Lithgow	Reticulation	Mh3/27z~Mh3/27a	1942	$ 9,143	$ 9,344	$ -	$0	$0	$0	$0	$0	$0	$0	$9,344
Lithgow	Reticulation	Mh3/5A~Mh3/5	1910	$ 7,589	$ 7,756	$ -	$0	$0	$0	$0	$0	$0	$0	$7,756
Lithgow	Reticulation	Mh3/5B~Mh3/5A	1910	$ 11,516	$ 11,770	$ -	$0	$0	$0	$0	$0	$0	$0	$11,770
Lithgow	Reticulation	Mh3/5C~Mh3/5B	1910	$ 4,382	$ 4,479	$ -	$0	$0	$0	$0	$0	$0	$0	$4,479
Lithgow	Reticulation	Mh3/5D~Mh3/5C	1910	$ 21,209	$ 21,676	$ -	$0	$0	$0	$0	$0	$0	$0	$21,676
Lithgow	Reticulation	Mh3/5E~Mh3/5D	1910	$ 19,558	$ 19,988	$ -	$0	$0	$0	$0	$0	$0	$0	$19,988
Lithgow	Reticulation	Mh3/5F~Mh3/5E	1910	$ 21,034	$ 21,497	$ -	$0	$0	$0	$0	$0	$0	$0	$21,497
Lithgow	Reticulation	Mh3/5G~Mh3/5F	1910	$ 19,365	$ 19,791	$ -	$0	$0	$0	$0	$0	$0	$0	$19,791
Lithgow	Reticulation	Mh3/5H~Mh3/5G	1970	$ 15,629	$ 15,972	$ -	$0	$0	$0	$0	$0	$0	$0	$15,972
Lithgow	Reticulation	Mh3/5I~Mh3/5H	1970	$ 8,315	$ 8,498	$ -	$0	$0	$0	$0	$0	$0	$0	$8,498
Lithgow	Reticulation	Mh3/5J~Mh3/5I	1970	$ 12,394	$ 12,667	$ -	$0	$0	$0	$0	$0	$0	$0	$12,667
Lithgow	Reticulation	Mh3/5K~Mh3/5J	1970	$ 16,981	$ 17,354	$ -	$0	$0	$0	$0	$0	$0	$0	$17,354
Lithgow	Reticulation	Mh3/5L~Mh3/5K	1970	$ 12,319	$ 12,590	$ -	$0	$0	$0	$0	$0	$0	$0	$12,590
Lithgow	Reticulation	Mh3/5M~Mh3/5L	1970	$ 20,980	$ 21,442	$ -	$0	$0	$0	$0	$0	$0	$0	$21,442
Lithgow	Reticulation	Mh3/5N~Mh3/5M	1970	$ 19,921	$ 20,360	$ -	$0	$0	$0	$0	$0	$0	$0	$20,360
Lithgow	Reticulation	Mh3/5O~Mh3/5N	1970	$ 15,691	$ 16,036	$ -	$0	$0	$0	$0	$0	$0	$0	$16,036
Lithgow	Reticulation	Mh3/5P~Mh3/5O	1970	$ 15,485	$ 15,826	$ -	$0	$0	$0	$0	$0	$0	$0	$15,826
Lithgow	Reticulation	Mh3/5Q~Mh3/5P	1970	$ 17,099	$ 17,475	$ -	$0	$0	$0	$0	$0	$0	$0	$17,475
Lithgow	Reticulation	Mh3/5R~Mh3/5Q	1970	$ 17,966	$ 18,362	$ -	$0	$0	$0	$0	$0	$0	$0	$18,362
Lithgow	Reticulation	Mh3/5S~Mh3/5R	1975	$ 14,908	$ 15,236	$ -	$0	$0	$0	$0	$0	$0	$0	$15,236
Lithgow	Reticulation	Mh3/5T~Mh3/5B	1910	$ 3,656	$ 3,737	$ -	$0	$0	$0	$0	$0	$0	$0	$3,737
Lithgow	Reticulation	Mh3/5U~Mh3/5T	1910	$ 16,984	$ 17,358	$ -	$0	$0	$0	$0	$0	$0	$0	$17,358
Lithgow	Reticulation	Mh3/5V~Mh3/5U	1910	$ 15,591	$ 15,934	$ -	$0	$0	$0	$0	$0	$0	$0	$15,934
Lithgow	Reticulation	Mh3/6A~Mh3/6	1910	$ 13,309	$ 13,602	$ -	$0	$0	$0	$0	$0	$0	$0	$13,602
Lithgow	Reticulation	Mh3/6AA~Mh3/6T	1910	$ 16,072	$ 16,425	$ -	$0	$0	$0	$0	$0	$0	$0	$16,425
Lithgow	Reticulation	Mh3/6AB~Mh3/6AA	1910	$ 15,693	$ 16,038	$ -	$0	$0	$0	$0	$0	$0	$0	$16,038

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh3/6AD~Mh3/6A	1910	$ 18,698	$ 19,110	$ -	$0	$0	$0	$0	$0	$0	$0	$19,110
Lithgow	Reticulation	Mh3/6B~Mh3/6A	1910	$ 11,790	$ 12,049	$ -	$0	$0	$0	$0	$0	$0	$0	$12,049
Lithgow	Reticulation	Mh3/6C~Mh3/6B	1910	$ 11,970	$ 12,234	$ -	$0	$0	$0	$0	$0	$0	$0	$12,234
Lithgow	Reticulation	Mh3/6D~Mh3/6C	1910	$ 3,985	$ 4,072	$ -	$0	$0	$0	$0	$0	$0	$0	$4,072
Lithgow	Reticulation	Mh3/6E~Mh3/6D	1910	$ 12,475	$ 12,750	$ -	$0	$0	$0	$0	$0	$0	$0	$12,750
Lithgow	Reticulation	Mh3/6F~Mh3/6E	1910	$ 6,228	$ 6,365	$ -	$0	$0	$0	$0	$0	$0	$0	$6,365
Lithgow	Reticulation	Mh3/6G~Mh3/6F	1910	$ 11,776	$ 12,035	$ -	$0	$0	$0	$0	$0	$0	$0	$12,035
Lithgow	Reticulation	Mh3/6H~Mh3/6D	1910	$ 20,755	$ 21,212	$ -	$0	$0	$0	$0	$0	$0	$0	$21,212
Lithgow	Reticulation	Mh3/6I~Mh3/6H	1910	$ 21,109	$ 21,573	$ -	$0	$0	$0	$0	$0	$0	$0	$21,573
Lithgow	Reticulation	Mh3/6J~Mh3/6I	1910	$ 2,944	$ 3,009	$ -	$0	$0	$0	$0	$0	$0	$0	$3,009
Lithgow	Reticulation	Mh3/6K~Mh3/6J	1910	$ 13,071	$ 13,358	$ -	$0	$0	$0	$0	$0	$0	$0	$13,358
Lithgow	Reticulation	Mh3/6L~Mh3/6K	1910	$ 14,232	$ 14,546	$ -	$0	$0	$0	$0	$0	$0	$0	$14,546
Lithgow	Reticulation	Mh3/6M~Mh3/6L	1910	$ 19,381	$ 19,808	$ -	$0	$0	$0	$0	$0	$0	$0	$19,808
Lithgow	Reticulation	Mh3/6N~Mh3/6M	1910	$ 14,951	$ 15,279	$ -	$0	$0	$0	$0	$0	$0	$0	$15,279
Lithgow	Reticulation	Mh3/6O~Mh3/6N	1970	$ 6,283	$ 6,421	$ -	$0	$0	$0	$0	$0	$0	$0	$6,421
Lithgow	Reticulation	Mh3/6Q~Mh3/6N	1940	$ 14,936	$ 15,265	$ -	$0	$0	$0	$0	$0	$0	$0	$15,265
Lithgow	Reticulation	Mh3/6R~Mh3/6Q	1940	$ 14,468	$ 14,786	$ -	$0	$0	$0	$0	$0	$0	$0	$14,786
Lithgow	Reticulation	Mh3/6T~Mh3/6K	1910	$ 13,315	$ 13,608	$ -	$0	$0	$0	$0	$0	$0	$0	$13,608
Lithgow	Reticulation	Mh3/6U~Mh3/6T	1910	$ 15,621	$ 15,964	$ -	$0	$0	$0	$0	$0	$0	$0	$15,964
Lithgow	Reticulation	Mh3/6W~Mh3/6T	1910	$ 11,520	$ 11,774	$ -	$0	$0	$0	$0	$0	$0	$0	$11,774
Lithgow	Reticulation	Mh3/6X~Mh3/6W	1910	$ 15,447	$ 15,786	$ -	$0	$0	$0	$0	$0	$0	$0	$15,786
Lithgow	Reticulation	Mh3/6Y~Mh3/6X	1910	$ 13,583	$ 13,882	$ -	$0	$0	$0	$0	$0	$0	$0	$13,882
Lithgow	Reticulation	Mh3/6Z~Mh3/6W	1910	$ 12,963	$ 13,248	$ -	$0	$0	$0	$0	$0	$0	$0	$13,248
Lithgow	Reticulation	Mh3/8A~Mh3/8	1910	$ 6,336	$ 6,475	$ -	$0	$0	$0	$0	$0	$0	$0	$6,475
Lithgow	Reticulation	Mh3/8B~Mh3/8A	1910	$ 15,662	$ 16,006	$ -	$0	$0	$0	$0	$0	$0	$0	$16,006
Lithgow	Reticulation	Mh3/8D~Mh3/8B	1910	$ 12,999	$ 13,285	$ -	$0	$0	$0	$0	$0	$0	$0	$13,285
Lithgow	Reticulation	Mh3/8E~Mh3/8D	1910	$ 12,710	$ 12,990	$ -	$0	$0	$0	$0	$0	$0	$0	$12,990
Lithgow	Reticulation	Mh3/8F~Mh3/8E	1970	$ 18,076	$ 18,473	$ -	$0	$0	$0	$0	$0	$0	$0	$18,473
Lithgow	Reticulation	Mh3/8G~Mh3/8F	1970	$ 14,652	$ 14,974	$ -	$0	$0	$0	$0	$0	$0	$0	$14,974
Lithgow	Reticulation	Mh3/8H~Mh3/8D	1910	$ 12,079	$ 12,345	$ -	$0	$0	$0	$0	$0	$0	$0	$12,345
Lithgow	Reticulation	Mh3/8I~Mh3/8B	1910	$ 17,238	$ 17,617	$ -	$0	$0	$0	$0	$0	$0	$0	$17,617
Lithgow	Reticulation	Mh3/8J~Mh3/8I	1970	$ 17,533	$ 17,919	$ -	$0	$0	$0	$0	$0	$0	$0	$17,919
Lithgow	Reticulation	Mh3/8K~Mh3/8J	1970	$ 19,778	$ 20,213	$ -	$0	$0	$0	$0	$0	$0	$0	$20,213
Lithgow	Reticulation	Mh3/8L~Mh3/8A	1940	$ 17,695	$ 18,084	$ -	$0	$0	$0	$0	$0	$0	$0	$18,084
Lithgow	Reticulation	Mh3/8M~Mh3/8L	1910	$ 29,522	$ 30,171	$ -	$0	$0	$0	$0	$0	$0	$0	$30,171
Lithgow	Rising Mains	Mh3~Mh2	1942	$ 17,158	$ 17,536	$ 17,536	$0	$0	$0	$0	$0	$0	$0	$17,536
Lithgow	Reticulation	Mh30~Mh40	1942	$ 14,623	$ 14,944	$ -	$0	$0	$0	$0	$0	$0	$0	$14,944
Lithgow	Reticulation	Mh301~Mh2301	1980	$ 20,938	$ 21,399	$ -	$0	$0	$0	$0	$0	$0	$0	$21,399
Lithgow	Reticulation	Mh31~Mh30	1942	$ 10,577	$ 10,810	$ -	$0	$0	$0	$0	$0	$0	$0	$10,810
Lithgow	Reticulation	Mh32~Mh31	1942	$ 4,311	$ 4,406	$ -	$0	$0	$0	$0	$0	$0	$0	$4,406
Lithgow	Reticulation	Mh323AG~Mh3/23P	1915	$ 5,028	$ 5,139	$ -	$0	$0	$0	$0	$0	$0	$0	$5,139
Lithgow	Reticulation	Mh33~Mh32	1942	$ 7,086	$ 7,242	$ -	$0	$0	$0	$0	$0	$0	$0	$7,242
Lithgow	Reticulation	Mh3-4/2809~Mh2-4/2809	1994	$ 17,898	$ 18,292	$ -	$0	$0	$0	$0	$0	$0	$0	$18,292
Lithgow	Reticulation	Mh34~Mh33	1942	$ 3,741	$ 3,824	$ -	$0	$0	$0	$0	$0	$0	$0	$3,824
Lithgow	Reticulation	Mh35~Mh34	1942	$ 7,453	$ 7,617	$ -	$0	$0	$0	$0	$0	$0	$0	$7,617
Lithgow	Reticulation	Mh36~Mh35	1942	$ 1,611	$ 1,647	$ -	$0	$0	$0	$0	$0	$0	$0	$1,647
Lithgow	Reticulation	Mh38~Mh2013	1942	$ 4,992	$ 5,102	$ -	$0	$0	$0	$0	$0	$0	$0	$5,102
Lithgow	Reticulation	Mh39~Mh38	1942	$ 6,956	$ 7,109	$ -	$0	$0	$0	$0	$0	$0	$0	$7,109
Lithgow	Rising Mains	Mh4/1~Mh1/16	1930	$ 11,348	$ 11,598	$ 11,598	$0	$0	$0	$0	$0	$0	$0	$11,598
Lithgow	Rising Mains	Mh4/10~Mh4/9	1930	$ 6,871	$ 7,022	$ 7,022	$0	$0	$0	$0	$0	$0	$0	$7,022
Lithgow	Rising Mains	Mh4/11~Mh4/10	1930	$ 18,314	$ 18,717	$ 18,717	$0	$0	$0	$0	$0	$0	$0	$18,717
Lithgow	Rising Mains	Mh4/12~Mh4/11	1930	$ 14,261	$ 14,575	$ 14,575	$0	$0	$0	$0	$0	$0	$0	$14,575
Lithgow	Rising Mains	Mh4/13~Mh4/12	1930	$ 19,519	$ 19,948	$ 19,948	$0	$0	$0	$0	$0	$0	$0	$19,948
Lithgow	Reticulation	Mh4/14~Mh4/13	1930	$ 11,652	$ 11,908	$ -	$0	$0	$0	$0	$0	$0	$0	$11,908
Lithgow	Reticulation	Mh4/15~Mh4/14	1930	$ 5,142	$ 5,255	$ -	$0	$0	$0	$0	$0	$0	$0	$5,255
Lithgow	Reticulation	Mh4/16~Mh1076	1930	$ 10,343	$ 10,571	$ -	$0	$0	$0	$0	$0	$0	$0	$10,571
Lithgow	Reticulation	Mh4/17~Mh4/16	1996	$ 9,426	$ 9,634	$ -	$0	$0	$0	$0	$0	$0	$0	$9,634
Lithgow	Reticulation	Mh4/18~Mh4/17	1996	$ 7,471	$ 7,636	$ -	$0	$0	$0	$0	$0	$0	$0	$7,636
Lithgow	Reticulation	Mh4/19~Mh4/18	1996	$ 18,584	$ 18,993	$ -	$0	$0	$0	$0	$0	$0	$0	$18,993
Lithgow	Reticulation	Mh4/20~Mh4/19	1996	$ 7,801	$ 7,973	$ -	$0	$0	$0	$0	$0	$0	$0	$7,973
Lithgow	Reticulation	Mh4/21~Mh4/20	1996	$ 14,244	$ 14,558	$ -	$0	$0	$0	$0	$0	$0	$0	$14,558
Lithgow	Reticulation	Mh4/22~Mh4/21	1996	$ 13,548	$ 13,846	$ -	$0	$0	$0	$0	$0	$0	$0	$13,846
Lithgow	Reticulation	Mh4/23~Mh4/22	1996	$ 16,836	$ 17,206	$ -	$0	$0	$0	$0	$0	$0	$0	$17,206
Lithgow	Reticulation	Mh4/24~Mh4/9	1930	$ 7,780	$ 7,951	$ -	$0	$0	$0	$0	$0	$0	$0	$7,951
Lithgow	Reticulation	Mh4/25~Mh4/6	1930	$ 21,759	$ 22,238	$ -	$0	$0	$0	$0	$0	$0	$0	$22,238
Lithgow	Reticulation	Mh4/26~Mh4/25	1930	$ 10,306	$ 10,533	$ -	$0	$0	$0	$0	$0	$0	$0	$10,533
Lithgow	Reticulation	Mh4/27~Mh4/26	1930	$ 8,036	$ 8,213	$ -	$0	$0	$0	$0	$0	$0	$0	$8,213
Lithgow	Reticulation	Mh4/28~Mh4/27	1930	$ 17,014	$ 17,388	$ -	$0	$0	$0	$0	$0	$0	$0	$17,388
Lithgow	Reticulation	Mh4/29~Mh4/28	1930	$ 20,918	$ 21,378	$ -	$0	$0	$0	$0	$0	$0	$0	$21,378
Lithgow	Rising Mains	Mh4/2a~Mh4/1	1930	$ 6,182	$ 6,318	$ 6,318	$0	$0	$0	$0	$0	$0	$0	$6,318

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh4/30~Mh4/29	1930	$ 7,290	$ 7,450	$ -	$0	$0	$0	$0	$0	$0	$0	$7,450
Lithgow	Reticulation	Mh4/31~Mh4/2a	1930	$ 19,008	$ 19,426	$ -	$0	$0	$0	$0	$0	$0	$0	$19,426
Lithgow	Reticulation	Mh4/32~Mh4/31	1930	$ 23,219	$ 23,729	$ -	$0	$0	$0	$0	$0	$0	$0	$23,729
Lithgow	Reticulation	Mh4/33~Mh4/32	1930	$ 16,292	$ 16,650	$ -	$0	$0	$0	$0	$0	$0	$0	$16,650
Lithgow	Reticulation	Mh4/34~Mh4/33	1930	$ 21,433	$ 21,905	$ -	$0	$0	$0	$0	$0	$0	$0	$21,905
Lithgow	Reticulation	Mh4/35~Mh4/34	1930	$ 10,160	$ 10,383	$ -	$0	$0	$0	$0	$0	$0	$0	$10,383
Lithgow	Reticulation	Mh4/36~Mh4/35	1930	$ 12,528	$ 12,804	$ -	$0	$0	$0	$0	$0	$0	$0	$12,804
Lithgow	Reticulation	Mh4/37~Mh4/36	1930	$ 15,327	$ 15,664	$ -	$0	$0	$0	$0	$0	$0	$0	$15,664
Lithgow	Rising Mains	Mh4/3a~Mh4/2a	1930	$ 2,785	$ 2,846	$ 2,846	$0	$0	$0	$0	$0	$0	$0	$2,846
Lithgow	Rising Mains	Mh4/4~Mh4/3a	1930	$ 11,341	$ 11,591	$ 11,591	$0	$0	$0	$0	$0	$0	$0	$11,591
Lithgow	Rising Mains	Mh4/5~Mh4/4	1930	$ 12,631	$ 12,909	$ 12,909	$0	$0	$0	$0	$0	$0	$0	$12,909
Lithgow	Rising Mains	Mh4/6~Mh4/5	1930	$ 11,744	$ 12,002	$ 12,002	$0	$0	$0	$0	$0	$0	$0	$12,002
Lithgow	Rising Mains	Mh4/7~Mh4/6	1930	$ 14,769	$ 15,094	$ 15,094	$0	$0	$0	$0	$0	$0	$0	$15,094
Lithgow	Rising Mains	Mh4/8~Mh4/7	1930	$ 11,824	$ 12,084	$ 12,084	$0	$0	$0	$0	$0	$0	$0	$12,084
Lithgow	Rising Mains	Mh4/9~Mh4/8	1930	$ 14,203	$ 14,515	$ 14,515	$0	$0	$0	$0	$0	$0	$0	$14,515
Lithgow	Reticulation	Mh40~Mh41	1942	$ 17,027	$ 17,401	$ -	$0	$0	$0	$0	$0	$0	$0	$17,401
Lithgow	Reticulation	Mh41~Mh1	1942	$ 9,034	$ 9,233	$ -	$0	$0	$0	$0	$0	$0	$0	$9,233
Lithgow	Reticulation	Mh42~Mh31	1942	$ 2,236	$ 2,285	$ -	$0	$0	$0	$0	$0	$0	$0	$2,285
Lithgow	Reticulation	Mh43~Mh42	1942	$ 6,007	$ 6,139	$ -	$0	$0	$0	$0	$0	$0	$0	$6,139
Lithgow	Reticulation	Mh4-4/2809~Mh3-4/2809	1994	$ 7,934	$ 8,109	$ -	$0	$0	$0	$0	$0	$0	$0	$8,109
Lithgow	Reticulation	Mh46~Mh45	1940	$ 11,461	$ 11,713	$ -	$0	$0	$0	$0	$0	$0	$0	$11,713
Lithgow	Reticulation	Mh47~Mh46	1940	$ 25,121	$ 25,673	$ -	$0	$0	$0	$0	$0	$0	$0	$25,673
Lithgow	Reticulation	Mh48~Mh1034	1912	$ 29,636	$ 30,288	$ -	$0	$0	$0	$0	$0	$0	$0	$30,288
Lithgow	Reticulation	Mh49~Mh1/24	1930	$ 8,565	$ 8,753	$ -	$0	$0	$0	$0	$0	$0	$0	$8,753
Lithgow	Rising Mains	Mh5/10~Mh5/9	1912	$ 17,707	$ 18,097	$ 18,097	$0	$0	$0	$0	$0	$0	$0	$18,097
Lithgow	Reticulation	Mh5/100~Mh5/99	1912	$ 12,587	$ 12,864	$ -	$0	$0	$0	$0	$0	$0	$0	$12,864
Lithgow	Reticulation	Mh5/101~Mh5/100	1912	$ 4,125	$ 4,215	$ -	$0	$0	$0	$0	$0	$0	$0	$4,215
Lithgow	Reticulation	Mh5/102~Mh5/100	1912	$ 2,508	$ 2,563	$ -	$0	$0	$0	$0	$0	$0	$0	$2,563
Lithgow	Reticulation	Mh5/103~Mh5/95	1912	$ 12,204	$ 12,473	$ -	$0	$0	$0	$0	$0	$0	$0	$12,473
Lithgow	Reticulation	Mh5/104~Mh5/103	1912	$ 9,435	$ 9,643	$ -	$0	$0	$0	$0	$0	$0	$0	$9,643
Lithgow	Reticulation	Mh5/105~Mh5/103	1912	$ 20,815	$ 21,273	$ -	$0	$0	$0	$0	$0	$0	$0	$21,273
Lithgow	Reticulation	Mh5/106~Mh5/105	1912	$ 4,990	$ 5,099	$ -	$0	$0	$0	$0	$0	$0	$0	$5,099
Lithgow	Reticulation	Mh5/107~Mh5/105	1912	$ 13,196	$ 13,487	$ -	$0	$0	$0	$0	$0	$0	$0	$13,487
Lithgow	Reticulation	Mh5/108~Mh5/107	1912	$ 9,202	$ 9,404	$ -	$0	$0	$0	$0	$0	$0	$0	$9,404
Lithgow	Reticulation	Mh5/109~Mh5/107	1912	$ 15,893	$ 16,243	$ -	$0	$0	$0	$0	$0	$0	$0	$16,243
Lithgow	Rising Mains	Mh5/11~Mh5/10	1912	$ 13,182	$ 13,472	$ 13,472	$0	$0	$0	$0	$0	$0	$0	$13,472
Lithgow	Reticulation	Mh5/111~Mh5/109	1912	$ 10,217	$ 10,442	$ -	$0	$0	$0	$0	$0	$0	$0	$10,442
Lithgow	Reticulation	Mh5/113~Mh5/111	1912	$ 8,732	$ 8,924	$ -	$0	$0	$0	$0	$0	$0	$0	$8,924
Lithgow	Reticulation	Mh5/114~Mh5/113	1912	$ 17,299	$ 17,679	$ -	$0	$0	$0	$0	$0	$0	$0	$17,679
Lithgow	Reticulation	Mh5/115~Mh5/113	1912	$ 17,128	$ 17,505	$ -	$0	$0	$0	$0	$0	$0	$0	$17,505
Lithgow	Reticulation	Mh5/117~Mh5/115	1912	$ 3,413	$ 3,488	$ -	$0	$0	$0	$0	$0	$0	$0	$3,488
Lithgow	Reticulation	Mh5/118~Mh5/94	1912	$ 13,949	$ 14,256	$ -	$0	$0	$0	$0	$0	$0	$0	$14,256
Lithgow	Rising Mains	Mh5/12~Mh5/11	1912	$ 6,581	$ 6,726	$ 6,726	$0	$0	$0	$0	$0	$0	$0	$6,726
Lithgow	Reticulation	Mh5/120~Mh5/118	1912	$ 17,334	$ 17,715	$ -	$0	$0	$0	$0	$0	$0	$0	$17,715
Lithgow	Reticulation	Mh5/121~Mh5/120	1912	$ 20,430	$ 20,880	$ -	$0	$0	$0	$0	$0	$0	$0	$20,880
Lithgow	Reticulation	Mh5/122~Mh5/121	1912	$ 21,124	$ 21,589	$ -	$0	$0	$0	$0	$0	$0	$0	$21,589
Lithgow	Reticulation	Mh5/123~Mh5/122	1912	$ 21,183	$ 21,649	$ -	$0	$0	$0	$0	$0	$0	$0	$21,649
Lithgow	Reticulation	Mh5/124~Mh5/123	1912	$ 20,671	$ 21,126	$ -	$0	$0	$0	$0	$0	$0	$0	$21,126
Lithgow	Reticulation	Mh5/125~Mh5/124	1912	$ 20,079	$ 20,521	$ -	$0	$0	$0	$0	$0	$0	$0	$20,521
Lithgow	Reticulation	Mh5/126~Mh5/125	1912	$ 21,011	$ 21,473	$ -	$0	$0	$0	$0	$0	$0	$0	$21,473
Lithgow	Reticulation	Mh5/127~Mh5/126	1912	$ 10,356	$ 10,583	$ -	$0	$0	$0	$0	$0	$0	$0	$10,583
Lithgow	Reticulation	Mh5/128~Mh5/127	1912	$ 10,442	$ 10,672	$ -	$0	$0	$0	$0	$0	$0	$0	$10,672
Lithgow	Reticulation	Mh5/129~Mh5/124	1912	$ 18,650	$ 19,060	$ -	$0	$0	$0	$0	$0	$0	$0	$19,060
Lithgow	Rising Mains	Mh5/13~Mh5/12	1912	$ 10,912	$ 11,152	$ 11,152	$0	$0	$0	$0	$0	$0	$0	$11,152
Lithgow	Reticulation	Mh5/130~Mh5/129	1912	$ 16,069	$ 16,423	$ -	$0	$0	$0	$0	$0	$0	$0	$16,423
Lithgow	Reticulation	Mh5/131~Mh5/130	1912	$ 13,318	$ 13,611	$ -	$0	$0	$0	$0	$0	$0	$0	$13,611
Lithgow	Reticulation	Mh5/133~Mh1080	1912	$ 17,709	$ 18,099	$ -	$0	$0	$0	$0	$0	$0	$0	$18,099
Lithgow	Reticulation	Mh5/134~Mh1/15	1930	$ 19,841	$ 20,278	$ -	$0	$0	$0	$0	$0	$0	$0	$20,278
Lithgow	Reticulation	Mh5/135~Mh5/134	1930	$ 7,455	$ 7,619	$ -	$0	$0	$0	$0	$0	$0	$0	$7,619
Lithgow	Reticulation	Mh5/136~Mh1362	1930	$ 20,968	$ 21,429	$ -	$0	$0	$0	$0	$0	$0	$0	$21,429
Lithgow	Reticulation	Mh5/137~Mh5/136	1930	$ 10,837	$ 11,075	$ -	$0	$0	$0	$0	$0	$0	$0	$11,075
Lithgow	Reticulation	Mh5/138~Mh5/137	1930	$ 8,909	$ 9,105	$ -	$0	$0	$0	$0	$0	$0	$0	$9,105
Lithgow	Reticulation	Mh5/139~Mh5/138	1930	$ 8,264	$ 8,445	$ -	$0	$0	$0	$0	$0	$0	$0	$8,445
Lithgow	Rising Mains	Mh5/14~Mh5/13	1912	$ 11,372	$ 11,622	$ 11,622	$0	$0	$0	$0	$0	$0	$0	$11,622
Lithgow	Reticulation	Mh5/140~Mh5/138	1930	$ 14,862	$ 15,189	$ -	$0	$0	$0	$0	$0	$0	$0	$15,189
Lithgow	Reticulation	Mh5/141~Mh5/137	1930	$ 12,651	$ 12,929	$ -	$0	$0	$0	$0	$0	$0	$0	$12,929
Lithgow	Reticulation	Mh5/142~Mh5/141	1930	$ 7,646	$ 7,815	$ -	$0	$0	$0	$0	$0	$0	$0	$7,815
Lithgow	Reticulation	Mh5/143~Mh5/141	1930	$ 15,312	$ 15,649	$ -	$0	$0	$0	$0	$0	$0	$0	$15,649

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh5/144~Mh5/143	1930	$ 10,687	$ 10,922	$ -	$0	$0	$0	$0	$0	$0	$0	$10,922
Lithgow	Reticulation	Mh5/145~Mh5/10	1912	$ 21,605	$ 22,080	$ -	$0	$0	$0	$0	$0	$0	$0	$22,080
Lithgow	Reticulation	Mh5/146~Mh5/145	1912	$ 17,643	$ 18,031	$ -	$0	$0	$0	$0	$0	$0	$0	$18,031
Lithgow	Reticulation	Mh5/147~Mh5/146	1912	$ 12,575	$ 12,852	$ -	$0	$0	$0	$0	$0	$0	$0	$12,852
Lithgow	Rising Mains	Mh5/15~Mh5/14	1912	$ 17,078	$ 17,454	$ 17,454	$0	$0	$0	$0	$0	$0	$0	$17,454
Lithgow	Rising Mains	Mh5/16~Mh5/15	1912	$ 14,197	$ 14,509	$ 14,509	$0	$0	$0	$0	$0	$0	$0	$14,509
Lithgow	Rising Mains	Mh5/17~Mh5/16	1912	$ 16,256	$ 16,613	$ 16,613	$0	$0	$0	$0	$0	$0	$0	$16,613
Lithgow	Reticulation	Mh5/18~Mh5/17	1912	$ 24,596	$ 25,137	$ -	$0	$0	$0	$0	$0	$0	$0	$25,137
Lithgow	Reticulation	Mh5/19~Mh5/18	1912	$ 22,379	$ 22,871	$ -	$0	$0	$0	$0	$0	$0	$0	$22,871
Lithgow	Rising Mains	Mh5/1a~Mh1/18	1930	$ 18,289	$ 18,691	$ 18,691	$0	$0	$0	$0	$0	$0	$0	$18,691
Lithgow	Reticulation	Mh5/20~Mh5/16	1912	$ 6,446	$ 6,588	$ -	$0	$0	$0	$0	$0	$0	$0	$6,588
Lithgow	Reticulation	Mh5/21~Mh5/20	1912	$ 21,261	$ 21,728	$ -	$0	$0	$0	$0	$0	$0	$0	$21,728
Lithgow	Reticulation	Mh5/22~Mh5/21	1912	$ 21,896	$ 22,378	$ -	$0	$0	$0	$0	$0	$0	$0	$22,378
Lithgow	Reticulation	Mh5/23~Mh5/22	1912	$ 16,864	$ 17,235	$ -	$0	$0	$0	$0	$0	$0	$0	$17,235
Lithgow	Reticulation	Mh5/24~Mh5/20	1912	$ 20,076	$ 20,518	$ -	$0	$0	$0	$0	$0	$0	$0	$20,518
Lithgow	Reticulation	Mh5/25~Mh5/24	1912	$ 11,468	$ 11,721	$ -	$0	$0	$0	$0	$0	$0	$0	$11,721
Lithgow	Reticulation	Mh5/26~Mh5/25	1912	$ 8,596	$ 8,785	$ -	$0	$0	$0	$0	$0	$0	$0	$8,785
Lithgow	Reticulation	Mh5/27~Mh5/26	1912	$ 20,069	$ 20,511	$ -	$0	$0	$0	$0	$0	$0	$0	$20,511
Lithgow	Reticulation	Mh5/28~Mh5/25	1912	$ 12,987	$ 13,272	$ -	$0	$0	$0	$0	$0	$0	$0	$13,272
Lithgow	Reticulation	Mh5/29~Mh5/28	1912	$ 6,742	$ 6,890	$ -	$0	$0	$0	$0	$0	$0	$0	$6,890
Lithgow	Rising Mains	Mh5/2a~Mh5/1a	1930	$ 9,397	$ 9,604	$ 9,604	$0	$0	$0	$0	$0	$0	$0	$9,604
Lithgow	Reticulation	Mh5/30~Mh5/29	1912	$ 16,991	$ 17,365	$ -	$0	$0	$0	$0	$0	$0	$0	$17,365
Lithgow	Reticulation	Mh5/31~Mh5/30	1912	$ 11,804	$ 12,064	$ -	$0	$0	$0	$0	$0	$0	$0	$12,064
Lithgow	Reticulation	Mh5/32~Mh5/31	1912	$ 15,965	$ 16,316	$ -	$0	$0	$0	$0	$0	$0	$0	$16,316
Lithgow	Reticulation	Mh5/33a~Mh5/32	1912	$ 6,619	$ 6,765	$ -	$0	$0	$0	$0	$0	$0	$0	$6,765
Lithgow	Reticulation	Mh5/33b~Mh5/33a	1912	$ 14,752	$ 15,076	$ -	$0	$0	$0	$0	$0	$0	$0	$15,076
Lithgow	Reticulation	Mh5/33c~Mh5/33b	1912	$ 14,791	$ 15,116	$ -	$0	$0	$0	$0	$0	$0	$0	$15,116
Lithgow	Reticulation	Mh5/33d~Mh5/33c	1912	$ 14,434	$ 14,751	$ -	$0	$0	$0	$0	$0	$0	$0	$14,751
Lithgow	Reticulation	Mh5/33e~Mh5/33d	1912	$ 12,216	$ 12,485	$ -	$0	$0	$0	$0	$0	$0	$0	$12,485
Lithgow	Reticulation	Mh5/34~Mh5/35	1912	$ 20,066	$ 20,508	$ -	$0	$0	$0	$0	$0	$0	$0	$20,508
Lithgow	Reticulation	Mh5/35~Mh5/36	1912	$ 20,459	$ 20,910	$ -	$0	$0	$0	$0	$0	$0	$0	$20,910
Lithgow	Reticulation	Mh5/36~Mh5/37	1912	$ 12,524	$ 12,800	$ -	$0	$0	$0	$0	$0	$0	$0	$12,800
Lithgow	Reticulation	Mh5/37~Mh5/7	1912	$ 16,426	$ 16,787	$ -	$0	$0	$0	$0	$0	$0	$0	$16,787
Lithgow	Reticulation	Mh5/38~Mh5/36	1912	$ 14,937	$ 15,266	$ -	$0	$0	$0	$0	$0	$0	$0	$15,266
Lithgow	Reticulation	Mh5/39~Mh5/38	1912	$ 20,940	$ 21,401	$ -	$0	$0	$0	$0	$0	$0	$0	$21,401
Lithgow	Rising Mains	Mh5/3a~Mh5/2a	1930	$ 12,459	$ 12,733	$ 12,733	$0	$0	$0	$0	$0	$0	$0	$12,733
Lithgow	Rising Mains	Mh5/4~Mh5/3a	1912	$ 7,599	$ 7,766	$ 7,766	$0	$0	$0	$0	$0	$0	$0	$7,766
Lithgow	Reticulation	Mh5/40~Mh5/39	1912	$ 20,938	$ 21,399	$ -	$0	$0	$0	$0	$0	$0	$0	$21,399
Lithgow	Reticulation	Mh5/41~Mh5/40	1912	$ 19,436	$ 19,863	$ -	$0	$0	$0	$0	$0	$0	$0	$19,863
Lithgow	Reticulation	Mh5/42~Mh5/41	1912	$ 8,443	$ 8,629	$ -	$0	$0	$0	$0	$0	$0	$0	$8,629
Lithgow	Reticulation	Mh5/43~Mh5/42	1912	$ 20,824	$ 21,282	$ -	$0	$0	$0	$0	$0	$0	$0	$21,282
Lithgow	Reticulation	Mh5/44~Mh5/42	1912	$ 12,373	$ 12,645	$ -	$0	$0	$0	$0	$0	$0	$0	$12,645
Lithgow	Reticulation	Mh5/45~Mh5/44	1912	$ 19,905	$ 20,343	$ -	$0	$0	$0	$0	$0	$0	$0	$20,343
Lithgow	Reticulation	Mh5/46~Mh5/44	1912	$ 20,291	$ 20,737	$ -	$0	$0	$0	$0	$0	$0	$0	$20,737
Lithgow	Reticulation	Mh5/47~Mh5/38	1912	$ 12,900	$ 13,184	$ -	$0	$0	$0	$0	$0	$0	$0	$13,184
Lithgow	Reticulation	Mh5/48~Mh5/47	1912	$ 20,805	$ 21,263	$ -	$0	$0	$0	$0	$0	$0	$0	$21,263
Lithgow	Reticulation	Mh5/49~Mh5/48	1912	$ 10,638	$ 10,872	$ -	$0	$0	$0	$0	$0	$0	$0	$10,872
Lithgow	Rising Mains	Mh5/5~Mh5/4	1912	$ 11,166	$ 11,412	$ 11,412	$0	$0	$0	$0	$0	$0	$0	$11,412
Lithgow	Reticulation	Mh5/50~Mh5/47	1912	$ 15,698	$ 16,043	$ -	$0	$0	$0	$0	$0	$0	$0	$16,043
Lithgow	Reticulation	Mh5/51~Mh5/50	1912	$ 19,155	$ 19,576	$ -	$0	$0	$0	$0	$0	$0	$0	$19,576
Lithgow	Reticulation	Mh5/52~Mh5/51	1912	$ 16,080	$ 16,434	$ -	$0	$0	$0	$0	$0	$0	$0	$16,434
Lithgow	Reticulation	Mh5/53~Mh5/52	1912	$ 20,009	$ 20,449	$ -	$0	$0	$0	$0	$0	$0	$0	$20,449
Lithgow	Reticulation	Mh5/54~Mh5/53	1912	$ 18,653	$ 19,063	$ -	$0	$0	$0	$0	$0	$0	$0	$19,063
Lithgow	Reticulation	Mh5/55~Mh5/54	1912	$ 22,520	$ 23,015	$ -	$0	$0	$0	$0	$0	$0	$0	$23,015
Lithgow	Reticulation	Mh5/56~Mh5/55	1912	$ 7,634	$ 7,802	$ -	$0	$0	$0	$0	$0	$0	$0	$7,802
Lithgow	Reticulation	Mh5/57~Mh5/6	1912	$ 15,489	$ 15,830	$ -	$0	$0	$0	$0	$0	$0	$0	$15,830
Lithgow	Reticulation	Mh5/58~Mh5/57	1912	$ 21,498	$ 21,970	$ -	$0	$0	$0	$0	$0	$0	$0	$21,970
Lithgow	Reticulation	Mh5/59~Mh5/58	1912	$ 20,003	$ 20,443	$ -	$0	$0	$0	$0	$0	$0	$0	$20,443
Lithgow	Reticulation	Mh5/60~Mh5/59	1912	$ 20,111	$ 20,554	$ -	$0	$0	$0	$0	$0	$0	$0	$20,554
Lithgow	Reticulation	Mh5/61~Mh5/60	1912	$ 20,694	$ 21,150	$ -	$0	$0	$0	$0	$0	$0	$0	$21,150
Lithgow	Reticulation	Mh5/62~Mh5/61	1912	$ 20,594	$ 21,047	$ -	$0	$0	$0	$0	$0	$0	$0	$21,047
Lithgow	Reticulation	Mh5/63~Mh5/62	1912	$ 7,771	$ 7,942	$ -	$0	$0	$0	$0	$0	$0	$0	$7,942
Lithgow	Reticulation	Mh5/64~Mh5/5	1912	$ 29,908	$ 30,566	$ -	$0	$0	$0	$0	$0	$0	$0	$30,566
Lithgow	Reticulation	Mh5/65~Mh5/64	1912	$ 12,486	$ 12,761	$ -	$0	$0	$0	$0	$0	$0	$0	$12,761
Lithgow	Reticulation	Mh5/66~Mh5/65	1912	$ 12,693	$ 12,973	$ -	$0	$0	$0	$0	$0	$0	$0	$12,973
Lithgow	Reticulation	Mh5/67~Mh5/66	1912	$ 14,357	$ 14,673	$ -	$0	$0	$0	$0	$0	$0	$0	$14,673

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh5/68~Mh5/67	1912	$ 20,286	$ 20,732	$ -	$0	$0	$0	$0	$0	$0	$0	$20,732
Lithgow	Reticulation	Mh5/69~Mh5/68	1912	$ 19,221	$ 19,644	$ -	$0	$0	$0	$0	$0	$0	$0	$19,644
Lithgow	Rising Mains	Mh5/7~Mh5/6	1912	$ 12,327	$ 12,598	$ 12,598	$0	$0	$0	$0	$0	$0	$0	$12,598
Lithgow	Reticulation	Mh5/70~Mh5/69	1912	$ 15,724	$ 16,070	$ -	$0	$0	$0	$0	$0	$0	$0	$16,070
Lithgow	Reticulation	Mh5/71~Mh5/70	1912	$ 23,459	$ 23,975	$ -	$0	$0	$0	$0	$0	$0	$0	$23,975
Lithgow	Reticulation	Mh5/72~Mh5/71	1912	$ 10,875	$ 11,114	$ -	$0	$0	$0	$0	$0	$0	$0	$11,114
Lithgow	Reticulation	Mh5/73~Mh5/72	1912	$ 6,487	$ 6,630	$ -	$0	$0	$0	$0	$0	$0	$0	$6,630
Lithgow	Reticulation	Mh5/74~Mh5/73	1912	$ 11,217	$ 11,464	$ -	$0	$0	$0	$0	$0	$0	$0	$11,464
Lithgow	Reticulation	Mh5/75~Mh5/74	1912	$ 6,088	$ 6,222	$ -	$0	$0	$0	$0	$0	$0	$0	$6,222
Lithgow	Reticulation	Mh5/76~Mh1079	1912	$ 11,533	$ 11,786	$ -	$0	$0	$0	$0	$0	$0	$0	$11,786
Lithgow	Reticulation	Mh5/77~Mh5/76	1912	$ 8,744	$ 8,936	$ -	$0	$0	$0	$0	$0	$0	$0	$8,936
Lithgow	Reticulation	Mh5/78~Mh5/77	1912	$ 12,746	$ 13,026	$ -	$0	$0	$0	$0	$0	$0	$0	$13,026
Lithgow	Reticulation	Mh5/79~Mh5/78	1912	$ 17,601	$ 17,988	$ -	$0	$0	$0	$0	$0	$0	$0	$17,988
Lithgow	Rising Mains	Mh5/8~Mh5/7	1912	$ 9,007	$ 9,205	$ 9,205	$0	$0	$0	$0	$0	$0	$0	$9,205
Lithgow	Reticulation	Mh5/80~Mh5/79	1912	$ 20,584	$ 21,037	$ -	$0	$0	$0	$0	$0	$0	$0	$21,037
Lithgow	Reticulation	Mh5/81~Mh5/77	1912	$ 17,376	$ 17,759	$ -	$0	$0	$0	$0	$0	$0	$0	$17,759
Lithgow	Reticulation	Mh5/82~Mh5/81	1912	$ 19,053	$ 19,472	$ -	$0	$0	$0	$0	$0	$0	$0	$19,472
Lithgow	Reticulation	Mh5/83~Mh5/82	1912	$ 18,184	$ 18,584	$ -	$0	$0	$0	$0	$0	$0	$0	$18,584
Lithgow	Reticulation	Mh5/84~Mh5/83	1912	$ 17,668	$ 18,057	$ -	$0	$0	$0	$0	$0	$0	$0	$18,057
Lithgow	Reticulation	Mh5/85~Mh5/84	1912	$ 15,430	$ 15,769	$ -	$0	$0	$0	$0	$0	$0	$0	$15,769
Lithgow	Reticulation	Mh5/86~Mh5/85	1912	$ 18,845	$ 19,260	$ -	$0	$0	$0	$0	$0	$0	$0	$19,260
Lithgow	Reticulation	Mh5/87~Mh5/86	1912	$ 15,320	$ 15,657	$ -	$0	$0	$0	$0	$0	$0	$0	$15,657
Lithgow	Reticulation	Mh5/88~Mh5/87	1912	$ 7,688	$ 7,857	$ -	$0	$0	$0	$0	$0	$0	$0	$7,857
Lithgow	Reticulation	Mh5/89~Mh5/87	1912	$ 12,572	$ 12,849	$ -	$0	$0	$0	$0	$0	$0	$0	$12,849
Lithgow	Rising Mains	Mh5/9~Mh5/8	1912	$ 18,960	$ 19,378	$ 19,378	$0	$0	$0	$0	$0	$0	$0	$19,378
Lithgow	Reticulation	Mh5/90~Mh5/89	1912	$ 3,104	$ 3,173	$ -	$0	$0	$0	$0	$0	$0	$0	$3,173
Lithgow	Reticulation	Mh5/91~Mh5/89	1912	$ 13,976	$ 14,283	$ -	$0	$0	$0	$0	$0	$0	$0	$14,283
Lithgow	Reticulation	Mh5/92~Mh5/91	1912	$ 17,892	$ 18,285	$ -	$0	$0	$0	$0	$0	$0	$0	$18,285
Lithgow	Reticulation	Mh5/93~Mh5/92	1912	$ 12,515	$ 12,790	$ -	$0	$0	$0	$0	$0	$0	$0	$12,790
Lithgow	Reticulation	Mh5/94~Mh5/90	1912	$ 21,896	$ 22,378	$ -	$0	$0	$0	$0	$0	$0	$0	$22,378
Lithgow	Reticulation	Mh5/95~Mh5/94	1912	$ 14,715	$ 15,039	$ -	$0	$0	$0	$0	$0	$0	$0	$15,039
Lithgow	Reticulation	Mh5/96~Mh5/95	1912	$ 5,791	$ 5,919	$ -	$0	$0	$0	$0	$0	$0	$0	$5,919
Lithgow	Reticulation	Mh5/97~Mh5/96	1912	$ 19,529	$ 19,958	$ -	$0	$0	$0	$0	$0	$0	$0	$19,958
Lithgow	Reticulation	Mh5/98~Mh5/97	1912	$ 19,991	$ 20,431	$ -	$0	$0	$0	$0	$0	$0	$0	$20,431
Lithgow	Reticulation	Mh5/99~Mh5/98	1912	$ 11,054	$ 11,297	$ -	$0	$0	$0	$0	$0	$0	$0	$11,297
Lithgow	Rising Mains	Mh5~Mh3	1942	$ 11,535	$ 11,789	$ 11,789	$0	$0	$0	$0	$0	$0	$0	$11,789
Lithgow	Reticulation	Mh50~Mh49	1930	$ 17,408	$ 17,791	$ -	$0	$0	$0	$0	$0	$0	$0	$17,791
Lithgow	Reticulation	Mh51~Mh50	1930	$ 16,949	$ 17,322	$ -	$0	$0	$0	$0	$0	$0	$0	$17,322
Lithgow	Reticulation	Mh52~Mh51	1930	$ 9,096	$ 9,296	$ -	$0	$0	$0	$0	$0	$0	$0	$9,296
Lithgow	Reticulation	Mh53~Mh1/22	1930	$ 8,838	$ 9,032	$ -	$0	$0	$0	$0	$0	$0	$0	$9,032
Lithgow	Reticulation	Mh5-4/2809~Mh4-4/2809	1994	$ 12,570	$ 12,847	$ -	$0	$0	$0	$0	$0	$0	$0	$12,847
Lithgow	Reticulation	Mh54~Mh53	1930	$ 4,676	$ 4,778	$ -	$0	$0	$0	$0	$0	$0	$0	$4,778
Lithgow	Reticulation	Mh55~Mh54	1930	$ 13,104	$ 13,393	$ -	$0	$0	$0	$0	$0	$0	$0	$13,393
Lithgow	Reticulation	Mh56~Mh55	1930	$ 13,127	$ 13,416	$ -	$0	$0	$0	$0	$0	$0	$0	$13,416
Lithgow	Reticulation	Mh57~Mh56	1930	$ 10,137	$ 10,360	$ -	$0	$0	$0	$0	$0	$0	$0	$10,360
Lithgow	Reticulation	Mh58~Mh1/6	1954	$ 2,390	$ 2,443	$ -	$0	$0	$0	$0	$0	$0	$0	$2,443
Lithgow	Reticulation	Mh59~Mh2068	1980	$ 15,649	$ 15,993	$ -	$0	$0	$0	$0	$0	$0	$0	$15,993
Lithgow	Rising Mains	Mh6/10~Mh6/9	1912	$ 10,325	$ 10,552	$ 10,552	$0	$0	$0	$0	$0	$0	$0	$10,552
Lithgow	Rising Mains	Mh6/11~Mh6/10	1912	$ 5,538	$ 5,660	$ 5,660	$0	$0	$0	$0	$0	$0	$0	$5,660
Lithgow	Rising Mains	Mh6/12~Mh6/11	1912	$ 10,707	$ 10,942	$ 10,942	$0	$0	$0	$0	$0	$0	$0	$10,942
Lithgow	Reticulation	Mh6/13~Mh6/11	1912	$ 8,710	$ 8,902	$ -	$0	$0	$0	$0	$0	$0	$0	$8,902
Lithgow	Reticulation	Mh6/14~Mh6/13	1912	$ 16,305	$ 16,664	$ -	$0	$0	$0	$0	$0	$0	$0	$16,664
Lithgow	Reticulation	Mh6/15~Mh6/14	1912	$ 3,677	$ 3,758	$ -	$0	$0	$0	$0	$0	$0	$0	$3,758
Lithgow	Reticulation	Mh6/16~Mh6/15	1912	$ 9,023	$ 9,221	$ -	$0	$0	$0	$0	$0	$0	$0	$9,221
Lithgow	Reticulation	Mh6/17~Mh6/15	1885	$ 13,161	$ 13,450	$ -	$0	$0	$0	$0	$0	$0	$0	$13,450
Lithgow	Reticulation	Mh6/18~Mh6/17	1885	$ 6,791	$ 6,941	$ -	$0	$0	$0	$0	$0	$0	$0	$6,941
Lithgow	Reticulation	Mh6/19~Mh6/18	1885	$ 17,067	$ 17,442	$ -	$0	$0	$0	$0	$0	$0	$0	$17,442
Lithgow	Rising Mains	Mh6/1a~Mh1/25	1930	$ 8,553	$ 8,741	$ 8,741	$0	$0	$0	$0	$0	$0	$0	$8,741
Lithgow	Reticulation	Mh6/20~Mh6/19	1885	$ 3,270	$ 3,341	$ -	$0	$0	$0	$0	$0	$0	$0	$3,341
Lithgow	Reticulation	Mh6/21~Mh6/7	1912	$ 8,426	$ 8,611	$ -	$0	$0	$0	$0	$0	$0	$0	$8,611
Lithgow	Reticulation	Mh6/22~Mh6/21	1885	$ 10,137	$ 10,360	$ -	$0	$0	$0	$0	$0	$0	$0	$10,360
Lithgow	Reticulation	Mh6/23~Mh6/22	1885	$ 14,989	$ 15,319	$ -	$0	$0	$0	$0	$0	$0	$0	$15,319
Lithgow	Reticulation	Mh6/24~Mh6/23	1885	$ 9,748	$ 9,963	$ -	$0	$0	$0	$0	$0	$0	$0	$9,963
Lithgow	Reticulation	Mh6/25~Mh6/24	1885	$ 21,213	$ 21,679	$ -	$0	$0	$0	$0	$0	$0	$0	$21,679
Lithgow	Reticulation	Mh6/26~Mh6/24	1885	$ 10,947	$ 11,188	$ -	$0	$0	$0	$0	$0	$0	$0	$11,188
Lithgow	Reticulation	Mh6/27~Mh6/26	1885	$ 4,767	$ 4,872	$ -	$0	$0	$0	$0	$0	$0	$0	$4,872
Lithgow	Reticulation	Mh6/28~Mh6/27	1885	$ 3,863	$ 3,948	$ -	$0	$0	$0	$0	$0	$0	$0	$3,948

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh6/29~Mh6/28	1885	$ 9,333	$ 9,539	$ -	$0	$0	$0	$0	$0	$0	$0	$9,539
Lithgow	Rising Mains	Mh6/2a~Mh6/1a	1930	$ 18,360	$ 18,764	$ 18,764	$0	$0	$0	$0	$0	$0	$0	$18,764
Lithgow	Rising Mains	Mh6/3~Mh6/2a	1930	$ 17,735	$ 18,125	$ 18,125	$0	$0	$0	$0	$0	$0	$0	$18,125
Lithgow	Reticulation	Mh6/30~Mh6/29	1885	$ 17,943	$ 18,338	$ -	$0	$0	$0	$0	$0	$0	$0	$18,338
Lithgow	Reticulation	Mh6/31~Mh6/30	1885	$ 8,537	$ 8,725	$ -	$0	$0	$0	$0	$0	$0	$0	$8,725
Lithgow	Reticulation	Mh6/32~Mh6/28	1885	$ 10,228	$ 10,453	$ -	$0	$0	$0	$0	$0	$0	$0	$10,453
Lithgow	Reticulation	Mh6/33~Mh6/32	1885	$ 6,077	$ 6,211	$ -	$0	$0	$0	$0	$0	$0	$0	$6,211
Lithgow	Reticulation	Mh6/34~Mh6/33	1885	$ 6,426	$ 6,568	$ -	$0	$0	$0	$0	$0	$0	$0	$6,568
Lithgow	Reticulation	Mh6/35~Mh6/34	1885	$ 10,773	$ 11,010	$ -	$0	$0	$0	$0	$0	$0	$0	$11,010
Lithgow	Reticulation	Mh6/36~Mh6/35	1885	$ 8,406	$ 8,591	$ -	$0	$0	$0	$0	$0	$0	$0	$8,591
Lithgow	Reticulation	Mh6/37~Mh6/36	1885	$ 6,916	$ 7,068	$ -	$0	$0	$0	$0	$0	$0	$0	$7,068
Lithgow	Reticulation	Mh6/38~Mh6/37	1885	$ 5,863	$ 5,992	$ -	$0	$0	$0	$0	$0	$0	$0	$5,992
Lithgow	Reticulation	Mh6/39~Mh1074	1885	$ 12,591	$ 12,868	$ -	$0	$0	$0	$0	$0	$0	$0	$12,868
Lithgow	Rising Mains	Mh6/4~Mh6/3	1930	$ 11,189	$ 11,436	$ 11,436	$0	$0	$0	$0	$0	$0	$0	$11,436
Lithgow	Reticulation	Mh6/40~Mh6/39	1885	$ 18,457	$ 18,863	$ -	$0	$0	$0	$0	$0	$0	$0	$18,863
Lithgow	Reticulation	Mh6/41~Mh6/40	1885	$ 7,160	$ 7,317	$ -	$0	$0	$0	$0	$0	$0	$0	$7,317
Lithgow	Reticulation	Mh6/42~Mh6/43	1885	$ 14,178	$ 14,490	$ -	$0	$0	$0	$0	$0	$0	$0	$14,490
Lithgow	Reticulation	Mh6/43~Mh6/45	1885	$ 15,215	$ 15,550	$ -	$0	$0	$0	$0	$0	$0	$0	$15,550
Lithgow	Reticulation	Mh6/44~Mh6/43	1885	$ 19,393	$ 19,819	$ -	$0	$0	$0	$0	$0	$0	$0	$19,819
Lithgow	Reticulation	Mh6/45~Mh1075	1940	$ 6,971	$ 7,124	$ -	$0	$0	$0	$0	$0	$0	$0	$7,124
Lithgow	Reticulation	Mh6/46~Mh1075	1885	$ 15,124	$ 15,456	$ -	$0	$0	$0	$0	$0	$0	$0	$15,456
Lithgow	Reticulation	Mh6/47~Mh6/42	1885	$ 15,156	$ 15,489	$ -	$0	$0	$0	$0	$0	$0	$0	$15,489
Lithgow	Reticulation	Mh6/48~Mh6/47	1885	$ 9,002	$ 9,200	$ -	$0	$0	$0	$0	$0	$0	$0	$9,200
Lithgow	Reticulation	Mh6/49~Mh6/48	1885	$ 16,358	$ 16,718	$ -	$0	$0	$0	$0	$0	$0	$0	$16,718
Lithgow	Rising Mains	Mh6/5~Mh6/4	1912	$ 7,540	$ 7,705	$ 7,705	$0	$0	$0	$0	$0	$0	$0	$7,705
Lithgow	Reticulation	Mh6/50~Mh6/49	1885	$ 15,143	$ 15,476	$ -	$0	$0	$0	$0	$0	$0	$0	$15,476
Lithgow	Reticulation	Mh6/51~Mh6/48	1885	$ 14,200	$ 14,513	$ -	$0	$0	$0	$0	$0	$0	$0	$14,513
Lithgow	Reticulation	Mh6/52~Mh6/51	1885	$ 7,670	$ 7,839	$ -	$0	$0	$0	$0	$0	$0	$0	$7,839
Lithgow	Reticulation	Mh6/53~Mh6/52	1885	$ 18,362	$ 18,766	$ -	$0	$0	$0	$0	$0	$0	$0	$18,766
Lithgow	Reticulation	Mh6/54~Mh6/52	1885	$ 12,281	$ 12,552	$ -	$0	$0	$0	$0	$0	$0	$0	$12,552
Lithgow	Reticulation	Mh6/55a~Mh6/55b	1885	$ 7,962	$ 8,137	$ -	$0	$0	$0	$0	$0	$0	$0	$8,137
Lithgow	Reticulation	Mh6/55b~Mh6/54	1885	$ 13,941	$ 14,247	$ -	$0	$0	$0	$0	$0	$0	$0	$14,247
Lithgow	Reticulation	Mh6/56~Mh6/37	1885	$ 16,736	$ 17,104	$ -	$0	$0	$0	$0	$0	$0	$0	$17,104
Lithgow	Reticulation	Mh6/57~Mh6/56	1885	$ 29,029	$ 29,668	$ -	$0	$0	$0	$0	$0	$0	$0	$29,668
Lithgow	Reticulation	Mh6/58~Mh6/22	1885	$ 18,534	$ 18,942	$ -	$0	$0	$0	$0	$0	$0	$0	$18,942
Lithgow	Reticulation	Mh6/59~Mh6/58	1885	$ 11,627	$ 11,883	$ -	$0	$0	$0	$0	$0	$0	$0	$11,883
Lithgow	Rising Mains	Mh6/6~Mh6/5	1912	$ 11,601	$ 11,856	$ 11,856	$0	$0	$0	$0	$0	$0	$0	$11,856
Lithgow	Reticulation	Mh6/60~Mh6/6	1912	$ 5,729	$ 5,855	$ -	$0	$0	$0	$0	$0	$0	$0	$5,855
Lithgow	Reticulation	Mh6/61~Mh6/4	1930	$ 13,862	$ 14,167	$ -	$0	$0	$0	$0	$0	$0	$0	$14,167
Lithgow	Reticulation	Mh6/62~Mh6/61	1930	$ 7,011	$ 7,165	$ -	$0	$0	$0	$0	$0	$0	$0	$7,165
Lithgow	Reticulation	Mh6/63~Mh6/62	1930	$ 13,406	$ 13,701	$ -	$0	$0	$0	$0	$0	$0	$0	$13,701
Lithgow	Reticulation	Mh6/64~Mh6/63	1930	$ 16,173	$ 16,529	$ -	$0	$0	$0	$0	$0	$0	$0	$16,529
Lithgow	Reticulation	Mh6/65~Mh6/60	1912	$ 20,720	$ 21,175	$ -	$0	$0	$0	$0	$0	$0	$0	$21,175
Lithgow	Reticulation	Mh6/66~Mh6/65	1912	$ 11,573	$ 11,827	$ -	$0	$0	$0	$0	$0	$0	$0	$11,827
Lithgow	Reticulation	Mh6/67~Mh6/66	1912	$ 19,599	$ 20,030	$ -	$0	$0	$0	$0	$0	$0	$0	$20,030
Lithgow	Reticulation	Mh6/68~Mh6/67	1912	$ 22,370	$ 22,862	$ -	$0	$0	$0	$0	$0	$0	$0	$22,862
Lithgow	Reticulation	Mh6/69~Mh6/68	1912	$ 17,192	$ 17,570	$ -	$0	$0	$0	$0	$0	$0	$0	$17,570
Lithgow	Rising Mains	Mh6/7~Mh6/6	1912	$ 8,022	$ 8,198	$ 8,198	$0	$0	$0	$0	$0	$0	$0	$8,198
Lithgow	Reticulation	Mh6/70~Mh6/69	1912	$ 12,385	$ 12,657	$ -	$0	$0	$0	$0	$0	$0	$0	$12,657
Lithgow	Reticulation	Mh6/71~Mh6/70	1912	$ 10,422	$ 10,651	$ -	$0	$0	$0	$0	$0	$0	$0	$10,651
Lithgow	Reticulation	Mh6/72~Mh6/71	1912	$ 7,881	$ 8,054	$ -	$0	$0	$0	$0	$0	$0	$0	$8,054
Lithgow	Reticulation	Mh6/73~Mh6/72	1912	$ 5,908	$ 6,038	$ -	$0	$0	$0	$0	$0	$0	$0	$6,038
Lithgow	Reticulation	Mh6/74~Mh6/73	1912	$ 10,381	$ 10,609	$ -	$0	$0	$0	$0	$0	$0	$0	$10,609
Lithgow	Reticulation	Mh6/75~Mh6/69	1912	$ 65,717	$ 67,162	$ -	$0	$0	$0	$0	$0	$0	$0	$67,162
Lithgow	Rising Mains	Mh6/8~Mh6/7	1912	$ 10,514	$ 10,745	$ 10,745	$0	$0	$0	$0	$0	$0	$0	$10,745
Lithgow	Rising Mains	Mh6/9~Mh6/8	1912	$ 7,272	$ 7,432	$ 7,432	$0	$0	$0	$0	$0	$0	$0	$7,432
Lithgow	Rising Mains	Mh6~Mh5	1942	$ 5,981	$ 6,113	$ 6,113	$0	$0	$0	$0	$0	$0	$0	$6,113
Lithgow	Reticulation	Mh60~Mh124	1980	$ 4,514	$ 4,614	$ -	$0	$0	$0	$0	$0	$0	$0	$4,614
Lithgow	Reticulation	Mh61~Mh60	1980	$ 13,128	$ 13,417	$ -	$0	$0	$0	$0	$0	$0	$0	$13,417
Lithgow	Reticulation	Mh62~Mh59	1980	$ 14,274	$ 14,588	$ -	$0	$0	$0	$0	$0	$0	$0	$14,588
Lithgow	Reticulation	Mh63~Mh62	1980	$ 20,393	$ 20,842	$ -	$0	$0	$0	$0	$0	$0	$0	$20,842
Lithgow	Reticulation	Mh6-4/2809~Mh5-4/2809	1994	$ 7,008	$ 7,162	$ -	$0	$0	$0	$0	$0	$0	$0	$7,162
Lithgow	Reticulation	Mh64~Mh65	1996	$ 28,933	$ 29,570	$ -	$0	$0	$0	$0	$0	$0	$0	$29,570
Lithgow	Reticulation	Mh65~Mh1/35	1996	$ 10,583	$ 10,816	$ -	$0	$0	$0	$0	$0	$0	$0	$10,816
Lithgow	Reticulation	Mh66~Mh1/32	1930	$ 19,563	$ 19,993	$ -	$0	$0	$0	$0	$0	$0	$0	$19,993
Lithgow	Reticulation	Mh67~Mh2031	1996	$ 7,727	$ 7,897	$ -	$0	$0	$0	$0	$0	$0	$0	$7,897
Lithgow	Reticulation	Mh68~Mh69	1905	$ 10,072	$ 10,293	$ -	$0	$0	$0	$0	$0	$0	$0	$10,293
Lithgow	Reticulation	Mh69~Mh2025	1930	$ 18,589	$ 18,998	$ -	$0	$0	$0	$0	$0	$0	$0	$18,998
Lithgow	Reticulation	Mh7/10~Mh7/9	1885	$ 13,737	$ 14,039	$ -	$0	$0	$0	$0	$0	$0	$0	$14,039
Lithgow	Rising Mains	Mh7/11~Mh7/9	1885	$ 9,235	$ 9,438	$ 9,438	$0	$0	$0	$0	$0	$0	$0	$9,438

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh7/12~Mh7/19	1885	$ 8,614	$ 8,804	$ -	$0	$0	$0	$0	$0	$0	$0	$8,804
Lithgow	Rising Mains	Mh7/13~Mh7/11	1885	$ 1,693	$ 1,731	$ 1,731	$0	$0	$0	$0	$0	$0	$0	$1,731
Lithgow	Reticulation	Mh7/14~Mh7/13	1885	$ 3,943	$ 4,029	$ -	$0	$0	$0	$0	$0	$0	$0	$4,029
Lithgow	Reticulation	Mh7/15~Mh7/14	1885	$ 8,635	$ 8,825	$ -	$0	$0	$0	$0	$0	$0	$0	$8,825
Lithgow	Reticulation	Mh7/16~Mh7/15	1885	$ 5,261	$ 5,377	$ -	$0	$0	$0	$0	$0	$0	$0	$5,377
Lithgow	Reticulation	Mh7/17~Mh7/13	1885	$ 11,866	$ 12,128	$ -	$0	$0	$0	$0	$0	$0	$0	$12,128
Lithgow	Reticulation	Mh7/18~Mh7/17	1885	$ 19,700	$ 20,134	$ -	$0	$0	$0	$0	$0	$0	$0	$20,134
Lithgow	Rising Mains	Mh7/19~Mh7/9	1885	$ 2,296	$ 2,346	$ 2,346	$0	$0	$0	$0	$0	$0	$0	$2,346
Lithgow	Rising Mains	Mh7/1a~Mh6/1a	1930	$ 11,373	$ 11,623	$ 11,623	$0	$0	$0	$0	$0	$0	$0	$11,623
Lithgow	Rising Mains	Mh7/2~Mh7/1a	1930	$ 14,707	$ 15,030	$ 15,030	$0	$0	$0	$0	$0	$0	$0	$15,030
Lithgow	Reticulation	Mh7/20~Mh7/19	1885	$ 8,421	$ 8,607	$ -	$0	$0	$0	$0	$0	$0	$0	$8,607
Lithgow	Reticulation	Mh7/21~Mh7/20	1885	$ 11,301	$ 11,550	$ -	$0	$0	$0	$0	$0	$0	$0	$11,550
Lithgow	Reticulation	Mh7/22a~Mh7/21	1885	$ 2,794	$ 2,856	$ -	$0	$0	$0	$0	$0	$0	$0	$2,856
Lithgow	Reticulation	Mh7/22b~Mh7/22a	1885	$ 7,559	$ 7,725	$ -	$0	$0	$0	$0	$0	$0	$0	$7,725
Lithgow	Reticulation	Mh7/23~Mh7/22b	1885	$ 7,486	$ 7,651	$ -	$0	$0	$0	$0	$0	$0	$0	$7,651
Lithgow	Reticulation	Mh7/24a~Mh7/23	1885	$ 3,546	$ 3,624	$ -	$0	$0	$0	$0	$0	$0	$0	$3,624
Lithgow	Reticulation	Mh7/24b~Mh7/24a	1885	$ 7,260	$ 7,420	$ -	$0	$0	$0	$0	$0	$0	$0	$7,420
Lithgow	Reticulation	Mh7/25~J3	1885	$ 8,750	$ 8,942	$ -	$0	$0	$0	$0	$0	$0	$0	$8,942
Lithgow	Reticulation	Mh7/26~Mh7/25	1885	$ 24,308	$ 24,843	$ -	$0	$0	$0	$0	$0	$0	$0	$24,843
Lithgow	Reticulation	Mh7/27~J2	1885	$ 5,859	$ 5,988	$ -	$0	$0	$0	$0	$0	$0	$0	$5,988
Lithgow	Reticulation	Mh7/28~Mh7/26	1885	$ 16,471	$ 16,833	$ -	$0	$0	$0	$0	$0	$0	$0	$16,833
Lithgow	Reticulation	Mh7/29~Mh7/28	1885	$ 9,251	$ 9,454	$ -	$0	$0	$0	$0	$0	$0	$0	$9,454
Lithgow	Rising Mains	Mh7/3~Mh7/2	1930	$ 14,655	$ 14,977	$ 14,977	$0	$0	$0	$0	$0	$0	$0	$14,977
Lithgow	Reticulation	Mh7/30~Mh7/29	1885	$ 12,459	$ 12,733	$ -	$0	$0	$0	$0	$0	$0	$0	$12,733
Lithgow	Reticulation	Mh7/31~Mh7/24b	1885	$ 8,930	$ 9,127	$ -	$0	$0	$0	$0	$0	$0	$0	$9,127
Lithgow	Reticulation	Mh7/32~Mh7/31	1885	$ 9,835	$ 10,051	$ -	$0	$0	$0	$0	$0	$0	$0	$10,051
Lithgow	Reticulation	Mh7/33~Mh7/32	1885	$ 8,993	$ 9,190	$ -	$0	$0	$0	$0	$0	$0	$0	$9,190
Lithgow	Reticulation	Mh7/34~Mh7/33	1885	$ 6,909	$ 7,061	$ -	$0	$0	$0	$0	$0	$0	$0	$7,061
Lithgow	Reticulation	Mh7/35~Mh7/34	1885	$ 7,114	$ 7,271	$ -	$0	$0	$0	$0	$0	$0	$0	$7,271
Lithgow	Reticulation	Mh7/36~Mh7/34	1885	$ 4,912	$ 5,020	$ -	$0	$0	$0	$0	$0	$0	$0	$5,020
Lithgow	Reticulation	Mh7/37~Mh7/36	1885	$ 6,986	$ 7,140	$ -	$0	$0	$0	$0	$0	$0	$0	$7,140
Lithgow	Reticulation	Mh7/38~Mh7/37	1885	$ 11,197	$ 11,443	$ -	$0	$0	$0	$0	$0	$0	$0	$11,443
Lithgow	Reticulation	Mh7/39~Mh7/31	1885	$ 19,174	$ 19,596	$ -	$0	$0	$0	$0	$0	$0	$0	$19,596
Lithgow	Rising Mains	Mh7/4~Mh7/3	1930	$ 10,415	$ 10,644	$ 10,644	$0	$0	$0	$0	$0	$0	$0	$10,644
Lithgow	Reticulation	Mh7/40~Mh7/39	1885	$ 8,025	$ 8,201	$ -	$0	$0	$0	$0	$0	$0	$0	$8,201
Lithgow	Reticulation	Mh7/41~Mh7/39	1885	$ 19,520	$ 19,950	$ -	$0	$0	$0	$0	$0	$0	$0	$19,950
Lithgow	Reticulation	Mh7/42~Mh7/39	1885	$ 13,002	$ 13,288	$ -	$0	$0	$0	$0	$0	$0	$0	$13,288
Lithgow	Reticulation	Mh7/43~Mh1072	1940	$ 9,774	$ 9,989	$ -	$0	$0	$0	$0	$0	$0	$0	$9,989
Lithgow	Reticulation	Mh7/44~Mh7/42	1885	$ 14,871	$ 15,198	$ -	$0	$0	$0	$0	$0	$0	$0	$15,198
Lithgow	Reticulation	Mh7/45~Mh7/42	1885	$ 14,526	$ 14,846	$ -	$0	$0	$0	$0	$0	$0	$0	$14,846
Lithgow	Reticulation	Mh7/46~Mh7/45	1885	$ 8,831	$ 9,025	$ -	$0	$0	$0	$0	$0	$0	$0	$9,025
Lithgow	Reticulation	Mh7/47~Mh7/46	1885	$ 20,857	$ 21,316	$ -	$0	$0	$0	$0	$0	$0	$0	$21,316
Lithgow	Reticulation	Mh7/48~Mh7/45	1885	$ 12,332	$ 12,603	$ -	$0	$0	$0	$0	$0	$0	$0	$12,603
Lithgow	Reticulation	Mh7/49~Mh7/48	1885	$ 3,951	$ 4,038	$ -	$0	$0	$0	$0	$0	$0	$0	$4,038
Lithgow	Rising Mains	Mh7/5~Mh7/4	1905	$ 17,912	$ 18,306	$ 18,306	$0	$0	$0	$0	$0	$0	$0	$18,306
Lithgow	Reticulation	Mh7/50~Mh7/49	1885	$ 20,933	$ 21,393	$ -	$0	$0	$0	$0	$0	$0	$0	$21,393
Lithgow	Reticulation	Mh7/51~Mh1070	1885	$ 8,085	$ 8,263	$ -	$0	$0	$0	$0	$0	$0	$0	$8,263
Lithgow	Reticulation	Mh7/52~Mh7/51	1885	$ 11,676	$ 11,932	$ -	$0	$0	$0	$0	$0	$0	$0	$11,932
Lithgow	Reticulation	Mh7/53~Mh7/48	1885	$ 10,581	$ 10,813	$ -	$0	$0	$0	$0	$0	$0	$0	$10,813
Lithgow	Reticulation	Mh7/54~Mh7/53	1885	$ 20,623	$ 21,076	$ -	$0	$0	$0	$0	$0	$0	$0	$21,076
Lithgow	Reticulation	Mh7/55~Mh7/54	1885	$ 9,545	$ 9,755	$ -	$0	$0	$0	$0	$0	$0	$0	$9,755
Lithgow	Reticulation	Mh7/56~Mh7/54	1885	$ 11,667	$ 11,923	$ -	$0	$0	$0	$0	$0	$0	$0	$11,923
Lithgow	Reticulation	Mh7/57~Mh7/56	1885	$ 12,415	$ 12,688	$ -	$0	$0	$0	$0	$0	$0	$0	$12,688
Lithgow	Reticulation	Mh7/58~Mh7/58b	1885	$ 5,549	$ 5,671	$ -	$0	$0	$0	$0	$0	$0	$0	$5,671
Lithgow	Reticulation	Mh7/58b~Mh7/57	1885	$ 8,898	$ 9,094	$ -	$0	$0	$0	$0	$0	$0	$0	$9,094
Lithgow	Reticulation	Mh7/59~Mh7/58	1885	$ 20,500	$ 20,951	$ -	$0	$0	$0	$0	$0	$0	$0	$20,951
Lithgow	Rising Mains	Mh7/6~Mh7/5	1905	$ 10,567	$ 10,799	$ 10,799	$0	$0	$0	$0	$0	$0	$0	$10,799
Lithgow	Reticulation	Mh7/60~Mh7/59	1885	$ 6,793	$ 6,942	$ -	$0	$0	$0	$0	$0	$0	$0	$6,942
Lithgow	Reticulation	Mh7/61~Mh7/60	1885	$ 6,271	$ 6,409	$ -	$0	$0	$0	$0	$0	$0	$0	$6,409
Lithgow	Reticulation	Mh7/62~Mh7/60	1885	$ 15,766	$ 16,113	$ -	$0	$0	$0	$0	$0	$0	$0	$16,113
Lithgow	Reticulation	Mh7/63~Mh7/58	1885	$ 8,201	$ 8,381	$ -	$0	$0	$0	$0	$0	$0	$0	$8,381
Lithgow	Reticulation	Mh7/64~Mh7/63	1885	$ 7,796	$ 7,968	$ -	$0	$0	$0	$0	$0	$0	$0	$7,968
Lithgow	Reticulation	Mh7/65~Mh7/64	1885	$ 19,805	$ 20,241	$ -	$0	$0	$0	$0	$0	$0	$0	$20,241
Lithgow	Reticulation	Mh7/66~Mh7/65	1885	$ 10,928	$ 11,169	$ -	$0	$0	$0	$0	$0	$0	$0	$11,169
Lithgow	Reticulation	Mh7/67~Mh7/63	1885	$ 13,002	$ 13,288	$ -	$0	$0	$0	$0	$0	$0	$0	$13,288
Lithgow	Reticulation	Mh7/68~Mh7/67	1885	$ 2,084	$ 2,130	$ -	$0	$0	$0	$0	$0	$0	$0	$2,130
Lithgow	Reticulation	Mh7/69~Mh7/68	1885	$ 12,951	$ 13,236	$ -	$0	$0	$0	$0	$0	$0	$0	$13,236
Lithgow	Rising Mains	Mh7/7~Mh7/6	1905	$ 18,249	$ 18,650	$ 18,650	$0	$0	$0	$0	$0	$0	$0	$18,650
Lithgow	Reticulation	Mh7/70~Mh7/69	1885	$ 18,217	$ 18,618	$ -	$0	$0	$0	$0	$0	$0	$0	$18,618
Lithgow	Reticulation	Mh7/71~Mh7/67	1885	$ 7,501	$ 7,666	$ -	$0	$0	$0	$0	$0	$0	$0	$7,666

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh7/72~Mh7/71	1885	$ 4,611	$ 4,713	$ -	$0	$0	$0	$0	$0	$0	$0	$4,713
Lithgow	Reticulation	Mh7/73~Mh7/7	1905	$ 16,067	$ 16,420	$ -	$0	$0	$0	$0	$0	$0	$0	$16,420
Lithgow	Reticulation	Mh7/74~Mh7/73	1905	$ 8,106	$ 8,284	$ -	$0	$0	$0	$0	$0	$0	$0	$8,284
Lithgow	Reticulation	Mh7/75~Mh7/73	1905	$ 20,523	$ 20,975	$ -	$0	$0	$0	$0	$0	$0	$0	$20,975
Lithgow	Reticulation	Mh7/76~Mh7/75	1905	$ 15,607	$ 15,950	$ -	$0	$0	$0	$0	$0	$0	$0	$15,950
Lithgow	Reticulation	Mh7/77~Mh7/73	1905	$ 13,384	$ 13,678	$ -	$0	$0	$0	$0	$0	$0	$0	$13,678
Lithgow	Reticulation	Mh7/78~Mh7/77	1905	$ 12,346	$ 12,617	$ -	$0	$0	$0	$0	$0	$0	$0	$12,617
Lithgow	Reticulation	Mh7/79~Mh7/77	1905	$ 20,501	$ 20,952	$ -	$0	$0	$0	$0	$0	$0	$0	$20,952
Lithgow	Rising Mains	Mh7/8~Mh7/7	1905	$ 15,644	$ 15,988	$ 15,988	$0	$0	$0	$0	$0	$0	$0	$15,988
Lithgow	Reticulation	Mh7/80~Mh7/79	1905	$ 18,454	$ 18,860	$ -	$0	$0	$0	$0	$0	$0	$0	$18,860
Lithgow	Reticulation	Mh7/81~Mh7/6	1905	$ 8,479	$ 8,665	$ -	$0	$0	$0	$0	$0	$0	$0	$8,665
Lithgow	Reticulation	Mh7/82~Mh7/81	1905	$ 20,423	$ 20,872	$ -	$0	$0	$0	$0	$0	$0	$0	$20,872
Lithgow	Reticulation	Mh7/83~Mh7/5	1905	$ 5,109	$ 5,221	$ -	$0	$0	$0	$0	$0	$0	$0	$5,221
Lithgow	Reticulation	Mh7/84~Mh7/5	1905	$ 17,035	$ 17,410	$ -	$0	$0	$0	$0	$0	$0	$0	$17,410
Lithgow	Reticulation	Mh7/85~Mh7/84	1905	$ 14,650	$ 14,972	$ -	$0	$0	$0	$0	$0	$0	$0	$14,972
Lithgow	Reticulation	Mh7/86~Mh7/4	1905	$ 8,707	$ 8,898	$ -	$0	$0	$0	$0	$0	$0	$0	$8,898
Lithgow	Reticulation	Mh7/87~Mh7/86	1905	$ 20,260	$ 20,706	$ -	$0	$0	$0	$0	$0	$0	$0	$20,706
Lithgow	Reticulation	Mh7/88~Mh7/87	1905	$ 10,353	$ 10,581	$ -	$0	$0	$0	$0	$0	$0	$0	$10,581
Lithgow	Reticulation	Mh7/89~Mh7/4	1905	$ 10,126	$ 10,349	$ -	$0	$0	$0	$0	$0	$0	$0	$10,349
Lithgow	Rising Mains	Mh7/9~Mh7/8	1885	$ 11,493	$ 11,746	$ 11,746	$0	$0	$0	$0	$0	$0	$0	$11,746
Lithgow	Reticulation	Mh7/90~Mh7/89	1905	$ 11,674	$ 11,930	$ -	$0	$0	$0	$0	$0	$0	$0	$11,930
Lithgow	Reticulation	Mh7/91~Mh7/90	1905	$ 10,860	$ 11,099	$ -	$0	$0	$0	$0	$0	$0	$0	$11,099
Lithgow	Reticulation	Mh70~Mh68	1905	$ 17,047	$ 17,422	$ -	$0	$0	$0	$0	$0	$0	$0	$17,422
Lithgow	Reticulation	Mh71~Mh70	1905	$ 10,615	$ 10,848	$ -	$0	$0	$0	$0	$0	$0	$0	$10,848
Lithgow	Reticulation	Mh72~Mh71	1905	$ 7,703	$ 7,872	$ -	$0	$0	$0	$0	$0	$0	$0	$7,872
Lithgow	Reticulation	Mh73~Mh71	1905	$ 16,323	$ 16,682	$ -	$0	$0	$0	$0	$0	$0	$0	$16,682
Lithgow	Reticulation	Mh7-4/2809~Mh6-4/2809	1994	$ 15,454	$ 15,794	$ -	$0	$0	$0	$0	$0	$0	$0	$15,794
Lithgow	Reticulation	Mh74~Mh73	1905	$ 15,049	$ 15,380	$ -	$0	$0	$0	$0	$0	$0	$0	$15,380
Lithgow	Reticulation	Mh75~Mh68	1905	$ 20,006	$ 20,446	$ -	$0	$0	$0	$0	$0	$0	$0	$20,446
Lithgow	Reticulation	Mh76~Mh74	1905	$ 13,913	$ 14,219	$ -	$0	$0	$0	$0	$0	$0	$0	$14,219
Lithgow	Reticulation	Mh77~Mh86	1905	$ 19,283	$ 19,707	$ -	$0	$0	$0	$0	$0	$0	$0	$19,707
Lithgow	Reticulation	Mh78~Mh80	1905	$ 17,712	$ 18,101	$ -	$0	$0	$0	$0	$0	$0	$0	$18,101
Lithgow	Reticulation	Mh79~Mh79b	1905	$ 15,768	$ 16,115	$ -	$0	$0	$0	$0	$0	$0	$0	$16,115
Lithgow	Reticulation	Mh79b~Mh87	1905	$ 5,614	$ 5,738	$ -	$0	$0	$0	$0	$0	$0	$0	$5,738
Lithgow	Rising Mains	Mh8/1~Mh1/49	1930	$ 14,530	$ 14,850	$ 14,850	$0	$0	$0	$0	$0	$0	$0	$14,850
Lithgow	Reticulation	Mh8/10~Mh8/37	1930	$ 13,489	$ 13,786	$ -	$0	$0	$0	$0	$0	$0	$0	$13,786
Lithgow	Reticulation	Mh8/11~Mh8/10	1930	$ 6,902	$ 7,054	$ -	$0	$0	$0	$0	$0	$0	$0	$7,054
Lithgow	Reticulation	Mh8/12~Mh8/11	1930	$ 19,723	$ 20,157	$ -	$0	$0	$0	$0	$0	$0	$0	$20,157
Lithgow	Reticulation	Mh8/13~Mh8/12	1930	$ 23,305	$ 23,818	$ -	$0	$0	$0	$0	$0	$0	$0	$23,818
Lithgow	Reticulation	Mh8/14~Mh8/13	1930	$ 20,838	$ 21,296	$ -	$0	$0	$0	$0	$0	$0	$0	$21,296
Lithgow	Reticulation	Mh8/15~Mh8/14	1930	$ 20,814	$ 21,272	$ -	$0	$0	$0	$0	$0	$0	$0	$21,272
Lithgow	Reticulation	Mh8/16~Mh8/15	1930	$ 20,258	$ 20,704	$ -	$0	$0	$0	$0	$0	$0	$0	$20,704
Lithgow	Reticulation	Mh8/17~Mh1059	1940	$ 7,922	$ 8,097	$ -	$0	$0	$0	$0	$0	$0	$0	$8,097
Lithgow	Reticulation	Mh8/18~Mh8/17	1930	$ 25,533	$ 26,095	$ -	$0	$0	$0	$0	$0	$0	$0	$26,095
Lithgow	Reticulation	Mh8/19~Mh8/18	1930	$ 14,259	$ 14,572	$ -	$0	$0	$0	$0	$0	$0	$0	$14,572
Lithgow	Rising Mains	Mh8/2~Mh8/1	1930	$ 7,298	$ 7,458	$ 7,458	$0	$0	$0	$0	$0	$0	$0	$7,458
Lithgow	Reticulation	Mh8/20~Mh8/19	1930	$ 19,951	$ 20,390	$ -	$0	$0	$0	$0	$0	$0	$0	$20,390
Lithgow	Reticulation	Mh8/21~Mh8/20	1930	$ 20,334	$ 20,782	$ -	$0	$0	$0	$0	$0	$0	$0	$20,782
Lithgow	Reticulation	Mh8/22~Mh8/19	1930	$ 15,285	$ 15,622	$ -	$0	$0	$0	$0	$0	$0	$0	$15,622
Lithgow	Reticulation	Mh8/23~Mh8/22	1930	$ 5,101	$ 5,213	$ -	$0	$0	$0	$0	$0	$0	$0	$5,213
Lithgow	Reticulation	Mh8/24~Mh8/23	1930	$ 12,875	$ 13,158	$ -	$0	$0	$0	$0	$0	$0	$0	$13,158
Lithgow	Reticulation	Mh8/25~Mh8/23	1930	$ 15,735	$ 16,081	$ -	$0	$0	$0	$0	$0	$0	$0	$16,081
Lithgow	Reticulation	Mh8/26~Mh8/15	1930	$ 10,848	$ 11,087	$ -	$0	$0	$0	$0	$0	$0	$0	$11,087
Lithgow	Reticulation	Mh8/27~Mh8/26	1930	$ 18,853	$ 19,267	$ -	$0	$0	$0	$0	$0	$0	$0	$19,267
Lithgow	Reticulation	Mh8/28~Mh8/27	1930	$ 23,481	$ 23,998	$ -	$0	$0	$0	$0	$0	$0	$0	$23,998
Lithgow	Reticulation	Mh8/29~Mh8/28	1930	$ 18,586	$ 18,995	$ -	$0	$0	$0	$0	$0	$0	$0	$18,995
Lithgow	Rising Mains	Mh8/3~Mh8/2	1930	$ 18,295	$ 18,697	$ 18,697	$0	$0	$0	$0	$0	$0	$0	$18,697
Lithgow	Reticulation	Mh8/30~Mh8/29	1930	$ 17,290	$ 17,670	$ -	$0	$0	$0	$0	$0	$0	$0	$17,670
Lithgow	Reticulation	Mh8/31a~Mh8/30	1930	$ 15,509	$ 15,850	$ -	$0	$0	$0	$0	$0	$0	$0	$15,850
Lithgow	Reticulation	Mh8/31b~Mh8/31a	1930	$ 16,434	$ 16,795	$ -	$0	$0	$0	$0	$0	$0	$0	$16,795
Lithgow	Reticulation	Mh8/32~Mh8/9	1930	$ 12,988	$ 13,273	$ -	$0	$0	$0	$0	$0	$0	$0	$13,273
Lithgow	Reticulation	Mh8/33~Mh8/32	1930	$ 13,279	$ 13,571	$ -	$0	$0	$0	$0	$0	$0	$0	$13,571
Lithgow	Reticulation	Mh8/34~Mh8/33	1930	$ 6,425	$ 6,566	$ -	$0	$0	$0	$0	$0	$0	$0	$6,566
Lithgow	Reticulation	Mh8/35~Mh8/2	1930	$ 4,073	$ 4,162	$ -	$0	$0	$0	$0	$0	$0	$0	$4,162
Lithgow	Reticulation	Mh8/36~Mh8/35	1930	$ 20,799	$ 21,257	$ -	$0	$0	$0	$0	$0	$0	$0	$21,257
Lithgow	Reticulation	Mh8/37~Mh8/9	1930	$ 22,021	$ 22,506	$ -	$0	$0	$0	$0	$0	$0	$0	$22,506
Lithgow	Rising Mains	Mh8/4~Mh8/3	1930	$ 13,237	$ 13,529	$ 13,529	$0	$0	$0	$0	$0	$0	$0	$13,529
Lithgow	Rising Mains	Mh8/5~Mh8/4	1930	$ 13,208	$ 13,499	$ 13,499	$0	$0	$0	$0	$0	$0	$0	$13,499
Lithgow	Rising Mains	Mh8/6~Mh8/5	1930	$ 13,279	$ 13,571	$ 13,571	$0	$0	$0	$0	$0	$0	$0	$13,571
Lithgow	Rising Mains	Mh8/7~Mh8/6	1930	$ 17,022	$ 17,396	$ 17,396	$0	$0	$0	$0	$0	$0	$0	$17,396

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Rising Mains	Mh8/8~Mh8/7	1930	$ 13,650	$ 13,950	$ 13,950	$0	$0	$0	$0	$0	$0	$0	$13,950
Lithgow	Rising Mains	Mh8/9~Mh8/8	1930	$ 16,536	$ 16,899	$ 16,899	$0	$0	$0	$0	$0	$0	$0	$16,899
Lithgow	Reticulation	Mh80~Mh80b	1905	$ 15,540	$ 15,882	$ -	$0	$0	$0	$0	$0	$0	$0	$15,882
Lithgow	Reticulation	Mh80b~Mh81	1905	$ 8,199	$ 8,380	$ -	$0	$0	$0	$0	$0	$0	$0	$8,380
Lithgow	Reticulation	Mh81~Mh82	1905	$ 11,166	$ 11,411	$ -	$0	$0	$0	$0	$0	$0	$0	$11,411
Lithgow	Reticulation	Mh82~Mh83	1905	$ 3,399	$ 3,474	$ -	$0	$0	$0	$0	$0	$0	$0	$3,474
Lithgow	Reticulation	Mh83~Mh92	1905	$ 13,416	$ 13,711	$ -	$0	$0	$0	$0	$0	$0	$0	$13,711
Lithgow	Reticulation	Mh8-4/2809~Mh7-4/2809	1994	$ 20,736	$ 21,192	$ -	$0	$0	$0	$0	$0	$0	$0	$21,192
Lithgow	Reticulation	Mh84~Mh83	1905	$ 14,582	$ 14,903	$ -	$0	$0	$0	$0	$0	$0	$0	$14,903
Lithgow	Reticulation	Mh85~Mh84	1905	$ 8,622	$ 8,811	$ -	$0	$0	$0	$0	$0	$0	$0	$8,811
Lithgow	Reticulation	Mh86~Mh84	1905	$ 19,278	$ 19,702	$ -	$0	$0	$0	$0	$0	$0	$0	$19,702
Lithgow	Reticulation	Mh87~Mh88	1905	$ 12,505	$ 12,780	$ -	$0	$0	$0	$0	$0	$0	$0	$12,780
Lithgow	Reticulation	Mh88~Mh81	1905	$ 12,928	$ 13,212	$ -	$0	$0	$0	$0	$0	$0	$0	$13,212
Lithgow	Reticulation	Mh89~Mh89b	1905	$ 5,097	$ 5,209	$ -	$0	$0	$0	$0	$0	$0	$0	$5,209
Lithgow	Reticulation	Mh89b~Mh90	1905	$ 11,063	$ 11,306	$ -	$0	$0	$0	$0	$0	$0	$0	$11,306
Lithgow	Rising Mains	Mh9/10~Mh9/9	1885	$ 18,640	$ 19,050	$ 19,050	$0	$0	$0	$0	$0	$0	$0	$19,050
Lithgow	Reticulation	Mh9/100~Mh9/94	2003	$ 9,720	$ 9,934	$ -	$0	$0	$0	$0	$0	$0	$0	$9,934
Lithgow	Reticulation	Mh9/101~Mh9/100	1970	$ 11,506	$ 11,759	$ -	$0	$0	$0	$0	$0	$0	$0	$11,759
Lithgow	Reticulation	Mh9/102~Mh9/101	1890	$ 14,842	$ 15,168	$ -	$0	$0	$0	$0	$0	$0	$0	$15,168
Lithgow	Reticulation	Mh9/103~Mh9/102	1890	$ 10,489	$ 10,720	$ -	$0	$0	$0	$0	$0	$0	$0	$10,720
Lithgow	Reticulation	Mh9/104~Mh9/102	1890	$ 19,837	$ 20,274	$ -	$0	$0	$0	$0	$0	$0	$0	$20,274
Lithgow	Reticulation	Mh9/105~Mh9/83	1970	$ 3,977	$ 4,064	$ -	$0	$0	$0	$0	$0	$0	$0	$4,064
Lithgow	Reticulation	Mh9/106~Mh9/105	1970	$ 21,016	$ 21,478	$ -	$0	$0	$0	$0	$0	$0	$0	$21,478
Lithgow	Reticulation	Mh9/107~Mh9/106	1970	$ 35,851	$ 36,640	$ -	$0	$0	$0	$0	$0	$0	$0	$36,640
Lithgow	Reticulation	Mh9/108~Mh9/107	1970	$ 13,497	$ 13,794	$ -	$0	$0	$0	$0	$0	$0	$0	$13,794
Lithgow	Reticulation	Mh9/109~Mh9/108	1970	$ 11,848	$ 12,109	$ -	$0	$0	$0	$0	$0	$0	$0	$12,109
Lithgow	Reticulation	Mh9/11~Mh9/10	1885	$ 9,808	$ 10,023	$ -	$0	$0	$0	$0	$0	$0	$0	$10,023
Lithgow	Reticulation	Mh9/110~Mh9/109	1970	$ 18,700	$ 19,112	$ -	$0	$0	$0	$0	$0	$0	$0	$19,112
Lithgow	Reticulation	Mh9/111~Mh9/108	1970	$ 2,519	$ 2,574	$ -	$0	$0	$0	$0	$0	$0	$0	$2,574
Lithgow	Reticulation	Mh9/112~Mh9/111	1970	$ 8,553	$ 8,741	$ -	$0	$0	$0	$0	$0	$0	$0	$8,741
Lithgow	Reticulation	Mh9/113~Mh9/112	1970	$ 6,307	$ 6,446	$ -	$0	$0	$0	$0	$0	$0	$0	$6,446
Lithgow	Reticulation	Mh9/114~Mh9/113	1970	$ 19,309	$ 19,734	$ -	$0	$0	$0	$0	$0	$0	$0	$19,734
Lithgow	Reticulation	Mh9/115~Mh9/114	1970	$ 23,092	$ 23,600	$ -	$0	$0	$0	$0	$0	$0	$0	$23,600
Lithgow	Reticulation	Mh9/116~Mh9/115	1970	$ 21,604	$ 22,079	$ -	$0	$0	$0	$0	$0	$0	$0	$22,079
Lithgow	Reticulation	Mh9/117~Mh9/2	1930	$ 6,935	$ 7,087	$ -	$0	$0	$0	$0	$0	$0	$0	$7,087
Lithgow	Reticulation	Mh9/118~Mh9/117	1930	$ 20,177	$ 20,620	$ -	$0	$0	$0	$0	$0	$0	$0	$20,620
Lithgow	Reticulation	Mh9/119~Mh9/118	1930	$ 19,044	$ 19,463	$ -	$0	$0	$0	$0	$0	$0	$0	$19,463
Lithgow	Reticulation	Mh9/12~Mh9/11	1885	$ 16,919	$ 17,291	$ -	$0	$0	$0	$0	$0	$0	$0	$17,291
Lithgow	Reticulation	Mh9/120~Mh9/119	1930	$ 13,910	$ 14,216	$ -	$0	$0	$0	$0	$0	$0	$0	$14,216
Lithgow	Reticulation	Mh9/121~Mh9/120	1930	$ 2,329	$ 2,380	$ -	$0	$0	$0	$0	$0	$0	$0	$2,380
Lithgow	Reticulation	Mh9/122~Mh9/120	1930	$ 9,830	$ 10,046	$ -	$0	$0	$0	$0	$0	$0	$0	$10,046
Lithgow	Reticulation	Mh9/123~Mh9/122	1930	$ 9,200	$ 9,402	$ -	$0	$0	$0	$0	$0	$0	$0	$9,402
Lithgow	Reticulation	Mh9/13~Mh9/12	1885	$ 4,845	$ 4,951	$ -	$0	$0	$0	$0	$0	$0	$0	$4,951
Lithgow	Reticulation	Mh9/14~Mh9/13	1885	$ 20,747	$ 21,204	$ -	$0	$0	$0	$0	$0	$0	$0	$21,204
Lithgow	Reticulation	Mh9/15~Mh9/14	1885	$ 16,376	$ 16,736	$ -	$0	$0	$0	$0	$0	$0	$0	$16,736
Lithgow	Reticulation	Mh9/16~Mh9/15	1885	$ 12,106	$ 12,373	$ -	$0	$0	$0	$0	$0	$0	$0	$12,373
Lithgow	Reticulation	Mh9/17~Mh9/16	1885	$ 13,908	$ 14,214	$ -	$0	$0	$0	$0	$0	$0	$0	$14,214
Lithgow	Reticulation	Mh9/18~Mh9/17	1885	$ 8,159	$ 8,339	$ -	$0	$0	$0	$0	$0	$0	$0	$8,339
Lithgow	Reticulation	Mh9/19~Mh9/18	1885	$ 14,388	$ 14,704	$ -	$0	$0	$0	$0	$0	$0	$0	$14,704
Lithgow	Rising Mains	Mh9/1a~Mh1/52	1930	$ 12,288	$ 12,559	$ 12,559	$0	$0	$0	$0	$0	$0	$0	$12,559
Lithgow	Rising Mains	Mh9/2~Mh9/1a	1930	$ 10,706	$ 10,941	$ 10,941	$0	$0	$0	$0	$0	$0	$0	$10,941
Lithgow	Reticulation	Mh9/20~Mh9/19	1885	$ 12,428	$ 12,701	$ -	$0	$0	$0	$0	$0	$0	$0	$12,701
Lithgow	Reticulation	Mh9/21~Mh9/20	1885	$ 6,334	$ 6,473	$ -	$0	$0	$0	$0	$0	$0	$0	$6,473
Lithgow	Reticulation	Mh9/22~Mh9/21	1885	$ 18,297	$ 18,700	$ -	$0	$0	$0	$0	$0	$0	$0	$18,700
Lithgow	Reticulation	Mh9/23~Mh9/21	1885	$ 1,749	$ 1,788	$ -	$0	$0	$0	$0	$0	$0	$0	$1,788
Lithgow	Reticulation	Mh9/24~Mh9/19	1885	$ 15,539	$ 15,881	$ -	$0	$0	$0	$0	$0	$0	$0	$15,881
Lithgow	Reticulation	Mh9/25~Mh9/16	1885	$ 20,992	$ 21,454	$ -	$0	$0	$0	$0	$0	$0	$0	$21,454
Lithgow	Reticulation	Mh9/26~Mh9/25	1885	$ 14,871	$ 15,198	$ -	$0	$0	$0	$0	$0	$0	$0	$15,198
Lithgow	Reticulation	Mh9/27~Mh9/17	1885	$ 11,646	$ 11,902	$ -	$0	$0	$0	$0	$0	$0	$0	$11,902
Lithgow	Reticulation	Mh9/28~Mh9/27	1885	$ 11,192	$ 11,438	$ -	$0	$0	$0	$0	$0	$0	$0	$11,438
Lithgow	Reticulation	Mh9/28b~Mh9/28	1885	$ 559	$ 572	$ -	$0	$0	$0	$0	$0	$0	$0	$572
Lithgow	Reticulation	Mh9/29~Mh9/28b	1885	$ 10,333	$ 10,560	$ -	$0	$0	$0	$0	$0	$0	$0	$10,560
Lithgow	Rising Mains	Mh9/3~Mh9/2	1930	$ 13,027	$ 13,313	$ 13,313	$0	$0	$0	$0	$0	$0	$0	$13,313
Lithgow	Reticulation	Mh9/30~Mh9/16	1885	$ 15,732	$ 16,078	$ -	$0	$0	$0	$0	$0	$0	$0	$16,078
Lithgow	Reticulation	Mh9/31~Mh9/10	1885	$ 15,353	$ 15,690	$ -	$0	$0	$0	$0	$0	$0	$0	$15,690
Lithgow	Reticulation	Mh9/32~Mh9/31	1885	$ 18,707	$ 19,118	$ -	$0	$0	$0	$0	$0	$0	$0	$19,118
Lithgow	Reticulation	Mh9/33~Mh9/32	1885	$ 13,716	$ 14,017	$ -	$0	$0	$0	$0	$0	$0	$0	$14,017
Lithgow	Reticulation	Mh9/34~Mh9/33	1885	$ 12,778	$ 13,059	$ -	$0	$0	$0	$0	$0	$0	$0	$13,059
Lithgow	Reticulation	Mh9/35a~Mh9/35c	1970	$ 9,096	$ 9,296	$ -	$0	$0	$0	$0	$0	$0	$0	$9,296
Lithgow	Reticulation	Mh9/35b~Mh9/8	1885	$ 8,550	$ 8,738	$ -	$0	$0	$0	$0	$0	$0	$0	$8,738

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh9/35c~Mh9/8	1970	$ 8,310	$ 8,493	$ -	$0	$0	$0	$0	$0	$0	$0	$8,493
Lithgow	Reticulation	Mh9/36~Mh9/35a	1970	$ 21,533	$ 22,007	$ -	$0	$0	$0	$0	$0	$0	$0	$22,007
Lithgow	Reticulation	Mh9/37~Mh9/36	1970	$ 24,103	$ 24,633	$ -	$0	$0	$0	$0	$0	$0	$0	$24,633
Lithgow	Reticulation	Mh9/38~Mh9/36	1970	$ 8,346	$ 8,530	$ -	$0	$0	$0	$0	$0	$0	$0	$8,530
Lithgow	Reticulation	Mh9/39~Mh9/38	1970	$ 19,355	$ 19,781	$ -	$0	$0	$0	$0	$0	$0	$0	$19,781
Lithgow	Rising Mains	Mh9/4~Mh9/3	1930	$ 11,154	$ 11,399	$ 11,399	$0	$0	$0	$0	$0	$0	$0	$11,399
Lithgow	Reticulation	Mh9/40~Mh9/39	1970	$ 10,614	$ 10,848	$ -	$0	$0	$0	$0	$0	$0	$0	$10,848
Lithgow	Reticulation	Mh9/41~Mh9/40	1970	$ 8,836	$ 9,031	$ -	$0	$0	$0	$0	$0	$0	$0	$9,031
Lithgow	Reticulation	Mh9/42~Mh9/41	1970	$ 13,970	$ 14,278	$ -	$0	$0	$0	$0	$0	$0	$0	$14,278
Lithgow	Reticulation	Mh9/43~Mh9/42	1970	$ 24,483	$ 25,021	$ -	$0	$0	$0	$0	$0	$0	$0	$25,021
Lithgow	Reticulation	Mh9/44~Mh9/43	1970	$ 14,543	$ 14,863	$ -	$0	$0	$0	$0	$0	$0	$0	$14,863
Lithgow	Reticulation	Mh9/45~Mh9/40	1970	$ 13,947	$ 14,254	$ -	$0	$0	$0	$0	$0	$0	$0	$14,254
Lithgow	Reticulation	Mh9/46~Mh9/45	1970	$ 13,673	$ 13,974	$ -	$0	$0	$0	$0	$0	$0	$0	$13,974
Lithgow	Reticulation	Mh9/47~Mh9/46	1970	$ 23,831	$ 24,355	$ -	$0	$0	$0	$0	$0	$0	$0	$24,355
Lithgow	Reticulation	Mh9/48~Mh9/47	1970	$ 15,817	$ 16,165	$ -	$0	$0	$0	$0	$0	$0	$0	$16,165
Lithgow	Reticulation	Mh9/49~Mh9/48	1970	$ 21,994	$ 22,478	$ -	$0	$0	$0	$0	$0	$0	$0	$22,478
Lithgow	Rising Mains	Mh9/5~Mh9/4	1930	$ 13,576	$ 13,874	$ 13,874	$0	$0	$0	$0	$0	$0	$0	$13,874
Lithgow	Reticulation	Mh9/50a~Mh9/35b	1885	$ 17,381	$ 17,763	$ -	$0	$0	$0	$0	$0	$0	$0	$17,763
Lithgow	Reticulation	Mh9/50b~Mh9/50a	1970	$ 10,848	$ 11,087	$ -	$0	$0	$0	$0	$0	$0	$0	$11,087
Lithgow	Reticulation	Mh9/51~Mh9/50a	1885	$ 30,885	$ 31,564	$ -	$0	$0	$0	$0	$0	$0	$0	$31,564
Lithgow	Reticulation	Mh9/52~Mh9/51	1885	$ 14,854	$ 15,181	$ -	$0	$0	$0	$0	$0	$0	$0	$15,181
Lithgow	Reticulation	Mh9/53~Mh1069	1890	$ 15,516	$ 15,858	$ -	$0	$0	$0	$0	$0	$0	$0	$15,858
Lithgow	Reticulation	Mh9/54~Mh9/53	1890	$ 28,902	$ 29,538	$ -	$0	$0	$0	$0	$0	$0	$0	$29,538
Lithgow	Reticulation	Mh9/55~Mh9/54	1890	$ 15,875	$ 16,224	$ -	$0	$0	$0	$0	$0	$0	$0	$16,224
Lithgow	Reticulation	Mh9/56~Mh9/53	1890	$ 17,997	$ 18,393	$ -	$0	$0	$0	$0	$0	$0	$0	$18,393
Lithgow	Reticulation	Mh9/57~Mh9/56	1970	$ 20,037	$ 20,478	$ -	$0	$0	$0	$0	$0	$0	$0	$20,478
Lithgow	Reticulation	Mh9/58~Mh9/56	1890	$ 43,255	$ 44,206	$ -	$0	$0	$0	$0	$0	$0	$0	$44,206
Lithgow	Reticulation	Mh9/59~Mh9/58	1890	$ 10,460	$ 10,690	$ -	$0	$0	$0	$0	$0	$0	$0	$10,690
Lithgow	Rising Mains	Mh9/6~Mh9/5	1930	$ 11,664	$ 11,921	$ 11,921	$0	$0	$0	$0	$0	$0	$0	$11,921
Lithgow	Reticulation	Mh9/60~Mh9/58	1890	$ 23,273	$ 23,785	$ -	$0	$0	$0	$0	$0	$0	$0	$23,785
Lithgow	Reticulation	Mh9/61~Mh9/50b	1970	$ 13,608	$ 13,907	$ -	$0	$0	$0	$0	$0	$0	$0	$13,907
Lithgow	Reticulation	Mh9/62~Mh1068	1970	$ 15,197	$ 15,532	$ -	$0	$0	$0	$0	$0	$0	$0	$15,532
Lithgow	Reticulation	Mh9/63~Mh9/62	1970	$ 19,776	$ 20,211	$ -	$0	$0	$0	$0	$0	$0	$0	$20,211
Lithgow	Reticulation	Mh9/64~Mh9/63	1970	$ 17,330	$ 17,711	$ -	$0	$0	$0	$0	$0	$0	$0	$17,711
Lithgow	Reticulation	Mh9/65~Mh9/64	1970	$ 8,084	$ 8,262	$ -	$0	$0	$0	$0	$0	$0	$0	$8,262
Lithgow	Reticulation	Mh9/66~Mh9/65	1890	$ 13,464	$ 13,761	$ -	$0	$0	$0	$0	$0	$0	$0	$13,761
Lithgow	Reticulation	Mh9/67~Mh9/66	1890	$ 7,493	$ 7,658	$ -	$0	$0	$0	$0	$0	$0	$0	$7,658
Lithgow	Reticulation	Mh9/68~Mh9/67	1890	$ 19,029	$ 19,448	$ -	$0	$0	$0	$0	$0	$0	$0	$19,448
Lithgow	Reticulation	Mh9/69~Mh9/61	1970	$ 14,545	$ 14,865	$ -	$0	$0	$0	$0	$0	$0	$0	$14,865
Lithgow	Rising Mains	Mh9/7~Mh9/6	1900	$ 17,510	$ 17,895	$ 17,895	$0	$0	$0	$0	$0	$0	$0	$17,895
Lithgow	Reticulation	Mh9/70~Mh9/69	1970	$ 20,670	$ 21,124	$ -	$0	$0	$0	$0	$0	$0	$0	$21,124
Lithgow	Reticulation	Mh9/71~Mh1067	1970	$ 13,744	$ 14,046	$ -	$0	$0	$0	$0	$0	$0	$0	$14,046
Lithgow	Reticulation	Mh9/72~Mh9/71	1970	$ 16,132	$ 16,487	$ -	$0	$0	$0	$0	$0	$0	$0	$16,487
Lithgow	Reticulation	Mh9/73~Mh1050	1890	$ 20,342	$ 20,790	$ -	$0	$0	$0	$0	$0	$0	$0	$20,790
Lithgow	Reticulation	Mh9/74~Mh9/73	1890	$ 9,230	$ 9,433	$ -	$0	$0	$0	$0	$0	$0	$0	$9,433
Lithgow	Reticulation	Mh9/75~Mh9/74	1890	$ 7,991	$ 8,167	$ -	$0	$0	$0	$0	$0	$0	$0	$8,167
Lithgow	Reticulation	Mh9/76~Mh9/75	1890	$ 9,370	$ 9,576	$ -	$0	$0	$0	$0	$0	$0	$0	$9,576
Lithgow	Reticulation	Mh9/77~Mh9/76	1890	$ 7,192	$ 7,350	$ -	$0	$0	$0	$0	$0	$0	$0	$7,350
Lithgow	Reticulation	Mh9/78~Mh9/77	1890	$ 6,163	$ 6,299	$ -	$0	$0	$0	$0	$0	$0	$0	$6,299
Lithgow	Reticulation	Mh9/79~Mh9/78	1890	$ 11,698	$ 11,955	$ -	$0	$0	$0	$0	$0	$0	$0	$11,955
Lithgow	Rising Mains	Mh9/8~Mh9/7	1900	$ 22,097	$ 22,583	$ 22,583	$0	$0	$0	$0	$0	$0	$0	$22,583
Lithgow	Reticulation	Mh9/80~Mh9/79	1980	$ 4,806	$ 4,912	$ -	$0	$0	$0	$0	$0	$0	$0	$4,912
Lithgow	Reticulation	Mh9/81~Mh9/82	1980	$ 10,196	$ 10,421	$ -	$0	$0	$0	$0	$0	$0	$0	$10,421
Lithgow	Reticulation	Mh9/82~Mh1196	1940	$ 20,774	$ 21,231	$ -	$0	$0	$0	$0	$0	$0	$0	$21,231
Lithgow	Reticulation	Mh9/83~Mh9/69	1970	$ 12,505	$ 12,780	$ -	$0	$0	$0	$0	$0	$0	$0	$12,780
Lithgow	Reticulation	Mh9/84~Mh9/83	1970	$ 16,383	$ 16,743	$ -	$0	$0	$0	$0	$0	$0	$0	$16,743
Lithgow	Reticulation	Mh9/85~Mh9/84	1970	$ 14,369	$ 14,685	$ -	$0	$0	$0	$0	$0	$0	$0	$14,685
Lithgow	Reticulation	Mh9/86~Mh9/85	1970	$ 29,262	$ 29,906	$ -	$0	$0	$0	$0	$0	$0	$0	$29,906
Lithgow	Reticulation	Mh9/87~Mh9/86	1970	$ 16,360	$ 16,720	$ -	$0	$0	$0	$0	$0	$0	$0	$16,720
Lithgow	Reticulation	Mh9/88~Mh9/85	1970	$ 12,334	$ 12,606	$ -	$0	$0	$0	$0	$0	$0	$0	$12,606
Lithgow	Reticulation	Mh9/89~Mh9/88	1970	$ 29,153	$ 29,795	$ -	$0	$0	$0	$0	$0	$0	$0	$29,795
Lithgow	Rising Mains	Mh9/9~Mh9/8	1885	$ 18,480	$ 18,886	$ 18,886	$0	$0	$0	$0	$0	$0	$0	$18,886
Lithgow	Reticulation	Mh9/90~Mh9/88	1970	$ 25,665	$ 26,229	$ -	$0	$0	$0	$0	$0	$0	$0	$26,229
Lithgow	Reticulation	Mh9/91~Mh9/90	1970	$ 11,436	$ 11,688	$ -	$0	$0	$0	$0	$0	$0	$0	$11,688
Lithgow	Reticulation	Mh9/92~Mh9/85	1970	$ 3,567	$ 3,646	$ -	$0	$0	$0	$0	$0	$0	$0	$3,646
Lithgow	Reticulation	Mh9/93~Mh245	1970	$ 14,209	$ 14,522	$ -	$0	$0	$0	$0	$0	$0	$0	$14,522
Lithgow	Reticulation	Mh9/94~Mh9/93	2003	$ 16,006	$ 16,358	$ -	$0	$0	$0	$0	$0	$0	$0	$16,358
Lithgow	Reticulation	Mh9/95~Mh9/94	2003	$ 10,465	$ 10,695	$ -	$0	$0	$0	$0	$0	$0	$0	$10,695
Lithgow	Reticulation	Mh9/96~Mh9/95	2003	$ 22,310	$ 22,801	$ -	$0	$0	$0	$0	$0	$0	$0	$22,801
Lithgow	Reticulation	Mh9/97~Mh9/98	2003	$ 6,829	$ 6,980	$ -	$0	$0	$0	$0	$0	$0	$0	$6,980

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	Mh9/98~Mh9/101	2003	$ 17,468	$ 17,852	$ -	$0	$0	$0	$0	$0	$0	$0	$17,852
Lithgow	Reticulation	Mh9/99~Mh9/97	2003	$ 13,670	$ 13,970	$ -	$0	$0	$0	$0	$0	$0	$0	$13,970
Lithgow	Reticulation	Mh9~Mh2004	1942	$ 12,012	$ 12,276	$ -	$0	$0	$0	$0	$0	$0	$0	$12,276
Lithgow	Reticulation	Mh90~Mh91	1905	$ 19,509	$ 19,939	$ -	$0	$0	$0	$0	$0	$0	$0	$19,939
Lithgow	Reticulation	Mh91~Mh96	1930	$ 11,415	$ 11,666	$ -	$0	$0	$0	$0	$0	$0	$0	$11,666
Lithgow	Reticulation	Mh91A~Mh91	1905	$ 1,510	$ 1,543	$ -	$0	$0	$0	$0	$0	$0	$0	$1,543
Lithgow	Reticulation	Mh92~Mh91A	1905	$ 19,401	$ 19,828	$ -	$0	$0	$0	$0	$0	$0	$0	$19,828
Lithgow	Reticulation	Mh93~Mh94	1930	$ 16,552	$ 16,916	$ -	$0	$0	$0	$0	$0	$0	$0	$16,916
Lithgow	Reticulation	Mh94~Mh1061	1930	$ 1,102	$ 1,126	$ -	$0	$0	$0	$0	$0	$0	$0	$1,126
Lithgow	Reticulation	Mh95~Mh1061	1930	$ 5,819	$ 5,947	$ -	$0	$0	$0	$0	$0	$0	$0	$5,947
Lithgow	Reticulation	Mh96~Mh1201	1930	$ 7,903	$ 8,077	$ -	$0	$0	$0	$0	$0	$0	$0	$8,077
Lithgow	Reticulation	Mh966~Mh967	2003	$ 5,903	$ 6,033	$ -	$0	$0	$0	$0	$0	$0	$0	$6,033
Lithgow	Reticulation	Mh967~Mh973	2003	$ 23,584	$ 24,102	$ -	$0	$0	$0	$0	$0	$0	$0	$24,102
Lithgow	Reticulation	Mh968~Mh225	2000	$ 3,860	$ 3,945	$ -	$0	$0	$0	$0	$0	$0	$0	$3,945
Lithgow	Reticulation	Mh969~Mh968	2003	$ 8,473	$ 8,660	$ -	$0	$0	$0	$0	$0	$0	$0	$8,660
Lithgow	Reticulation	Mh96a~Mh1/94	1890	$ 6,661	$ 6,807	$ -	$0	$0	$0	$0	$0	$0	$0	$6,807
Lithgow	Reticulation	Mh96b~Mh1/94	1890	$ 19,390	$ 19,816	$ -	$0	$0	$0	$0	$0	$0	$0	$19,816
Lithgow	Reticulation	Mh96b1~Mh96b	1890	$ 9,302	$ 9,506	$ -	$0	$0	$0	$0	$0	$0	$0	$9,506
Lithgow	Reticulation	Mh96c~Mh96b1	1890	$ 8,175	$ 8,354	$ -	$0	$0	$0	$0	$0	$0	$0	$8,354
Lithgow	Reticulation	Mh970~Mh969	2003	$ 4,750	$ 4,854	$ -	$0	$0	$0	$0	$0	$0	$0	$4,854
Lithgow	Reticulation	Mh971~Mh969	2003	$ 14,959	$ 15,288	$ -	$0	$0	$0	$0	$0	$0	$0	$15,288
Lithgow	Reticulation	Mh972~Mh969	2003	$ 3,092	$ 3,160	$ -	$0	$0	$0	$0	$0	$0	$0	$3,160
Lithgow	Reticulation	Mh973~Mh972	2003	$ 11,245	$ 11,492	$ -	$0	$0	$0	$0	$0	$0	$0	$11,492
Lithgow	Reticulation	Mh974~Mh973	2004	$ 13,449	$ 13,745	$ -	$0	$0	$0	$0	$0	$0	$0	$13,745
Lithgow	Reticulation	Mh975~Mh976	2003	$ 13,628	$ 13,928	$ -	$0	$0	$0	$0	$0	$0	$0	$13,928
Lithgow	Reticulation	Mh976~Mh977	2003	$ 14,340	$ 14,656	$ -	$0	$0	$0	$0	$0	$0	$0	$14,656
Lithgow	Reticulation	Mh977~Mh978	1930	$ 12,521	$ 12,797	$ -	$0	$0	$0	$0	$0	$0	$0	$12,797
Lithgow	Reticulation	Mh978~Mh979	1930	$ 5,437	$ 5,556	$ -	$0	$0	$0	$0	$0	$0	$0	$5,556
Lithgow	Reticulation	Mh979~Mh224	2000	$ 9,205	$ 9,408	$ -	$0	$0	$0	$0	$0	$0	$0	$9,408
Lithgow	Reticulation	Mh98~Mh2018	1930	$ 21,682	$ 22,159	$ -	$0	$0	$0	$0	$0	$0	$0	$22,159
Lithgow	Rising Mains	Mh980~Mh981	1930	$ 347	$ 355	$ 355	$0	$0	$0	$0	$0	$0	$0	$355
Lithgow	Rising Mains	Mh981~Mh982	1930	$ 10,323	$ 10,551	$ 10,551	$0	$0	$0	$0	$0	$0	$0	$10,551
Lithgow	Rising Mains	Mh982~Mh985	1930	$ 17,904	$ 18,298	$ 18,298	$0	$0	$0	$0	$0	$0	$0	$18,298
Lithgow	Reticulation	Mh983~Mh1/18	1930	$ 25,266	$ 25,821	$ -	$0	$0	$0	$0	$0	$0	$0	$25,821
Lithgow	Rising Mains	Mh984~Mh986	1930	$ 12,303	$ 12,574	$ 12,574	$0	$0	$0	$0	$0	$0	$0	$12,574
Lithgow	Rising Mains	Mh985~Mh984	1930	$ 6,721	$ 6,869	$ 6,869	$0	$0	$0	$0	$0	$0	$0	$6,869
Lithgow	Rising Mains	Mh986~Mh987	1930	$ 1,476	$ 1,509	$ 1,509	$0	$0	$0	$0	$0	$0	$0	$1,509
Lithgow	Rising Mains	Mh987~SPS2155	1930	$ 121,423	$ 124,095	$ 124,095	$0	$0	$0	$0	$0	$0	$0	$124,095
Lithgow	Reticulation	Mh988~Mh5/29	1912	$ 7,511	$ 7,677	$ -	$0	$0	$0	$0	$0	$0	$0	$7,677
Lithgow	Reticulation	Mh989~Mh988	1912	$ 11,570	$ 11,825	$ -	$0	$0	$0	$0	$0	$0	$0	$11,825
Lithgow	Reticulation	Mh990~Mh991	1942	$ 2,836	$ 2,898	$ -	$0	$0	$0	$0	$0	$0	$0	$2,898
Lithgow	Reticulation	Mh991~Mh23	1942	$ 8,856	$ 9,051	$ -	$0	$0	$0	$0	$0	$0	$0	$9,051
Lithgow	Reticulation	Mh992~Mh993	2004	$ 11,778	$ 12,037	$ -	$0	$0	$0	$0	$0	$0	$0	$12,037
Lithgow	Reticulation	Mh993~Mh974	2004	$ 15,288	$ 15,624	$ -	$0	$0	$0	$0	$0	$0	$0	$15,624
Lithgow	Reticulation	Mh994~Mh977	2004	$ 13,764	$ 14,067	$ -	$0	$0	$0	$0	$0	$0	$0	$14,067
Lithgow	Reticulation	Mh995~Mh994	2004	$ 14,887	$ 15,215	$ -	$0	$0	$0	$0	$0	$0	$0	$15,215
Lithgow	Reticulation	Mh996~Mh1021	1990	$ 6,661	$ 6,807	$ -	$0	$0	$0	$0	$0	$0	$0	$6,807
Lithgow	Reticulation	Mh997~Mh996	1990	$ 20,969	$ 21,430	$ -	$0	$0	$0	$0	$0	$0	$0	$21,430
Lithgow	Reticulation	Mh998~Mh1384	1990	$ 21,627	$ 22,103	$ -	$0	$0	$0	$0	$0	$0	$0	$22,103
Lithgow	Reticulation	Mh999~Mh998	1990	$ 14,565	$ 14,886	$ -	$0	$0	$0	$0	$0	$0	$0	$14,886
Lithgow	Reticulation	MhA1~SPS2001	2001	$ 2,218	$ 2,267	$ -	$0	$0	$0	$0	$0	$0	$0	$2,267
Lithgow	Reticulation	MhA2~MhA1	2001	$ 14,853	$ 15,180	$ -	$0	$0	$0	$0	$0	$0	$0	$15,180
Lithgow	Reticulation	MhA3~MhA2	2001	$ 18,625	$ 19,035	$ -	$0	$0	$0	$0	$0	$0	$0	$19,035
Lithgow	Reticulation	MhA4~MhA3	2001	$ 8,293	$ 8,475	$ -	$0	$0	$0	$0	$0	$0	$0	$8,475
Lithgow	Reticulation	MhA5a~MhA4	2001	$ 9,668	$ 9,881	$ -	$0	$0	$0	$0	$0	$0	$0	$9,881
Lithgow	Reticulation	MhA6a~MhA5a	2001	$ 6,304	$ 6,443	$ -	$0	$0	$0	$0	$0	$0	$0	$6,443
Lithgow	Reticulation	MhA6c~MhA6a	2001	$ 10,540	$ 10,772	$ -	$0	$0	$0	$0	$0	$0	$0	$10,772
Lithgow	Reticulation	MhA7a~MhA6c	2001	$ 13,701	$ 14,003	$ -	$0	$0	$0	$0	$0	$0	$0	$14,003
Lithgow	Reticulation	MhB1~SPS2001	2001	$ 5,662	$ 5,787	$ -	$0	$0	$0	$0	$0	$0	$0	$5,787
Lithgow	Reticulation	MhB2~MhB1	2001	$ 15,034	$ 15,365	$ -	$0	$0	$0	$0	$0	$0	$0	$15,365
Lithgow	Reticulation	MhC-1~MhC-10	2004	$ 17,339	$ 17,720	$ -	$0	$0	$0	$0	$0	$0	$0	$17,720
Lithgow	Reticulation	MhC-10~Mh967	2004	$ 10,469	$ 10,700	$ -	$0	$0	$0	$0	$0	$0	$0	$10,700
Lithgow	Reticulation	MhC-DE~MhC-1	2004	$ 5,702	$ 5,827	$ -	$0	$0	$0	$0	$0	$0	$0	$5,827
Lithgow	Reticulation	MhP/A10~MhP/A9	2006	$ 18,454	$ 18,860	$ -	$0	$0	$0	$0	$0	$0	$0	$18,860
Lithgow	Reticulation	MhP/A11~MhP/A10	2006	$ 18,953	$ 19,370	$ -	$0	$0	$0	$0	$0	$0	$0	$19,370
Lithgow	Reticulation	MhP/A12~MhP/A11	2006	$ 21,738	$ 22,216	$ -	$0	$0	$0	$0	$0	$0	$0	$22,216
Lithgow	Reticulation	MhP/A4~Mh2088	2006	$ 10,804	$ 11,042	$ -	$0	$0	$0	$0	$0	$0	$0	$11,042
Lithgow	Reticulation	MhP/A5~MhP/A4	2006	$ 28,117	$ 28,735	$ -	$0	$0	$0	$0	$0	$0	$0	$28,735
Lithgow	Reticulation	MhP/A6~MhP/A5	2006	$ 24,721	$ 25,265	$ -	$0	$0	$0	$0	$0	$0	$0	$25,265
Lithgow	Reticulation	MhP/A7~MhP/A6	2006	$ 18,865	$ 19,280	$ -	$0	$0	$0	$0	$0	$0	$0	$19,280

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Lithgow	Reticulation	MhP/A8~MhP/A7	2006	$ 19,163	$ 19,585	$ -	$0	$0	$0	$0	$0	$0	$0	$19,585
Lithgow	Reticulation	MhP/A9~MhP/A8	2006	$ 17,349	$ 17,730	$ -	$0	$0	$0	$0	$0	$0	$0	$17,730
Lithgow	Reticulation	MhP/B1~MhP/A11	2006	$ 8,546	$ 8,734	$ -	$0	$0	$0	$0	$0	$0	$0	$8,734
Lithgow	Reticulation	MhP/B2~MhP/B1	2006	$ 17,168	$ 17,545	$ -	$0	$0	$0	$0	$0	$0	$0	$17,545
Lithgow	Rising Mains	SPS1390~DE122	1930	$ 115,678	$ 118,223	$ 118,223	$0	$0	$0	$0	$0	$0	$0	$118,223
Lithgow	Rising Mains	SPS2001~J6	2001	$ 8,811	$ 9,005	$ 9,005	$9,005	$9,005	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	SPS2153~SPS2155	1942	$ 176,627	$ 180,513	$ 180,513	$0	$0	$0	$0	$0	$0	$0	$180,513
Lithgow	Rising Mains	SPS2154~SPS2153	1942	$ 131,712	$ 134,610	$ 134,610	$0	$0	$0	$0	$0	$0	$0	$134,610
Lithgow	Rising Mains	SPS2155~Mh1/4	1900	$ 138,560	$ 141,608	$ 141,608	$0	$0	$0	$0	$0	$0	$0	$141,608
Lithgow	Rising Mains	SPS2156~Mh980	1930	$ 78,456	$ 80,183	$ 80,183	$0	$0	$0	$0	$0	$0	$0	$80,183
Lithgow	Rising Mains	SPS2157~Mh1213	1930	$ 3,648	$ 3,729	$ 3,729	$0	$0	$0	$0	$0	$0	$0	$3,729
Lithgow	Rising Mains	SPS2158~Mh10/44	1930	$ 73,388	$ 75,003	$ 75,003	$0	$0	$0	$0	$0	$0	$0	$75,003
Lithgow	Rising Mains	SPS2159~Mh11/40	1890	$ 23,631	$ 24,151	$ 24,151	$0	$0	$0	$0	$0	$0	$0	$24,151
Lithgow	Rising Mains	SPS2160~MhA5a	2010	$ 12,741	$ 13,021	$ 13,021	$13,021	$13,021	$0	$0	$0	$0	$0	$0
Lithgow	Rising Mains	SPS2162~J9	1930	$ 225,241	$ 230,197	$ 230,197	$0	$0	$0	$0	$0	$0	$0	$230,197
Lithgow	Rising Mains	SPS3000~SPS2160	2010	$ 4,613	$ 4,715	$ 4,715	$4,715	$4,715	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Sewer Mains Renewal	2016	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Reticulation	Sewer Vent Replacement	2016	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Lithgow	Trunk	Trunk Main #1 Lithgow	2016	$ 182,685	$ 186,704	$ 186,704	$186,704	$186,704	$0	$0	$0	$0	$0	$0
Shared all	Monitoring	Buttress Place	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Hillcrest	2003	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Hospital	2000	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	South Bowenfels	2015	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Bowen Vista 1	2005	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Bowen Vista 2	2005	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
South Bowenfels	Submersible 25m head	Bowen Vista 1	2005	$ 186,739	$ 190,847	$ 190,847	$190,847	$0	$0	$0	$190,847	$0	$0	$0
South Bowenfels	Submersible 25m head	Bowen Vista 1	2005	$ 194,361	$ 198,637	$ 198,637	$198,637	$0	$0	$0	$198,637	$0	$0	$0
South Bowenfels	Submersible 25m head	Bowen Vista 2	2005	$ 186,739	$ 190,847	$ 190,847	$190,847	$0	$0	$0	$190,847	$0	$0	$0
South Bowenfels	Submersible 25m head	Bowen Vista 2	2005	$ 194,361	$ 198,637	$ 198,637	$198,637	$0	$0	$0	$198,637	$0	$0	$0
South Bowenfels	Submersible 25m head	Buttress Place	1974	$ 267,388	$ 273,271	$ 273,271	$0	$0	$0	$0	$0	$0	$0	$273,271
South Bowenfels	Submersible 25m head	Buttress Place	1974	$ 340,312	$ 347,799	$ 347,799	$0	$0	$0	$0	$0	$0	$0	$347,799
South Bowenfels	Submersible 25m head	Hillcrest	2003	$ 320,948	$ 328,009	$ 328,009	$328,009	$0	$0	$0	$328,009	$0	$0	$0
South Bowenfels	Submersible 25m head	Hillcrest	2003	$ 461,852	$ 472,013	$ 472,013	$472,013	$0	$0	$0	$472,013	$0	$0	$0
South Bowenfels	Submersible 25m head	Hospital	2000	$ 194,361	$ 198,637	$ 198,637	$198,637	$0	$0	$0	$198,637	$0	$0	$0
South Bowenfels	Submersible 25m head	Hospital	2000	$ 186,739	$ 190,847	$ 190,847	$190,847	$0	$0	$0	$190,847	$0	$0	$0
South Bowenfels	Submersible 25m head	South Bowenfels	1992	$ 324,862	$ 332,009	$ 332,009	$332,009	$0	$0	$0	$332,009	$0	$0	$0
South Bowenfels	Submersible 25m head	South Bowenfels	1992	$ 530,038	$ 541,699	$ 541,699	$541,699	$0	$0	$0	$541,699	$0	$0	$0
South Bowenfels	Reticulation	DE10~Mh2/195	1975	$ 9,181	$ 9,383	$ -	$0	$0	$0	$0	$0	$0	$0	$9,383
South Bowenfels	Reticulation	DE100~MhMMH3/M	1940	$ 6,419	$ 6,560	$ -	$0	$0	$0	$0	$0	$0	$0	$6,560
South Bowenfels	Reticulation	DE101~MhMMH4/M	1940	$ 6,372	$ 6,512	$ -	$0	$0	$0	$0	$0	$0	$0	$6,512
South Bowenfels	Reticulation	DE103~Mh219	1940	$ 6,217	$ 6,354	$ -	$0	$0	$0	$0	$0	$0	$0	$6,354
South Bowenfels	Reticulation	DE108~Mh2A/1	2004	$ 15,236	$ 15,572	$ -	$0	$0	$0	$0	$0	$0	$0	$15,572
South Bowenfels	Reticulation	DE11~Mh2/197	1975	$ 2,146	$ 2,193	$ -	$0	$0	$0	$0	$0	$0	$0	$2,193
South Bowenfels	Reticulation	DE110~Mh1089	1940	$ 2,207	$ 2,255	$ -	$0	$0	$0	$0	$0	$0	$0	$2,255
South Bowenfels	Reticulation	DE111~Mh1/3a	2004	$ 1,029	$ 1,051	$ -	$0	$0	$0	$0	$0	$0	$0	$1,051
South Bowenfels	Reticulation	DE1396~Mh1103	2004	$ 15,283	$ 15,619	$ -	$0	$0	$0	$0	$0	$0	$0	$15,619
South Bowenfels	Reticulation	Mh144~Mh5/34	1912	$ 8,392	$ 8,576	$ -	$0	$0	$0	$0	$0	$0	$0	$8,576
South Bowenfels	Reticulation	DE15~Mh197	1940	$ 19,723	$ 20,157	$ -	$0	$0	$0	$0	$0	$0	$0	$20,157
South Bowenfels	Reticulation	DE2~Mh2/170a	1975	$ 9,633	$ 9,845	$ -	$0	$0	$0	$0	$0	$0	$0	$9,845
South Bowenfels	Reticulation	DE4~Mh2/187	1975	$ 8,802	$ 8,996	$ -	$0	$0	$0	$0	$0	$0	$0	$8,996
South Bowenfels	Reticulation	DE5~Mh2/180	1975	$ 17,823	$ 18,215	$ -	$0	$0	$0	$0	$0	$0	$0	$18,215
South Bowenfels	Reticulation	DE51~Mh2/236	1975	$ 7,357	$ 7,519	$ -	$0	$0	$0	$0	$0	$0	$0	$7,519
South Bowenfels	Reticulation	DE60~Mh2/176	1975	$ 3,342	$ 3,416	$ -	$0	$0	$0	$0	$0	$0	$0	$3,416
South Bowenfels	Reticulation	DE69~Mh2/156	1975	$ 3,542	$ 3,620	$ -	$0	$0	$0	$0	$0	$0	$0	$3,620
South Bowenfels	Reticulation	DE7~Mh2/188b	1975	$ 18,867	$ 19,282	$ -	$0	$0	$0	$0	$0	$0	$0	$19,282
South Bowenfels	Reticulation	DE70~Mh2/155	1975	$ 8,710	$ 8,902	$ -	$0	$0	$0	$0	$0	$0	$0	$8,902
South Bowenfels	Reticulation	DE71~Mh2/133	1942	$ 4,192	$ 4,284	$ -	$0	$0	$0	$0	$0	$0	$0	$4,284
South Bowenfels	Reticulation	DE72~Mh2/132	1942	$ 13,104	$ 13,392	$ -	$0	$0	$0	$0	$0	$0	$0	$13,392
South Bowenfels	Reticulation	DE73~Mh2/97	1954	$ 4,841	$ 4,948	$ -	$0	$0	$0	$0	$0	$0	$0	$4,948
South Bowenfels	Reticulation	DE74~Mh2/96	1954	$ 3,030	$ 3,097	$ -	$0	$0	$0	$0	$0	$0	$0	$3,097
South Bowenfels	Reticulation	DE76~Mh2/12b	1954	$ 13,333	$ 13,627	$ -	$0	$0	$0	$0	$0	$0	$0	$13,627
South Bowenfels	Reticulation	DE77~Mh214	1998	$ 8,900	$ 9,096	$ -	$0	$0	$0	$0	$0	$0	$0	$9,096
South Bowenfels	Reticulation	DE78~Mh213	1998	$ 7,360	$ 7,522	$ -	$0	$0	$0	$0	$0	$0	$0	$7,522
South Bowenfels	Reticulation	DE79~MhMMH6/M	1940	$ 6,722	$ 6,870	$ -	$0	$0	$0	$0	$0	$0	$0	$6,870
South Bowenfels	Reticulation	DE8~Mh2/223	1975	$ 3,965	$ 4,053	$ -	$0	$0	$0	$0	$0	$0	$0	$4,053
South Bowenfels	Reticulation	DE80~Mh216	1940	$ 10,836	$ 11,074	$ -	$0	$0	$0	$0	$0	$0	$0	$11,074
South Bowenfels	Reticulation	DE81~Mh215	1940	$ 10,853	$ 11,091	$ -	$0	$0	$0	$0	$0	$0	$0	$11,091
South Bowenfels	Reticulation	DE9~Mh2/224	1975	$ 7,781	$ 7,952	$ -	$0	$0	$0	$0	$0	$0	$0	$7,952

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	DE90~Mh4	1940	$ 5,871	$ 6,000	$ -	$0	$0	$0	$0	$0	$0	$0	$6,000
South Bowenfels	Reticulation	DE91~Mh2/184	1940	$ 4,103	$ 4,193	$ -	$0	$0	$0	$0	$0	$0	$0	$4,193
South Bowenfels	Reticulation	DE92~Mh2/174	1940	$ 3,912	$ 3,998	$ -	$0	$0	$0	$0	$0	$0	$0	$3,998
South Bowenfels	Reticulation	DE93~Mh1088	1940	$ 1,019	$ 1,041	$ -	$0	$0	$0	$0	$0	$0	$0	$1,041
South Bowenfels	Reticulation	DEL-S21~MhL-S21/2	2004	$ 6,334	$ 6,473	$ -	$0	$0	$0	$0	$0	$0	$0	$6,473
South Bowenfels	Reticulation	Mh1/1a~Mh207	2004	$ 3,277	$ 3,349	$ -	$0	$0	$0	$0	$0	$0	$0	$3,349
South Bowenfels	Reticulation	Mh1/2~Mh2A/1	2004	$ 11,139	$ 11,384	$ -	$0	$0	$0	$0	$0	$0	$0	$11,384
South Bowenfels	Reticulation	Mh1/3a~Mh3/2b	2004	$ 5,108	$ 5,220	$ -	$0	$0	$0	$0	$0	$0	$0	$5,220
South Bowenfels	Reticulation	Mh1/9b~Mh5/1b	1940	$ 22,335	$ 22,827	$ -	$0	$0	$0	$0	$0	$0	$0	$22,827
South Bowenfels	Reticulation	Mh10/1b~Mh9/1b	1940	$ 13,455	$ 13,751	$ -	$0	$0	$0	$0	$0	$0	$0	$13,751
South Bowenfels	Reticulation	Mh1042~Mh2/69	1954	$ 10,270	$ 10,496	$ -	$0	$0	$0	$0	$0	$0	$0	$10,496
South Bowenfels	Reticulation	Mh1043~Mh1042	1954	$ 12,496	$ 12,770	$ -	$0	$0	$0	$0	$0	$0	$0	$12,770
South Bowenfels	Reticulation	Mh1044~Mh1043	1954	$ 11,692	$ 11,950	$ -	$0	$0	$0	$0	$0	$0	$0	$11,950
South Bowenfels	Reticulation	Mh1045~Mh1044	1954	$ 8,204	$ 8,385	$ -	$0	$0	$0	$0	$0	$0	$0	$8,385
South Bowenfels	Reticulation	Mh1046~Mh2/35	1940	$ 23,111	$ 23,619	$ -	$0	$0	$0	$0	$0	$0	$0	$23,619
South Bowenfels	Reticulation	Mh1047~Mh2/112	1942	$ 11,939	$ 12,202	$ -	$0	$0	$0	$0	$0	$0	$0	$12,202
South Bowenfels	Reticulation	Mh1048~Mh2/101	1940	$ 20,262	$ 20,708	$ -	$0	$0	$0	$0	$0	$0	$0	$20,708
South Bowenfels	Reticulation	Mh1081~Mh1085	1940	$ 13,504	$ 13,802	$ -	$0	$0	$0	$0	$0	$0	$0	$13,802
South Bowenfels	Reticulation	Mh1082~Mh1081	1940	$ 7,893	$ 8,067	$ -	$0	$0	$0	$0	$0	$0	$0	$8,067
South Bowenfels	Reticulation	Mh1083~Mh1081	1940	$ 9,869	$ 10,086	$ -	$0	$0	$0	$0	$0	$0	$0	$10,086
South Bowenfels	Reticulation	Mh1084~Mh1085	2003	$ 11,661	$ 11,917	$ -	$0	$0	$0	$0	$0	$0	$0	$11,917
South Bowenfels	Reticulation	Mh1085~Mh1106	2004	$ 11,772	$ 12,031	$ -	$0	$0	$0	$0	$0	$0	$0	$12,031
South Bowenfels	Reticulation	Mh1086~Mh1081	1940	$ 18,839	$ 19,254	$ -	$0	$0	$0	$0	$0	$0	$0	$19,254
South Bowenfels	Reticulation	Mh1087~Mh1085	2003	$ 20,719	$ 21,175	$ -	$0	$0	$0	$0	$0	$0	$0	$21,175
South Bowenfels	Reticulation	Mh1088~Mh1083	1940	$ 16,489	$ 16,852	$ -	$0	$0	$0	$0	$0	$0	$0	$16,852
South Bowenfels	Reticulation	Mh1089~Mh1082	1940	$ 23,440	$ 23,956	$ -	$0	$0	$0	$0	$0	$0	$0	$23,956
South Bowenfels	Reticulation	Mh1090~Mh1089	1940	$ 8,018	$ 8,194	$ -	$0	$0	$0	$0	$0	$0	$0	$8,194
South Bowenfels	Reticulation	Mh1091~Mh1086	1940	$ 6,515	$ 6,658	$ -	$0	$0	$0	$0	$0	$0	$0	$6,658
South Bowenfels	Reticulation	Mh1092~Mh1087	2003	$ 6,583	$ 6,728	$ -	$0	$0	$0	$0	$0	$0	$0	$6,728
South Bowenfels	Reticulation	Mh1093~Mh1084	2003	$ 7,422	$ 7,586	$ -	$0	$0	$0	$0	$0	$0	$0	$7,586
South Bowenfels	Reticulation	Mh1094~Mh1098	2004	$ 9,431	$ 9,638	$ -	$0	$0	$0	$0	$0	$0	$0	$9,638
South Bowenfels	Reticulation	Mh1095~Mh1096	2004	$ 5,348	$ 5,466	$ -	$0	$0	$0	$0	$0	$0	$0	$5,466
South Bowenfels	Reticulation	Mh1096~Mh1102	2004	$ 13,539	$ 13,837	$ -	$0	$0	$0	$0	$0	$0	$0	$13,837
South Bowenfels	Reticulation	Mh1097~Mh1098	2004	$ 9,023	$ 9,222	$ -	$0	$0	$0	$0	$0	$0	$0	$9,222
South Bowenfels	Reticulation	Mh1098~Mh1096	2004	$ 5,072	$ 5,184	$ -	$0	$0	$0	$0	$0	$0	$0	$5,184
South Bowenfels	Reticulation	Mh1099~Mh1106	2004	$ 23,388	$ 23,902	$ -	$0	$0	$0	$0	$0	$0	$0	$23,902
South Bowenfels	Reticulation	Mh11/1b~Mh10/1b	1940	$ 16,253	$ 16,611	$ -	$0	$0	$0	$0	$0	$0	$0	$16,611
South Bowenfels	Reticulation	Mh1100~Mh1096	2004	$ 15,374	$ 15,712	$ -	$0	$0	$0	$0	$0	$0	$0	$15,712
South Bowenfels	Reticulation	Mh1101~Mh1100	2004	$ 3,401	$ 3,476	$ -	$0	$0	$0	$0	$0	$0	$0	$3,476
South Bowenfels	Reticulation	Mh1102~Mh44	1940	$ 28,882	$ 29,517	$ -	$0	$0	$0	$0	$0	$0	$0	$29,517
South Bowenfels	Reticulation	Mh1103~Mh1101	2004	$ 17,484	$ 17,869	$ -	$0	$0	$0	$0	$0	$0	$0	$17,869
South Bowenfels	Reticulation	Mh1104~Mh1101	2004	$ 7,197	$ 7,355	$ -	$0	$0	$0	$0	$0	$0	$0	$7,355
South Bowenfels	Reticulation	Mh1105~Mh1095	2004	$ 15,358	$ 15,695	$ -	$0	$0	$0	$0	$0	$0	$0	$15,695
South Bowenfels	Reticulation	Mh1106~Mh1105	2004	$ 8,813	$ 9,007	$ -	$0	$0	$0	$0	$0	$0	$0	$9,007
South Bowenfels	Reticulation	Mh1107~Mh1108	2004	$ 6,741	$ 6,889	$ -	$0	$0	$0	$0	$0	$0	$0	$6,889
South Bowenfels	Reticulation	Mh1108~Mh1109	2004	$ 10,797	$ 11,034	$ -	$0	$0	$0	$0	$0	$0	$0	$11,034
South Bowenfels	Reticulation	Mh1109~Mh1104	2004	$ 11,677	$ 11,933	$ -	$0	$0	$0	$0	$0	$0	$0	$11,933
South Bowenfels	Reticulation	Mh1110~Mh44	1940	$ 4,671	$ 4,774	$ -	$0	$0	$0	$0	$0	$0	$0	$4,774
South Bowenfels	Reticulation	Mh1111~Mh1110	1940	$ 6,410	$ 6,551	$ -	$0	$0	$0	$0	$0	$0	$0	$6,551
South Bowenfels	Reticulation	Mh1112~MhMMH1/M	1940	$ 4,938	$ 5,047	$ -	$0	$0	$0	$0	$0	$0	$0	$5,047
South Bowenfels	Reticulation	Mh1113~Mh1112	1940	$ 8,782	$ 8,975	$ -	$0	$0	$0	$0	$0	$0	$0	$8,975
South Bowenfels	Reticulation	Mh1114~Mh1113	1940	$ 7,619	$ 7,787	$ -	$0	$0	$0	$0	$0	$0	$0	$7,787
South Bowenfels	Reticulation	Mh1115~Mh1114	1940	$ 5,692	$ 5,817	$ -	$0	$0	$0	$0	$0	$0	$0	$5,817
South Bowenfels	Reticulation	Mh1116~Mh1114	1940	$ 10,918	$ 11,158	$ -	$0	$0	$0	$0	$0	$0	$0	$11,158
South Bowenfels	Reticulation	Mh1117~Mh1115	1940	$ 9,281	$ 9,486	$ -	$0	$0	$0	$0	$0	$0	$0	$9,486
South Bowenfels	Reticulation	Mh1118~Mh1117	1940	$ 7,261	$ 7,421	$ -	$0	$0	$0	$0	$0	$0	$0	$7,421
South Bowenfels	Reticulation	Mh1119~Mh1120	1940	$ 4,552	$ 4,652	$ -	$0	$0	$0	$0	$0	$0	$0	$4,652
South Bowenfels	Reticulation	Mh1120~Mh1116	1940	$ 17,618	$ 18,006	$ -	$0	$0	$0	$0	$0	$0	$0	$18,006
South Bowenfels	Reticulation	Mh1121~Mh1122	1940	$ 9,639	$ 9,851	$ -	$0	$0	$0	$0	$0	$0	$0	$9,851
South Bowenfels	Reticulation	Mh1122~Mh1117	1940	$ 5,778	$ 5,905	$ -	$0	$0	$0	$0	$0	$0	$0	$5,905
South Bowenfels	Reticulation	Mh1123~Mh1122	1940	$ 8,648	$ 8,839	$ -	$0	$0	$0	$0	$0	$0	$0	$8,839
South Bowenfels	Reticulation	Mh1124~Mh1123	1940	$ 7,781	$ 7,952	$ -	$0	$0	$0	$0	$0	$0	$0	$7,952
South Bowenfels	Reticulation	Mh1125~Mh1118	1940	$ 15,293	$ 15,629	$ -	$0	$0	$0	$0	$0	$0	$0	$15,629
South Bowenfels	Reticulation	Mh1126~Mh1120	1940	$ 12,582	$ 12,859	$ -	$0	$0	$0	$0	$0	$0	$0	$12,859
South Bowenfels	Reticulation	Mh1127~Mh1126	1940	$ 11,955	$ 12,218	$ -	$0	$0	$0	$0	$0	$0	$0	$12,218
South Bowenfels	Reticulation	Mh1128~Mh1127	1940	$ 10,638	$ 10,872	$ -	$0	$0	$0	$0	$0	$0	$0	$10,872
South Bowenfels	Reticulation	Mh1129~Mh1128	1940	$ 12,684	$ 12,963	$ -	$0	$0	$0	$0	$0	$0	$0	$12,963
South Bowenfels	Reticulation	Mh1130~Mh1129	1940	$ 12,681	$ 12,960	$ -	$0	$0	$0	$0	$0	$0	$0	$12,960
South Bowenfels	Reticulation	Mh1131~Mh1125	1940	$ 13,559	$ 13,858	$ -	$0	$0	$0	$0	$0	$0	$0	$13,858
South Bowenfels	Reticulation	Mh1132~Mh1131	1940	$ 9,067	$ 9,267	$ -	$0	$0	$0	$0	$0	$0	$0	$9,267

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	Mh1133~Mh1131	1940	$ 6,730	$ 6,878	$ -	$0	$0	$0	$0	$0	$0	$0	$6,878
South Bowenfels	Reticulation	Mh1134~Mh1133	1940	$ 5,412	$ 5,531	$ -	$0	$0	$0	$0	$0	$0	$0	$5,531
South Bowenfels	Reticulation	Mh12/1~Mh11/1b	1940	$ 25,939	$ 26,510	$ -	$0	$0	$0	$0	$0	$0	$0	$26,510
South Bowenfels	Reticulation	Mh1218~Mh7/1b	1940	$ 20,747	$ 21,204	$ -	$0	$0	$0	$0	$0	$0	$0	$21,204
South Bowenfels	Reticulation	Mh1219~Mh1218	1940	$ 13,602	$ 13,901	$ -	$0	$0	$0	$0	$0	$0	$0	$13,901
South Bowenfels	Reticulation	Mh1220~Mh10/1b	1940	$ 17,512	$ 17,897	$ -	$0	$0	$0	$0	$0	$0	$0	$17,897
South Bowenfels	Reticulation	Mh1221~Mh10/1b	1940	$ 28,321	$ 28,944	$ -	$0	$0	$0	$0	$0	$0	$0	$28,944
South Bowenfels	Reticulation	Mh1222~Mh11/1b	1940	$ 29,320	$ 29,965	$ -	$0	$0	$0	$0	$0	$0	$0	$29,965
South Bowenfels	Reticulation	Mh1223~Mh1223b	1940	$ 12,991	$ 13,277	$ -	$0	$0	$0	$0	$0	$0	$0	$13,277
South Bowenfels	Reticulation	Mh1223b~Mh1224	1940	$ 10,330	$ 10,557	$ -	$0	$0	$0	$0	$0	$0	$0	$10,557
South Bowenfels	Reticulation	Mh1224~Mh189	1940	$ 5,573	$ 5,696	$ -	$0	$0	$0	$0	$0	$0	$0	$5,696
South Bowenfels	Reticulation	Mh1225~Mh1224	1940	$ 17,166	$ 17,544	$ -	$0	$0	$0	$0	$0	$0	$0	$17,544
South Bowenfels	Reticulation	Mh13/1~Mh12/1	1940	$ 11,262	$ 11,509	$ -	$0	$0	$0	$0	$0	$0	$0	$11,509
South Bowenfels	Reticulation	Mh1350~Mh13/1	1940	$ 44,645	$ 45,627	$ -	$0	$0	$0	$0	$0	$0	$0	$45,627
South Bowenfels	Reticulation	Mh1351~Mh1219	1940	$ 10,905	$ 11,145	$ -	$0	$0	$0	$0	$0	$0	$0	$11,145
South Bowenfels	Reticulation	Mh1354~Mh9/1b	1940	$ 17,455	$ 17,839	$ -	$0	$0	$0	$0	$0	$0	$0	$17,839
South Bowenfels	Reticulation	Mh1355~MhI1	1940	$ 9,198	$ 9,401	$ -	$0	$0	$0	$0	$0	$0	$0	$9,401
South Bowenfels	Reticulation	Mh1356~Mh1355	1940	$ 12,626	$ 12,904	$ -	$0	$0	$0	$0	$0	$0	$0	$12,904
South Bowenfels	Reticulation	Mh1357~Mh1356	1940	$ 13,239	$ 13,530	$ -	$0	$0	$0	$0	$0	$0	$0	$13,530
South Bowenfels	Reticulation	Mh1358~Mh1357	1940	$ 11,581	$ 11,836	$ -	$0	$0	$0	$0	$0	$0	$0	$11,836
South Bowenfels	Reticulation	Mh1359~MhI4	1940	$ 15,802	$ 16,149	$ -	$0	$0	$0	$0	$0	$0	$0	$16,149
South Bowenfels	Reticulation	Mh1360~Mh7/1b	1940	$ 9,214	$ 9,416	$ -	$0	$0	$0	$0	$0	$0	$0	$9,416
South Bowenfels	Reticulation	Mh1361~Mh1360	1940	$ 10,179	$ 10,403	$ -	$0	$0	$0	$0	$0	$0	$0	$10,403
South Bowenfels	Reticulation	Mh168~Mh169	2003	$ 19,036	$ 19,455	$ -	$0	$0	$0	$0	$0	$0	$0	$19,455
South Bowenfels	Reticulation	Mh169~Mh170	2003	$ 18,254	$ 18,656	$ -	$0	$0	$0	$0	$0	$0	$0	$18,656
South Bowenfels	Reticulation	Mh170~Mh171	2003	$ 23,266	$ 23,778	$ -	$0	$0	$0	$0	$0	$0	$0	$23,778
South Bowenfels	Reticulation	Mh171~Mh172	2003	$ 16,071	$ 16,425	$ -	$0	$0	$0	$0	$0	$0	$0	$16,425
South Bowenfels	Reticulation	Mh172~Mh173	2003	$ 18,712	$ 19,124	$ -	$0	$0	$0	$0	$0	$0	$0	$19,124
South Bowenfels	Reticulation	Mh173~SPS174	2003	$ 22,313	$ 22,804	$ -	$0	$0	$0	$0	$0	$0	$0	$22,804
South Bowenfels	Reticulation	Mh175~SPS174	2003	$ 10,926	$ 11,166	$ -	$0	$0	$0	$0	$0	$0	$0	$11,166
South Bowenfels	Reticulation	Mh176~Mh175	2003	$ 8,199	$ 8,380	$ -	$0	$0	$0	$0	$0	$0	$0	$8,380
South Bowenfels	Reticulation	Mh177~Mh175	2003	$ 14,081	$ 14,391	$ -	$0	$0	$0	$0	$0	$0	$0	$14,391
South Bowenfels	Reticulation	Mh178~Mh177	2003	$ 7,293	$ 7,453	$ -	$0	$0	$0	$0	$0	$0	$0	$7,453
South Bowenfels	Reticulation	Mh179~Mh178	2003	$ 6,763	$ 6,911	$ -	$0	$0	$0	$0	$0	$0	$0	$6,911
South Bowenfels	Reticulation	Mh180~Mh179	2003	$ 14,974	$ 15,303	$ -	$0	$0	$0	$0	$0	$0	$0	$15,303
South Bowenfels	Reticulation	Mh181~Mh182	2003	$ 8,154	$ 8,333	$ -	$0	$0	$0	$0	$0	$0	$0	$8,333
South Bowenfels	Reticulation	Mh182~Mh183	2003	$ 11,198	$ 11,445	$ -	$0	$0	$0	$0	$0	$0	$0	$11,445
South Bowenfels	Reticulation	Mh183~Mh184	1940	$ 11,340	$ 11,589	$ -	$0	$0	$0	$0	$0	$0	$0	$11,589
South Bowenfels	Reticulation	Mh184~Mh193	1940	$ 10,873	$ 11,112	$ -	$0	$0	$0	$0	$0	$0	$0	$11,112
South Bowenfels	Reticulation	Mh185~SPS1229	1940	$ 1,197	$ 1,223	$ -	$0	$0	$0	$0	$0	$0	$0	$1,223
South Bowenfels	Reticulation	Mh186~Mh185	1940	$ 14,052	$ 14,361	$ -	$0	$0	$0	$0	$0	$0	$0	$14,361
South Bowenfels	Reticulation	Mh187~Mh186	1940	$ 32,970	$ 33,696	$ -	$0	$0	$0	$0	$0	$0	$0	$33,696
South Bowenfels	Reticulation	Mh188~Mh187	1940	$ 25,479	$ 26,040	$ -	$0	$0	$0	$0	$0	$0	$0	$26,040
South Bowenfels	Reticulation	Mh189~Mh190	1940	$ 8,920	$ 9,116	$ -	$0	$0	$0	$0	$0	$0	$0	$9,116
South Bowenfels	Reticulation	Mh190~Mh208	1940	$ 12,434	$ 12,707	$ -	$0	$0	$0	$0	$0	$0	$0	$12,707
South Bowenfels	Reticulation	Mh191~Mh189	1940	$ 16,300	$ 16,658	$ -	$0	$0	$0	$0	$0	$0	$0	$16,658
South Bowenfels	Reticulation	Mh192~Mh185	1940	$ 21,826	$ 22,306	$ -	$0	$0	$0	$0	$0	$0	$0	$22,306
South Bowenfels	Reticulation	Mh193~Mh192	1940	$ 22,547	$ 23,043	$ -	$0	$0	$0	$0	$0	$0	$0	$23,043
South Bowenfels	Reticulation	Mh194~Mh193	1940	$ 3,753	$ 3,836	$ -	$0	$0	$0	$0	$0	$0	$0	$3,836
South Bowenfels	Reticulation	Mh195~Mh194	1940	$ 4,892	$ 5,000	$ -	$0	$0	$0	$0	$0	$0	$0	$5,000
South Bowenfels	Reticulation	Mh196~Mh194	1940	$ 7,100	$ 7,256	$ -	$0	$0	$0	$0	$0	$0	$0	$7,256
South Bowenfels	Reticulation	Mh197~Mh196	1940	$ 19,901	$ 20,339	$ -	$0	$0	$0	$0	$0	$0	$0	$20,339
South Bowenfels	Reticulation	Mh198~Mh197	1940	$ 22,246	$ 22,735	$ -	$0	$0	$0	$0	$0	$0	$0	$22,735
South Bowenfels	Reticulation	Mh199~Mh200	1940	$ 24,521	$ 25,061	$ -	$0	$0	$0	$0	$0	$0	$0	$25,061
South Bowenfels	Reticulation	Mh2/100~Mh2/99	1954	$ 4,535	$ 4,635	$ -	$0	$0	$0	$0	$0	$0	$0	$4,635
South Bowenfels	Reticulation	Mh2/101~Mh2/68	1954	$ 15,227	$ 15,562	$ -	$0	$0	$0	$0	$0	$0	$0	$15,562
South Bowenfels	Reticulation	Mh2/102~Mh1048	1954	$ 21,040	$ 21,503	$ -	$0	$0	$0	$0	$0	$0	$0	$21,503
South Bowenfels	Reticulation	Mh2/103~Mh2/102	1954	$ 16,577	$ 16,941	$ -	$0	$0	$0	$0	$0	$0	$0	$16,941
South Bowenfels	Reticulation	Mh2/104~Mh2/101	1954	$ 9,159	$ 9,360	$ -	$0	$0	$0	$0	$0	$0	$0	$9,360
South Bowenfels	Reticulation	Mh2/105~Mh2/104	1942	$ 14,812	$ 15,137	$ -	$0	$0	$0	$0	$0	$0	$0	$15,137
South Bowenfels	Reticulation	Mh2/106~Mh2/105	1942	$ 20,358	$ 20,806	$ -	$0	$0	$0	$0	$0	$0	$0	$20,806
South Bowenfels	Reticulation	Mh2/107~Mh2/106	1942	$ 20,923	$ 21,383	$ -	$0	$0	$0	$0	$0	$0	$0	$21,383
South Bowenfels	Reticulation	Mh2/108~Mh2/105	1942	$ 8,882	$ 9,077	$ -	$0	$0	$0	$0	$0	$0	$0	$9,077
South Bowenfels	Reticulation	Mh2/109~Mh2/108	1942	$ 9,989	$ 10,209	$ -	$0	$0	$0	$0	$0	$0	$0	$10,209
South Bowenfels	Reticulation	Mh2/110~Mh2/109	1942	$ 20,136	$ 20,579	$ -	$0	$0	$0	$0	$0	$0	$0	$20,579
South Bowenfels	Reticulation	Mh2/111~Mh2/110	1942	$ 8,327	$ 8,510	$ -	$0	$0	$0	$0	$0	$0	$0	$8,510
South Bowenfels	Reticulation	Mh2/112~Mh2/108	1942	$ 15,955	$ 16,306	$ -	$0	$0	$0	$0	$0	$0	$0	$16,306
South Bowenfels	Reticulation	Mh2/113~Mh2/112	1942	$ 10,001	$ 10,221	$ -	$0	$0	$0	$0	$0	$0	$0	$10,221
South Bowenfels	Reticulation	Mh2/114~Mh2/113	1942	$ 7,864	$ 8,037	$ -	$0	$0	$0	$0	$0	$0	$0	$8,037

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	Mh2/115~Mh2/113	1942	$ 11,030	$ 11,273	$ -	$0	$0	$0	$0	$0	$0	$0	$11,273
South Bowenfels	Reticulation	Mh2/116~Mh2/115	1942	$ 9,152	$ 9,354	$ -	$0	$0	$0	$0	$0	$0	$0	$9,354
South Bowenfels	Reticulation	Mh2/117~Mh2/116	1942	$ 11,254	$ 11,502	$ -	$0	$0	$0	$0	$0	$0	$0	$11,502
South Bowenfels	Reticulation	Mh2/118~Mh2/117	1942	$ 7,435	$ 7,599	$ -	$0	$0	$0	$0	$0	$0	$0	$7,599
South Bowenfels	Reticulation	Mh2/119~Mh2/118	1942	$ 6,773	$ 6,922	$ -	$0	$0	$0	$0	$0	$0	$0	$6,922
South Bowenfels	Reticulation	Mh2/120~Mh2/116	1942	$ 5,412	$ 5,531	$ -	$0	$0	$0	$0	$0	$0	$0	$5,531
South Bowenfels	Reticulation	Mh2/121~Mh2/120	1942	$ 4,657	$ 4,759	$ -	$0	$0	$0	$0	$0	$0	$0	$4,759
South Bowenfels	Reticulation	Mh2/122~Mh2/121	1942	$ 7,454	$ 7,618	$ -	$0	$0	$0	$0	$0	$0	$0	$7,618
South Bowenfels	Reticulation	Mh2/123~Mh2/120	1942	$ 9,569	$ 9,779	$ -	$0	$0	$0	$0	$0	$0	$0	$9,779
South Bowenfels	Reticulation	Mh2/124~Mh2/123	1942	$ 6,666	$ 6,813	$ -	$0	$0	$0	$0	$0	$0	$0	$6,813
South Bowenfels	Reticulation	Mh2/125~Mh2/124	1942	$ 9,702	$ 9,916	$ -	$0	$0	$0	$0	$0	$0	$0	$9,916
South Bowenfels	Reticulation	Mh2/126~Mh2/125	1942	$ 7,400	$ 7,563	$ -	$0	$0	$0	$0	$0	$0	$0	$7,563
South Bowenfels	Reticulation	Mh2/127~Mh1047	1942	$ 12,279	$ 12,550	$ -	$0	$0	$0	$0	$0	$0	$0	$12,550
South Bowenfels	Reticulation	Mh2/128~Mh2/127	1942	$ 21,192	$ 21,658	$ -	$0	$0	$0	$0	$0	$0	$0	$21,658
South Bowenfels	Reticulation	Mh2/128b~Mh2/128	1942	$ 9,344	$ 9,549	$ -	$0	$0	$0	$0	$0	$0	$0	$9,549
South Bowenfels	Reticulation	Mh2/129~Mh2/128b	1942	$ 17,212	$ 17,590	$ -	$0	$0	$0	$0	$0	$0	$0	$17,590
South Bowenfels	Reticulation	Mh2/12b~Mh2/12	1954	$ 8,335	$ 8,518	$ -	$0	$0	$0	$0	$0	$0	$0	$8,518
South Bowenfels	Reticulation	Mh2/130~Mh2/129	1942	$ 13,186	$ 13,476	$ -	$0	$0	$0	$0	$0	$0	$0	$13,476
South Bowenfels	Reticulation	Mh2/131~Mh2/130	1942	$ 12,187	$ 12,455	$ -	$0	$0	$0	$0	$0	$0	$0	$12,455
South Bowenfels	Reticulation	Mh2/132~Mh2/130	1942	$ 10,705	$ 10,940	$ -	$0	$0	$0	$0	$0	$0	$0	$10,940
South Bowenfels	Reticulation	Mh2/133~Mh2/132	1942	$ 10,803	$ 11,041	$ -	$0	$0	$0	$0	$0	$0	$0	$11,041
South Bowenfels	Reticulation	Mh2/134~Mh2/128	1942	$ 8,402	$ 8,587	$ -	$0	$0	$0	$0	$0	$0	$0	$8,587
South Bowenfels	Reticulation	Mh2/135~Mh2/134	1942	$ 20,659	$ 21,113	$ -	$0	$0	$0	$0	$0	$0	$0	$21,113
South Bowenfels	Reticulation	Mh2/136~Mh2/135	1942	$ 8,922	$ 9,118	$ -	$0	$0	$0	$0	$0	$0	$0	$9,118
South Bowenfels	Reticulation	Mh2/137~Mh2/136	1942	$ 11,154	$ 11,400	$ -	$0	$0	$0	$0	$0	$0	$0	$11,400
South Bowenfels	Reticulation	Mh2/138~Mh2/135	1940	$ 45,458	$ 46,458	$ -	$0	$0	$0	$0	$0	$0	$0	$46,458
South Bowenfels	Reticulation	Mh2/139~Mh2/138	1942	$ 5,906	$ 6,036	$ -	$0	$0	$0	$0	$0	$0	$0	$6,036
South Bowenfels	Reticulation	Mh2/140~Mh2/139	1942	$ 9,710	$ 9,924	$ -	$0	$0	$0	$0	$0	$0	$0	$9,924
South Bowenfels	Reticulation	Mh2/141~Mh2/140	1942	$ 13,121	$ 13,410	$ -	$0	$0	$0	$0	$0	$0	$0	$13,410
South Bowenfels	Reticulation	Mh2/142~Mh2/141	1942	$ 8,616	$ 8,806	$ -	$0	$0	$0	$0	$0	$0	$0	$8,806
South Bowenfels	Reticulation	Mh2/143~Mh2/142	1942	$ 9,658	$ 9,870	$ -	$0	$0	$0	$0	$0	$0	$0	$9,870
South Bowenfels	Reticulation	Mh2/144~Mh2/143	1942	$ 7,622	$ 7,790	$ -	$0	$0	$0	$0	$0	$0	$0	$7,790
South Bowenfels	Reticulation	Mh2/145~Mh2/140	1942	$ 4,140	$ 4,231	$ -	$0	$0	$0	$0	$0	$0	$0	$4,231
South Bowenfels	Reticulation	Mh2/146~Mh2/145	1942	$ 12,674	$ 12,953	$ -	$0	$0	$0	$0	$0	$0	$0	$12,953
South Bowenfels	Reticulation	Mh2/147~Mh2/146	1942	$ 4,293	$ 4,387	$ -	$0	$0	$0	$0	$0	$0	$0	$4,387
South Bowenfels	Reticulation	Mh2/148~Mh2/146	1942	$ 3,366	$ 3,440	$ -	$0	$0	$0	$0	$0	$0	$0	$3,440
South Bowenfels	Reticulation	Mh2/150~Mh2/249	1975	$ 7,780	$ 7,951	$ -	$0	$0	$0	$0	$0	$0	$0	$7,951
South Bowenfels	Reticulation	Mh2/151~Mh2/150	1975	$ 10,677	$ 10,912	$ -	$0	$0	$0	$0	$0	$0	$0	$10,912
South Bowenfels	Reticulation	Mh2/152~Mh2/151	1942	$ 6,404	$ 6,545	$ -	$0	$0	$0	$0	$0	$0	$0	$6,545
South Bowenfels	Reticulation	Mh2/153~Mh2/152	1942	$ 7,197	$ 7,355	$ -	$0	$0	$0	$0	$0	$0	$0	$7,355
South Bowenfels	Reticulation	Mh2/154~Mh2/151	1942	$ 2,561	$ 2,618	$ -	$0	$0	$0	$0	$0	$0	$0	$2,618
South Bowenfels	Reticulation	Mh2/155~Mh2/154	1975	$ 11,444	$ 11,696	$ -	$0	$0	$0	$0	$0	$0	$0	$11,696
South Bowenfels	Reticulation	Mh2/156~Mh2/155	1975	$ 3,736	$ 3,818	$ -	$0	$0	$0	$0	$0	$0	$0	$3,818
South Bowenfels	Reticulation	Mh2/158~Mh2/257	1975	$ 20,791	$ 21,248	$ -	$0	$0	$0	$0	$0	$0	$0	$21,248
South Bowenfels	Reticulation	Mh2/159~Mh2/158	1975	$ 10,173	$ 10,397	$ -	$0	$0	$0	$0	$0	$0	$0	$10,397
South Bowenfels	Reticulation	Mh2/16~Mh2/15	1954	$ 6,595	$ 6,740	$ -	$0	$0	$0	$0	$0	$0	$0	$6,740
South Bowenfels	Reticulation	Mh2/160~Mh2/257	1975	$ 14,642	$ 14,964	$ -	$0	$0	$0	$0	$0	$0	$0	$14,964
South Bowenfels	Reticulation	Mh2/161~Mh2/160	1975	$ 31,499	$ 32,192	$ -	$0	$0	$0	$0	$0	$0	$0	$32,192
South Bowenfels	Reticulation	Mh2/162~Mh2/161	1975	$ 14,735	$ 15,059	$ -	$0	$0	$0	$0	$0	$0	$0	$15,059
South Bowenfels	Reticulation	Mh2/163~Mh2/162	1975	$ 11,750	$ 12,009	$ -	$0	$0	$0	$0	$0	$0	$0	$12,009
South Bowenfels	Reticulation	Mh2/164~Mh2/162	1975	$ 19,495	$ 19,924	$ -	$0	$0	$0	$0	$0	$0	$0	$19,924
South Bowenfels	Reticulation	Mh2/165~Mh2/162	1975	$ 7,729	$ 7,899	$ -	$0	$0	$0	$0	$0	$0	$0	$7,899
South Bowenfels	Reticulation	Mh2/166~Mh2/165	1975	$ 12,426	$ 12,700	$ -	$0	$0	$0	$0	$0	$0	$0	$12,700
South Bowenfels	Reticulation	Mh2/167~Mh2/165	1975	$ 19,279	$ 19,703	$ -	$0	$0	$0	$0	$0	$0	$0	$19,703
South Bowenfels	Reticulation	Mh2/168~Mh2/161	1975	$ 19,698	$ 20,131	$ -	$0	$0	$0	$0	$0	$0	$0	$20,131
South Bowenfels	Reticulation	Mh2/169~Mh2/168	1975	$ 20,489	$ 20,940	$ -	$0	$0	$0	$0	$0	$0	$0	$20,940
South Bowenfels	Reticulation	Mh2/17~Mh2/16	1954	$ 5,840	$ 5,968	$ -	$0	$0	$0	$0	$0	$0	$0	$5,968
South Bowenfels	Reticulation	Mh2/170~Mh2/169	1975	$ 7,351	$ 7,513	$ -	$0	$0	$0	$0	$0	$0	$0	$7,513
South Bowenfels	Reticulation	Mh2/170a~Mh2/170b	1975	$ 8,994	$ 9,191	$ -	$0	$0	$0	$0	$0	$0	$0	$9,191
South Bowenfels	Reticulation	Mh2/170b~Mh2/193	1975	$ 30,086	$ 30,748	$ -	$0	$0	$0	$0	$0	$0	$0	$30,748
South Bowenfels	Reticulation	Mh2/170c~Mh2/170b	1975	$ 12,423	$ 12,696	$ -	$0	$0	$0	$0	$0	$0	$0	$12,696
South Bowenfels	Reticulation	Mh2/170d~Mh2/170c	1975	$ 4,733	$ 4,837	$ -	$0	$0	$0	$0	$0	$0	$0	$4,837
South Bowenfels	Reticulation	Mh2/170e~Mh2/170d	1975	$ 19,988	$ 20,428	$ -	$0	$0	$0	$0	$0	$0	$0	$20,428
South Bowenfels	Reticulation	Mh2/171~Mh2/170	1975	$ 8,371	$ 8,556	$ -	$0	$0	$0	$0	$0	$0	$0	$8,556
South Bowenfels	Reticulation	Mh2/172~Mh2/171	1975	$ 6,882	$ 7,033	$ -	$0	$0	$0	$0	$0	$0	$0	$7,033
South Bowenfels	Reticulation	Mh2/173~Mh2/172	1975	$ 16,930	$ 17,302	$ -	$0	$0	$0	$0	$0	$0	$0	$17,302
South Bowenfels	Reticulation	Mh2/174~Mh2/172	1975	$ 8,180	$ 8,360	$ -	$0	$0	$0	$0	$0	$0	$0	$8,360
South Bowenfels	Reticulation	Mh2/175~Mh2/174	1975	$ 16,952	$ 17,325	$ -	$0	$0	$0	$0	$0	$0	$0	$17,325
South Bowenfels	Reticulation	Mh2/176~Mh2/171	1975	$ 12,870	$ 13,153	$ -	$0	$0	$0	$0	$0	$0	$0	$13,153
South Bowenfels	Reticulation	Mh2/177~Mh2/176	1975	$ 4,520	$ 4,620	$ -	$0	$0	$0	$0	$0	$0	$0	$4,620

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	Mh2/178~Mh2/177	1975	$ 11,797	$ 12,056	$ -	$0	$0	$0	$0	$0	$0	$0	$12,056
South Bowenfels	Reticulation	Mh2/18~Mh2/17	1954	$ 13,907	$ 14,213	$ -	$0	$0	$0	$0	$0	$0	$0	$14,213
South Bowenfels	Reticulation	Mh2/180~SPS1227	1975	$ 11,981	$ 12,245	$ -	$0	$0	$0	$0	$0	$0	$0	$12,245
South Bowenfels	Reticulation	Mh2/181~Mh2/180	1975	$ 17,841	$ 18,233	$ -	$0	$0	$0	$0	$0	$0	$0	$18,233
South Bowenfels	Reticulation	Mh2/182~Mh2/181	1975	$ 10,422	$ 10,651	$ -	$0	$0	$0	$0	$0	$0	$0	$10,651
South Bowenfels	Reticulation	Mh2/183~Mh2/182	1975	$ 10,554	$ 10,786	$ -	$0	$0	$0	$0	$0	$0	$0	$10,786
South Bowenfels	Reticulation	Mh2/184~Mh2/183	1975	$ 8,387	$ 8,572	$ -	$0	$0	$0	$0	$0	$0	$0	$8,572
South Bowenfels	Reticulation	Mh2/187~Mh2/186	1975	$ 6,710	$ 6,858	$ -	$0	$0	$0	$0	$0	$0	$0	$6,858
South Bowenfels	Reticulation	Mh2/189~Mh2/188a	1975	$ 10,388	$ 10,617	$ -	$0	$0	$0	$0	$0	$0	$0	$10,617
South Bowenfels	Reticulation	Mh2/19~Mh2/18	1954	$ 8,453	$ 8,638	$ -	$0	$0	$0	$0	$0	$0	$0	$8,638
South Bowenfels	Reticulation	Mh2/197~Mh2/196	1975	$ 3,531	$ 3,609	$ -	$0	$0	$0	$0	$0	$0	$0	$3,609
South Bowenfels	Reticulation	Mh2/20~Mh2/19	1954	$ 11,281	$ 11,530	$ -	$0	$0	$0	$0	$0	$0	$0	$11,530
South Bowenfels	Reticulation	Mh2/203~Mh2/202	1975	$ 1,791	$ 1,831	$ -	$0	$0	$0	$0	$0	$0	$0	$1,831
South Bowenfels	Reticulation	Mh2/205~Mh2/204	1975	$ 11,816	$ 12,076	$ -	$0	$0	$0	$0	$0	$0	$0	$12,076
South Bowenfels	Reticulation	Mh2/206~Mh2/205	1975	$ 10,485	$ 10,716	$ -	$0	$0	$0	$0	$0	$0	$0	$10,716
South Bowenfels	Reticulation	Mh2/207~Mh2/203	1975	$ 2,452	$ 2,506	$ -	$0	$0	$0	$0	$0	$0	$0	$2,506
South Bowenfels	Reticulation	Mh2/21~Mh2/17	1954	$ 12,089	$ 12,355	$ -	$0	$0	$0	$0	$0	$0	$0	$12,355
South Bowenfels	Reticulation	Mh2/211~Mh2/207	1975	$ 11,351	$ 11,601	$ -	$0	$0	$0	$0	$0	$0	$0	$11,601
South Bowenfels	Reticulation	Mh2/212~Mh2/211	1975	$ 16,562	$ 16,927	$ -	$0	$0	$0	$0	$0	$0	$0	$16,927
South Bowenfels	Reticulation	Mh2/22~Mh2/21	1954	$ 7,384	$ 7,546	$ -	$0	$0	$0	$0	$0	$0	$0	$7,546
South Bowenfels	Reticulation	Mh2/223~Mh2/222	1975	$ 4,775	$ 4,880	$ -	$0	$0	$0	$0	$0	$0	$0	$4,880
South Bowenfels	Reticulation	Mh2/224~Mh2/223	1975	$ 5,763	$ 5,890	$ -	$0	$0	$0	$0	$0	$0	$0	$5,890
South Bowenfels	Reticulation	Mh2/225~Mh2/224	1975	$ 15,248	$ 15,583	$ -	$0	$0	$0	$0	$0	$0	$0	$15,583
South Bowenfels	Reticulation	Mh2/226~Mh2/225	1975	$ 15,844	$ 16,193	$ -	$0	$0	$0	$0	$0	$0	$0	$16,193
South Bowenfels	Reticulation	Mh2/227~Mh2/226	1975	$ 19,165	$ 19,586	$ -	$0	$0	$0	$0	$0	$0	$0	$19,586
South Bowenfels	Reticulation	Mh2/228~Mh2/227	1975	$ 6,201	$ 6,338	$ -	$0	$0	$0	$0	$0	$0	$0	$6,338
South Bowenfels	Reticulation	Mh2/229~Mh2/228	1975	$ 5,946	$ 6,076	$ -	$0	$0	$0	$0	$0	$0	$0	$6,076
South Bowenfels	Reticulation	Mh2/23~Mh2/21	1954	$ 8,292	$ 8,475	$ -	$0	$0	$0	$0	$0	$0	$0	$8,475
South Bowenfels	Reticulation	Mh2/230~Mh2/228	1975	$ 11,830	$ 12,090	$ -	$0	$0	$0	$0	$0	$0	$0	$12,090
South Bowenfels	Reticulation	Mh2/231~Mh2/230	1975	$ 8,126	$ 8,305	$ -	$0	$0	$0	$0	$0	$0	$0	$8,305
South Bowenfels	Reticulation	Mh2/232~Mh2/230	1975	$ 6,574	$ 6,718	$ -	$0	$0	$0	$0	$0	$0	$0	$6,718
South Bowenfels	Reticulation	Mh2/233~Mh2/232	1975	$ 4,723	$ 4,827	$ -	$0	$0	$0	$0	$0	$0	$0	$4,827
South Bowenfels	Reticulation	Mh2/234~Mh2/233	1975	$ 13,822	$ 14,126	$ -	$0	$0	$0	$0	$0	$0	$0	$14,126
South Bowenfels	Reticulation	Mh2/235~Mh2/234	1975	$ 3,987	$ 4,075	$ -	$0	$0	$0	$0	$0	$0	$0	$4,075
South Bowenfels	Reticulation	Mh2/236~Mh2/235	1975	$ 10,086	$ 10,308	$ -	$0	$0	$0	$0	$0	$0	$0	$10,308
South Bowenfels	Reticulation	Mh2/24~Mh2/23	1954	$ 13,615	$ 13,914	$ -	$0	$0	$0	$0	$0	$0	$0	$13,914
South Bowenfels	Reticulation	Mh2/249~Mh2/138	1975	$ 10,261	$ 10,487	$ -	$0	$0	$0	$0	$0	$0	$0	$10,487
South Bowenfels	Reticulation	Mh2/257~Mh2/156	1975	$ 11,893	$ 12,155	$ -	$0	$0	$0	$0	$0	$0	$0	$12,155
South Bowenfels	Reticulation	Mh2/28~Mh2/27	1954	$ 9,439	$ 9,647	$ -	$0	$0	$0	$0	$0	$0	$0	$9,647
South Bowenfels	Reticulation	Mh2/29~Mh2/28	1954	$ 10,373	$ 10,601	$ -	$0	$0	$0	$0	$0	$0	$0	$10,601
South Bowenfels	Reticulation	Mh2/2b~Mh1/2	2004	$ 5,888	$ 6,018	$ -	$0	$0	$0	$0	$0	$0	$0	$6,018
South Bowenfels	Reticulation	Mh2/31~Mh2/30	1954	$ 8,055	$ 8,233	$ -	$0	$0	$0	$0	$0	$0	$0	$8,233
South Bowenfels	Reticulation	Mh2/32~Mh2/31	1954	$ 14,134	$ 14,445	$ -	$0	$0	$0	$0	$0	$0	$0	$14,445
South Bowenfels	Reticulation	Mh2/33~Mh2/32	1954	$ 19,725	$ 20,159	$ -	$0	$0	$0	$0	$0	$0	$0	$20,159
South Bowenfels	Reticulation	Mh2/34~Mh2/33	1954	$ 18,203	$ 18,603	$ -	$0	$0	$0	$0	$0	$0	$0	$18,603
South Bowenfels	Reticulation	Mh2/35~Mh2/34	1954	$ 16,343	$ 16,702	$ -	$0	$0	$0	$0	$0	$0	$0	$16,702
South Bowenfels	Reticulation	Mh2/37~Mh2/36	1954	$ 15,997	$ 16,349	$ -	$0	$0	$0	$0	$0	$0	$0	$16,349
South Bowenfels	Reticulation	Mh2/38~Mh2/37	1954	$ 12,103	$ 12,369	$ -	$0	$0	$0	$0	$0	$0	$0	$12,369
South Bowenfels	Reticulation	Mh2/3b~Mh1/3a	2004	$ 5,812	$ 5,940	$ -	$0	$0	$0	$0	$0	$0	$0	$5,940
South Bowenfels	Reticulation	Mh2/53~Mh2/15	1954	$ 12,009	$ 12,273	$ -	$0	$0	$0	$0	$0	$0	$0	$12,273
South Bowenfels	Reticulation	Mh2/54~Mh2/53	1954	$ 18,116	$ 18,515	$ -	$0	$0	$0	$0	$0	$0	$0	$18,515
South Bowenfels	Reticulation	Mh2/55~Mh2/54	1954	$ 14,551	$ 14,871	$ -	$0	$0	$0	$0	$0	$0	$0	$14,871
South Bowenfels	Reticulation	Mh2/56~Mh2/55	1954	$ 3,738	$ 3,821	$ -	$0	$0	$0	$0	$0	$0	$0	$3,821
South Bowenfels	Reticulation	Mh2/57~Mh2/56	1954	$ 10,097	$ 10,319	$ -	$0	$0	$0	$0	$0	$0	$0	$10,319
South Bowenfels	Reticulation	Mh2/58~Mh2/57	1954	$ 11,324	$ 11,573	$ -	$0	$0	$0	$0	$0	$0	$0	$11,573
South Bowenfels	Reticulation	Mh2/59~Mh2/56	1954	$ 9,805	$ 10,021	$ -	$0	$0	$0	$0	$0	$0	$0	$10,021
South Bowenfels	Reticulation	Mh2/60~Mh2/59	1954	$ 6,769	$ 6,918	$ -	$0	$0	$0	$0	$0	$0	$0	$6,918
South Bowenfels	Reticulation	Mh2/61~Mh2/60	1954	$ 5,064	$ 5,175	$ -	$0	$0	$0	$0	$0	$0	$0	$5,175
South Bowenfels	Reticulation	Mh2/62~Mh2/60	1954	$ 9,733	$ 9,947	$ -	$0	$0	$0	$0	$0	$0	$0	$9,947
South Bowenfels	Reticulation	Mh2/63~Mh2/62	1954	$ 7,377	$ 7,539	$ -	$0	$0	$0	$0	$0	$0	$0	$7,539
South Bowenfels	Reticulation	Mh2/64~Mh2/63	1954	$ 5,960	$ 6,091	$ -	$0	$0	$0	$0	$0	$0	$0	$6,091
South Bowenfels	Reticulation	Mh2/65~Mh2/63	1954	$ 7,549	$ 7,715	$ -	$0	$0	$0	$0	$0	$0	$0	$7,715
South Bowenfels	Reticulation	Mh2/66~Mh2/65	1954	$ 20,385	$ 20,833	$ -	$0	$0	$0	$0	$0	$0	$0	$20,833
South Bowenfels	Reticulation	Mh2/67~Mh2/66	1954	$ 4,782	$ 4,887	$ -	$0	$0	$0	$0	$0	$0	$0	$4,887
South Bowenfels	Reticulation	Mh2/68~Mh2/54	1954	$ 18,978	$ 19,395	$ -	$0	$0	$0	$0	$0	$0	$0	$19,395
South Bowenfels	Reticulation	Mh2/69~Mh2/68	1954	$ 30,362	$ 31,030	$ -	$0	$0	$0	$0	$0	$0	$0	$31,030
South Bowenfels	Reticulation	Mh2/70~Mh2/69	1954	$ 4,011	$ 4,099	$ -	$0	$0	$0	$0	$0	$0	$0	$4,099
South Bowenfels	Reticulation	Mh2/71~Mh2/70	1954	$ 11,321	$ 11,570	$ -	$0	$0	$0	$0	$0	$0	$0	$11,570
South Bowenfels	Reticulation	Mh2/72~Mh2/70	1954	$ 41,971	$ 42,895	$ -	$0	$0	$0	$0	$0	$0	$0	$42,895
South Bowenfels	Reticulation	Mh2/73~Mh2/72	1954	$ 4,350	$ 4,446	$ -	$0	$0	$0	$0	$0	$0	$0	$4,446

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	Mh2/74~Mh2/73	1954	$ 4,613	$ 4,715	$ -	$0	$0	$0	$0	$0	$0	$0	$4,715
South Bowenfels	Reticulation	Mh2/75~Mh2/74	1954	$ 16,314	$ 16,673	$ -	$0	$0	$0	$0	$0	$0	$0	$16,673
South Bowenfels	Reticulation	Mh2/76~Mh2/75	1954	$ 15,858	$ 16,207	$ -	$0	$0	$0	$0	$0	$0	$0	$16,207
South Bowenfels	Reticulation	Mh2/77~Mh1042	1954	$ 19,508	$ 19,937	$ -	$0	$0	$0	$0	$0	$0	$0	$19,937
South Bowenfels	Reticulation	Mh2/78~Mh2/77	1954	$ 12,751	$ 13,031	$ -	$0	$0	$0	$0	$0	$0	$0	$13,031
South Bowenfels	Reticulation	Mh2/79~Mh2/78	1954	$ 13,458	$ 13,754	$ -	$0	$0	$0	$0	$0	$0	$0	$13,754
South Bowenfels	Reticulation	Mh2/80~Mh2/69	1954	$ 15,044	$ 15,375	$ -	$0	$0	$0	$0	$0	$0	$0	$15,375
South Bowenfels	Reticulation	Mh2/81~Mh2/80	1954	$ 16,617	$ 16,983	$ -	$0	$0	$0	$0	$0	$0	$0	$16,983
South Bowenfels	Reticulation	Mh2/82~Mh2/68	1954	$ 18,171	$ 18,570	$ -	$0	$0	$0	$0	$0	$0	$0	$18,570
South Bowenfels	Reticulation	Mh2/83~Mh2/82	1954	$ 10,095	$ 10,318	$ -	$0	$0	$0	$0	$0	$0	$0	$10,318
South Bowenfels	Reticulation	Mh2/84~Mh2/83	1954	$ 16,450	$ 16,812	$ -	$0	$0	$0	$0	$0	$0	$0	$16,812
South Bowenfels	Reticulation	Mh2/85~Mh2/84	1954	$ 13,491	$ 13,788	$ -	$0	$0	$0	$0	$0	$0	$0	$13,788
South Bowenfels	Reticulation	Mh2/86~Mh2/82	1954	$ 14,062	$ 14,371	$ -	$0	$0	$0	$0	$0	$0	$0	$14,371
South Bowenfels	Reticulation	Mh2/87~Mh2/86	1954	$ 13,810	$ 14,114	$ -	$0	$0	$0	$0	$0	$0	$0	$14,114
South Bowenfels	Reticulation	Mh2/88~Mh2/87	1954	$ 14,705	$ 15,029	$ -	$0	$0	$0	$0	$0	$0	$0	$15,029
South Bowenfels	Reticulation	Mh2/89~Mh2/88	1954	$ 6,473	$ 6,615	$ -	$0	$0	$0	$0	$0	$0	$0	$6,615
South Bowenfels	Reticulation	Mh2/90~Mh2/88	1954	$ 9,223	$ 9,425	$ -	$0	$0	$0	$0	$0	$0	$0	$9,425
South Bowenfels	Reticulation	Mh2/91~Mh2/90	1954	$ 9,389	$ 9,595	$ -	$0	$0	$0	$0	$0	$0	$0	$9,595
South Bowenfels	Reticulation	Mh2/92~Mh2/91	1954	$ 12,228	$ 12,497	$ -	$0	$0	$0	$0	$0	$0	$0	$12,497
South Bowenfels	Reticulation	Mh2/93~Mh2/92	1954	$ 7,870	$ 8,043	$ -	$0	$0	$0	$0	$0	$0	$0	$8,043
South Bowenfels	Reticulation	Mh2/94~Mh2/90	1954	$ 9,974	$ 10,194	$ -	$0	$0	$0	$0	$0	$0	$0	$10,194
South Bowenfels	Reticulation	Mh2/95~Mh2/94	1954	$ 12,132	$ 12,398	$ -	$0	$0	$0	$0	$0	$0	$0	$12,398
South Bowenfels	Reticulation	Mh2/96~Mh2/95	1954	$ 6,304	$ 6,443	$ -	$0	$0	$0	$0	$0	$0	$0	$6,443
South Bowenfels	Reticulation	Mh2/97~Mh2/96	1954	$ 10,934	$ 11,175	$ -	$0	$0	$0	$0	$0	$0	$0	$11,175
South Bowenfels	Reticulation	Mh2/98~Mh2/94	1954	$ 16,060	$ 16,413	$ -	$0	$0	$0	$0	$0	$0	$0	$16,413
South Bowenfels	Reticulation	Mh2/99~Mh2/98	1954	$ 13,674	$ 13,975	$ -	$0	$0	$0	$0	$0	$0	$0	$13,975
South Bowenfels	Reticulation	Mh2/9b~Mh1/9b	1940	$ 22,285	$ 22,776	$ -	$0	$0	$0	$0	$0	$0	$0	$22,776
South Bowenfels	Reticulation	Mh200~Mh196	1940	$ 31,504	$ 32,197	$ -	$0	$0	$0	$0	$0	$0	$0	$32,197
South Bowenfels	Reticulation	Mh202~Mh199	1940	$ 25,805	$ 26,373	$ -	$0	$0	$0	$0	$0	$0	$0	$26,373
South Bowenfels	Reticulation	Mh203~Mh202	1940	$ 28,648	$ 29,279	$ -	$0	$0	$0	$0	$0	$0	$0	$29,279
South Bowenfels	Reticulation	Mh204~Mh203	1940	$ 12,247	$ 12,516	$ -	$0	$0	$0	$0	$0	$0	$0	$12,516
South Bowenfels	Reticulation	Mh205~Mh204	1940	$ 6,332	$ 6,472	$ -	$0	$0	$0	$0	$0	$0	$0	$6,472
South Bowenfels	Reticulation	Mh206~Mh205	1940	$ 12,893	$ 13,177	$ -	$0	$0	$0	$0	$0	$0	$0	$13,177
South Bowenfels	Reticulation	Mh207~Mh205	1940	$ 6,619	$ 6,765	$ -	$0	$0	$0	$0	$0	$0	$0	$6,765
South Bowenfels	Reticulation	Mh208~Mh187	1940	$ 21,103	$ 21,568	$ -	$0	$0	$0	$0	$0	$0	$0	$21,568
South Bowenfels	Reticulation	Mh212~MhA9	1998	$ 18,568	$ 18,976	$ -	$0	$0	$0	$0	$0	$0	$0	$18,976
South Bowenfels	Reticulation	Mh213~Mh212	1998	$ 9,120	$ 9,321	$ -	$0	$0	$0	$0	$0	$0	$0	$9,321
South Bowenfels	Reticulation	Mh214~Mh212	1998	$ 4,373	$ 4,469	$ -	$0	$0	$0	$0	$0	$0	$0	$4,469
South Bowenfels	Reticulation	Mh2144~Mh2145	2003	$ 16,606	$ 16,972	$ -	$0	$0	$0	$0	$0	$0	$0	$16,972
South Bowenfels	Reticulation	Mh2145~Mh2146	2003	$ 13,626	$ 13,926	$ -	$0	$0	$0	$0	$0	$0	$0	$13,926
South Bowenfels	Reticulation	Mh2146~Mh2147	2003	$ 6,618	$ 6,763	$ -	$0	$0	$0	$0	$0	$0	$0	$6,763
South Bowenfels	Reticulation	Mh2147~Mh168	2003	$ 16,868	$ 17,239	$ -	$0	$0	$0	$0	$0	$0	$0	$17,239
South Bowenfels	Reticulation	Mh215~Mh217	1940	$ 20,230	$ 20,675	$ -	$0	$0	$0	$0	$0	$0	$0	$20,675
South Bowenfels	Reticulation	Mh216~Mh218	1940	$ 21,328	$ 21,797	$ -	$0	$0	$0	$0	$0	$0	$0	$21,797
South Bowenfels	Reticulation	Mh217~Mh218	1940	$ 5,347	$ 5,465	$ -	$0	$0	$0	$0	$0	$0	$0	$5,465
South Bowenfels	Reticulation	Mh218~Mh219	1940	$ 7,093	$ 7,249	$ -	$0	$0	$0	$0	$0	$0	$0	$7,249
South Bowenfels	Reticulation	Mh219~Mh220	1940	$ 5,191	$ 5,306	$ -	$0	$0	$0	$0	$0	$0	$0	$5,306
South Bowenfels	Reticulation	Mh2A/1~Mh1/1a	2004	$ 8,191	$ 8,371	$ -	$0	$0	$0	$0	$0	$0	$0	$8,371
South Bowenfels	Reticulation	Mh3/2b~Mh2/2b	2004	$ 5,531	$ 5,653	$ -	$0	$0	$0	$0	$0	$0	$0	$5,653
South Bowenfels	Reticulation	Mh3/3b~Mh2/3b	2004	$ 10,656	$ 10,891	$ -	$0	$0	$0	$0	$0	$0	$0	$10,891
South Bowenfels	Reticulation	Mh3/9b~Mh2/9b	1940	$ 19,880	$ 20,318	$ -	$0	$0	$0	$0	$0	$0	$0	$20,318
South Bowenfels	Reticulation	Mh4/2b~Mh3/2b	2004	$ 9,410	$ 9,617	$ -	$0	$0	$0	$0	$0	$0	$0	$9,617
South Bowenfels	Reticulation	Mh4/3b~Mh3/3b	2004	$ 16,394	$ 16,755	$ -	$0	$0	$0	$0	$0	$0	$0	$16,755
South Bowenfels	Reticulation	Mh4~Mh3	1942	$ 9,314	$ 9,518	$ -	$0	$0	$0	$0	$0	$0	$0	$9,518
South Bowenfels	Reticulation	Mh44~Mh191	1940	$ 15,401	$ 15,740	$ -	$0	$0	$0	$0	$0	$0	$0	$15,740
South Bowenfels	Reticulation	Mh45~Mh1102	1940	$ 24,035	$ 24,563	$ -	$0	$0	$0	$0	$0	$0	$0	$24,563
South Bowenfels	Reticulation	Mh5/1b~SPS1217	1940	$ 23,977	$ 24,504	$ -	$0	$0	$0	$0	$0	$0	$0	$24,504
South Bowenfels	Reticulation	Mh5/2b~Mh4/2b	2004	$ 10,814	$ 11,052	$ -	$0	$0	$0	$0	$0	$0	$0	$11,052
South Bowenfels	Reticulation	Mh5/3b~Mh4/3b	2004	$ 19,169	$ 19,590	$ -	$0	$0	$0	$0	$0	$0	$0	$19,590
South Bowenfels	Rising Mains	Mh5/6~Mh5/5	1912	$ 12,272	$ 12,542	$ 12,542	$0	$0	$0	$0	$0	$0	$0	$12,542
South Bowenfels	Reticulation	Mh6/1b~Mh5/1b	1940	$ 25,188	$ 25,742	$ -	$0	$0	$0	$0	$0	$0	$0	$25,742
South Bowenfels	Reticulation	Mh6/2b~Mh5/2b	2004	$ 14,997	$ 15,327	$ -	$0	$0	$0	$0	$0	$0	$0	$15,327
South Bowenfels	Reticulation	Mh7/1b~Mh6/1b	1940	$ 29,150	$ 29,791	$ -	$0	$0	$0	$0	$0	$0	$0	$29,791
South Bowenfels	Reticulation	Mh8~Mh6	1942	$ 16,968	$ 17,341	$ -	$0	$0	$0	$0	$0	$0	$0	$17,341
South Bowenfels	Reticulation	Mh9/1b~Mh7/1b	1940	$ 25,648	$ 26,212	$ -	$0	$0	$0	$0	$0	$0	$0	$26,212
South Bowenfels	Reticulation	MhA5b~Mh1112	1940	$ 12,445	$ 12,719	$ -	$0	$0	$0	$0	$0	$0	$0	$12,719
South Bowenfels	Reticulation	MhA6b~MhA5b	1940	$ 8,871	$ 9,066	$ -	$0	$0	$0	$0	$0	$0	$0	$9,066
South Bowenfels	Reticulation	MhA7b~MhA6b	1940	$ 8,243	$ 8,424	$ -	$0	$0	$0	$0	$0	$0	$0	$8,424
South Bowenfels	Reticulation	MhA8~MhA7b	1940	$ 10,035	$ 10,256	$ -	$0	$0	$0	$0	$0	$0	$0	$10,256
South Bowenfels	Reticulation	MhA9~MhA8	1940	$ 10,506	$ 10,737	$ -	$0	$0	$0	$0	$0	$0	$0	$10,737

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	MhI1~MhA5b	1940	$ 9,947	$ 10,165	$ -	$0	$0	$0	$0	$0	$0	$0	$10,165
South Bowenfels	Reticulation	MhI2~MhI1	1940	$ 8,189	$ 8,369	$ -	$0	$0	$0	$0	$0	$0	$0	$8,369
South Bowenfels	Reticulation	MhI2A~MhI2	1940	$ 11,797	$ 12,056	$ -	$0	$0	$0	$0	$0	$0	$0	$12,056
South Bowenfels	Reticulation	MhI3~MhI2A	1940	$ 11,742	$ 12,000	$ -	$0	$0	$0	$0	$0	$0	$0	$12,000
South Bowenfels	Reticulation	MhI4~MhI3	1940	$ 10,763	$ 11,000	$ -	$0	$0	$0	$0	$0	$0	$0	$11,000
South Bowenfels	Reticulation	MhL-S1/1~MhL-1145	2004	$ 15,634	$ 15,978	$ -	$0	$0	$0	$0	$0	$0	$0	$15,978
South Bowenfels	Reticulation	MhL-S1/10~MhL-S1/9	2004	$ 21,809	$ 22,289	$ -	$0	$0	$0	$0	$0	$0	$0	$22,289
South Bowenfels	Reticulation	MhL-S1/11~MhL-S1/10	2004	$ 12,717	$ 12,996	$ -	$0	$0	$0	$0	$0	$0	$0	$12,996
South Bowenfels	Reticulation	MhL-S1/2~MhL-S1/1	2004	$ 13,286	$ 13,578	$ -	$0	$0	$0	$0	$0	$0	$0	$13,578
South Bowenfels	Reticulation	MhL-S1/3~MhL-S1/2	2004	$ 20,558	$ 21,010	$ -	$0	$0	$0	$0	$0	$0	$0	$21,010
South Bowenfels	Reticulation	MhL-S1/4~MhL-S1/3	2004	$ 10,996	$ 11,238	$ -	$0	$0	$0	$0	$0	$0	$0	$11,238
South Bowenfels	Reticulation	MhL-S1/5~MhL-S1/4	2004	$ 30,655	$ 31,330	$ -	$0	$0	$0	$0	$0	$0	$0	$31,330
South Bowenfels	Reticulation	MhL-S1/6~MhL-S1/5	2004	$ 26,370	$ 26,950	$ -	$0	$0	$0	$0	$0	$0	$0	$26,950
South Bowenfels	Reticulation	MhL-S1/7~MhL-S1/6	2004	$ 7,574	$ 7,740	$ -	$0	$0	$0	$0	$0	$0	$0	$7,740
South Bowenfels	Reticulation	MhL-S1/8~MhL-S1/7	2004	$ 6,475	$ 6,618	$ -	$0	$0	$0	$0	$0	$0	$0	$6,618
South Bowenfels	Reticulation	MhL-S1/9~MhL-S1/8	2004	$ 22,318	$ 22,809	$ -	$0	$0	$0	$0	$0	$0	$0	$22,809
South Bowenfels	Reticulation	MhL-S11/1~MhL-S6/3	2004	$ 5,420	$ 5,539	$ -	$0	$0	$0	$0	$0	$0	$0	$5,539
South Bowenfels	Reticulation	MhL-S11/2~MhL-S11/1	2004	$ 6,121	$ 6,256	$ -	$0	$0	$0	$0	$0	$0	$0	$6,256
South Bowenfels	Reticulation	MhL-S12/1~MhL-S6/5	2004	$ 9,756	$ 9,970	$ -	$0	$0	$0	$0	$0	$0	$0	$9,970
South Bowenfels	Reticulation	MhL-S12/2~MhL-S12/1	2004	$ 11,798	$ 12,057	$ -	$0	$0	$0	$0	$0	$0	$0	$12,057
South Bowenfels	Reticulation	MhL-S12/4~MhL-S12/2	2004	$ 12,433	$ 12,707	$ -	$0	$0	$0	$0	$0	$0	$0	$12,707
South Bowenfels	Reticulation	MhL-S12/5~MhL-S12/4	2004	$ 11,391	$ 11,642	$ -	$0	$0	$0	$0	$0	$0	$0	$11,642
South Bowenfels	Reticulation	MhL-S13/1~MhL-S6/6	2004	$ 8,746	$ 8,938	$ -	$0	$0	$0	$0	$0	$0	$0	$8,938
South Bowenfels	Reticulation	MhL-S13/2~MhL-S13/1	2004	$ 9,272	$ 9,476	$ -	$0	$0	$0	$0	$0	$0	$0	$9,476
South Bowenfels	Reticulation	MhL-S13/3~MhL-S13/2	2004	$ 4,306	$ 4,400	$ -	$0	$0	$0	$0	$0	$0	$0	$4,400
South Bowenfels	Reticulation	MhL-S13/4~MhL-S13/3	2004	$ 9,274	$ 9,478	$ -	$0	$0	$0	$0	$0	$0	$0	$9,478
South Bowenfels	Reticulation	MhL-S14/1~MhL-S12/1	2004	$ 9,829	$ 10,046	$ -	$0	$0	$0	$0	$0	$0	$0	$10,046
South Bowenfels	Reticulation	MhL-S14/2~MhL-S14/1	2004	$ 21,040	$ 21,503	$ -	$0	$0	$0	$0	$0	$0	$0	$21,503
South Bowenfels	Reticulation	MhL-S14/3~MhL-S14/2	2004	$ 12,794	$ 13,076	$ -	$0	$0	$0	$0	$0	$0	$0	$13,076
South Bowenfels	Reticulation	MhL-S14/4~MhL-S14/3	2004	$ 13,241	$ 13,533	$ -	$0	$0	$0	$0	$0	$0	$0	$13,533
South Bowenfels	Reticulation	MhL-S14/5~MhL-S14/4	2004	$ 17,083	$ 17,459	$ -	$0	$0	$0	$0	$0	$0	$0	$17,459
South Bowenfels	Reticulation	MhL-S14/6~MhL-S14/5	2004	$ 7,981	$ 8,157	$ -	$0	$0	$0	$0	$0	$0	$0	$8,157
South Bowenfels	Reticulation	MhL-S15/1~MhL-S5/3	2004	$ 6,669	$ 6,816	$ -	$0	$0	$0	$0	$0	$0	$0	$6,816
South Bowenfels	Reticulation	MhL-S15/2~MhL-S15/1	2004	$ 4,258	$ 4,351	$ -	$0	$0	$0	$0	$0	$0	$0	$4,351
South Bowenfels	Reticulation	MhL-S15/3~MhL-S15/2	2004	$ 2,965	$ 3,030	$ -	$0	$0	$0	$0	$0	$0	$0	$3,030
South Bowenfels	Reticulation	MhL-S15/4~MhL-S15/3	2004	$ 3,086	$ 3,154	$ -	$0	$0	$0	$0	$0	$0	$0	$3,154
South Bowenfels	Reticulation	MhL-S15/5~MhL-S15/4	2004	$ 8,150	$ 8,329	$ -	$0	$0	$0	$0	$0	$0	$0	$8,329
South Bowenfels	Reticulation	MhL-S15/6~MhL-S15/5	2004	$ 1,866	$ 1,907	$ -	$0	$0	$0	$0	$0	$0	$0	$1,907
South Bowenfels	Reticulation	MhL-S16/1~MhL-S5/4	2004	$ 7,002	$ 7,156	$ -	$0	$0	$0	$0	$0	$0	$0	$7,156
South Bowenfels	Reticulation	MhL-S17/2~MhL-S5/7	2004	$ 16,001	$ 16,353	$ -	$0	$0	$0	$0	$0	$0	$0	$16,353
South Bowenfels	Reticulation	MhL-S18/1~MhL-S5/9	2004	$ 13,101	$ 13,389	$ -	$0	$0	$0	$0	$0	$0	$0	$13,389
South Bowenfels	Reticulation	MhL-S18/2~MhL-S18/1	2004	$ 11,944	$ 12,207	$ -	$0	$0	$0	$0	$0	$0	$0	$12,207
South Bowenfels	Reticulation	MhL-S19/1~MhL-S13/1	2004	$ 7,736	$ 7,906	$ -	$0	$0	$0	$0	$0	$0	$0	$7,906
South Bowenfels	Reticulation	MhL-S2/2~MhL-1145	2004	$ 6,642	$ 6,788	$ -	$0	$0	$0	$0	$0	$0	$0	$6,788
South Bowenfels	Reticulation	MhL-S2/3~MhL-S2/2	2004	$ 8,172	$ 8,352	$ -	$0	$0	$0	$0	$0	$0	$0	$8,352
South Bowenfels	Reticulation	MhL-S2/4~MhL-S2/3	2004	$ 16,527	$ 16,891	$ -	$0	$0	$0	$0	$0	$0	$0	$16,891
South Bowenfels	Reticulation	MhL-S2/5~MhL-S2/4	2004	$ 4,377	$ 4,474	$ -	$0	$0	$0	$0	$0	$0	$0	$4,474
South Bowenfels	Reticulation	MhL-S2/6~MhL-S2/5	2004	$ 10,335	$ 10,563	$ -	$0	$0	$0	$0	$0	$0	$0	$10,563
South Bowenfels	Reticulation	MhL-S2/7~MhL-S2/6	2004	$ 6,614	$ 6,759	$ -	$0	$0	$0	$0	$0	$0	$0	$6,759
South Bowenfels	Reticulation	MhL-S20/1~MhL-S14/1	2004	$ 17,910	$ 18,305	$ -	$0	$0	$0	$0	$0	$0	$0	$18,305
South Bowenfels	Reticulation	MhL-S20/2~MhL-S20/1	2004	$ 17,754	$ 18,145	$ -	$0	$0	$0	$0	$0	$0	$0	$18,145
South Bowenfels	Reticulation	MhL-S20/3~MhL-S20/2	2004	$ 12,944	$ 13,228	$ -	$0	$0	$0	$0	$0	$0	$0	$13,228
South Bowenfels	Reticulation	MhL-S21/1~MhL-S14/2	2004	$ 16,137	$ 16,492	$ -	$0	$0	$0	$0	$0	$0	$0	$16,492
South Bowenfels	Reticulation	MhL-S21/2~MhL-S21/1	2004	$ 14,335	$ 14,651	$ -	$0	$0	$0	$0	$0	$0	$0	$14,651
South Bowenfels	Reticulation	MhL-S22/1~MhL-S14/3	2004	$ 6,141	$ 6,276	$ -	$0	$0	$0	$0	$0	$0	$0	$6,276
South Bowenfels	Reticulation	MhL-S3/1~MhL-S2/2	2004	$ 3,583	$ 3,662	$ -	$0	$0	$0	$0	$0	$0	$0	$3,662
South Bowenfels	Reticulation	MhL-S3/2~MhL-S3/1	2004	$ 10,670	$ 10,905	$ -	$0	$0	$0	$0	$0	$0	$0	$10,905
South Bowenfels	Reticulation	MhL-S3/3~MhL-S3/2	2004	$ 18,283	$ 18,686	$ -	$0	$0	$0	$0	$0	$0	$0	$18,686
South Bowenfels	Reticulation	MhL-S4/1~MhL-S2/5	2004	$ 6,003	$ 6,135	$ -	$0	$0	$0	$0	$0	$0	$0	$6,135
South Bowenfels	Reticulation	MhL-S5/1~MhL-S2/5	2004	$ 5,344	$ 5,461	$ -	$0	$0	$0	$0	$0	$0	$0	$5,461
South Bowenfels	Reticulation	MhL-S5/10~MhL-S5/9	2004	$ 9,493	$ 9,702	$ -	$0	$0	$0	$0	$0	$0	$0	$9,702
South Bowenfels	Reticulation	MhL-S5/11~MhL-S5/10	2004	$ 12,941	$ 13,226	$ -	$0	$0	$0	$0	$0	$0	$0	$13,226
South Bowenfels	Reticulation	MhL-S5/12~MhL-S5/11	2004	$ 11,691	$ 11,949	$ -	$0	$0	$0	$0	$0	$0	$0	$11,949
South Bowenfels	Reticulation	MhL-S5/13~MhL-S5/12	2004	$ 12,897	$ 13,180	$ -	$0	$0	$0	$0	$0	$0	$0	$13,180
South Bowenfels	Reticulation	MhL-S5/2~MhL-S5/1	2004	$ 8,044	$ 8,221	$ -	$0	$0	$0	$0	$0	$0	$0	$8,221
South Bowenfels	Reticulation	MhL-S5/3~MhL-S5/2	2004	$ 5,506	$ 5,627	$ -	$0	$0	$0	$0	$0	$0	$0	$5,627
South Bowenfels	Reticulation	MhL-S5/4~MhL-S5/3	2004	$ 4,457	$ 4,556	$ -	$0	$0	$0	$0	$0	$0	$0	$4,556
South Bowenfels	Reticulation	MhL-S5/5~MhL-S5/4	2004	$ 9,079	$ 9,279	$ -	$0	$0	$0	$0	$0	$0	$0	$9,279
South Bowenfels	Reticulation	MhL-S5/6~MhL-S5/5	2004	$ 9,408	$ 9,615	$ -	$0	$0	$0	$0	$0	$0	$0	$9,615

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
South Bowenfels	Reticulation	MhL-S5/7~MhL-S5/6	2004	$ 15,264	$ 15,599	$ -	$0	$0	$0	$0	$0	$0	$0	$15,599
South Bowenfels	Reticulation	MhL-S5/8~MhL-S5/7	2004	$ 9,229	$ 9,432	$ -	$0	$0	$0	$0	$0	$0	$0	$9,432
South Bowenfels	Reticulation	MhL-S5/9~MhL-S5/8	2004	$ 6,122	$ 6,256	$ -	$0	$0	$0	$0	$0	$0	$0	$6,256
South Bowenfels	Reticulation	MhL-S6/1~MhL-S5/1	2004	$ 2,913	$ 2,977	$ -	$0	$0	$0	$0	$0	$0	$0	$2,977
South Bowenfels	Reticulation	MhL-S6/10~MhL-S6/9	2004	$ 18,466	$ 18,872	$ -	$0	$0	$0	$0	$0	$0	$0	$18,872
South Bowenfels	Reticulation	MhL-S6/11~MhL-S6/10	2004	$ 18,565	$ 18,973	$ -	$0	$0	$0	$0	$0	$0	$0	$18,973
South Bowenfels	Reticulation	MhL-S6/12~MhL-S6/11	2004	$ 7,151	$ 7,308	$ -	$0	$0	$0	$0	$0	$0	$0	$7,308
South Bowenfels	Reticulation	MhL-S6/2~MhL-S6/1	2004	$ 23,094	$ 23,602	$ -	$0	$0	$0	$0	$0	$0	$0	$23,602
South Bowenfels	Reticulation	MhL-S6/3~MhL-S6/2	2004	$ 9,256	$ 9,460	$ -	$0	$0	$0	$0	$0	$0	$0	$9,460
South Bowenfels	Reticulation	MhL-S6/4~MhL-S6/3	2004	$ 8,578	$ 8,767	$ -	$0	$0	$0	$0	$0	$0	$0	$8,767
South Bowenfels	Reticulation	MhL-S6/5~MhL-S6/4	2004	$ 5,661	$ 5,786	$ -	$0	$0	$0	$0	$0	$0	$0	$5,786
South Bowenfels	Reticulation	MhL-S6/6~MhL-S6/5	2004	$ 9,249	$ 9,452	$ -	$0	$0	$0	$0	$0	$0	$0	$9,452
South Bowenfels	Reticulation	MhL-S6/7~MhL-S6/6	2004	$ 20,526	$ 20,978	$ -	$0	$0	$0	$0	$0	$0	$0	$20,978
South Bowenfels	Reticulation	MhL-S6/8~MhL-S6/7	2004	$ 7,577	$ 7,744	$ -	$0	$0	$0	$0	$0	$0	$0	$7,744
South Bowenfels	Reticulation	MhL-S6/9~MhL-S6/8	2004	$ 6,131	$ 6,266	$ -	$0	$0	$0	$0	$0	$0	$0	$6,266
South Bowenfels	Reticulation	MhL-S7/1~MhL-S6/2	2004	$ 3,989	$ 4,076	$ -	$0	$0	$0	$0	$0	$0	$0	$4,076
South Bowenfels	Reticulation	MhL-S7/2~MhL-S7/1	2004	$ 5,895	$ 6,024	$ -	$0	$0	$0	$0	$0	$0	$0	$6,024
South Bowenfels	Reticulation	MhL-S7/3~MhL-S7/2	2004	$ 6,164	$ 6,300	$ -	$0	$0	$0	$0	$0	$0	$0	$6,300
South Bowenfels	Reticulation	MhL-S7/4~MhL-S7/3	2004	$ 8,508	$ 8,695	$ -	$0	$0	$0	$0	$0	$0	$0	$8,695
South Bowenfels	Reticulation	MhMMH1/M~Mh1223	1940	$ 4,776	$ 4,881	$ -	$0	$0	$0	$0	$0	$0	$0	$4,881
South Bowenfels	Reticulation	MhMMH2/M~MhMMH1/M	1940	$ 11,392	$ 11,643	$ -	$0	$0	$0	$0	$0	$0	$0	$11,643
South Bowenfels	Reticulation	MhMMH3/M~MhMMH2/M	1940	$ 12,099	$ 12,365	$ -	$0	$0	$0	$0	$0	$0	$0	$12,365
South Bowenfels	Reticulation	MhMMH4/M~MhMMH3/M	1940	$ 16,182	$ 16,538	$ -	$0	$0	$0	$0	$0	$0	$0	$16,538
South Bowenfels	Reticulation	MhMMH6/M~MhMMH4/M	1940	$ 16,722	$ 17,090	$ -	$0	$0	$0	$0	$0	$0	$0	$17,090
South Bowenfels	Rising Mains	SPS1217~SPS1228	1930	$ 41,062	$ 41,966	$ 41,966	$0	$0	$0	$0	$0	$0	$0	$41,966
South Bowenfels	Rising Mains	SPS1226~SPS1227	1942	$ 172,637	$ 176,435	$ 176,435	$0	$0	$0	$0	$0	$0	$0	$176,435
South Bowenfels	Rising Mains	SPS1227~SPS2152	1942	$ 128,153	$ 130,973	$ 130,973	$0	$0	$0	$0	$0	$0	$0	$130,973
South Bowenfels	Rising Mains	SPS1228~SPS1229	1930	$ 78,823	$ 80,557	$ 80,557	$0	$0	$0	$0	$0	$0	$0	$80,557
South Bowenfels	Rising Mains	SPS1229~Mh2002	1930	$ 177,131	$ 181,028	$ 181,028	$0	$0	$0	$0	$0	$0	$0	$181,028
South Bowenfels	Rising Mains	SPS1388~Mh2002	1942	$ 96,962	$ 99,095	$ 99,095	$0	$0	$0	$0	$0	$0	$0	$99,095
South Bowenfels	Rising Mains	SPS174~Mh202	1930	$ 109,010	$ 111,408	$ 111,408	$0	$0	$0	$0	$0	$0	$0	$111,408
South Bowenfels	Reticulation	Mh144~Mh5/34	1951	$ -	$ -	$ -	$0	$0	$0	$0	$0	$0	$0	$0
Shared all	Monitoring	Pump Station 1	1997	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	South Littleton	2015	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared all	Monitoring	Tweed Mills	2004	$ 6,570	$ 6,715	$ 6,715	$6,715	$0	$0	$0	$0	$0	$6,715	$0
Shared Lithgow & SB	Submersible 50m head	Pump Station 1	1977	$ 432,600	$ 442,117	$ 442,117	$0	$0	$0	$0	$0	$0	$0	$442,117
Shared Lithgow & SB	Submersible 50m head	Pump Station 1	1977	$ 1,009,400	$ 1,031,607	$ 1,031,607	$0	$0	$0	$0	$0	$0	$0	$1,031,607
Shared Lithgow & SB	Submersible 25m head	South Littleton	1960	$ 394,531	$ 403,211	$ 403,211	$0	$0	$0	$0	$0	$0	$0	$403,211
Shared Lithgow & SB	Submersible 25m head	South Littleton	1960	$ 701,389	$ 716,819	$ 716,819	$0	$0	$0	$0	$0	$0	$0	$716,819
Shared Lithgow & SB	Submersible 25m head	Tweed Mills	1975	$ 314,191	$ 321,103	$ 321,103	$0	$0	$0	$0	$0	$0	$0	$321,103
Shared Lithgow & SB	Submersible 25m head	Tweed Mills	1957	$ 452,129	$ 462,076	$ 462,076	$0	$0	$0	$0	$0	$0	$0	$462,076
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Alu	2012	$ 85,800	$ 87,688	$ 87,688	$87,688	$0	$0	$0	$0	$87,688	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Bis	2012	$ 15,600	$ 15,943	$ 15,943	$15,943	$0	$0	$0	$0	$15,943	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Ch	2012	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$0	$0	$33,215	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing So	2012	$ 26,000	$ 26,572	$ 26,572	$26,572	$0	$0	$0	$0	$26,572	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Alu	2012	$ 104,000	$ 106,288	$ 106,288	$106,288	$0	$0	$0	$0	$106,288	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Bis	2012	$ 6,500	$ 6,643	$ 6,643	$6,643	$0	$0	$0	$0	$6,643	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Ch	2012	$ 67,600	$ 69,087	$ 69,087	$69,087	$0	$0	$0	$0	$69,087	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing So	2012	$ 9,750	$ 9,965	$ 9,965	$9,965	$0	$0	$0	$0	$9,965	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Alu	2012	$ 266,500	$ 272,363	$ 272,363	$272,363	$0	$0	$0	$0	$272,363	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Bis	2012	$ 9,750	$ 9,965	$ 9,965	$9,965	$0	$0	$0	$0	$9,965	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing Ch	2012	$ 74,750	$ 76,395	$ 76,395	$76,395	$0	$0	$0	$0	$76,395	$0	$0
Shared Lithgow & SB	Chemical Dosing	Lithgow WWTP Chemical Dosing So	2012	$ 19,500	$ 19,929	$ 19,929	$19,929	$0	$0	$0	$0	$19,929	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection Chlorine	2011	$ 104,000	$ 106,288	$ 106,288	$106,288	$0	$0	$0	$0	$106,288	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection UV Syst	2011	$ 400,400	$ 409,209	$ 409,209	$409,209	$0	$0	$0	$0	$409,209	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection UV Syst	2011	$ 70,200	$ 71,744	$ 71,744	$71,744	$0	$0	$0	$0	$71,744	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection Chlorine	2011	$ 97,500	$ 99,645	$ 99,645	$99,645	$0	$0	$0	$0	$99,645	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection UV Syst	2011	$ 494,000	$ 504,868	$ 504,868	$504,868	$0	$0	$0	$0	$504,868	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Offsit	2011	$ 9,750	$ 9,965	$ 9,965	$9,965	$0	$0	$0	$0	$9,965	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Onsit	2011	$ 41,600	$ 42,515	$ 42,515	$42,515	$0	$0	$0	$0	$42,515	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Offsit	2011	$ 19,500	$ 19,929	$ 19,929	$19,929	$0	$0	$0	$0	$19,929	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Offsit	2011	$ 15,600	$ 15,943	$ 15,943	$15,943	$0	$0	$0	$0	$15,943	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Offsit	2011	$ 28,600	$ 29,229	$ 29,229	$29,229	$0	$0	$0	$0	$29,229	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Reuse Offsit	2011	$ 28,600	$ 29,229	$ 29,229	$29,229	$0	$0	$0	$0	$29,229	$0	$0
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Storage Lag	1982	$ 3,263,000	$ 3,334,786	$ 3,334,786	$0	$0	$0	$0	$0	$0	$0	$3,334,786
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Storage Cat	2011	$ 52,000	$ 53,144	$ 53,144	$53,144	$0	$0	$0	$0	$53,144	$0	$0

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SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Shared Lithgow & SB	Effluent Reuse	Lithgow WWTP Effluent Storage Cat	2011	$ 188,500	$ 192,647	$ 192,647	$192,647	$0	$0	$0	$0	$192,647	$0	$0
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Dosing	1982	$ 123,500	$ 126,217	$ 126,217	$0	$0	$0	$0	$0	$0	$0	$126,217
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Flow Di	2011	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$0	$0	$33,215	$0	$0
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Intercep	1982	$ 19,500	$ 19,929	$ 19,929	$0	$0	$0	$0	$0	$0	$0	$19,929
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Dosing	1982	$ 32,500	$ 33,215	$ 33,215	$0	$0	$0	$0	$0	$0	$0	$33,215
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Flow Di	2011	$ 19,500	$ 19,929	$ 19,929	$19,929	$0	$0	$0	$0	$19,929	$0	$0
Shared Lithgow & SB	Flow Control	Lithgow WWTP Flow Control Intercep	1982	$ 9,750	$ 9,965	$ 9,965	$0	$0	$0	$0	$0	$0	$0	$9,965
Shared Lithgow & SB	Preliminary Works	Lithgow WWTP Preliminary Works In	1982	$ 247,065	$ 252,500	$ 252,500	$0	$0	$0	$0	$0	$0	$0	$252,500
Shared Lithgow & SB	Preliminary Works	Lithgow WWTP Preliminary Works G	2011	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$0	$0	$33,215	$0	$0
Shared Lithgow & SB	Preliminary Works	Lithgow WWTP Preliminary Works S	2011	$ 58,500	$ 59,787	$ 59,787	$59,787	$0	$0	$0	$0	$59,787	$0	$0
Shared Lithgow & SB	Preliminary Works	Lithgow WWTP Preliminary Works G	2011	$ 299,000	$ 305,578	$ 305,578	$305,578	$0	$0	$0	$0	$305,578	$0	$0
Shared Lithgow & SB	Preliminary Works	Lithgow WWTP Preliminary Works S	2011	$ 234,000	$ 239,148	$ 239,148	$239,148	$0	$0	$0	$0	$239,148	$0	$0
Shared Lithgow & SB	Clarification	Lithgow WWTP Primary Clarification	1982	$ 1,482,051	$ 1,514,656	$ 1,514,656	$0	$0	$0	$0	$0	$0	$0	$1,514,656
Shared Lithgow & SB	Clarification	Lithgow WWTP Primary Clarification	1982	$ 80,600	$ 82,373	$ 82,373	$0	$0	$0	$0	$0	$0	$0	$82,373
Shared Lithgow & SB	Clarification	Lithgow WWTP Primary Clarification	1982	$ 344,500	$ 352,079	$ 352,079	$0	$0	$0	$0	$0	$0	$0	$352,079
Shared Lithgow & SB	Process	Lithgow WWTP Process Process Sys	2011	$ 234,000	$ 239,148	$ 239,148	$239,148	$0	$0	$0	$0	$239,148	$0	$0
Shared Lithgow & SB	Process	Lithgow WWTP Process Process Sys	2011	$ 2,389,400	$ 2,441,967	$ 2,441,967	$2,441,967	$0	$0	$0	$0	$2,441,967	$0	$0
Shared Lithgow & SB	Process	Lithgow WWTP Process Auxilary Pov	2011	$ 110,500	$ 112,931	$ 112,931	$112,931	$0	$0	$0	$0	$112,931	$0	$0
Shared Lithgow & SB	Process	Lithgow WWTP Process Process Sys	2011	$ 2,275,000	$ 2,325,050	$ 2,325,050	$2,325,050	$0	$0	$0	$0	$2,325,050	$0	$0
Shared Lithgow & SB	Filtration	Lithgow WWTP Secondary Biological	1982	$ 5,104,030	$ 5,216,318	$ 5,216,318	$0	$0	$0	$0	$0	$0	$0	$5,216,318
Shared Lithgow & SB	Filtration	Lithgow WWTP Secondary Biological	1982	$ 351,000	$ 358,722	$ 358,722	$0	$0	$0	$0	$0	$0	$0	$358,722
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Buildings (	2011	$ 351,000	$ 358,722	$ 358,722	$358,722	$0	$0	$0	$0	$358,722	$0	$0
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Services C	2011	$ 1,210,300	$ 1,236,927	$ 1,236,927	$1,236,927	$0	$0	$0	$0	$1,236,927	$0	$0
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Buildings I	2011	$ 29,250	$ 29,894	$ 29,894	$29,894	$0	$0	$0	$0	$29,894	$0	$0
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Services E	2011	$ 128,700	$ 131,531	$ 131,531	$131,531	$0	$0	$0	$0	$131,531	$0	$0
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Buildings I	2011	$ 68,250	$ 69,752	$ 69,752	$69,752	$0	$0	$0	$0	$69,752	$0	$0
Shared Lithgow & SB	Siteworks	Lithgow WWTP Siteworks Services N	2011	$ 400,400	$ 409,209	$ 409,209	$409,209	$0	$0	$0	$0	$409,209	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Dewatering D	2011	$ 124,800	$ 127,546	$ 127,546	$127,546	$0	$0	$0	$0	$127,546	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Dewatering D	2011	$ 115,700	$ 118,245	$ 118,245	$118,245	$0	$0	$0	$0	$118,245	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Dewatering E	2011	$ 572,000	$ 584,584	$ 584,584	$584,584	$0	$0	$0	$0	$584,584	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Fo	2016	$ 19,500	$ 19,929	$ 19,929	$19,929	$0	$0	$0	$0	$19,929	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Su	2011	$ 84,500	$ 86,359	$ 86,359	$86,359	$0	$0	$0	$0	$86,359	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Fo	2016	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$0	$0	$33,215	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment La	2011	$ 130,000	$ 132,860	$ 132,860	$132,860	$0	$0	$0	$0	$132,860	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Su	2011	$ 32,500	$ 33,215	$ 33,215	$33,215	$0	$0	$0	$0	$33,215	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Fo	2016	$ 169,000	$ 172,718	$ 172,718	$172,718	$0	$0	$0	$0	$172,718	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment Su	2011	$ 68,250	$ 69,752	$ 69,752	$69,752	$0	$0	$0	$0	$69,752	$0	$0
Shared Lithgow & SB	Disinfection	Lithgow WWTP Disinfection UV Syst	2011	$ 492,375	$ 503,207	$ 503,207	$503,207	$0	$0	$0	$0	$503,207	$0	$0
Shared Lithgow & SB	Aeration Tank Double Strea	Lithgow WWTP EAT Process Aeratio	2011	$ 4,595,500	$ 4,696,601	$ 4,696,601	$4,696,601	$0	$0	$0	$0	$4,696,601	$0	$0
Shared Lithgow & SB	Aeration Tank Double Strea	Lithgow WWTP EAT Process Aeratio	2011	$ 630,500	$ 644,371	$ 644,371	$644,371	$0	$0	$0	$0	$644,371	$0	$0
Shared Lithgow & SB	Aeration Tank Double Strea	Lithgow WWTP EAT Process Aeratio	2011	$ 1,527,500	$ 1,561,105	$ 1,561,105	$1,561,105	$0	$0	$0	$0	$1,561,105	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment La	2011	$ 1,977,170	$ 2,020,668	$ 2,020,668	$2,020,668	$0	$0	$0	$0	$2,020,668	$0	$0
Shared Lithgow & SB	Sludge Lagoons	Lithgow WWTP Sludge Treatment La	2011	$ 364,000	$ 372,008	$ 372,008	$372,008	$0	$0	$0	$0	$372,008	$0	$0
Shared Lithgow & SB	Disinfection UV	Lamps and Wiper UV Treatment Lith	2017	$ 82,993	$ 84,819	$ 84,819	$84,819	$0	$0	$0	$0	$84,819	$0	$0
Shared Lithgow & SB	Chemical Dosing	Aeration and Dosing System Sludge	2016	$ 52,400	$ 53,553	$ 53,553	$53,553	$0	$0	$0	$0	$53,553	$0	$0
Shared Lithgow & SB	Rising Mains	DE121~SPS1230	1900	$ 29,016	$ 29,654	$ 29,654	$0	$0	$0	$0	$0	$0	$0	$29,654
Shared Lithgow & SB	Rising Mains	Mh1/6~Mh1/7	1930	$ 18,108	$ 18,507	$ 18,507	$0	$0	$0	$0	$0	$0	$0	$18,507
Shared Lithgow & SB	Rising Mains	Mh1/7~SPS2155	1930	$ 11,015	$ 11,257	$ 11,257	$0	$0	$0	$0	$0	$0	$0	$11,257
Shared Lithgow & SB	Rising Mains	Mh1/8~SPS2155	1930	$ 23,548	$ 24,066	$ 24,066	$0	$0	$0	$0	$0	$0	$0	$24,066
Shared Lithgow & SB	Rising Mains	Mh1/9a~Mh1/8	1930	$ 46,938	$ 47,971	$ 47,971	$0	$0	$0	$0	$0	$0	$0	$47,971
Shared Lithgow & SB	Rising Mains	Mh2/10~Mh2/9a	1954	$ 6,021	$ 6,154	$ 6,154	$0	$0	$0	$0	$0	$0	$0	$6,154
Shared Lithgow & SB	Rising Mains	Mh2/11~Mh2/10	1954	$ 17,329	$ 17,711	$ 17,711	$0	$0	$0	$0	$0	$0	$0	$17,711
Shared Lithgow & SB	Reticulation	Mh2/12~SPS2152	1954	$ 3,284	$ 3,356	$ -	$0	$0	$0	$0	$0	$0	$0	$3,356
Shared Lithgow & SB	Reticulation	Mh2/13~Mh2/12	1954	$ 10,871	$ 11,110	$ -	$0	$0	$0	$0	$0	$0	$0	$11,110
Shared Lithgow & SB	Reticulation	Mh2/14~Mh2/13	1954	$ 17,035	$ 17,410	$ -	$0	$0	$0	$0	$0	$0	$0	$17,410
Shared Lithgow & SB	Reticulation	Mh2/15~Mh2/14	1954	$ 2,615	$ 2,673	$ -	$0	$0	$0	$0	$0	$0	$0	$2,673
Shared Lithgow & SB	Reticulation	Mh2/25~Mh2/15	1954	$ 6,031	$ 6,163	$ -	$0	$0	$0	$0	$0	$0	$0	$6,163
Shared Lithgow & SB	Reticulation	Mh2/26~Mh2/25	1954	$ 9,015	$ 9,213	$ -	$0	$0	$0	$0	$0	$0	$0	$9,213
Shared Lithgow & SB	Reticulation	Mh2/27~Mh2/26	1954	$ 14,156	$ 14,468	$ -	$0	$0	$0	$0	$0	$0	$0	$14,468
Shared Lithgow & SB	Rising Mains	Mh2/2a~Mh1/6	1954	$ 14,523	$ 14,843	$ 14,843	$0	$0	$0	$0	$0	$0	$0	$14,843
Shared Lithgow & SB	Reticulation	Mh2/30~Mh2/27	1954	$ 8,543	$ 8,731	$ -	$0	$0	$0	$0	$0	$0	$0	$8,731
Shared Lithgow & SB	Reticulation	Mh2/39~Mh2/31	1954	$ 10,341	$ 10,569	$ -	$0	$0	$0	$0	$0	$0	$0	$10,569
Shared Lithgow & SB	Rising Mains	Mh2/4~Mh2/2a	1954	$ 8,345	$ 8,528	$ 8,528	$0	$0	$0	$0	$0	$0	$0	$8,528
Shared Lithgow & SB	Reticulation	Mh2/40~Mh2/39	1954	$ 12,210	$ 12,479	$ -	$0	$0	$0	$0	$0	$0	$0	$12,479
Shared Lithgow & SB	Rising Mains	Mh2/5~Mh2/4	1954	$ 19,763	$ 20,197	$ 20,197	$0	$0	$0	$0	$0	$0	$0	$20,197

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Table 1: Lithgow City Council Existing Sewerage Assets

SB (South Bowenfels)

Service Area	Asset Type	Asset Description	Year of Commissioning	Current Replacement Cost 2016/17 $	Current Replacement Cost 2017/18 $	Assets excluding reticulation	Assets excluding pre 1988	Lithgow	Portland	Wallerawang	South Bowenfels	Shared Lithgow & SB	Shared all	Assets Excluded
Shared Lithgow & SB	Rising Mains	Mh2/6~Mh2/5	1954	$ 19,543	$ 19,973	$ 19,973	$0	$0	$0	$0	$0	$0	$0	$19,973
Shared Lithgow & SB	Rising Mains	Mh2/8~Mh2/7	1954	$ 38,782	$ 39,635	$ 39,635	$0	$0	$0	$0	$0	$0	$0	$39,635
Shared Lithgow & SB	Rising Mains	Mh2/9a~Mh2/8	1954	$ 3,484	$ 3,560	$ 3,560	$0	$0	$0	$0	$0	$0	$0	$3,560
Shared Lithgow & SB	Rising Mains	Mh3/1~Mh1/9a	1910	$ 25,868	$ 26,437	$ 26,437	$0	$0	$0	$0	$0	$0	$0	$26,437
Shared Lithgow & SB	Rising Mains	Mh3/10~Mh3/9a	1910	$ 13,938	$ 14,245	$ 14,245	$0	$0	$0	$0	$0	$0	$0	$14,245
Shared Lithgow & SB	Rising Mains	Mh3/11~Mh3/10	1910	$ 21,486	$ 21,959	$ 21,959	$0	$0	$0	$0	$0	$0	$0	$21,959
Shared Lithgow & SB	Rising Mains	Mh3/12~Mh3/11	1910	$ 21,515	$ 21,988	$ 21,988	$0	$0	$0	$0	$0	$0	$0	$21,988
Shared Lithgow & SB	Rising Mains	Mh3/13~Mh3/12	1910	$ 26,652	$ 27,238	$ 27,238	$0	$0	$0	$0	$0	$0	$0	$27,238
Shared Lithgow & SB	Rising Mains	Mh3/14~Mh3/13	1910	$ 6,377	$ 6,518	$ 6,518	$0	$0	$0	$0	$0	$0	$0	$6,518
Shared Lithgow & SB	Rising Mains	Mh3/15~Mh3/14	1910	$ 19,635	$ 20,067	$ 20,067	$0	$0	$0	$0	$0	$0	$0	$20,067
Shared Lithgow & SB	Rising Mains	Mh3/16~Mh3/15	1970	$ 27,273	$ 27,873	$ 27,873	$0	$0	$0	$0	$0	$0	$0	$27,873
Shared Lithgow & SB	Rising Mains	Mh3/17~Mh3/16	1970	$ 25,617	$ 26,181	$ 26,181	$0	$0	$0	$0	$0	$0	$0	$26,181
Shared Lithgow & SB	Rising Mains	Mh3/18~Mh3/17	1970	$ 17,453	$ 17,837	$ 17,837	$0	$0	$0	$0	$0	$0	$0	$17,837
Shared Lithgow & SB	Rising Mains	Mh3/19~Mh3/18	1970	$ 16,205	$ 16,561	$ 16,561	$0	$0	$0	$0	$0	$0	$0	$16,561
Shared Lithgow & SB	Rising Mains	Mh3/1A~Mh3/1	1910	$ 9,223	$ 9,426	$ 9,426	$0	$0	$0	$0	$0	$0	$0	$9,426
Shared Lithgow & SB	Rising Mains	Mh3/21~Mh3/20	1970	$ 20,691	$ 21,146	$ 21,146	$0	$0	$0	$0	$0	$0	$0	$21,146
Shared Lithgow & SB	Rising Mains	Mh3/22~Mh3/21	1970	$ 25,796	$ 26,363	$ 26,363	$0	$0	$0	$0	$0	$0	$0	$26,363
Shared Lithgow & SB	Rising Mains	Mh3/2a~Mh3/1A	1910	$ 25,816	$ 26,384	$ 26,384	$0	$0	$0	$0	$0	$0	$0	$26,384
Shared Lithgow & SB	Rising Mains	Mh3/3a~Mh3/2a	1910	$ 16,795	$ 17,165	$ 17,165	$0	$0	$0	$0	$0	$0	$0	$17,165
Shared Lithgow & SB	Rising Mains	Mh3/4~Mh3/3a	1910	$ 25,876	$ 26,445	$ 26,445	$0	$0	$0	$0	$0	$0	$0	$26,445
Shared Lithgow & SB	Rising Mains	Mh3/4A~Mh3/4	1910	$ 26,022	$ 26,595	$ 26,595	$0	$0	$0	$0	$0	$0	$0	$26,595
Shared Lithgow & SB	Rising Mains	Mh3/5~Mh3/4A	1910	$ 7,291	$ 7,451	$ 7,451	$0	$0	$0	$0	$0	$0	$0	$7,451
Shared Lithgow & SB	Rising Mains	Mh3/6~Mh3/5	1910	$ 18,895	$ 19,311	$ 19,311	$0	$0	$0	$0	$0	$0	$0	$19,311
Shared Lithgow & SB	Rising Mains	Mh3/7~Mh3/6	1910	$ 21,966	$ 22,449	$ 22,449	$0	$0	$0	$0	$0	$0	$0	$22,449
Shared Lithgow & SB	Rising Mains	Mh3/8~Mh3/7	1910	$ 16,462	$ 16,824	$ 16,824	$0	$0	$0	$0	$0	$0	$0	$16,824
Shared Lithgow & SB	Rising Mains	Mh3/9a~Mh3/8	1910	$ 13,379	$ 13,674	$ 13,674	$0	$0	$0	$0	$0	$0	$0	$13,674
Shared Lithgow & SB	Rising Mains	SPS1214~Mh2/221	1942	$ 114,515	$ 117,034	$ 117,034	$0	$0	$0	$0	$0	$0	$0	$117,034
Shared Lithgow & SB	Rising Mains	SPS1230~SPS2155	1900	$ 36,070	$ 36,864	$ 36,864	$0	$0	$0	$0	$0	$0	$0	$36,864
Shared Lithgow & SB	Rising Mains	SPS2152~Mh2/11	1954	$ 8,627	$ 8,817	$ 8,817	$0	$0	$0	$0	$0	$0	$0	$8,817
Shared Lithgow & SB	Rising Mains	SPS2155~TP_LITHGOW	1900	$ 355,587	$ 363,410	$ 363,410	$0	$0	$0	$0	$0	$0	$0	$363,410
Shared Lithgow & SB	Rising Mains	TP_LITHGOW~SPS1390	1900	$ 21,790	$ 22,269	$ 22,269	$0	$0	$0	$0	$0	$0	$0	$22,269
				$ 107,413,427	**$ 109,776,522**	**$ 73,005,301**	**$ 37,178,141**	**$ 2,767,793**	**$ 336,851**	**$ 9,344,001**	**$ 2,842,182**	**$ 21,679,163**	**$ 208,151**	**$ 72,598,381**

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Table 2: Lithgow City Council Sewerage Capital Works Program

All values are in year 2017/18 ($)

Project	New Works	ILOS	Renewals	Project Total	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
					1	2	3	4	5	6	7	8	9	10
Lithgow														
Lithgow STP			100%	**2,900,000**	0	2000000	150000	150000	100000	100000	100000	100000	100000	100000
				0	0	0	0	0	0	0	0	0	0	0
Portland														
Portland STP - Upgrade ($10M grant)	40%	0%	60%	**13,139,000**	13139000	0	0	0	0	0	0	0	0	0
Wallerawang														
Wallerawang STP			100%	**0**	0	0	0	0	0	0	0	0	0	0
Shared all														
Mains Renewal			100%	**2,250,000**	0	250000	250000	250000	250000	250000	250000	250000	250000	250000
CCTV inspection of mains		40%	60%	**75,000**	75000	0	0	0	0	0	0	0	0	0
Smoke Testing		100%		**75,000**	75000	0	0	0	0	0	0	0	0	0
Pump Station Renewal			100%	**3,400,000**	300000	200000	0	2000000	150000	150000	150000	150000	150000	150000
Pump Station Pump Replacement Program			100%	**0**	0	0	0	0	0	0	0	0	0	0
Telemetry Upgrade			100%	**600,000**	0	0	0	0	100000	100000	100000	100000	100000	100000
Sewer Vent Replacement Program			100%	**480,000**	60000	60000	60000	60000	40000	40000	40000	40000	40000	40000
Land Acquisition	100%			**200,000**	50000	50000	50000	50000	0	0	0	0	0	0
Safety Equipment		50%	50%	**100,000**	25000	25000	25000	25000	0	0	0	0	0	0
South Bowenfels														
West Bowenfels Sewer upgrade	70%		30%	**18,200,000**	200000	6000000	4000000	4000000	4000000	0	0	0	0	0
				41,419,000	**13,924,000**	**8,585,000**	**4,535,000**	**6,535,000**	**4,640,000**	**640,000**	**640,000**	**640,000**	**640,000**	**640,000**

$'000

ILOS	**$ 155,000**	117,500	12,500	12,500	12,500	0	0	0	0	0	0
New Works	**$ 18,195,600**	5,445,600	4,250,000	2,850,000	2,850,000	2,800,000	0	0	0	0	0
Renewals	**$ 23,068,400**	8,360,900	4,322,500	1,672,500	3,672,500	1,840,000	640,000	640,000	640,000	640,000	640,000
Total	**$ 41,264,000**	##########	**$ 8,572,500**	**$ 4,522,500**	**$ 6,522,500**	**$ 4,640,000**	**$ 640,000**	**$ 640,000**	**$ 640,000**	**$ 640,000**	**$ 640,000**

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Table 3: Lithgow City Council Sewerage Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works for renewals utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Lithgow						27.2%						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$1,000,027				$272,289	3%	1.00	$272,289						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		4300				
Assets commissioned in	1994	1996	$336,851				$91,719	3%	1.00	$91,719		4326	26	26	26	
Subtotal (Assets pre-1996)			$ 1,336,878				$ 364,008			$ 364,008	$ 364,008					$ 443
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		4352	26	26	26	
Assets commissioned in	1996	1996	$336,851				$91,719	5%	1.00	$91,719		4378	26	26	26	
Assets commissioned in	1997	1997	$0				$0	5%	0.95	$0		4404	26	26	25	
Assets commissioned in	1998	1998	$336,851				$91,719	5%	0.91	$83,191		4431	27	25	24	
Assets commissioned in	1999	1999	$0				$0.00	5%	0.86	$0		4458	27	24	23	
Assets commissioned in	2000	2000	$389,484				$106,050	5%	0.82	$87,247		4485	27	24	22	
Assets commissioned in	2001	2001	$70,902				$19,305	5%	0.78	$15,126		4512	27	23	21	
Assets commissioned in	2002	2002	$78,956				$21,498	5%	0.75	$16,042		4539	27	23	20	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		4566	27	22	19	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		4594	28	22	19	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		4622	28	21	18	
Assets commissioned in	2006	2006	$0				$0	5%	0.61	$0		4650	28	21	17	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		4678	28	20	16	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		4706	28	20	16	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		4734	28	19	15	
Assets commissioned in	2010	2010	$17,736				$4,829	5%	0.51	$2,439		4763	29	19	14	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		4792	29	18	14	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		4820	29	18	13	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		4850	29	18	13	
Assets commissioned in	2014	2014	$0				$0.00	5%	0.42	$0		4879	29	17	12	
Assets commissioned in	2015	2015	$0				$0.00	5%	0.40	$0		4908	29	17	12	
Assets commissioned in	2016	2016	$186,704				$50,836.12	5%	0.38	$19,160		4938	30	16	11	
Assets commissioned in	2017	2017	$13,430				$3,656.78	5%	0.36	$1,313		4968	30	16	11	
			$ 1,430,915				$ 389,613				$ 316,237					
Future																
Assets planned in 2017/18	2018	2018		$0	$0		$0	5%	0.34	$0		4997	30	16	10	
Assets planned in 2018/19	2019	2019		$2,000,000	$0		$544,564	5%	0.33	$177,294		5027	30	15	10	
Assets planned in 2019/20	2020	2020		$150,000	$0		$40,842	5%	0.31	$12,664		5058	30	15	9	
Assets planned in 2020/21	2021	2021		$150,000	$0		$40,842	5%	0.30	$12,061		5088	30	14	9	
Assets planned in 2021/22	2022	2022		$100,000	$0		$27,228	5%	0.28	$7,658		5118	31	14	9	
Assets planned in 2022/23	2023	2023		$100,000	$0		$27,228	5%	0.27	$7,293		5149	31	14	8	
Assets planned in 2023/24	2024	2024		$100,000	$0		$27,228	5%	0.26	$6,946		5180	31	14	8	
Assets planned in 2024/25	2025	2025		$100,000	$0		$27,228	5%	0.24	$6,615		5211	31	13	8	
Assets planned in 2025/26	2026	2026		$100,000	$0		$27,228	5%	0.23	$6,300		5242	31	13	7	
Assets planned in 2026/27	2027	2027		$100,000	$0		$27,228	5%	0.22	$6,000		5274	31	13	7	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		5305	32	12	7	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		5337	32	12	6	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		5369	32	12	6	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		5402	32	11	6	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		5434	32	11	6	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		5467	33	11	5	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		5499	33	11	5	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		5532	33	10	5	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		5566	33	10	5	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		5599	33	10	5	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		5632	34	10	4	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		5666	34	9	4	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		5700	34	9	4	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		5734	34	9	4	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		5769	34	9	4	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		5804	35	9	3	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		5838	35	8	3	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		5873	35	8	3	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		5909	35	8	3	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		5944	35	8	3	
				$ 2,900,000	$ -		$ 789,618				$ 242,831		976			
Subtotal (Assets post-1996)										$ 559,068			1,618	821	584	$ 957
															TOTAL CAPITAL CHARGE PER ET	**$1,400**
															TOTAL CAPITAL CHARGE PER ET (incl shared assets)	**$5,792**

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Table 3: Lithgow City Council Sewerage Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works for renewals utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Portland						27.2%						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0.00	3%	1.00	$0		913				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		918	6	6	6	
Subtotal (Assets pre-1996)			$ -				$ -			$ -	$ -					$ -
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		924	6	6	6	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		929	6	6	6	
Assets commissioned in	1997	1997	$0				$0	5%	0.95	$0		935	6	5	5	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		941	6	5	5	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		946	6	5	5	
Assets commissioned in	2000	2000	$0				$0	5%	0.82	$0		952	6	5	5	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		958	6	5	5	
Assets commissioned in	2002	2002	$336,851				$91,719	5%	0.75	$68,442		964	6	5	4	
Assets commissioned in	2003	2003	$0				$0	5%	0.71	$0		969	6	5	4	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		975	6	5	4	
Assets commissioned in	2005	2005	$0				$0	5%	0.64	$0		981	6	5	4	
Assets commissioned in	2006	2006	$0				$0	5%	0.61	$0		987	6	4	4	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		993	6	4	3	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		999	6	4	3	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		1005	6	4	3	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		1011	6	4	3	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		1017	6	4	3	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		1023	6	4	3	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		1030	6	4	3	
Assets commissioned in	2014	2014	$0				$0	5%	0.42	$0		1036	6	4	3	
Assets commissioned in	2015	2015	$0				$0	5%	0.40	$0		1042	6	4	2	
Assets commissioned in	2016	2016	$0				$0	5%	0.38	$0		1048	6	3	2	
Assets commissioned in	2017	2017	$0				$0	5%	0.36	$0		1055	6	3	2	
			$ 336,851				$ 91,719				$ 68,442					
Future																
Assets planned in 2017/18	2018	2018		$7,883,400	$5,255,600		$3,577,515	5%	0.34	$1,222,973		1061	6	3	2	
Assets planned in 2018/19	2019	2019		$0	$0		$0	5%	0.33	$0		1067	6	3	2	
Assets planned in 2019/20	2020	2020		$0	$0		$0	5%	0.31	$0		1074	6	3	2	
Assets planned in 2020/21	2021	2021		$0	$0		$0	5%	0.30	$0		1080	6	3	2	
Assets planned in 2021/22	2022	2022		$0	$0		$0	5%	0.28	$0		1087	6	3	2	
Assets planned in 2022/23	2023	2023		$0	$0		$0	5%	0.27	$0		1093	7	3	2	
Assets planned in 2023/24	2024	2024		$0	$0		$0	5%	0.26	$0		1100	7	3	2	
Assets planned in 2024/25	2025	2025		$0	$0		$0	5%	0.24	$0		1106	7	3	2	
Assets planned in 2025/26	2026	2026		$0	$0		$0	5%	0.23	$0		1113	7	3	2	
Assets planned in 2026/27	2027	2027		$0	$0		$0	5%	0.22	$0		1120	7	3	1	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		1126	7	3	1	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		1133	7	3	1	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		1140	7	2	1	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		1147	7	2	1	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		1154	7	2	1	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		1161	7	2	1	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		1168	7	2	1	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		1175	7	2	1	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		1182	7	2	1	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		1189	7	2	1	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		1196	7	2	1	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		1203	7	2	1	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		1210	7	2	1	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		1217	7	2	1	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		1225	7	2	1	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		1232	7	2	1	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		1240	7	2	1	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		1247	7	2	1	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		1254	7	2	1	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		1262	8	2	1	
				$ 7,883,400	$ 5,255,600		$ 3,577,515				$ 1,222,973		207			
Subtotal (Assets post-1996)										$ 1,291,415			344	174	124	$ 10,408
															TOTAL CAPITAL CHARGE PER ET	**$10,408**
															TOTAL CAPITAL CHARGE PER ET (incl shared assets)	**$11,024**

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Table 3: Lithgow City Council Sewerage Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works for renewals utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
Wallerawang						27.2%						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		552				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		556	3.3	3.3	3.3	
Subtotal (Assets pre-1996)			$ -				$ -			$ -	$ -					$ -
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		559	3.4	3.4	3.4	
Assets commissioned in	1996	1996	$0				$0.00	5%	1.00	$0		563	3.4	3.4	3.4	
Assets commissioned in	1997	1997	$0				$0.00	5%	0.95	$0		566	3.4	3.3	3.2	
Assets commissioned in	1998	1998	$336,851				$91,718.55	5%	0.91	$83,191		569	3.4	3.2	3.1	
Assets commissioned in	1999	1999	$0				$0.00	5%	0.86	$0		573	3.4	3.1	3.0	
Assets commissioned in	2000	2000	$0				$0.00	5%	0.82	$0		576	3.5	3.1	2.8	
Assets commissioned in	2001	2001	$0				$0.00	5%	0.78	$0		580	3.5	3.0	2.7	
Assets commissioned in	2002	2002	$0				$0.00	5%	0.75	$0		583	3.5	2.9	2.6	
Assets commissioned in	2003	2003	$336,851				$91,718.55	5%	0.71	$65,183		587	3.5	2.9	2.5	
Assets commissioned in	2004	2004	$0				$0.00	5%	0.68	$0		590	3.5	2.8	2.4	
Assets commissioned in	2005	2005	$642,388				$174,910.83	5%	0.64	$112,749		594	3.6	2.7	2.3	
Assets commissioned in	2006	2006	$0				$0.00	5%	0.61	$0		597	3.6	2.7	2.2	
Assets commissioned in	2007	2007	$0				$0.00	5%	0.58	$0		601	3.6	2.6	2.1	
Assets commissioned in	2008	2008	$0				$0.00	5%	0.56	$0		605	3.6	2.5	2.0	
Assets commissioned in	2009	2009	$0				$0.00	5%	0.53	$0		608	3.6	2.5	1.9	
Assets commissioned in	2010	2010	$0				$0.00	5%	0.51	$0		612	3.7	2.4	1.9	
Assets commissioned in	2011	2011	$0				$0.00	5%	0.48	$0		616	3.7	2.4	1.8	
Assets commissioned in	2012	2012	$8,027,910				$2,185,856.37	5%	0.46	$1,001,366		619	3.7	2.3	1.7	
Assets commissioned in	2013	2013	$0				$0.00	5%	0.44	$0		623	3.7	2.3	1.6	
Assets commissioned in	2014	2014	$0				$0.00	5%	0.42	$0		627	3.8	2.2	1.6	
Assets commissioned in	2015	2015	$0				$0.00	5%	0.40	$0		631	3.8	2.2	1.5	
Assets commissioned in	2016	2016	$0				$0.00	5%	0.38	$0		634	3.8	2.1	1.4	
Assets commissioned in	2017	2017	$0				$0.00	5%	0.36	$0		638	3.8	2.0	1.4	
			$ 9,344,001				$ 2,544,204				$ 1,262,489					
Future																
Assets planned in 2017/18	2018	2018		$0	$0		$0	5%	0.34	$0		642	3.8	2.0	1.3	
Assets planned in 2018/19	2019	2019		$0	$0		$0	5%	0.33	$0		646	3.9	2.0	1.3	
Assets planned in 2019/20	2020	2020		$0	$0		$0	5%	0.31	$0		650	3.9	1.9	1.2	
Assets planned in 2020/21	2021	2021		$0	$0		$0	5%	0.30	$0		654	3.9	1.9	1.2	
Assets planned in 2021/22	2022	2022		$0	$0		$0	5%	0.28	$0		658	3.9	1.8	1.1	
Assets planned in 2022/23	2023	2023		$0	$0		$0	5%	0.27	$0		662	3.9	1.8	1.1	
Assets planned in 2023/24	2024	2024		$0	$0		$0	5%	0.26	$0		666	4.0	1.7	1.0	
Assets planned in 2024/25	2025	2025		$0	$0		$0	5%	0.24	$0		670	4.0	1.7	1.0	
Assets planned in 2025/26	2026	2026		$0	$0		$0	5%	0.23	$0		674	4.0	1.7	0.9	
Assets planned in 2026/27	2027	2027		$0	$0		$0	5%	0.22	$0		678	4.0	1.6	0.9	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		682	4.1	1.6	0.9	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		686	4.1	1.5	0.8	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		690	4.1	1.5	0.8	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		694	4.1	1.5	0.8	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		698	4.2	1.4	0.7	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		702	4.2	1.4	0.7	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		707	4.2	1.4	0.7	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		711	4.2	1.3	0.6	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		715	4.3	1.3	0.6	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		719	4.3	1.3	0.6	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		724	4.3	1.2	0.6	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		728	4.3	1.2	0.5	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		732	4.4	1.2	0.5	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		737	4.4	1.2	0.5	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		741	4.4	1.1	0.5	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		746	4.4	1.1	0.4	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		750	4.5	1.1	0.4	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		755	4.5	1.1	0.4	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		759	4.5	1.0	0.4	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		764	4.6	1.0	0.4	
				$ -	$ -		$ -				$ -		125			
Subtotal (Assets post-1996)										$ 1,262,489			208	105	75	$ 16,813
															TOTAL CAPITAL CHARGE PER ET	**$16,813**
															TOTAL CAPITAL CHARGE PER ET (incl shared assets)	**$17,428**

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Table 3: Lithgow City Council Sewerage Capital Charge Calculations

	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets ($)	Capital Cost of renewals only ($)	Capital Cost of new assets only ($)	Percentage of capital works for renewals utilised by new ETs after 1995/96	Effective Capital Cost ($)	Rate of Return (%)	PV Factor	PV of capital costs (2017/18$)		Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2017/18$)
												Growth rate				
South Bowenfels						**27.2%**						0.60%				
Existing																
Assets commissioned in	1988	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1989	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1990	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1991	1996	$0				$0	3%	1.00	$0						
Assets commissioned in	1992	1996	$873,708				$237,941	3%	1.00	$237,941						
Assets commissioned in	1993	1996	$0				$0	3%	1.00	$0		1202				
Assets commissioned in	1994	1996	$0				$0	3%	1.00	$0		1209	7.3	7.3	7.3	
Subtotal (Assets pre-1996)			**$ 873,708**				**$ 237,941**			**$ 237,941**	$ 237,941					**$ 1,037**
Assets commissioned in	1995	1996	$0				$0	3%	1.00	$0		1216	7.3	7.3	7.3	
Assets commissioned in	1996	1996	$0				$0	5%	1.00	$0		1224	7.3	7.3	7.3	
Assets commissioned in	1997	1997	$0				$0	5%	0.95	$0		1231	7.4	7.2	7.0	
Assets commissioned in	1998	1998	$0				$0	5%	0.91	$0		1239	7.4	7.0	6.7	
Assets commissioned in	1999	1999	$0				$0	5%	0.86	$0		1246	7.5	6.8	6.5	
Assets commissioned in	2000	2000	$389,484				$106,070	5%	0.82	$87,264		1254	7.5	6.7	6.2	
Assets commissioned in	2001	2001	$0				$0	5%	0.78	$0		1261	7.6	6.5	5.9	
Assets commissioned in	2002	2002	$0				$0	5%	0.75	$0		1269	7.6	6.4	5.7	
Assets commissioned in	2003	2003	$800,022				$217,873	5%	0.71	$154,839		1276	7.7	6.2	5.4	
Assets commissioned in	2004	2004	$0				$0	5%	0.68	$0		1284	7.7	6.1	5.2	
Assets commissioned in	2005	2005	$778,968				$212,140	5%	0.64	$136,747		1292	7.8	5.9	5.0	
Assets commissioned in	2006	2006	$0				$0	5%	0.61	$0		1300	7.8	5.8	4.8	
Assets commissioned in	2007	2007	$0				$0	5%	0.58	$0		1308	7.8	5.7	4.6	
Assets commissioned in	2008	2008	$0				$0	5%	0.56	$0		1315	7.9	5.5	4.4	
Assets commissioned in	2009	2009	$0				$0	5%	0.53	$0		1323	7.9	5.4	4.2	
Assets commissioned in	2010	2010	$0				$0	5%	0.51	$0		1331	8.0	5.3	4.0	
Assets commissioned in	2011	2011	$0				$0	5%	0.48	$0		1339	8.0	5.2	3.9	
Assets commissioned in	2012	2012	$0				$0	5%	0.46	$0		1347	8.1	5.0	3.7	
Assets commissioned in	2013	2013	$0				$0	5%	0.44	$0		1356	8.1	4.9	3.5	
Assets commissioned in	2014	2014	$0				$0	5%	0.42	$0		1364	8.2	4.8	3.4	
Assets commissioned in	2015	2015	$0				$0	5%	0.40	$0		1372	8.2	4.7	3.3	
Assets commissioned in	2016	2016	$0				$0	5%	0.38	$0		1380	8.3	4.6	3.1	
Assets commissioned in	2017	2017	$0				$0	5%	0.36	$0		1389	8.3	4.5	3.0	
			$ 1,968,474				**$ 536,083**				$ 378,850					
Future																
Assets planned in 2017/18	2018	2018		$60,000	$140,000		$54,467	5%	0.34	$18,620		1397	8.4	4.4	2.9	
Assets planned in 2018/19	2019	2019		$1,800,000	$4,200,000		$1,634,007	5%	0.33	$531,986		1405	8.4	4.2	2.7	
Assets planned in 2019/20	2020	2020		$1,200,000	$2,800,000		$1,089,338	5%	0.31	$337,769		1414	8.4	4.1	2.6	
Assets planned in 2020/21	2021	2021		$1,200,000	$2,800,000		$1,089,338	5%	0.30	$321,685		1422	8.5	4.1	2.5	
Assets planned in 2021/22	2022	2022		$1,200,000	$2,800,000		$1,089,338	5%	0.28	$306,366		1431	8.5	4.0	2.4	
Assets planned in 2022/23	2023	2023		$0	$0		$0	5%	0.27	$0		1439	8.6	3.9	2.3	
Assets planned in 2023/24	2024	2024		$0	$0		$0	5%	0.26	$0		1448	8.6	3.8	2.2	
Assets planned in 2024/25	2025	2025		$0	$0		$0	5%	0.24	$0		1457	8.7	3.7	2.1	
Assets planned in 2025/26	2026	2026		$0	$0		$0	5%	0.23	$0		1465	8.7	3.6	2.0	
Assets planned in 2026/27	2027	2027		$0	$0		$0	5%	0.22	$0		1474	8.8	3.5	1.9	
Assets planned in 2027/28	2028	2028		$0	$0		$0	5%	0.21	$0		1483	8.8	3.4	1.9	
Assets planned in 2028/29	2029	2029		$0	$0		$0	5%	0.20	$0		1492	8.9	3.4	1.8	
Assets planned in 2029/30	2030	2030		$0	$0		$0	5%	0.19	$0		1501	9.0	3.3	1.7	
Assets planned in 2030/31	2031	2031		$0	$0		$0	5%	0.18	$0		1510	9.0	3.2	1.6	
Assets planned in 2031/32	2032	2032		$0	$0		$0	5%	0.17	$0		1519	9.1	3.1	1.6	
Assets planned in 2032/33	2033	2033		$0	$0		$0	5%	0.16	$0		1528	9.1	3.1	1.5	
Assets planned in 2033/34	2034	2034		$0	$0		$0	5%	0.16	$0		1537	9.2	3.0	1.4	
Assets planned in 2034/35	2035	2035		$0	$0		$0	5%	0.15	$0		1547	9.2	2.9	1.4	
Assets planned in 2035/36	2036	2036		$0	$0		$0	5%	0.14	$0		1556	9.3	2.8	1.3	
Assets planned in 2036/37	2037	2037		$0	$0		$0	5%	0.14	$0		1565	9.3	2.8	1.3	
Assets planned in 2037/38	2038	2038		$0	$0		$0	5%	0.13	$0		1575	9.4	2.7	1.2	
Assets planned in 2038/39	2039	2039		$0	$0		$0	5%	0.12	$0		1584	9.4	2.7	1.2	
Assets planned in 2039/40	2040	2040		$0	$0		$0	5%	0.12	$0		1593	9.5	2.6	1.1	
Assets planned in 2040/41	2041	2041		$0	$0		$0	5%	0.11	$0		1603	9.6	2.5	1.1	
Assets planned in 2041/42	2042	2042		$0	$0		$0	5%	0.11	$0		1613	9.6	2.5	1.0	
Assets planned in 2042/43	2043	2043		$0	$0		$0	5%	0.10	$0		1622	9.7	2.4	1.0	
Assets planned in 2043/44	2044	2044		$0	$0		$0	5%	0.10	$0		1632	9.7	2.4	0.9	
Assets planned in 2044/45	2045	2045		$0	$0		$0	5%	0.09	$0		1642	9.8	2.3	0.9	
Assets planned in 2045/46	2046	2046		$0	$0		$0	5%	0.09	$0		1652	9.9	2.2	0.9	
Assets planned in 2046/47	2047	2047		$0	$0		$0	5%	0.08	$0		1662	9.9	2.2	0.8	
				$ 5,460,000	**$ 12,740,000**		**$ 4,956,488**				$ 1,516,425		**273**			
Subtotal (Assets post-1996)										**$ 1,895,275**			**453**	**230**	**163**	**$ 11,599**
															TOTAL CAPITAL CHARGE PER ET	**$12,636**
															TOTAL CAPITAL CHARGE PER ET (incl shared assets)	**$17,028**

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Table 4: Lithgow City Council Sewerage Developer Charge Calculation

CPI (Consumer Price Index), Sydney
June 16 - June 17 2.20%

						Weighted Average Capital Charge for each DSP area								
Service area	Capital Charge per ET (2017/18$)	% of highest	% of highest		DSP areas	Total number of new ETs in 30 years	PV of new ET	Proportion of PV of new ETs in each DSP area	Weighted Cap charge for each service area ($/ET)	Weighted cap charge for each DSP area ($/ET)	Reduction Amount ($/ET)	Calculated Developer Charge ($/ET) 2017/18	Calculated Developer Charge ($/ET) 2018/19	Council Proposed Developer Charge ($/ET) 2018/19
Wallerawang	$ 17,428	100%			SDSP1	125	63	100%	$ 17,428		$ 3,121	$ 14,308	$ 14,622	$ 9,622
South Bowenfels	$ 17,028	98%			SDSP2	273	104	100%	$ 17,028			$ 13,907	$ 14,213	$ 14,213
Portland	$ 11,024	65%	100%		SDSP3	207	137	100%	$ 11,024			$ 7,903	$ 8,077	$ 8,077
Lithgow	$ 5,792		53%	100%	SDSP4	976	490	100%	$ 5,792			$ 2,671	$ 2,730	$ 2,730
							794							

Table 5: Lithgow City Council Sewerage Reduction Amount Calculation

	Current estimated ($/ET)
Income per ET	$ 852
OMA per ET	$ 587
Net Income	$ 265

	2016/17 Special Schedules
Total Charge Income	$ 6,901,000
Total Ets (2017/18)	8,097
Income per ET ($)	$ 852
Total OMA Cost	$ 4,755,000
OMA per ET ($)	$ 587

	Year	Total ETs	New ETs	PV Factor	PV of new ETs (@5%)	Cumulative new ETs	Net income from new ETs	PV of Net income from new Ets (@5%)	Reduction Amount ($/ET)
0	2017/18	8,097							
1	2018/19	8,146	49	1.00	49	49	$12,876	$12,876	
2	2019/20	8,195	49	0.95	47	97	$25,829	$24,599	
3	2020/21	8,244	49	0.91	45	147	$38,860	$35,247	
4	2021/22	8,294	49	0.86	43	196	$51,969	$44,893	
5	2022/23	8,343	50	0.82	41	246	$65,157	$53,605	
6	2023/24	8,393	50	0.78	39	296	$78,424	$61,447	
7	2024/25	8,444	50	0.75	38	346	$91,771	$68,481	
8	2025/26	8,494	51	0.71	36	397	$105,197	$74,762	
9	2026/27	8,545	51	0.68	34	448	$118,705	$80,344	
10	2027/28	8,597	51	0.64	33	499	$132,293	$85,277	
11	2028/29	8,648	52	0.61	32	551	$145,962	$89,608	
12	2029/30	8,700	52	0.58	30	603	$159,714	$93,382	
13	2030/31	8,752	52	0.56	29	655	$173,549	$96,638	
14	2031/32	8,805	53	0.53	28	707	$187,466	$99,417	
15	2032/33	8,858	53	0.51	27	760	$201,467	$101,754	
16	2033/34	8,911	53	0.48	26	813	$215,551	$103,684	
17	2034/35	8,964	53	0.46	24	867	$229,721	$105,238	
18	2035/36	9,018	54	0.44	23	921	$243,975	$106,446	
19	2036/37	9,072	54	0.42	22	975	$258,315	$107,335	
20	2037/38	9,127	54	0.40	22	1,029	$272,741	$107,933	
21	2038/39	9,181	55	0.38	21	1,084	$287,253	$108,263	
22	2039/40	9,236	55	0.36	20	1,139	$301,853	$108,348	
23	2040/41	9,292	55	0.34	19	1,194	$316,540	$108,209	
24	2041/42	9,348	56	0.33	18	1,250	$331,315	$107,867	
25	2042/43	9,404	56	0.31	17	1,306	$346,179	$107,339	
26	2043/44	9,460	56	0.30	17	1,363	$361,132	$106,643	
27	2044/45	9,517	57	0.28	16	1,419	$376,175	$105,796	
28	2045/46	9,574	57	0.27	15	1,477	$391,308	$104,811	
29	2046/47	9,631	57	0.26	15	1,534	$406,532	$103,704	
30	2047/48	9,689	58	0.24	14	1,592	$421,847	$102,486	
					838			$ 2,616,432	$ 3,121

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Table 6: Lithgow City Council Sewerage Cross Subsidy Calculation

Rate of Return 5%

Year	Total ETs	New ETs per year	Expected annual income from current developer charges ($'000)	Expected annual income from calculated developer charges ($'000)	Expected annual income from proposed developer charges ($'000)	Difference in developer charge income - (between calculated and proposed DC) ($'000)	Current TRB ($)	TRB difference if proposed DC is adopted	30 years TRB ($) - Proposed DC and cross subsidy
2017/18	8097						878		878
2018/19	8146	49	105	296	277	19	878	2.4	880
2019/20	8195	49	106	298	279	19	878	2.4	880
2020/21	8244	49	106	300	280	19	878	2.4	880
2021/22	8294	49	107	302	282	20	878	2.4	880
2022/23	8343	50	107	304	284	20	878	2.4	880
2023/24	8393	50	108	305	286	20	878	2.4	880
2024/25	8444	50	109	307	287	20	878	2.4	880
2025/26	8494	51	109	309	289	20	878	2.4	880
2026/27	8545	51	110	311	291	20	878	2.4	880
2027/28	8597	51	111	313	292	20	878	2.4	880
2028/29	8648	52	111	315	294	20	878	2.4	880
2029/30	8700	52	112	317	296	21	878	2.4	880
2030/31	8752	52	113	318	298	21	878	2.4	880
2031/32	8805	53	113	320	300	21	878	2.4	880
2032/33	8858	53	114	322	301	21	878	2.4	880
2033/34	8911	53	115	324	303	21	878	2.4	880
2034/35	8964	53	115	326	305	21	878	2.4	880
2035/36	9018	54	116	328	307	21	878	2.4	880
2036/37	9072	54	117	330	309	21	878	2.4	880
2037/38	9127	54	118	332	310	22	878	2.4	880
2038/39	9181	55	118	334	312	22	878	2.4	880
2039/40	9236	55	119	336	314	22	878	2.4	880
2040/41	9292	55	120	338	316	22	878	2.4	880
2041/42	9348	56	120	340	318	22	878	2.4	880
2042/43	9404	56	121	342	320	22	878	2.4	880
2043/44	9460	56	122	344	322	22	878	2.4	880
2044/45	9517	57	123	346	324	22	878	2.4	880
2045/46	9574	57	123	348	326	23	878	2.4	880
2046/47	9631	57	124	350	328	23	878	2.4	880
2047/48	9689	58	125	353	330	23	878	2.4	880
			PV of difference in developer charges income over 30 years @ 5% ($'000)			$ 332			

Table 6: Lithgow City Council Sewerage Cross Subs

Annual bill revenue from TRB if calculated DC is adopted ($'000)	Annual bill revenue from TRB if proposed DC is adopted ($'000)	Difference between expected annual bills revenue ($'000)
7,152	7,171	19
7,195	7,214	19
7,238	7,258	19
7,282	7,301	20
7,325	7,345	20
7,369	7,389	20
7,414	7,434	20
7,458	7,478	20
7,503	7,523	20
7,548	7,568	20
7,593	7,614	20
7,639	7,659	21
7,685	7,705	21
7,731	7,751	21
7,777	7,798	21
7,824	7,845	21
7,871	7,892	21
7,918	7,939	21
7,965	7,987	21
8,013	8,035	22
8,061	8,083	22
8,110	8,131	22
8,158	8,180	22
8,207	8,229	22
8,256	8,279	22
8,306	8,328	22
8,356	8,378	22
8,406	8,429	23
8,456	8,479	23
8,507	8,530	23
PV of difference in annual bill revenue over 30 years @ 5% ($'000)		$ 332

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APPENDIX D

OUTLINE OF LEGISLATION

Outline of Legislation

Local Government Act 1993

The power for local government councils to levy developer charges for water supply, sewerage and stormwater derives from section 64 of the Local Government Act 1993 by means of a cross-reference in that Act to the relevant provisions of the Water Management Act 2000.

Section 64 of the Local Government Act states that:

> Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000 applies to a council exercising function under this Division in the same way as it applies to a water supply authority exercising functions under that Act.

Environmental Planning and Assessment Act 1979

Prior to the introduction of the Local Government Act in 1993, councils used the provisions of section 94 of the Environmental Planning and Assessment Act 1979 to obtain developer contributions for water supply services. As part of the Local Government (Consequential Provisions) Act 1993, amendment was made to the Environmental Planning and Assessment Act so that section 94 no longer applied for water supply services.

However, Councils can levy developer charges for stormwater under either Local Government Act or Water Management Act.

Water Management Act 2000

Section 305 (1) of the Water Management Act states that:

> (1) A person may apply to a water supply authority for a certificate of compliance for development carried out, or proposed to be carried out, within the water supply authority's area.

Section 306 (2) and (3) of the Water Management Act states that:

> (2) as a pre-condition to granting a certificate of compliance for development, a water supply authority may, by notice in writing served on the applicant, require the applicant to do either or both of the following:
>
> (a) to pay a specified amount to the Authority by way of contribution towards the cost of such water management works as are specified in the notice, being existing works or projected works, or both,
>
> (b) To construct water management works to serve the development.
>
> (3) In calculating an amount for the purposes of subsection (2) (a):
>
> (a) the value of existing water management works and the estimated cost of projected water management works may be taken into consideration, and
>
> (b) the amount of any government subsidy or similar payment is not to be deducted from the relevant value or cost of the water management works, and
>
> (c) Consideration is to be given to any guidelines issued for the time being for the purposes of this section by the Minister.

In 2011, the Minister for Primary Industries became responsible for non-metropolitan NSW town water services. The Minister is responsible for the issue of guidelines for water utilities on the calculation of water supply, sewerage and stormwater developer charges.

Note: Use of moneys raised from developer charges is discussed in section 2.7 on page10 of the guidelines.

Local Government (Savings and Transitional) Regulation 1993

The Local Government (Savings and Transitional) Regulation 1993 covers the matter of developer contributions which had previously been obtained by councils under the Environmental Planning and Assessment Act as follows:

> (9) Any monetary contribution held by a council immediately before the commencement of this Regulation, being a contribution arising from a condition:
>
> (a) that was imposed under section 94 of the *Environmental Planning and Assessment Act 1979*; and
>
> (b) that specifies that the contribution is to be applied towards providing specified water or sewerage services or towards providing water or sewerage services generally,
>
> Is to be applied towards the construction of works within the meaning of Division 2 of Part 3 of the *Water Supply Authorities Act 1987*, or towards the repayment of money borrowed for the construction of such works, and is not to be applied towards any other purpose.

Lithgow CITY COUNCIL

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Lithgow CITY COUNCIL

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4. COMMUNITY LIAISON

Policy 4.3

Financial Assistance to Community Groups and Organisations – Interest Free Loans

Version 2

4. COMMUNITY LIAISON

4.3 FINANCIAL ASSISTANCE TO COMMUNITY GROUPS AND ORGANISATIONS - INTEREST FREE LOANS

OBJECTIVE:

(i) To contribute money or otherwise grant financial assistance by way of interest free loans to community groups and organisations for the purpose of exercising the Council functions of providing community sporting and recreational projects, services and facilities.

(ii) To set a combined limit of $400,000 for all interest free loans to community groups.

POLICY:

Council will consider providing financial assistance by way of interest free loans to community groups and organisations within the Lithgow City Council area for the purpose of exercising Council functions of providing community sporting and recreational projects, services and facilities under the following guidelines:

1. The community project or facility which is the subject of the application for financial assistance is approved by Council and is located on Council owned community land.
2. There be no limit per individual loan.
3. The period for repayment of interest free loans will be within a term generally not exceeding 5 years.
4. Priority will be given to applications for financial assistance from community groups and organisations which:
   (i) Provide community, recreational and sporting projects, services or facilities that are available uniformly to all persons or to a significant number of persons within the Council's area; and
   (ii) Include the contribution of funds by the community group or organisation, either in cash or in-kind.
5. Council will undertake a due diligence and probity check, in conjunction with Council's Auditors if required, to establish the ability of the applicant to service loan principal repayments.
6. Applications by community groups and organisations for interest free loans from Council must provide a full description of the project, service or facility for which the interest free loan is sought and include with application the following:
   - An audited Annual Income and Expenditure Statement and Balance Sheet for the past 5 years
   - A copy of the community group or organisation's constitution.
   - A copy of the minute passed at a meeting of the community group or organisation seeking the interest free loan from Council.

7. Should Council agree to act as a loan guarantor for any loan, terms and conditions relating to the security of such actions must be specified in an agreement between Council and the relevant party that is executed under Council's seal.

8. All information as required in the policy is provided by the applicant.

9. All submissions for interest-free loans are considered in the following financial year's DRAFT Management Plan along with all other new expenditure items. This will allow the Council to consider any applications in a transparent and accountable fiscal environment.

10. Council has included the loan in its Operation Plan and Delivery Program.

11. Prior to any new application being approved. The Council receives a report on its current financial position, including investments.

Maintained by Department:	Corporate & Community	**Approved by:**	Council	**Exhibition**	16/02/09
Reference:	Dataworks: Policy Register	**Council Policy No:**	4.3	**Effective Date:**	20 May 2009
Min No:	06-349 09-66 09-161 V2 - 14-62	**Version No:**	V2	**Review Date:**	May 2010 August 2013
Attachments:					

4. COMMUNITY LIAISON

Policy 4.4

Request for Financial Assistance by Waiving of Fees for Council Facilities

Version 4

4. COMMUNITY LIAISON

4.4 REQUEST FOR FINANCIAL ASSISTANCE BY WAIVING OF FEES FOR COUNCIL FACILITIES

OBJECTIVE:

To provide a means by which community groups conducting events and activities within the Lithgow City Council area may seek Council assistance, through the waiving of fees for Council facilities, outside of the normal time frame for the management of Council's Annual Financial Assistance Program.

ELIGIBILITY:

Eligibility will be limited to small community based organisations operating for the direct benefit of the local community. Eligibility will not extend to major fund raising bodies, with a parent body located outside the Council area.

POLICY:

1. That Council allocate an amount in each financial year budget (from the Financial Assistance allocation) for the General Manager to waive fees for the use of Council owned facilities
2. Waiving of fees will not apply to requests from individuals;
3. Waiving of fees will not apply to educational institutions, except in the following circumstances:
    - Regional Representative Sport – where a team comprising players representing Western Regional Academy of Sport hires a sporting field to play sport against another region, such as Riverina, Far West, Sydney, North Coast or Newcastle, OR where a local school hires a sporting field to play against another school in a State Competition at quarter final level or higher; and
    - Where a school actively contributes to the maintenance of a Council owned recreational facility.
4. Waiving of fees will apply to fees charged by Council for the following:
    - Council owned facilities, such as venues, playing fields and park areas, swimming pools. **NOTE: COUNCIL CANNOT GUARANTEE EXCLUSIVE USE OF PARKS AND SWIMMING POOLS**
    - Fees for the hanging of street banners
    - Photocopying for groups which are not Section 355 Committees
    - Other fees at the discretion of the General Manager
5. Council may provide financial assistance towards the cost of hiring the Civic Ballroom and/or Tony Luchetti Showground for major events that demonstrate an economic and social benefit to Lithgow. Financial Assistance up to a maximum of $2,500 per event may be provided and will only be provided once to each applicant. Organisations already receiving financial assistance for major events at these venues will not be eligible for additional assistance. Applications

must be submitted in writing at least 3 months prior to the event for consideration by a meeting of Council.

6. All requests for the waiving of fees should be lodged in writing at least one month prior to the date of the event taking place.
7. Groups and organisations may apply more than once per financial year for fees to be waived, however a maximum of $500.00 shall be applied to requests from individual organisations in each financial year
8. Community Groups which submit requests for fees to be waived will still be eligible to apply for funding under Council's Annual Financial Assistance Program, for other aspects of the same project for which fees may have already been waived.
9. The General Manager of Lithgow City Council will have the delegated authority to approve the waiving of fees, as requests are received.
10. Approvals given by the General Manager for waiving of Council fees will be reported to Council twice annually, as part of the Annual Financial Assistance Program.
11. Unexpended funds in the amount reserved annually for the waiving of fees, at the end of each year, may be carried forward as an internally restricted asset to the following year for the same purpose.

Maintained by Department:	Corporate & Community	**Approved by:**	Council		
Reference:	Dataworks: Policy Register	**Council Policy No:**	4.4	**Effective Date:**	4 Nov 08
Min No:	06-349 V1 P08-136 V2 V4 - 14-62	**Version No:**	4	**Reviewed Date:**	June 2013
Attachments:					

9. GOVERNANCE

9.13 Policy

WORK HEALTH AND SAFETY

Version 2

9. GOVERNANCE

9.13 WORK HEALTH AND SAFETY POLICY

PURPOSE

The purpose of this policy is to document Council's commitment to Work, Health and Safety (WHS) and to ensure that adequate resources are made available to comply with Council's legal WHS obligations. This policy also sets out responsibilities and accountabilities in relation to the management of WHS.

OBJECTIVES

The objectives of this policy are to:

a) ensure that council complies with the 'reasonably practical' standard, which is intended to be a very high one;
b) give the highest level of protection from hazards and risks arising from work so far as is 'reasonably practicable';
c) provide for consultation, co-operation and co-ordination between all 'persons conducting a business or undertaking' (PCBUs) and workers and others at a workplace; and
d) Ensure that any workplace under Council management or control is, as far as is reasonably practicable, without risk to the health and safety of any person.

POLICY STATEMENT

1.	**Application** This policy applies to PCBUs' workers and other persons affected by Lithgow City Council activities at Council workplaces.
2.	**Legislation** Council recognises that it has a legal obligation to ensure the health and safety of workers, and other persons affected by Council activates. In meeting this obligation Council shall comply, so far as it is reasonably practicable, with all work health and safety laws including (but not limited to) the *Work Health and Safety Act 2011* and the *Work Health and Safety Regulation 2011.*
3	**WHS Goal** The work health and safety goal of the Council is: "For Council, senior management and workers to continually improve work systems that ensure the health and safety of personnel, contractors, volunteers and the community whilst maintaining the competitiveness and long term employment prospects of the workforce".
4	**Duty of Care** Council's primary 'duty of care' is to ensure the health and safety of workers while they are at work that the work carried out does not carry risks to the health and safety of these workers and others. To achieve this, Council will adopt a systematic risk management approach to the management of work health and safety.
5.	**Responsibilities**

DRAFT

	Responsibilities of the PCBU (Council), Officers, and Workers are as described below:
5.1	**Council** *(PCBU)* shall demonstrate continued commitment in meeting its moral and legal obligation by ensuring that adequate human and financial resources are made available so that the objectives of this policy are met. Council must also consult, coordinate and cooperate with other PCBUs working for or on behalf of Council.
5.2	**Councillors** *(Workers*), while conducting business for Council, have a responsibility to ensure that they take reasonable care for their own safety and that their general interaction with Council workers and others does not adversely affect the health, safety or welfare of these people. They must comply with reasonable instructions to assist Council in complying with the WHS Legislation
5.3	**The General Manager** *(Officer)* as the Council's most senior management representative is responsible, and accountable to the Council, for ensuring that the objectives of this policy are met. The General Manager is responsible for ensuring that a Work Health and Safety Management System (WHSMS), including return to work provisions is developed, implemented, reviewed and maintained. The General Manager shall: • approve all work health and safety policies • regularly review and document organizational WHS performance • support and encourage Group Managers in the application of the WHSMS and hold them accountable for their specific WHS responsibilities • actively support the integration of WHS as part of normal management practices • seek and consider the views of workers when making decisions o issues, which may affect their health, safety and welfare
5.4	**Managers** *(officers)* are responsible for ensuring that the requirements of the WHSM system are communicated to workers and implemented at all workplaces within their area of responsibility. Managers shall: • actively support the integration of WHS as part of normal management practices • Support and encourage workers with supervisory responsibilities the application of the WHSMS and hold them accountable for specific WHS responsibilities. • Ensure that adequate provisions are made in their annual budget estimates to meet WHS requirements. • Identify, develop and implement any necessary WHS procedures or safe systems of work required to comply with WHS legislative requirements • Seek and consider the views of workers when making decisions o issues which may affect their health and safety

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	• Refer to executive management any WHS matter or concern that falls outside their area of responsibility or authority • Regularly report to the General Manager on WHS initiatives implemented and the WHS performance of their area of responsibility • Regularly report on WHS initiatives implemented and the WHS performance of their areas to the Health and Safety Committee • Ensure that system of work are regularly reviewed and provide areas for continuous improvement • Ensure all hazard reports raised are dealt with in a timely manne • Actively maintain current WHS knowledge as applicable to area o responsibility improvement will be measured via annual performance appraisals.
5.6	**Workers with supervisory responsibilities** *(workers)* are responsible for ensuring that the requirements of the WHSMS are communicated to employees and are implemented at all workplaces within their area of responsibility. In line with their supervisory roles, workers with supervisory responsibilities shall: • support and encourage workers, and hold them accountable for their specific WHS responsibilities • ensure that WHS policies, procedures and work methods are complied with • Ensure adequate supervision, training and information is provide to enable employees to carry out tasks safely. • Notify the divisional manager of budgetary requirements to meet WHS obligations • Refer to an officer any WHS hazard, incident or risk • Seek and consider the views of workers when making decisions c issues that affect health and safety • Identify, report and rectify workplace hazards, and act on hazard reported in a timely manner • Investigate accidents and incidents and report the outcome of th investigation to the responsible officer. • respond in a timely manner to issues raised by WHS representatives • ensure that work systems are reviewed and provide areas for continuous improvement • regularly report to the responsible officer on the WHS performan of the section The commitment, implementation and continuous improvement to work health and safety matters by Workers with supervisory responsibilities will be measured via annual performance appraisals.
5.7	**Workers without supervisory responsibilities** *(workers)* have a responsibility to take reasonably practicable care for their own safety and that of other people at the workplace, which may be affected by the work being done. Workers without supervisory responsibilities shall: • co-operate with other workers and management to ensure that legal WHS requirements are met

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	• actively participate in WHS initiatives at both team and organizational level • actively participate in WHS consultation • immediately report all accidents, injuries, incidents, hazards, dangerous occurrences, unsafe conditions and near misses to management • not intentionally interfere with or misuse anything provided in the interests of health and safety • Carry out their work activities in accordance with all policies, procedures and approved work methods. • Comply with any lawful WHS directive Workers' commitment to WHS, its implementation and continuous improvement will be measured as follows: • *For Employees:-* via annual performance appraisals. • *For Contractors/ Sub contractors:-* through contractor performance reviews • *For Volunteers:-* via on the job review
5.8	**Other persons at the workplace** have a responsibility to take reasonable care for their own health and safety, and take reasonable care to ensure their acts or omissions do not adversely affect the health and safety of others. Other persons at the workplace shall comply so far as reasonably practicable with any reasonable instruction.

IMPLEMENTATION

Requirements		Responsibility
1	**Authorisation** This policy is the overriding WHS policy of Lithgow City Council. The policy is approved by Council and administered by the General Manager. The General Manager shall sign the policy. A summary of this policy shall be prominently displayed at all permanent workplaces and available electronically for reference by officers and workers	General Manager
2	**Compliance** Failure by any of Council-employed person to comply with this policy is likely to result in disciplinary action in accordance with Council's current discipline procedures. Contractors that fail to comply with this policy shall be stood down until such time as the site supervisor or other authorised person is satisfied that the contractor will not commit any further breaches. Any serious or continued non-	Officers

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	compliance shall be considered a breach of the contract and grounds for termination of that contract. The participation of volunteers in Council activities is conditional upon compliance with Council's policies and procedures. Any serious or continued non-compliance with this policy will result in the volunteer being instructed to leave the site and refused permission to participate in further volunteer activities. Visitors that fail to comply with this policy shall be required to leave the premises or worksite.	
3	**Staff** Staff, where appropriate trained and instructed, are required to comply with Council policy and to ensure that the provisions of those policies are adhered to within their work area.	Council Officers
4	**Concerns** Concerns and requests received regarding WHS will be recorded on Council's Customer Service Request (CSR) or records system and handled in accordance with Council's Customer Service policy. This information will be used to analyse the history of concerns and requests and to help determine follow up actions	Council Officers
7	**Consultation** The Health and Safety Committee ensures that regular ongoing WHS consultation occurs throughout Council. Consultation regarding this policy will occur as relevant with key stakeholders and may include legislative bodies and other agencies. It will occur in response to changes in relevant legislation, codes of practice, industry guidelines, standards and any organizational or legislative requirements.	As applicable.

REVIEW

The policy will be automatically revoked at the expiration of twelve months after the declaration of the poll for the next general NSW local government election, unless Council revokes it sooner.

NOTE: *Automatic revocation of the policy is provided for by section 165(4) of the Local Government Act 1993. The next general local government election is expected to be held in September 2020.*

The General Manager in consultation with officers and workers shall review this policy every 3 years and after any reportable serious incident. This policy

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may also be reviewed and updated as necessary when legislation requires it; or Council's functions, structure or activities change; or when technological advances or new systems change the way that Council manages WHS. Where the review indicates any changes to the policy the General Manager shall refer the policy to Council for adoption.

Reviews of the effectiveness of this policy could include the following:

Performance indicator	Data source(s)
Number of breaches (hazards and incidents)	Council records
Concerns or requests regarding WHS	Council records
Employee Feedback Survey Responses	Surveys
Commitment to WHS, its implementation and continuous improvement measured via: • Annual Performance Appraisals • Contractor Performance Review • On the Job Review	Council records
Audit records • The current written and dated policy, signed by the General Manager • Induction training content and induction records • Tool box/ team meeting minutes or other documentation indicating communication of the policy.	Council records
Internal and external review	Audit
Compliance with Council's WHS Strategy.	Council Records

GOVERNANCE

This policy should be read in conjunction with any related legislation, codes of practice, relevant internal policies, and guidelines.

Related legislation and policies

Name	Link
Work Health and Safety Act 2011	http://www.legislation.nsw.gov.au/#/view/act/2011/10
Work Health and Safety Regulation 2011	http://www.legislation.nsw.gov.au/#/view/regulation/2011/674
Local Government Act 1993	http://www.austlii.edu.au/au/legis/nsw/consol_act/lga1993182/
WHS Codes of Practice (SafeWork Australia)	https://www.safeworkaustralia.gov.au/law-and-regulation/model-whs-laws#model-codes-of-practice

Related External references

Name	Link
SafeWork NSW	http://www.safework.nsw.gov.au/

Supporting Documents

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Name	Link
Appendix 1	Definitions and Responsibilities per *WHS Act 2011*

Definitions

Word / Term	Short Definition – See appendix 1 for long definition
PCBU	Person Conducting a Business or Undertaking (i.e. Council)
Officers	The persons within Council who make or participate in making decisions that affect the whole or a significant part of the organisation. Council's officers are the General Manager, all Group Managers and all Managers. The officers are required to exercise "Due Diligence" in ensuring Council meets its obligations under the Act.
Workers	Anyone carrying out work, in any capacity for or on behalf of Council. This includes employees, contractors and their employees, sub-contractors and their employees, labour hire employees engaged to work for Council, outworkers, apprentices, trainees, work experience students and volunteers
Other persons at the workplace	Any person present at a place where Council carries out work, who is not conducting work for or on behalf of Council (e.g. members of the public, visitors not performing work).
Due Diligence	To take every precaution reasonable in the circumstances to protect the health, safety and welfare of workers and other persons at the workplace
Reasonably Practicable	Doing what is effective and possible at a particular time to ensure the health and safety of workers and others. All people must be given the highest level of health and safety protection from hazards arising from work, so far as is reasonably practicable.
Duties / Responsibilities	The principles applicable to duties are that:- • Duties are not transferable, and • Duties cannot be delegated to another person, and • A person can have more than one duty (i.e. Officers also have duties as Workers), and • More than one person can have the same duty.

General Manager
Lithgow City Council.

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Reference:	Policy Register	**Council Policy No:**	9.13	**Effective Date:**	
Min No:		**Version No:**	2	**Review Date:**	3 years

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Appendix 1 – Definitions and Responsibilities per WHS Act 2011

DEFINITIONS

Duties / Responsibilities

The principles applicable to duties are that:-

- Duties are not transferable, and
- Duties cannot be delegated to another person, and
- A person can have more than one duty (i.e. Officers also have duties as Workers), and
- More than one person can have the same duty.

Duty of Care:

1. A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of:
    a. Workers engaged, or caused to be engaged by the person, and
    b. Workers whose activities in carrying out work are influenced or directed by the person, while the workers are at work in the business or undertaking.
2. A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

Due Diligence

The WHS Act sets out a non-exhaustive list of steps which officers are expected to take in order to exercise due diligence. Due Diligence includes taking reasonable steps:

- To acquire and keep up-to-date knowledge of work health and safety matters and
- To gain an understanding of the nature of the operations of the business or undertaking and of the hazards and risks associated with those operations; and
- To ensure that the person conducting the business or undertaking has available for use, and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work carried out as part of the conduct of the business or undertaking; and
- To ensure that the person conducting the business or undertaking has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way to that information; and
- To ensure that the person conducting the business or undertakings has, and person conducting the business or undertaking under this Act; and
- To verify the provision and use of these resources and processes.

Reasonably Practicable:

What is reasonably practicable to be done at a particular time in relation to ensuring the work health and safety of others. It takes into account and weighs up all matters, including:

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- The likelihood of the hazard (identified) or the risk concerned occurring; and
- The degree of harm that might result from the hazard or the risk; and
- What the person concerned knows or ought 'reasonably' to know about the hazard, the risk and ways of eliminating or minimising the risk; and
- The availability and suitability of ways to eliminate or minimise the risk; then finally
- The cost associated with controlling the risk must also be considered, including whether the cost is grossly dis-proportionate to the risk.

Responsibilities

PCBU – *(WHS ACT 2011 divisions 2 and 3)*

Council's primary 'duty of care' is to ensure the health and safety of workers while they are at work and that the work carried out does not carry risks to the health and safety of others. Additionally the PCBU, must consult, coordinate and cooperate with other PCBUs working for or on behalf of Council.

To meet these duties Council will, as far as is reasonably practical:

- Provide and maintain a safe work environment
- Provide and maintain safe plant and structures.
- Provide and maintain safe systems of work
- Ensure the safe use, handling and storage of plant, structures and substances.
- Provide adequate facilities (and ensure access is maintained).
- Provide instruction, training, information and supervision.
- Monitor the health of workers and conditions at Council workplaces.

Officers *(WHS Act 2011 section 27)*

Officers are required to exercise due diligence to ensure the PCBU meets it's duties.

They must take reasonable steps to:

- Gain and update knowledge of WHS matters.
- Understand the nature of Council's operations, and the general hazards and risks involved.
- Ensure Council has and uses appropriate resources for eliminating or minimising risks.
- Ensure Council has processes for receiving, reviewing and responding to information about incidents, hazards and risks.
- Ensure Council implements processes for complying with its duties including consultation, providing training and instruction and reporting of notifiable incidents.

Workers *(WHS Act 2011 section 28)*

Workers shall, as far as is reasonably practicable:

- Take reasonable care for his or her own health and safety, and
- Take reasonable care to ensure their acts or omissions do not adversely affect the health and safety of others, and

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- Comply so far as reasonably able with reasonable instructions from the PCBU to assist in complying with the WHS ACT, and
- Cooperate with any reasonable policy and procedure of the PCBU relating to health or safety at the workplace that the workers have been informed of.

Other persons at the workplace (WHS Act 2011 section 29)
Others must as far as is reasonably practicable:

- Take reasonable care for their own health and safety, and
- Take reasonable care to ensure their acts or omissions do not adversely affect the health and safety of others, and
- Comply so far as the person is reasonably able with any reasonable instructions from the PCBU to assist in complying with the WHS Act.

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Minutes

Strategic Land Use Planning Projects Steering Committee
11 April 2018
3.30pm Hartley Meeting Room

Item	Agenda
1	Welcome/present/ apologies
2	Presentation - Marrangaroo Masterplan/DCP Project – Outcomes of Public Exhibition Phase
3	General Business
4	Next meeting

MINUTES – STRATEGIC LAND USE PLANNING PROJECTS STEERING COMMITTEE- 11 APRIL 2018

ITEM: 1 PRESENT AND APOLOGIES

PRESENT: Mayor Clr Lesslie, Clr Thompson, Clr Ring.

APOLOGIES: General Manager - Graeme Faulkner; Clr McAndrew.

OFFICERS: Director Economic Development and Environment – Andrew Muir; Strategic Land Use Planner – Sherilyn Hanrahan; Economic Development Manager – Andrew Powrie.

DECLARATION OF INTERESTS: Nil

ITEM: 2 PRESENTATION - MARRANGAROO MASTERPLAN/DCP PROJECT – OUTCOMES OF PUBLIC EXHIBITION PHASE AND NEXT STEPS

SUMMARY

The Committee received a presentation from Council's Project Manager regarding the status of the project and the outcomes of the public exhibition phase. The key areas of the presentation delivered are outlined below:

- The project is now currently a further four months behind the last reported project program being a total of seven months behind project program delivery date of 30 October 2017.
- A further round of "kitchen table" meetings was held with landowners over a two day period at the end of November and early December.
- The project was placed on public exhibition for a twenty-eight day period between 10 January 2018 and 7 February 2018 as approved by the Committee at its meeting of 7 December 2017.
- The public exhibition involved the following notifications and displays:
    - Council Website – Dedicated Webpage
    - Council Column Notice – Village Voice
    - Display – Administration Centre/Portland and Wallerawang libraries
    - Large scale plan display – Lithgow Valley Plaza
    - Letters to all landowners in project area
    - Letters to locality landowners/attendees from previous consultations sessions/government authorities/agencies
- The submission period was extended for a further two weeks for referral to Mingaan following representation.
- A total of 10 written submissions were received during the period, 4 of which were private submissions and 5 were from government authorities/agencies A further submission from Road and Maritime Service was received, late well outside the exhibition period, however due to its importance has been given consideration.

- The written submissions were referred to Oculus who reviewed each one and provided Council with submission responses and recommendations for action as deemed necessary. Council's Project Manager concurred with each response as submitted.
- A summary of each submission and recommended actions was presented as attached.
- The RMS submission requires a Traffic Study to be completed prior to finalisation of the Masterplan and DCP to be adopted.
- The committee was updated with the proposed water and sewer head infrastructure strategies. Infrastructure has been staged. Stage 1 incorporating all employment lands requiring an indicative spend of $ 4.67M; Stage 2 $7.25M. In addition Stage 2 will require further upgrade to the Lithgow Sewerage Treatment Plant which has not been costed. Minimal development can occur without this essential head infrastructure construction. It should be noted that such infrastructure projects will require additional staff resources for project and financial management and these will have to be outsourced given the current shortfall in internal resources. The cost of these services to be added to the final project costs.
- Next steps involve;
    - amendments to Development Control Plan to address submissions
    - engage external consultants to prepare Traffic Study and if required amend and finalise Masterplan and DCP
    - adopt Masterplan
    - prepare Planning Proposal to implement Masterplan
    - prepare Development Servicing Plan and Development Contributions Plan to provide for developer contributions to essential head infrastructure and community facilities/open space provision.
- The Committee was addressed by Council's Economic Development Manager who advised that is an absolute high-end requirement to activate Marrangaroo employment lands involving: placing implementation of the Masterplan a priority within Council and the Regional Economic Development Strategy (REDS); Council purchasing land to seed activation; identifying as number one infrastructure priority in REDS to assist securing state funding; construction of Stage 1 infrastructure and marketing with no issues to handbrake early activation.

ACTION/RECOMMENDATION

THAT Council:

1. Authorise the release of further funds from either the Strategic Planning Reserve or Land Bank Reserve to undertake the required Traffic Study.
2. Resolve that implementation of the Marrangaroo Masterplan be reflected in the Lithgow Regional Economic Development Strategy as high priority.
3. Support an application under the Regional Growth Fund for the provision of essential Stage 1 water and sewer infrastructure to service the Marrangaroo employment lands.
4. Place the required Marrangaroo Infrastructure spend into Council's forward capital works program and long term financial plan commencing with Stage 1 in 2019/2023 Delivery Plan.

MOVED: Clr Lesslie **SECONDED:** Clr Ring

ITEM 3: GENERAL BUSINESS

SUMMARY

There were no items of General Business.

ITEM 4: NEXT MEETING:

Next Meeting: To be confirmed at a later date based on project milestones and/or need.

There being no further business the meeting closed at 4.45pm.

SUMMARY OF SUBMISSIONS – MARRANGAROO MASTERPLAN/DCP PROJECT

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
Private 1	Requesting approx. 1Ha of land at the SW corner of 412 GWH to remain zoned B6 and suggesting existing service station to south should also remain zoned B6.	The Master Plan for Marrangaroo was developed in close liaison with Council, land owners, stakeholders and the community, A number of Structure Plan options were developed, including one which retained the current extent of B6 zoning along the GWH. However, this option was not preferred partly based on the economic advice provided by SGS which suggested that there would not be the demand for the current extent of B6 zoning even in the long-term and therefore the full extent of this land (approx. 31Ha) was unlikely to ever be developed. There were also a number of urban design reasons why it is proposed to rezone the southern part of the current Enterprise Corridor to Residential including limiting the extent of GWH frontage that would potentially have large-scale buildings, locating residential use opposite the existing residential area of Marrangaroo Fields on the west side of the Highway, and the ability to create a new access off the GWH to service the bulk of the new residential area which was flanked by residential use rather than business or industrial uses. Whilst it is acknowledged that the service station is an existing use which is unlikely to change in the short or even medium term, it is not considered that retaining a small area of B6 zoned land in this location is desirable in the long-term. It is OCULUS' view that the reduced area of B6 land which still amounts to over 20Ha will provide adequate land to accommodate enterprise corridor uses into the future. Also, this land enables deeper blocks more suited to a range of business uses to be created due to the alignment of the existing drainage corridor. Retaining a small area of land as B6 on 412 GWH and the service station site would provide only a limited area of comparatively narrow width which would not be suitable for many B6 uses. Given any development in the southern part of the Marrangaroo Release Area fronting onto the GWH would require a new access off the highway, and any new access would only be considered by RMS if adequate demand could be clearly demonstrated, development of this part of the site would almost certainly be a longer-term scenario as it is only likely to occur if there was significant residential development proposed in the area to the east.	No amendment to Marrangaroo MP / DCP Proposed
Private 2	1. Expressed concern over proposed access road shown located on their property. 2. Expressed the view that the Enterprise Corridor uses would not be in demand and that there could be potential conflict with residential uses. 3. Expressed the view that the local village centre should be larger with more facilities.	1. As advised at a consultation meeting with submitter, the location of the streets and development blocks shown in the Enterprise Corridor B6 Zone is indicative and the final street layout will depend on the timing of development and the extent to which any consolidation of existing lots takes place. The Master Plan establishes the principles which any development is to follow and the DCP establishes appropriate controls to ensure suitable outcomes. 2. The extent of B6 zoning has been reduced from that currently zoned (over 30Ha) to just over 20Ha based on economic feasibility work undertaken by SGS which suggested that it was highly unlikely that there would be demand for such a large area even in the long term. It is OCULUS' view that the current extent of B6 zoning is appropriate and represents a balance between setting aside adequate land for potential employment land in the long-term and having a realistic view of the likely development demand for such uses. The Master Plan proposes appropriate landscape buffers between the B6 land and residential land to the east, and along the GWH frontage. 3. The size of the local village centre was based on economic advice provided by SGS. This assessed the likely demand for retail and community facilities based on the potential future population of	No amendment to Marrangaroo MP / DCP Proposed

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
		Marrangaroo. The local centre is purely intended to service the residents, workers and visitors of Marrangaroo and not to compete with Lithgow city centre or other nearby centres.	
Private 3	1. Queried whether Council will provide sewer to properties within Marrangaroo Release Area and if other existing properties adjacent would also be connected to sewer. Also expressed concern over possible flooding impacts of development. 2. Queried when the 2 additional access points off the GW would be created. 3. Questioned the level of community infrastructure provision proposed for Marrangaroo. 4. Asked whether underground power would be put in for the new development. 5. Asked whether the development would be connected to the NBN and if other exiting properties adjacent would also be connected to the NBN.	1. It is intended that all new development within the Marrangaroo Release Area will be connected to sewer. An Infrastructure Report has been prepared which outlines the sewer infrastructure proposed and likely staging so this can be planned and budgeted for by Council. Whilst the proposed sewer system has not been designed in detail, existing adjacent properties would potentially be able to connect into the new system subject to more detailed assessment of capacity and cost. The Master Plan has taken into account appropriate areas for stormwater detention. There is a requirement that any development has a neutral or beneficial effect on stormwater detention and water quality. 2. The additional access points off the GWH are intended to be provided when the demand from new development justifies them. The new access points will require the approval of the RMS and Minister. It is likely that development would occur initially in the northern part of the site using the existing access point at Reserve Road. The two new access points are likely to be staged in line with development. The Master Plan has been designed to provide the flexibility to utilise the existing point of access at Reserve Road for development in the short-term, and then one new point of access further south in the medium-term, until the second new access may be required in the long-term depending on development demand. 3. The size of the local village centre was based on economic advice provided by SGS. This assessed the likely demand for community facilities based on the potential future population of Marrangaroo and existing facilities located in Lithgow. The local centre is purely intended to service the residents, workers and visitors of Marrangaroo and not to compete with Lithgow city centre or other nearby centres. 4. It is intended that the new power network servicing new development at Marrangaroo would be underground and that the existing overhead power lines along Reserve Road would also be undergrounded within the extent of the Release Area as and when required by new development. 5. It is not within the remit of the Master Plan or Council to stipulate that Marrangaroo be connected to the NBN, however, it is hoped that a potential future development of this size would be served by the NBN and that this would be planned into future subdivisions along with other infrastructure.	
Private 4	Raised concerns with 1. The negative impact of the Enterprise Corridor on the existing properties and new residential village. 2. The economic viability of the Entreprise Corridor. 3. The masterplan design in relation to the village centre and access points.	The Enterprise Corridor zoning was created under the 2014 LEP following the structure plan exercise dating back to 2006 which involved an extensive analysis and consultation process. As such, the Enterprise Corridor is not something new proposed by this master plan - it is an existing zoning established under the 2014 LEP which was publicly exhibited, as was the 2006 structure plan before that. The B6 zoning of the Enterprise Corridor permits a variety of uses as described in the LEP, of which bulky goods retail or 'warehouses' as noted in the submission is only one possible use. The designation of Marrangaroo as an Urban Release Area and its rezoning in 2014 will inevitably change the existing rural character. The Master Plan and DCP have endeavoured to mitigate this change through site responsive design and appropriate controls on development. The extent of the Enterprise Corridor is in fact proposed to be reduced under this Master Plan from the current zoned area of over 30Ha to just over 20Ha. The Master Plan proposes to limit the extent of	

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
		Enterprise Corridor to the south in order to limit the impact on the approach to Lithgow on the Great Western Highway and enable a new access point to be created to the residential village which does not pass through the Enterprise Corridor. The Master Plan provides a significant landscape buffer between the Enterprise Corridor and the residential land to the east along the existing ephemeral creek line of minimum 50m and up to 150m width. This riparian and open space corridor will be revegetated to provide a significant landscape buffer zone to mitigate the visual impact of any larger scale buildings within the Enterprise Corridor. The DCP establishes controls in terms of setbacks, landscape buffers, access, car parking and servicing for the Enterprise Corridor to ensure that potential adverse impacts are managed. In relation to the comment regarding the existing motel, as noted above, bulky goods retail or warehouses is only one possible use in the Enterprise Corridor and the DCP will establish appropriate controls in terms to mitigate impacts on existing uses and properties. The Enterprise Corridor was created as part of the 2006 Structure Plan exercise and the land was rezoned under the 2014 LEP. This land, along with the industrial land to the north, is intended to act as strategic land zoned for employment purposes to accommodate future demand in the long-term (20 years+). The land zoned for Enterprise Corridor and Industrial uses at Marrangaroo is considered suitable and attractive for such uses because of its proximity to the highway, and the fact that appropriate infrastructure will be provided to service the area as a whole. It is Councils view that there are no other significant areas close to Lithgow that can provide the same advantages as Marrangaroo for these uses. An economic study prepared by SGS as part of the Master Plan identified potential demand for bulky goods retail at Marrangaroo based on the lack of existing provision within the Lithgow LGA. The proposed Village Centre is intended as a neighbourhood centre serving the Marrangaroo area and not a wider catchment which might compete with Lithgow city centre. The economic study prepared by SGS as part of the Master Plan identified appropriate retail and community facilities that might form part of the future village centre. The centre was located where it is shown in the Master Plan in order to provide maximum accessibility from residential areas and create a central community focus. Locations closer to the highway were investigated but were ultimately discounted due to issues with accessibility and restrictions created by the existing gas pipeline which precludes such a use within its easement. Previous discussions with the RMS have established that new access points of the Great Western Highway will be limited and they will not approve multiple new access points to service individual blocks or lots. The Master Plan proposes two new access points off the highway to be delivered in a staged manner, the southernmost of which will provide dedicated access to the residential land to the east. The Enterprise Corridor will be accessed either from Reserve Road or the new central point of access with a new access road proposed to connect with both and run along the rear (eastern) side of these blocks. In this way, the Enterprise Corridor land will have good frontage and visibility from the highway and can be accessed from the rear by one of two access points off the highway. In summary, the Marrangaroo Master Plan and DCP intend to reflect and enhance the existing zoning, respect the key natural characteristics of the site, and accommodate the proposed residential, business and industrial uses in a sensitive and sustainable manner in order to ensure the best possible outcome that meets all	

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
		objectives.	
Rural Fire Service	Noted that no detailed bush fire assessment had been provided and that this was required in order to undertake a full assessment of the Master Plan and DCP.	The Master Plan and DCP have taken account of bush fire risk by locating large lot residential against the eastern and southern boundaries where the bush fire risk is greatest. The DCP notes the requirement for any development to comply with the relevant provisions of Planning for Bush Fire Protection and includes a setback control of 40m for lots located along boundaries where bush fire risk exists.	No amendment to Marrangaroo MP / DCP Proposed.
Mingaan Wiradjuri Aboriginal Corporation	Asked whether a Cultural Heritage Assessment had been undertaken on the draft Master Plan.	No Cultural Heritage Assessment has been undertaken on the draft Master Plan. As part of the original Structure Plan and LES process in 2006, research and site survey of indigenous heritage was undertaken. The current draft Master Plan has taken into account the conclusions of this previous work and has sought to protect the key existing site features and areas most likely to contain sites of indigenous significance such as the riparian corridors and rocky outcrops.	No amendment to Marrangaroo MP / DCP Proposed.
Water NSW	1. SEPP 2011: requested that reference is made in the Master Plan and DCP that development of the site must have a NorBE on water quality. Water NSW notes that the MUSIC model prepared by Cardno appears to satisfy the water quality principles of NorBE. 2. Use of Fish River Supply Scheme: Water NSW raised no objections at this point in time to the use of the Fish River Supply Scheme for the proposed development. 3. Upgrading of Lithgow Sewerage Treatment Plant: Water NSW notes that the STP will require to be upgraded for Stage 2 of the development and requested Council acknowledge this issue and outline their plans to resolve this. 4. DCP On-Site Detention: recommended that the language in the Master Plan and DCP relating to on-site detention be strengthened and a section included on Construction	The comments made and proposed changes suggested by Water NSW to the Master Plan and DCP are accepted.	Amendment to Marrangaroo MP / DCP Proposed in line with the proposed amendments suggested by Water NSW.

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
	Management.		
Roads and Maritime Service	The DCP should include road network and transport facilities required to accommodate increased transport demands generated by the master plan. The DCP should include staging and funding sources for required works. To do this, Council needs to prepare a traffic study in accordance with Section 2 of the RTA's Guide to Traffic Generating Developments 2002. The new proposed accesses to the Great Western Highway will require a new declaration to be made by the Minister for Roads, Maritime and Freight. This process is complex and likely to be lengthy and it is recommended that the traffic study is completed as soon as possible.	It is recommended that Council undertake a traffic study in accordance with RMS' requirements as soon as possible.	Council to undertake / commission a traffic study for the Marrangaroo master plan as soon as possible.
Australian Pipeline Authority	1. Detailed comments on Master Plan: included comments in relation to the General Industrial Area, the Residential Areas, the mapping and a general comment regarding page numbers. 2. Detailed comments on DCP. 3. General comments: included benefits of Safety Management Study and road crossing requirements.	The comments made and proposed changes suggested by APA to the Master Plan and DCP are accepted.	Amendment to Marrangaroo MP / DCP Proposed in line with the proposed amendments suggested by APA.
TransGrid	TransGrid confirm that all of their electricity transmission infrastructure and related land interests are located outside of the urban release	No comment	No amendment to Marrangaroo MP / DCP Proposed

Submitter	Summary	Oculus Response (Agreed Council Project Manager)	Action
	area.		

Minutes

Community Development Committee
Tuesday 8 May 2018
Lithgow City Council
Committee Room
4.00 – 5.00 pm

Community Development Committee	
Item Number	**Agenda**
1	Welcome, Present & apologies
2	Previous Minutes
3	Business Arising from Previous Minutes
4	Financial Assistance
5	Adventure Playground Accessibility
6	Update on Current projects
7	General Business

Minutes
Community Development Committee
8 May 2018

ITEM: 1 WELCOME, PRESENT AND APOLOGIES

Present: Clr Coleman, Clr Lesslie, Clr Statham, Bryan Williamson, Rachael Young, Leanne Walding, Glenda Anthes.

Apologies: Paul Phillips and Annette Staines

Officers: Matthew Johnson and Kristy Lenon

Declaration of Interests: NIL

ACTION

THAT
The Welcome and Apologies and Declaration of Interests be noted.

MOVED: Bryan Williamson **SECONDED:** Clr Lesslie

ITEM: 2 PREVIOUS MINUTES

The minutes of the 13 March meeting were endorsed by three members present and reported to Council on 26 March 2018.

ACTION

THAT
The endorsement of the previous minutes by three members present and their reporting to Council on 26 March 2018 be noted.

MOVED: Glenda Anthes **SECONDED:** Leanne Walding

ITEM: 3 BUSINESS ARISING FROM PREVIOUS MINUTES

3.1. Safe access to Highway at Col Drew Drive
Council has been in communication with the RMS about the possible installation of traffic lights however no decision has been made. *Matter to be further followed up with Council's Operations Committee.*

3.2 Rubbish at Blast Furnace
We have been trying to get a contractor to do this work before official opening

3.3 Community Transport in rural villages
Kristy Lenon gave a report on contact with Lithgow Community Transport about this matter. Kristy to follow up further.

3.4 Burns Lane /Bank Lane Naming
This matter has been referred to Council's Director of Operations for consideration.

ACTION

THAT The Business Arising from the Previous Minutes be noted.

MOVED: Clr Statham **SECONDED:** Rachael Young

ITEM: 4 FINANCIAL ASSISTANCE

SUMMARY
Council has resolved to review Policy 4.2 Financial Assistance, including the deletion of the Recurrent Financial Assistance category.

COMMENTARY
At Ordinary Meeting of Council held 23 April 2018, Council resolved (Min 18-98) as follows;
THAT Council:
1. Amend Policy 4.2 Financial Assistance by removing the Recurrent Financial Assistance category and requiring current Recurrent Financial Assistance recipients to apply for Non-Recurrent Financial Assistance each year.
2. Note that a review of Policy 4.2 Financial Assistance has commenced and that the draft revised policy will be presented to the May Council meeting to be endorsed for public exhibition and comment for 28 days.

Council has since written to Recurrent Financial Assistance recipients advising them of Council's decision and asking that they submit a Non-Recurrent Financial Assistance application by 25 May 2018 so that, in the event the proposal to amend Policy 4.2 is adopted by Council following the consultation period, they can be considered for Round 1 Non-Recurrent Financial Assistance in 2018/19.

There will be less funds available for financial assistance in 2018/19 than the current year. In the draft 2018/19 Operational Plan, Council has allocated a total of $106,500 for Financial Assistance, approximately $50,000 less than the current year amount of $156,844. Of the $106,500 allocated in 2018/19, $1,000 will be set aside for fee waivers, $10,000 for Showground/Civic Ballroom event fee waiver packages and $2,500 for Sporting Related Financial Assistance, leaving a net $93,000 for Rounds 1 and 2 including former recurrent recipients.

14 Round 1 applications to the value of $33,948.79 have been received during April as attached.

The table below shows the amount approved in the current year for Recurrent Financial Assistance.

Recurrent Financial Recipient	**2017/18 Amount**
Lithgow Show Society	$12,300
Ironfest Festival	$12,300
Lithgow Chamber of Commerce programs and events	$12,300
Western Region Academy of Sport	$1,780
White Ribbon Day	$500
Schools for end of year academic prizes	$930 ($50 per school)

Lithgow Tidy Towns	$2,050
Wallerawang Tidy Towns	$1,025
Portland Tidy Towns	$1,025
Cullen Bullen Tidy Towns	$1,025
Portland Golf Club	$860
Lithgow Information and Neighbourhood Centre Rental Assistance	$11,000
Arts Outwest	$12,749
Total	**$69,844**

Once applications have been received from former Recurrent Financial Assistance recipients, a report will be prepared for the Committee's consideration detailing these and Round 1 Non-Recurrent applications.

ACTION
The draft revised Policy 4.2 Financial Assistance to be sent to the Committee for comment before reporting to Council. The Committee is asked to provide comment by 15 May.

MOVED: Bryan Williamson **SECONDED:** Clr Lesslie

ITEM: 5 Adventure Playground Accessibility

SUMMARY
A report was provided on the features of the playground design for children with disabilities.

COMMENTARY
The playground designer Ric Mcconaghy has provided the following details:

The space has been designed from the beginning to accommodate a very broad range of universal access. This includes arrival facilities, amenities, transition through the space, contrasting colour and texture in materials to aid navigation, extension of seating areas to accommodate wheelchairs / pushers / walking frames etc.

But more basically making everyone of all abilities, aspirations, cultures and ages feel welcome and that they belong. Accessible equipment include accessible harnesses on the swings and flying fox, the accessible carousel, cubby area and mouse wheel.

Furthermore there are scented and textural elements for sight impaired, wayfinding bits for all, sound elements, discovery, shade for the not very active, beautiful planting, and an intention to create a space where everyone and anyone can come, has opportunities to be engaged, and feels welcome and a sense of belonging.

ACTION

THAT:
The report on adventure playground accessibility be noted.
Staff were asked to follow up on the inclusion of an adult change table facility in toilets

MOVED: Leanne Walding **SECONDED:** Rachael Young

ITEM: 6 UPDATE ON CURRENT PROJECTS

SUMMARY
An update was provided on projects currently underway in Community and Culture including Blast Furnace Masterplan works and the Adventure Playground.

COMMENTARY

Blast Furnace
Good progress is being made with installation of lighting and toilets, with completion scheduled in June. The official opening is on Saturday 12 May at 4.30pm to coincide with Lithglow Heritage Festival light show. All are welcome

The Committee congratulated staff involved in the Blast Furnace project and LithGlow events.

Adventure Playground
Council is currently calling for tenders for construction and it is expected that the tender will be awarded in late June with works to commence first quarter 2018/19.

ACTION

THAT:

The discussion on current projects be noted.

MOVED: Clr Statham **SECONDED:** Clr Lesslie

ITEM: 7 GENERAL BUSINESS

7.1 Pigeons
Staff were asked if there had been any progress with dealing with pigeons in the CBD area.

Staff to follow up with Operations staff.

7.2 Mates Walk and Talk Insurance
The Committee was advised that the Mates Walk and Talk event that walks monthly in the Lake Pillans/Blast Furnace area no longer has public liability insurance and may be required to as they are on public land.
This matter is being looked into by Council staff.

ACTION

THAT:

The discussion on General Business be noted.

MOVED: Glenda Anthes **SECONDED:** Leanne Walding

Meeting Closed 4.38 pm

Next Meeting

A special meeting will be scheduled in June to consider Financial Assistance requests.

MINUTES

Environmental Advisory Committee
9 May 2018
4.00 pm Hartley Building

Name of Committee	
Item Number	**Agenda**
1	Welcome/present/ apologies
2	Confirmation Of Minutes of Previous Meeting
3	Renewable Energy Action Plan
4	Management of European Wasps within the LGA
5	Update on New Concrete Pathway at Lake Pillans Wetland – Referred to Operations Committee Meeting
6	Street Tree Planting – Referred to Operations Committee Meeting
7	Solar Panels – Admin Building
8	Roadside Vegetation Management Plan
9	General Business
10	Next Meeting

ENVIRONMENTAL ADVISORY COMMITTEE
MEETING MINUTES
WEDNESDAY 9 May 2018

ITEM 1 – WELCOME/PRESENT/APOLOGIES

PRESENT: C Hunter, Councillor S Ring, D Roebuck, S Graves, J Favell, P Evans, Councillor Stephen Lesslie.

APOLOGIES: Councillor C Coleman and Trish Kidd

OFFICERS: A Muir – Director, Economic Development & Environment, D Cupitt – Team Leader Environment, R Goddard (Minutes).

DECLARATION OF INTEREST: Nil.

ITEM 2 - CONFIRMATION OF MINUTES FROM THE PREVIOUS MEETING

COMMITTEE ACTION

THAT - the Minutes of the meeting of 7 February 2018 be taken as read and confirmed.

As Per Council meeting

MOVED: Councillor S Ring **SECONDED:** Councillor Lesslie

CARRIED

ITEM 3 – RENEWABLE ENERGY ACTION PLAN

SUMMARY – Consideration be given for Lithgow City Council to develop a Renewable Action Plan.

COMMITTEE ACTION:

THAT - the Environmental Advisory Committee requests that Julie Favell investigates opportunities, costs and what is involved with a Renewable Energy Action Plan and she will report back to the committee at the meeting on 8 August 2018.

MOVED: Councillor S Ring **SECONDED:** Councillor Lesslie

CARRIED

ITEM 4 – MANAGEMENT OF EUROPEAN WASPS WITHIN THE LITHGOW AREA

SUMMARY: The Recreation Department has a pest control contractor spraying wasp nests located on Council owned or managed lands in the LGA. Sites are typically identified by members of the public although private property is the responsibility of the landholder. This is a seasonal problem; however this year has been particularly bad due to the extended dry weather

COMMITTEE ACTION:

THAT - the General Manager be requested to provide staff resources to organise a question and answer session with a pest controller and/or expert in this field including advice on any treatments that can be used in eradicating wasps.

MOVED: Councillor S Lesslie **SECONDED:** Councillor S Ring

CARRIED

ITEM 5 – REQUEST CLASSIFICATION OF NEW CONCRETE PATHWAY AT LAKE PILLANS WETLAND

SUMMARY – This matter was referred to the Operations Committee for investigation after the last EAC meeting.

COMMITTEE ACTION:

THAT - the Environmental Advisory Committee requests through the General Manager that the Operations Department investigate the relevant requirements and erect a sign as per Australian Standard for the new concrete pathway at Lake Pillans wetland.

NOTED

ITEM 6 – STREET TREE PLANTING – REFERRED TO OPERATIONS COMMITTEE MEETING

SUMMARY – This matter was referred to the Operations Committee.

COMMITTEE ACTION:

THAT – The General Manager be requested to consult with the relevant Council staff in relation to the preparation of a Street Tree Plan so that the preparation of a Plan can be allocated to an appropriate area and proceed as resources permit.

MOVED: A Muir **SECONDED:** J Favell

CARRIED

ITEM 7 – PROPOSED SOLAR PANELS ADMINISTRATION BUILDING

SUMMARY: Confirmation that Council has adopted this proposal and will go on public exhibition which will finish at the end of May 2018. Council has allocated the funding in the 2018-2019 budget.

THAT the information on Solar Panels be noted.

ITEM 8 – ROADSIDE VEGETATION MANAGEMENT PLAN

SUMMARY- P Evans from Local Land Services (LLS) has a contract offer in relation to a Roadside Vegetation Management Plan for the amount of $35,850.00.

COMMITTEE ACTION:

THAT - the Environmental Advisory Committee requests the General Manager to endorse the offer from LLS for the provision of $35,850.00 for the preparation of a Roadside Vegetation Management Plan for council roads noting that this plan will include a vegetation plan, field book for field staff vehicles, SWP's and training for field staff.

MOVED: Councillor S Ring **SECONDED:** J Favell

CARRIED

ITEM 9 – GENERAL BUSINESS

No General Business

ITEM 10 - NEXT MEETING

The next scheduled meeting of the EAC is Wednesday 8 August 2018 at 4.00pm in the Hartley Meeting Room.

There being no further business the meeting closed at 5 pm

Minutes

Sports Advisory Committee
9th May 2018
5:00pm

Operations Committee	
Item Number	**Agenda**
1	Welcome/Present/Apologies
2	Confirmation of Minutes
3	Business Arising From The Minutes
4	Financial Assistance Requests
5	2018 LJ Hooker Reg Cowden Sports Star Of The Year Awards
6	Booking Requests
7	New Members
8	General Business
9	Next Meeting

MINUTES – SPORTS ADVISORY COMMITTEE – 09/05/18

ITEM: 1 PRESENT AND APOLOGIES

PRESENT: Cr D Goodwin, Cr J Smith, C Hawkins, M Wren, R Marjoram, D Fardell, L Kearney, P Glasson, R Whitty, D Whitty, S Morris

APOLOGIES: P Evans

OFFICERS: P Fitzpatrick, J Edgecombe, E Trudgett, S Johnson

DECLARATION OF INTERESTS:

ITEM: 2 CONFIRMATION OF MINUTES FROM THE PREVIOUS MEETING

The minutes were presented to the Council on 23rd April 2018.

ACTION

THAT the Minutes of the meeting of 11th April 2018 be noted.

MOVED: R Marjoram **SECONDED:** S Morris

ITEM: 3 BUSINESS ARISING FROM THE MINUTES

- **Tony Luchetti Scoreboard**

It was advised that the replacement parts for the scoreboard at Tony Luchetti should be received by Council within the next two weeks. Once received, replacing the parts will be completed as soon as possible.

- **Rugby League Postpads**

It was advised that the postpads located at the Tony Luchetti Sportsground that Workmen's Club had requested to use are owned by the Bears RLFC.

- **Cleaning of Sporting Field Grandstand**

The cleaning of the Lithgow, Wallerawang and Portland grandstands is currently under review by the General Manager.

DRAFT

ITEM: 4 FINANCIAL ASSISTANCE REQUESTS

SUMMARY

A request for financial assistance has been received from Angus Clues after his selection in the Pacific School Games. It is recommended that Council provide Angus with $300 toward the cost of participating in the Pacific School Games, as participation saw him representing Lithgow in Adelaide during his involvement in athletics.

RECOMMENDATION

THAT Council provide Angus Clues with $300.00 toward the cost of participating in the Pacific School Games.

A request for financial assistance has been received from Adam Doonan after his selection in the Motorcycle Off Road Racing Team. It is recommended that Council provide Adam with $500 toward the cost of participating in the Finke Desert Race, as participation will see him representing Lithgow in Alice Springs during his involvement in off road motorbike racing.

FINANCIAL IMPLICATIONS

- **Budget approved – Yes**
- **Cost centre – 600059**
- **Expended to date – N/A**
- **Future potential impact – N/A**

ACTION/RECOMMENDATION

THAT Council provide Adam Doonan with $500.00 toward the cost of participating in the Finke Desert Race.

MOVED: P Glasson **SECONDED:** D Fardell

DRAFT

ITEM: 5 2018 LJ HOOKER REG COWDEN MEMORIAL SPORTS STAR OF THE YEAR AWARDS

SUMMARY

There were no written Junior nominations for the month of April 2018 received.

There were no written Senior nominations for the month of April 2018 received.

MONTH	JUNIOR RECIPIENT(S)	SENIOR RECIPIENT(S)
December/January	Emily Watts (Cycling)	Lachlan Sharp (Hockey)
February	No Nominations Received	No Nominations
March	Lucy Green (Tennis) Lithgow Lightning Cricket – Team Winner	No Nominations
April	No Nominations	David Palmer (Squash)
May		
June		
July		
August		
September		
October		
November		

FINANCIAL IMPLICATIONS

- **Budget approved – N/A**
- **Cost centre – N/A**
- **Expended to date – N/A**
- **Future potential impact – N/A**

ACTION

THAT

1. The 2018 LJ Hooker Reg Cowden Memorial Senior Sports Star of the Year Award for April 2018 be awarded to David Palmer (Squash).

MOVED: D Fardell **SECONDED:** D Goodwin

DRAFT

ITEM: 6 BOOKING REQUESTS

SUMMARY

The following bookings were received between 11th April 2018 and 9th May 2018, and do not conflict with any other approved bookings.

Kremer Park, Portland			
User	**Dates / Times**	**Purpose**	**Comments**
St Joseph's School	Between 9am and 3pm on Friday, 25th May 2018.	Athletics Carnival	Approved subject to standard condition.
Portland Colts Senior League	Between 5.30pm-7.30pm on Tues/Thurs/Fridays & between 9am-5pm on Saturdays from 17/12/17-30/9/18.	Portland Colts 2018 Training & Competition	Approved subject to standard condition.
Lake Wallace, Wallerawang			
User	**Dates / Times**	**Purpose**	**Comments**
Wallerawang Lidsdale Progress Association	Between 4.30pm and 9.30pm on Monday, 31st December 2018.	New Year's Eve Pyrotechnical Event	Approved subject to standard condition.
Wallerawang Oval, Wallerawang			
User	**Dates / Times**	**Purpose**	**Comments**
Wallerawang Junior Soccer Club	Between 4pm-6.30pm on Tuesdays, from 1st May 2018 to 25th September 2018.	2018 Soccer Training	Approved subject to standard condition.
Wallerawang Public School	Between 11am and 2pm on Thursday, 24th May 2018.	NSW PSSA School Rugby League	Approved subject to standard condition.
Watsford Oval, Lithgow			
User	**Dates / Times**	**Purpose**	**Comments**
Lithgow Public School	Between 9am-3pm on Tuesday, 8th May 2018.	LPS Cricket Game	Approved subject to standard condition.
Zig Zag Oval, Lithgow			
User	**Dates / Times**	**Purpose**	**Comments**
Zig Zag Public School	Between 10.30am and 2.30pm on Thursday, 10th May 2018.	Athletics Carnival	Approved subject to standard condition.

DRAFT

The approved bookings calendars are updated after each Sports Advisory Committee meeting, and can be viewed and / or downloaded from Council's website http://www.council.lithgow.com/recreationFacilities.html

CANCELLATIONS
NIL

FINANCIAL IMPLICATIONS

- **Budget approved – N/A**
- **Cost centre – N/A**
- **Expended to date – N/A**
- **Future potential impact – N/A**

ACTION

THAT

1. All bookings detailed in Item 7 be approved.

MOVED: D Whitty **SECONDED:** S Morris

DRAFT

ITEM 7: NEW MEMBERS

NIL

ITEM 8: GENERAL BUSINESS

SUMMARY

- **Training on Number 1 Field – Tony Luchetti Sportsground**

It has been brought to Council's attention that the No. 1 field at TLS is being used for training. As per the minutes of the meeting held 25 August 2015 it was resolved that no training is permitted on Field 1 and no junior's games are permitted on Field 1. Following this, it was then resolved by the Sports Advisory Committee at the meeting held 25 July 2017 that junior's games are able to be held on No. 1 field.

It was discussed that 1 hour of ball work training would be trialed on No. 1 field and field 2 & 3 would be used by the other team. Bears using No. 1 on Tuesday nights and Workmen's Club on Thursday nights. All users are to abide by Council set guidelines that are being drawn up and training is not to commence until the guidelines are in place. Council will have the ability to cancel this arrangement should any club not abide by the guidelines or if serious damage occurs to No.1 field.

ACTION

THAT

1. Bears train for 1hr, ball work only on Tuesday nights and Workmen's Club train for 1hr, ball work only on Thursday nights; and
2. Council draw up guidelines in regards to the use of No.1 field for training purposes.
3. All teams are to be reminded that Sports Advisory Council will provide three warnings for any misconduct, if a fourth incident occurs a formal letter of suspension will be issued.

MOVED: R Marjoram **SECONDED:** D Goodwin

- **Irrigation for Sporting Fields**

The condition of the sporting fields was raised due to the lack of rainfall and stretched staff numbers being able to maintain the level of water required. The option of installing an irrigation/sprinkler systems at Tony Luchetti Showground, Kremer Park and Wallerawang Oval is to be investigated by Council staff.

- **Appreciations**

Thanks was extended from the Croquet Club to Council staff for installing a lock in the bathrooms to help with the safety of players/users of the Club.
Thanks was extended from the Portland Colts to Council for their efforts in watering and maintaining the Portland football fields.
Thanks was extended to all members of the Sports Advisory Committee that voted for the priorities for the Stronger Country Communities Fund – Round 2.

DRAFT

FINANCIAL IMPLICATIONS

- **Budget approved – N/A**
- **Cost centre – N/A**
- **Expended to date – N/A**
- **Future potential impact – N/A**

ACTION

THAT appropriate actions and reporting be undertaken in relation to the items raised during general business.

MOVED: R Marjoram **SECONDED:** D Goodwin

ITEM 9: NEXT MEETING:

Next Meeting: Wednesday, 13th June 2018 at 5:00pm
Council Chambers, Administration Building
180 Mort Street LITHGOW NSW 2790

There being no further business the meeting closed at 6pm

DRAFT

Minutes

Finance Committee
14 May 2018
5:30 p.m.

Name of Committee	
Item Number	**Agenda**
1	Welcome/present/ apologies
2	Confirmation of Minutes – April Meeting
3	Special Rate Variation Application - Update
4	April Performance Reporting to OLG
5	January to March Quarterly Budget Review
6	April 2018 Investment Report
7	May Council Meeting – Review of Finance & Assets Reports
8	Audit Action List
9	General Business
10	Next meeting

MINUTES – FINANCE COMMITTEE – 14 MAY 2018

ITEM: 1 PRESENT AND APOLOGIES

PRESENT: Cr Lesslie, Cr Thompson, Cr McAndrew, Cr Ring

APOLOGIES: Nil

OFFICERS: Graeme Faulkner, Ross Gurney, Andrew Muir, Trinity Newton (minutes)

DECLARATION OF INTERESTS: Nil

ITEM: 2 CONFIRMATION OF MINUTES FROM THE PREVIOUS MEETING

The minutes of the meeting 10 April 2018 were endorsed by two members of the Committee being:

Cr McAndrew and Cr Leslie

The minutes were presented to the Council on 23 April 2018.
Future meetings will commence at 4:30 p.m.

MOVED: Cr Thompson **SECONDED:** Cr McAndrew

The committee checked the past minutes. The minutes were presented to the Council on 23 April 2018.

ITEM: 3 SPECIAL RATE VARIATION APPLICATION - UPDATE

SUMMARY
A verbal report of the progress status.

An initial discussion had with IPART who outlined the process and what is required of Council. Commencing consultation with the community is the next step in the process. A project plan and timeline has been prepared.

The community consultation process will take place from May to August 2018. Application to IPART will be February 2019.

As of 1/7/2019, ratepayers would be paying (if the SRV is approved) an additional 4.23% plus rate peg on top of their 2018/19 base rates. Including the expiring SRV, the total increase in rates would be 9% plus rate peg.

ACTION/RECOMMENDATION

THAT the Committee note the verbal Special Rate Variation report.

MOVED: Cr Ring **SECONDED:** Cr McAndrew

ITEM: 4 APRIL PERFORMANCE REPORTING TO OLG

SUMMARY

The Committee went through the April report to the Office of Local Government.

An approach will be made in June to request the cessation of the reporting.

ACTION/RECOMMENDATION

THAT the Committee note the April Performance Report to the OLG.

MOVED: Cr Lesslie **SECONDED:** Cr Ring

ITEM: 5 JANUARY TO MARCH QUARTERLY BUDGET REVIEW

SUMMARY

Key points in the quarterly reports were reviewed by the committee.

The projected financial position is unsatisfactory as the original budget surplus (before capital) will not be met. The projected financial position has improved in the 2 quarters since September 2017.

Review of the operating costs and revenue, as well as operational efficiencies have resulted in an improvement of $230,000 since 30 September 2017.

Now forecasting a deficit of approx. ($580,000) (before capital).

The Committee discussed various budget items within the review.

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

ACTION/RECOMMENDATION

THAT the Committee endorse the January to March Quarterly Budget Review recommendations:

THAT Council

1. Adopt the revised 2017/18 Operational Plan as detailed in the Quarterly Report for the period January to March 2018. The revised budget operating deficit (before capital grants and profit on sale of assets) is ($581,170.44).
2. Adopt the variations to the Council budget as outlined in the attached report.
3. Note that the Chief Financial and Information Officer, as Responsible Accounting Officer, has reviewed the statements and certifies as required by the Local Government (General) Amendment (Planning and Reporting) Regulation 2009 (s203) that Council's 2017/18 Operational Plan has been reviewed and the financial position of Council is unsatisfactory.
4. Note that the operating efficiencies and cost savings program has improved the projected end-of-year financial position by $230,000 since 30 September 2017.
5. Approve the late budget variation request to transfer $50,000 of operational funds from the Bushfire Mapping project to the Lake Wallace Plan of Management.

MOVED: Cr Ring **SECONDED:** Cr McAndrew

ITEM: 6 APRIL 2018 INVESTMENT REPORT

SUMMARY

The Committee reviewed the April 2018 Investment Report. The decrease in the investments balance and change to interest income were noted.

The committee requested an update on incoming grants money. The CFIO will request the Finance Department to follow-up any outstanding grants.

FINANCIAL IMPLICATIONS

- YTD Budget approved – $508,148
- Cost centre - 3259
- YTD Income to date - $417,602
- Future potential impact – Nil

ACTION/RECOMMENDATION

THAT the Committee endorse the April 2018 Investment Report recommendations:

THAT

1. Investments of $27,190,000.00 and cash of $404,490.44 for the period ending 30 April 2018 be noted.
2. The enclosed certificate of the Responsible Accounting Officer be noted.

MOVED: Cr Lesslie **SECONDED:** Cr McAndrew

ITEM 7: MAY COUNCIL MEETING – REVIEW OF FINANCE & ASSETS REPORTS

SUMMARY

The following reports being presented to the Council meeting by Finance and Assets were discussed and recommended for approval at the Council meeting on 28 May 2018.

ACTION/RECOMMENDATION

NSW Auditor-General's Report on Local Government 2017

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

THAT Council note the NSW Auditor-General's Report on Local Government 2017 and ongoing action to be taken by Council to improve processes for the preparation of the annual financial statements.

Moved: Cr Ring. Seconded: Cr Lesslie

Policy Reviews

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

THAT Council adopt the following reviewed policies:

- Policy 9.3 Competitive Neutrality
- Policy 9.7 Tenders – Canvassing / Lobbying of Councillors and Staff.

Provisions & Debt Write Off Report

FINANCIAL IMPLICATIONS

- Budget approved - $71,848.01(doubtful debts expense)
- Cost centre – 3269 - General Purpose Revenue
- Expended to date - Nil
- Future potential impact - Nil

THAT Council write off:

1. $30,169.24 of provisions as requested by Crowe Horwath at 30 June 2017 in accordance with AASB137 - Provisions, Contingent Liabilities and Contingent Assets and AASB1049 – Whole of Government and General Government Sector Financial Reporting.

2. $252,403.04 of unrecoverable debts in accordance with AASB1049 – Whole of Government and General Government Sector Financial Reporting.
3. $1,218.20 of unrecoverable debts in accordance with AASB1049 – Whole of Government and General Government Sector Financial Reporting.

Request for Consideration - Excessive Water Account

The Excessive Water Account Report is to go to the Council meeting for consideration.

MOVED: Cr Ring **SECONDED:** Cr Thompson

The Committee reviewed the information for the LED street lighting replacement Project in preparation of the report to go to Council.

RECOMMENDATION

THAT the information be noted in relation to the LED replacement Project.

MOVED: Cr Leslie **SECONDED:** Cr McAndrew

ITEM 8: AUDIT ACTION LIST

SUMMARY

The Audit Action List was discussed. Progress is being made towards completing all actions by 30/6/18.

ACTION/RECOMMENDATION

THAT the committee note progress towards completing the audit actions.

MOVED: Cr Leslie **SECONDED:** Cr Ring

ITEM 9: GENERAL BUSINESS

SUMMARY

For the information of the Committee, the External Audit Committee has been convened. Will be meeting in the second week in June.

ITEM 10: NEXT MEETING:

Next Meeting: at 4:30pm on Wednesday 13 June 2018 (moved from public holiday)

There being no further business the meeting closed at 6:50pm

ITEM FIN - 28/05/18 - QUARTERLY BUDGET REVIEW

REPORT BY: CHIEF FINANCIAL & INFORMATION OFFICER

REFERENCE

Min 17-194: Ordinary Meeting of Council held 26 June 2017
Min 17-357: Ordinary Meeting of Council held 27 November 2017
Min 18-31: Ordinary Meeting of Council held 26 February 2018

SUMMARY

This report provides the Quarterly Performance Report on the 2017-2018 Operational Plan for the period of 1 January to 31 March 2018 with a recommendation that variations to income and expenditure estimates are voted and the revised financial result of ($581,170.44) operating deficit (before capital grants and profit on sale of assets) be noted.

COMMENTARY

The January to March Quarterly Performance Report on the 2017-2018 Operational Plan has been prepared and details are provided with the attachment to the Business Paper.

2017/18 Quarterly Budget Comparison			
Budget	**Income $'000**	**Expenditure $'000**	**Result $'000**
Original	45,864	41,856	4,008
September Quarter	48,907	43,329	5,578
December Quarter	48,931	43,003	5,928
March Quarter	50,084	43,089	6,994

2017/18 Quarterly Budget Comparison Fund – Proposed March Review			
Budget	**Income $'000**	**Expenditure $'000**	**Result $'000**
General	32,326	29,285	3,041
Water	6,616	7,383	(770)
Wastewater	11,144	6,419	4,725

A late budget variation request was received to transfer $50,000 of operational funds from the Bushfire Mapping project to the Lake Wallace Plan of Management. Bushfire Mapping has been completed without the use of project funds. There is a nil net effect on the operating budget as a consequence of this budget variation request.

POLICY IMPLICATIONS

There are no policy implications as a result of this report.

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

LEGAL IMPLICATIONS
The Local Government Act 1993 and Local Government (General) Amendment (Planning and Reporting) Regulation 2009 sets out requirements for the quarterly reporting of the achievement of performance targets and the submission of a budget review statement after the end of each quarter.

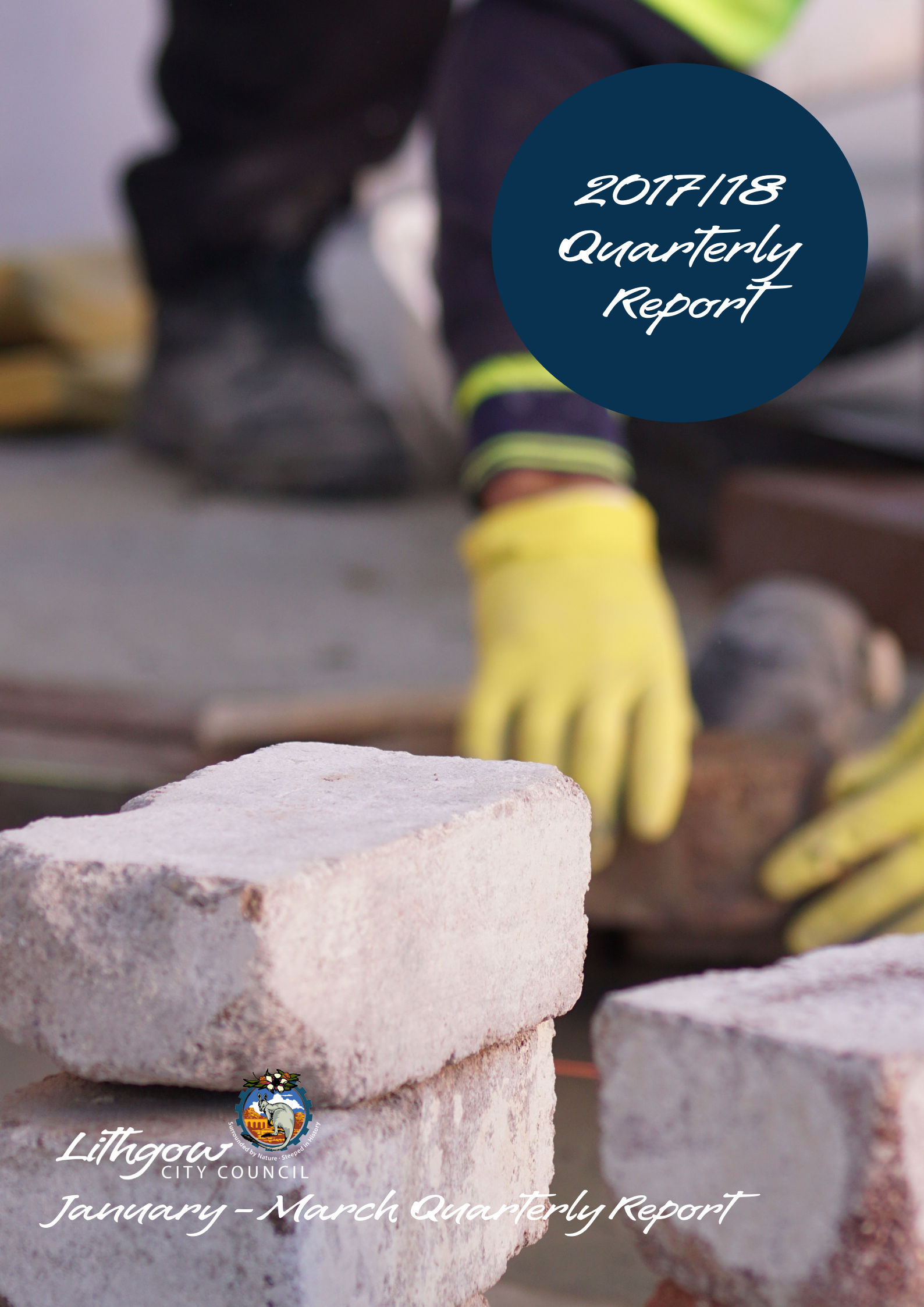
ATTACHMENTS

1. Quarterly Report 1 January – 31 March 2018

RECOMMENDATION

THAT Council

1. Adopt the revised 2017/18 Operational Plan as detailed in the Quarterly Report for the period January to March 2018. The revised budget operating deficit (before capital grants and profit on sale of assets) is ($581,170.44).
2. Adopt the variations to the Council budget as outlined in the attached report.
3. Note that the Chief Financial and Information Officer, as Responsible Accounting Officer, has reviewed the statements and certifies as required by the Local Government (General) Amendment (Planning and Reporting) Regulation 2009 (s203) that Council's 2017/18 Operational Plan has been reviewed and the financial position of Council is unsatisfactory.
4. Note that the operating efficiencies and cost savings program has improved the projected end-of-year financial position by $230,000 since 30 September 2017.
5. Approve the late budget variation request to transfer $50,000 of operational funds from the Bushfire Mapping project to the Lake Wallace Plan of Management.



2017/18 Quarterly Report

Lithgow CITY COUNCIL

Surrounded by Nature · Steeped in History

January – March Quarterly Report

Executive Summary

The Quarterly Performance Report provides a budget review statement with a revised estimate of income and expenditure for the year. This is a requirement of the Local Government Act 1993 and Local Government (General) Regulation 2005. This Quarterly Performance Report for the period of 1 January 2018 to 31 March 2018 achieves these requirements.

From the General Manager,
Graeme Faulkner

Report by Responsible Accounting Officer

The following statement is made in accordance with Clause 203(2) of the Local Government (General) Regulations 2005:

31 March 2018

It is my opinion that the Quarterly Budget review Statement for Lithgow City Council for the quarter ended 31/3/18 indicates that Council's projected position at 30 June 2018 will be unsatisfactory at year end, having regard to the projected estimates of income and expenditure and the original budgeted income and expenditure.

My opinion above, that Council's projected financial position at 30 June 2018 will be unsatisfactory has been based on the following factors:

1. Increased depreciation expense of $1.2M resulting from asset revaluations.
2. Carry forward expenses from the 2015/16 year of $595,000.
3. Increase in the electricity supply contract commencing January 2018, 2017/18 impact $343,000.

Recommended remedial action to deal with the unsatisfactory position includes:

a. Ongoing operating efficiencies and cost savings program.
b. Ongoing implementation of the Performance Improvement Plan from Morrison Low.
c. Revising and refining the Fit for the Future program to include a Special Rate Variation for 2019/20.

The operating efficiencies and cost savings program has improved the projected end-of-year financial position by $230,000 since 30 September 2017.

Ross Gurney
Responsible Accounting Officer

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Summary of Financial Position

This report provides the Quarterly Performance Report on the 2017-2018 Operational Plan for the period of 1 January 2018 to 31 March 2018 with a recommendation that variations to income and expenditure estimates are voted.

2017/18 Quarterly Budget Comparison			
Budget	**Income $'000**	**Expenditure $'000**	**Result $'000**
Original	45,864	41,856	4,008
September Quarter	48,907	43,329	5,578
December Quarter	48,931	43,003	5,928
March Quarter	50,084	43,089	6,994

2017/18 Quarterly Budget Comparison Fund – Proposed March Review			
Budget	**Income $'000**	**Expenditure $'000**	**Result $'000**
General	32,326	29,285	3,041
Water	6,616	7,383	(767)
Wastewater	11,144	6,419	4,725

Please note the above tables will not balance due to rounding within income and expense types.

Consolidated - Income and Expense Budget Review Statement

2017/18 March Quarterly Budget Review Statement											
Projected Income and Expenditure Statement	**Original Budget**	**Carry Forwards**	**Other than by QBR**	**Sept Review**	**Dec Review**	**Mar Review**	**Revised Budget**	**Variations for this Dec Quarter**	**Notes**	**Projected Year End Result**	**Actual YTD Figures to March 2018**
Rates and Annual Charges	25,474		(192)	2	540		25,824			25,824	26,522
User Fees and Charges	7,251		263	75	(1,148)		6,441			6,441	4,522
Interest and Investment Revenue	809			1			810	(40)	**1**	770	477
Other Revenue	811		4	219	42		1,076	198	**2**	1,274	1,035
Operating Grants and Contributions	7,864		(75)	12	349		8,150	49	**3**	8,199	3,424
Capital Grants and Contributions	3,655	2,545		189	240		6,629	886	**4**	7,515	2,950
Gain Sale of Assets	-							61	**5**	61	61
Total Revenue	**45,864**	**2,545**	**-**	**498**	**24**		**48,931**	**1,154**		**50,084**	**38,991**
Employee Costs	14,866	23		345	(14)		15,220	(181)	**6**	15,039	11,552
Borrowing Costs	931						931			931	405
Material and Contracts	10,166	572	(13)	462	(1,643)		9,544	142	**7**	9,686	5,970
Depreciation Expense	10,479			686	536		11,701			11,701	8,709
Other Expenses	5,414		13	(616)	795		5,606	126	**8**	5,732	4,096
Loss on Sale of Assets	-										-
Total Expenses	**41,856**	**595**	**-**	**876**	**(326)**		**43,003**	**87**		**43,089**	**30,732**
Operating Result Surplus/(Deficit)	**4,008**	**1,950**	**-**	**(378)**	**350**		**5,928**	**1,067**		**6,994**	**8,259**
Operating Result before Capital Grants	**353**	**(595)**	**-**	**(567)**	**110**		**(701)**	**120**		**(581)**	**5,248**

Income and Expense Budget Variation Notes

Notes	Details
1	Reduced investment interest income due to lower than expected interest rates and cash available for investment.
2	Increase in other revenue due to increased property rental budget from re-negotiated leases of Council buildings.
3	Increase in operating grants due to revenues received/receivable for Youth Week and Youth Opportunities programs.
4	Increase in capital grants due to revenues received/receivable for Blackspot program, Adventure playground, Lithgow basketball stadium and Lithgow tennis courts.
5	Increase due to actuals recorded from sales of plant and equipment during the year.
6	Decrease due to transfer of salaries to capital expenses to cover project management costs and a reduction in Council's organisational training budget which was funded within Council's departmental budget areas.
7	Increase in Materials and Contracts due to increase in pool operating, youth opportunities and waste management expenses.
8	Increase in Other Expenses due to new electricity contract implications as noted in the September Quarterly Budget review.

Income and Expense Review Statement Budget Variation Notes

Budget variations being recommended include the following material items:

Project	Original Budget	Proposed March Budget	Proposed Variation
Youth Week – Increase revenue to reflect grant income received	0	1,425	1,425
Youth Opportunities Grant – Increase revenue to reflect grant income received	0	48,000	48,000
Australia Day – Transfer savings to Blast Furnace Project	11,000	8,847	(2,153)
Non-Recurrent Financial Assistance – Transfer savings to Blast Furnace Project	87,000	67,000	(20,000)
Seniors Week – Transfer savings to Blast Furnace Project	6,126	2,233	(3,893)
Community and Culture Events – Transfer Savings to Blast Furnace Project	19,506	7,506	(12,000)
Youth Week – Increase expenditure to reflect grant income received	0	1,425	1,425
Youth Opportunities Grant - Increase expenditure to reflect grant income received	0	48,000	48,000
Other/Small Reserves – Allocate budget from Other/Small Reserves to individual reserve budgets	12,856	6,824	(6,033)
Pearson's Lookout Reserve – Allocate budget from Other/Small Reserves to individual reserve budgets	0	1,146	1,146
Hyde Park Reserve - Allocate budget from Other/Small Reserves to individual reserve budgets	0	691	691
Hassan's Walls Reserve - Allocate budget from Other/Small Reserves to individual reserve budgets	0	3,149	3,149
Other Crown reserves - Allocate budget from Other/Small Reserves to individual reserve budgets	0	1,046	1,046

General Fund - Income and Expenditure Review Statement

2017/18 March Quarterly Budget Review Statement Income and Expenditure Review Statement						
Projected Income and Expenditure Statement	**Original Budget**	**September Review**	**December Review**	**March Review**	**Proposed March Revised Budget**	**Actual YTD Figures**
Rates and Annual Charges	16,656	16,658	16,869		16,869	17,483
User Fees and Charges	1,534	1,610	1,662		1,662	1,185
Interest and Investment Revenue	670	670	670		630	452
Other Revenue	815	1,034	1,076		1,274	1,018
Operating Grants and Contributions	7,597	7,610	7,959		8,008	3,572
Capital Grants and Contributions	2,505	2,694	2,934		3,822	2,095
Gain Sale of Assets	-	-	-		61	61
Total Revenue	**29,778**	**30,276**	**31,170**		**32,326**	**26,002**
Employee Costs	11,874	12,231	12,216		12,035	8,971
Borrowing Costs	235	235	235		235	129
Material and Contracts	3,525	4,278	3,668		3,764	2,005
Depreciation Expense	8,252	8,252	8,364		8,364	6,281
Other Expenses	4,740	4,124	4,762		4,887	3,632
Loss on Sale of Assets	-					
Total Expenses	**28,626**	**29,120**	**29,245**		**29,285**	**21,018**
Operating Result Surplus/(Deficit)	**1,152**	**1,156**	**1,925**		**3,041**	**4,984**
Operating Result before Capital Grants & Gain on Sale	**(1,353)**	**(1,538)**	**(1,009)**		**(842)**	**2,828**

Water Fund - Income and Expenditure Review Statement

2017/18 March Quarterly Budget Review Statement Income and Expenditure Review Statement						
Projected Income and Expenditure Statement	**Original Budget**	**September Review**	**December Review**	**March Review**	**Proposed March Revised Budget**	**Actual YTD Figures**
Rates and Annual Charges	1,478	1,478	1,690		1,690	1,876
User Fees and Charges	5,790	5,790	4,590		4,590	3,251
Interest and Investment Revenue	86	86	86		86	25
Other Revenue	-	-				15
Operating Grants and Contributions	100	100	100		100	(77)
Capital Grants and Contributions	150	150	150		150	105
Gain Sale of Assets	-					-
Total Revenue	**7,605**	**7,604**	**6,616**		**6,616**	**5,195**
Employee Costs	1,456	1,464	1,464		1,464	1,391
Borrowing Costs	130	130	130		130	33
Material and Contracts	4,260	4,444	3,855		3,896	2,521
Depreciation Expense	1,186	1,186	1,612		1,612	1,175
Other Expenses	181	181	281		281	154
Loss on Sale of Assets	-					-
Total Expenses	**7,215**	**7,405**	**7,342**		**7,383**	**5,274**
Operating Result Surplus/(Deficit)	**390**	**199**	**(726)**		**(767)**	**(79)**
Operating Result before Capital Grants	**240**	**49**	**(877)**		**(917)**	**(184)**

Sewer Fund - Income and Expenditure Review Statement

2017/18 March Quarterly Budget Review Statement Income and Expenditure Review Statement						
Projected Income and Expenditure Statement	**Original Budget**	**September Review**	**December Review**	**March Review**	**Proposed March Revised Budget**	**Actual YTD Figures**
Rates and Annual Charges	7,146	7,146	7,265		7,265	7,163
User Fees and Charges	189	189	189		189	87
Interest and Investment Revenue	53	53	53		53	-
Other Revenue	-	-	-		-	2
Operating Grants and Contributions	92	92	92		92	(71)
Capital Grants and Contributions	1,000	3,545	3,545		3,545	750
Gain Sale of Assets	-					
Total Revenue	**8,481**	**11,025**	**11,144**		**11,144**	**7,931**
Employee Costs	1,534	1,539	1,539		1,539	1,191
Borrowing Costs	566	566	566		566	243
Material and Contracts	2,368	2,465	2,020		2,026	1,445
Depreciation Expense	1,041	1,727	1,725		1,725	1,253
Other Expenses	506	506	563		563	310
Loss on Sale of Assets	-	-				
Total Expenses	**6,015**	**6,803**	**6,413**		**6,419**	**4,442**
Operating Result Surplus/(Deficit)	**2,466**	**4,222**	**4,731**		**4,725**	**3,489**
Operating Result before Capital Grants	**1,466**	**677**	**1,185**		**1,180**	**2,739**

Capital Budget Review Statement

2017/18 March Quarterly Budget Review Statement Capital Funding Review Statement								
			Approved Changes					
	Original Budget	Carry Forwards	Sept Review	Dec Review	Mar Review	Revised Budget	Variations for this Dec Qtr	Projected Year End Result
Rates & other untied funding	12,838			461		13,299	(74)	13,225
Capital Grants & Contributions	3,655	2,545	189	240		6,629	886	7,515
Internal Restrictions	300	622		(25)		897	507	1,404
External Restrictions		6,586		(1,334)		5,252	105	5,357
Other Capital Funding Sources e.g.								
• Loans								
Income from sale of assets								
• Plant & equipment								
Total Capital Funding	**16,793**	**9,753**	**189**	**(658)**		**26,077**	**1,424**	**27,501**

2017/18 March Quarterly Budget Review Statement

Capital Expenditure Review Statement

	Original Budget	Carry Forwards	Approved Changes			Revised Budget	Variations for this Dec Qtr	Projected Year End Result	Notes	Actual YTD Figures
			Sept Review	Dec Review	Mar Review					
• Plant & Equipment	900		100			1,000	225	1,225	1	984
• Land & Buildings	597	248		(159)		687		687		309
• Water Network	1,570	2,719				4,289		4,289		411
• Sewer Network	1,560	9,356				10,917		10,917		1,317
• Office Equipment	112		8			120	265	385	2	174
• Furniture & Fittings	14					14		14		13
• Other Structures	2,105	712	189	455		3,461	943	4,404	3	2,550
• Stormwater Drainage	62					62		62		59
• Library Books	70		(70)			-		-		-
• Tip Assets	1,400	266		(1,200)		466		466		188
• Roads, Bridges & Footpaths	6,482	1,365	(52)	246		8,041	(9)	8,032	4	3,390
Loan Repayments (principal)	1,921					1,921		1,921		1,432
Total Capital Expenditure	**16,793**	**14,666**	**176**	**(658)**		**30,977**	**1,424**	**32,401**		**10,827**

Capital Budget Review Statement
Budget Variation Notes

Notes	Details
1	Transfer of funds from plant and equipment reserve to purchase required plant.
3	Transfer of funds from reserve to fund the TechnologyOne asset management solution software.
4	Increase expenditure for the following grant funded projects: Adventure playground, Lithgow tennis courts, Lithgow basketball stadium and Blackspot program. Transfer of operating project expenses to the Blast Furnace project.
5	Transfer cemetery road sealing budget savings to various recreation capital projects.

Capital Budget Review Statement
Budget Variation Notes

Budget variations being recommended include the following material items:

Project	Current Revised Budget	Proposed March Budget	Proposed Variation
Adventure Playground – Increase revenue due to grant income received	0	343,962	343,962
Adventure Playground – Increase expenditure to reflect grant income received	111,900	455,862	343,962
Lithgow Tennis Club Improvements – Increase revenue due to grant income received	0	36006	36,006
Lithgow tennis Club Improvements – increase expenditure to reflect grant income received	0	36,006	36,006
Lithgow Basketball Court Improvements – Increase revenue due to grant income received	0	74,315	74,315
Lithgow Basketball Court Improvements – Increase expenditure to reflect grant income received	0	74,315	74,315
Blast Furnace Park Development – salaries moved from Operating for project management and overspend to complete works	2,117,028	2,204,023	86,994
TechnologyOne Asset Management Solution – Transfer from reserve to fund project	0	264,601	264,601
Union Theatre Improvements - Overspend for grant funding application	40,000	49,193	9,193
Kremer Park Public Toilets – Additional funds required to complete project	100,000	100,376	376
Daintree Public Toilets – Additional funds required to complete project	150,000	153,374	3,374
Centrelink Lighting – Project savings used to fund overspend on Union Theatre, Kremer Park Public Toilets and Daintree Public Toilets	37,057	18,528	(12,943)
Plant Replacement Program – Funds Transferred from reserve to purchase required plant	1,000,000	1,225,000	225,000
Queen Elizabeth Park Shade Structure – Savings on Project used to fund various recreation projects	15,000	9,698	(5,302)
Kremer Park Retaining Wall – Additional funds required to complete project	20,000	23,000	3,000
Marjorie Jackson Playing Field – Goal posts required for playing fields to be funded from Lithgow Cemetery Sealing Access Road savings	0	4,500	4,500
Aquatic Centre Improvements - Funds transferred from reserve to complete compliance works	0	40,000	40,000

Lithgow Cemetery Footpaths – Additional funds required to complete project	22,000	23,500	1,500
Lithgow Cemetery Sealing Access Road – Savings in projects transferred to various recreation projects	22,000	13,000	(9,000)
Blackspot program – Increase revenue due to grant income received	0	398,398	398,908
Blackspot program – Increase expenditure to reflect grant income received	0	398,908	398,908
ILP Ellen Close, Portland – Savings on project transferred to ILP Cullenbenbong Rd to cover over spend	40,000	34,481	(5,519)
Urban Drainage Renewal – Funds transferred to Drainage Renewal Cox St Portland to complete project	4,083	2,879	(1,204)
Urban Footpath Construction Renewal – Funds Transferred to Urban Footpath Construction Renewal to complete project	94,500	78,460	(16,040)
Drainage Renewal Cox St Portland – Additional funds required to complete project	51,331	52,535	1,204
ILP Cripps Avenue, Wallerawang – Additional funds required to complete project	50,036	51,136	1,127
ILP Valley Drive, Lithgow – Savings on project transferred to ILP Cripps Ave Wallerawang to cover overspend	50,036	48,909	(1,127)
Urban Footpath Construction Renewal Great Western Hwy – Funds Transferred from Urban Footpath Construction Renewal to complete project	0	16,040	16,040
Roads to Recovery Magpie Hollow Rd – Additional funds required to complete project	120,000	152,161	(32,161)
ILP Cullenbenbong Rd – Additional funds required to complete project	50,000	55,519	5,519
Roads to Recovery Curly Dick Road – Savings on project transferred to Roads to Recovery Magpie Hollow Rd to cover overspend	367,608	335,447	(32,161)
Rural Unsealed Roads Renewal – Funds transferred to various rural unsealed roads projects	258,243	30,132	(228,111)
Martin Rd, Rural Unsealed Roads Renewal – Additional funds required to complete project	55,258	56,706	1,448
Cullenbenbong Rd, Rural unsealed Roads Renewal – Renewal identified to be funded from renewal allocation	0	83,623	83,623
Bonaventure Rd, Rural Unsealed Roads Renewal – Renewal identified to be funded form renewal allocation	0	143,040	143,040

Cash and Investment Budget Review Statement

2017/18 March Quarterly Budget Review Statement Income and Expenditure Review Statement				
Externally Restricted	**30 June 2017 Position**	**30 Sept 2017 Position**	**31 Dec 2017 Position**	**Actual YTD Figures**
Developer Contributions	1,778	1,855	1,833	1,868
Special Purpose Grants	1,709	887	994	835
Water Supplies	2,882	3,363	4,237	3,936
Sewerage Services	3,333	5,323	5,456	5,685
Domestic Waste	1,968	3,096	2,947	3,769
Unexpended Loans	2,089	2,056	-	2,042
Total External Restriction	**13,759**	**16,580**	**15,469**	**18,135**
Internal Restricted				
Land & Buildings	7,672	7,643	7,553	7,792
Plant & Equipment	1,500	1,227	1,074	516
Bonds, Deposits & Retentions	695	787	880	860
Works in Progress	5,102	4,021	1,862	1,895
ELE	1,056	1,056	1,056	1,056
Election	82	82	-	-
Total External Restriction	**16,107**	**14,816**	**12,425**	**12,119**
Unrestricted	**-**	**63**	**1,808**	**124**
Total Cash & Investments	**29,867**	**31,460**	**29,700**	**30,378**

Due to current Council processes we do not budget based on internal and external restrictions and therefore can only provide quarterly year to date figures for these restrictions.

Cash and Investment Review Statement

Investments

Investments have been made in accordance with Council's Investment Policy.

Cash

The cash at Bank figure included in the Cash & Investment Statement totals $77,591.87.

The Cash at Bank amount has been reconciled to Council's physical Bank Statements.

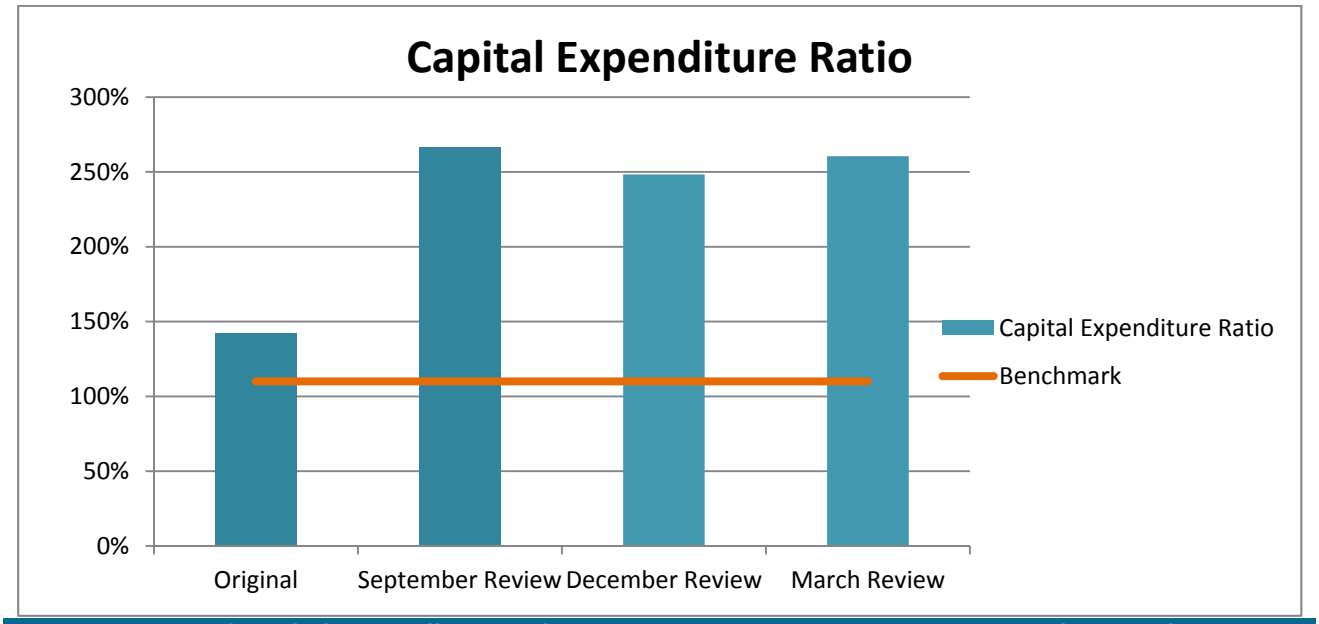
The date of completion of this bank reconciliation was 3/04/18.

Reconciliation Status

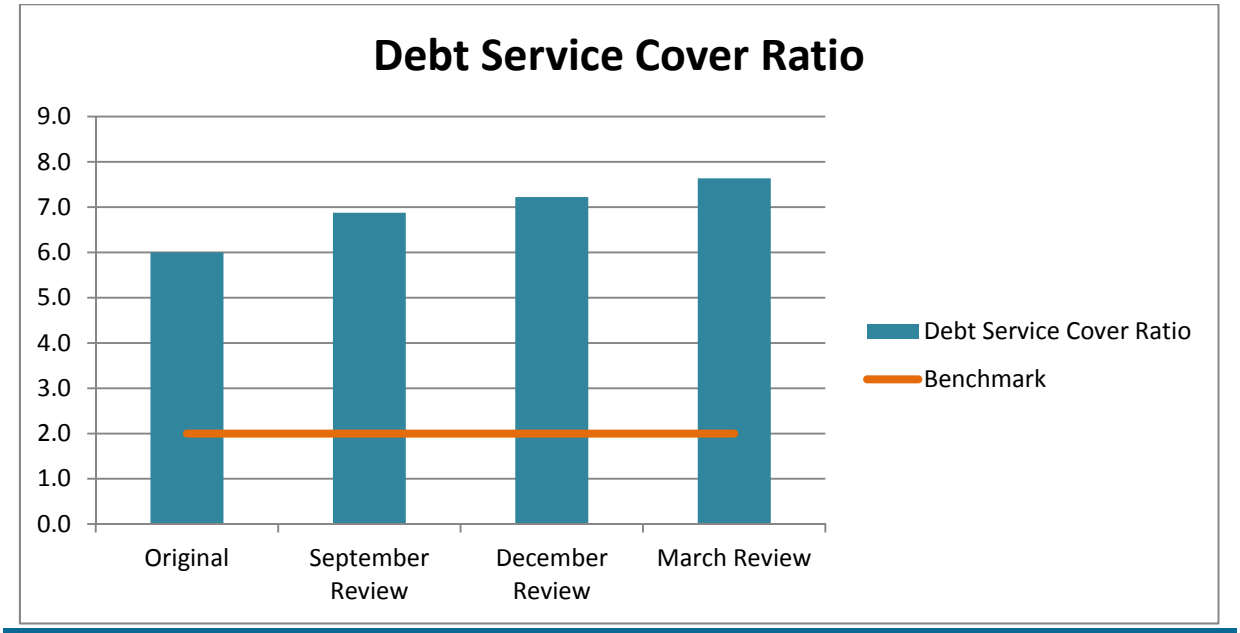
The YTS Cash and Investment figures reconciles to the actual balances held as follows:

	$'000's
Cash at Bank	77
Investments on Hand	30,390
Less: Unpresented Cheques	(18)
Add: Undeposited Funds	-
Less: Identified Deposits	(17)
Add: Identified Outflows	-
Less: Unidentified Deposits	(55)
Ad: Unidentified Outflows	-
Reconciled Cash at Bank & Investments	**30,378**
Balance as per Review Statement	**30,378**
Difference	-

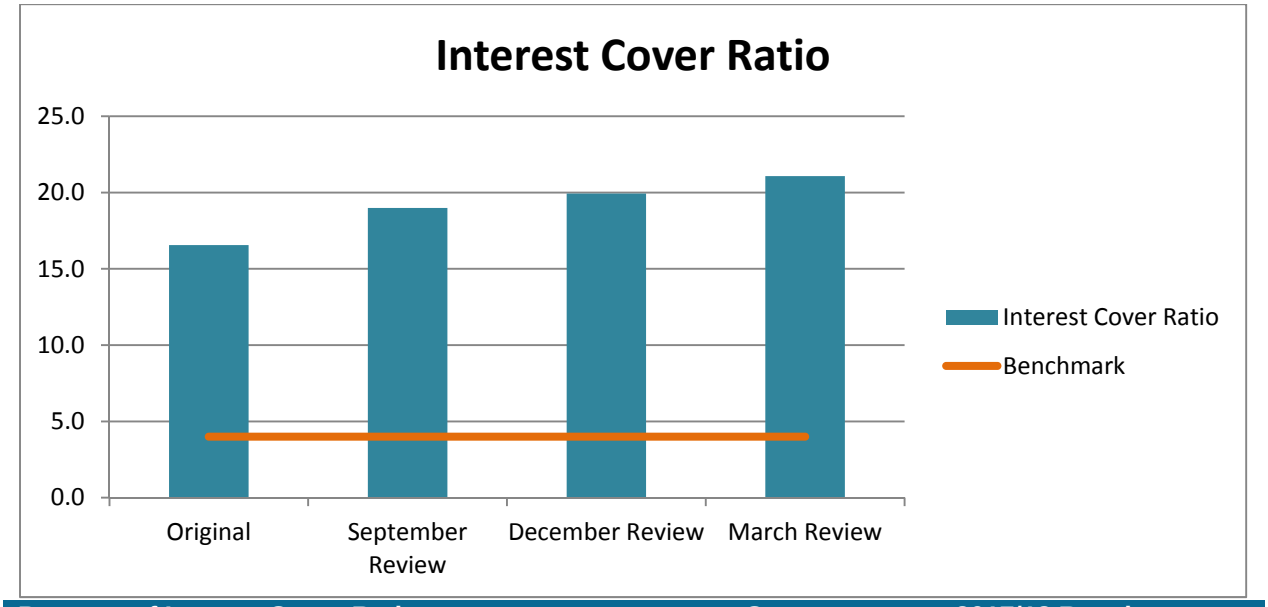
Key Performance Indicators



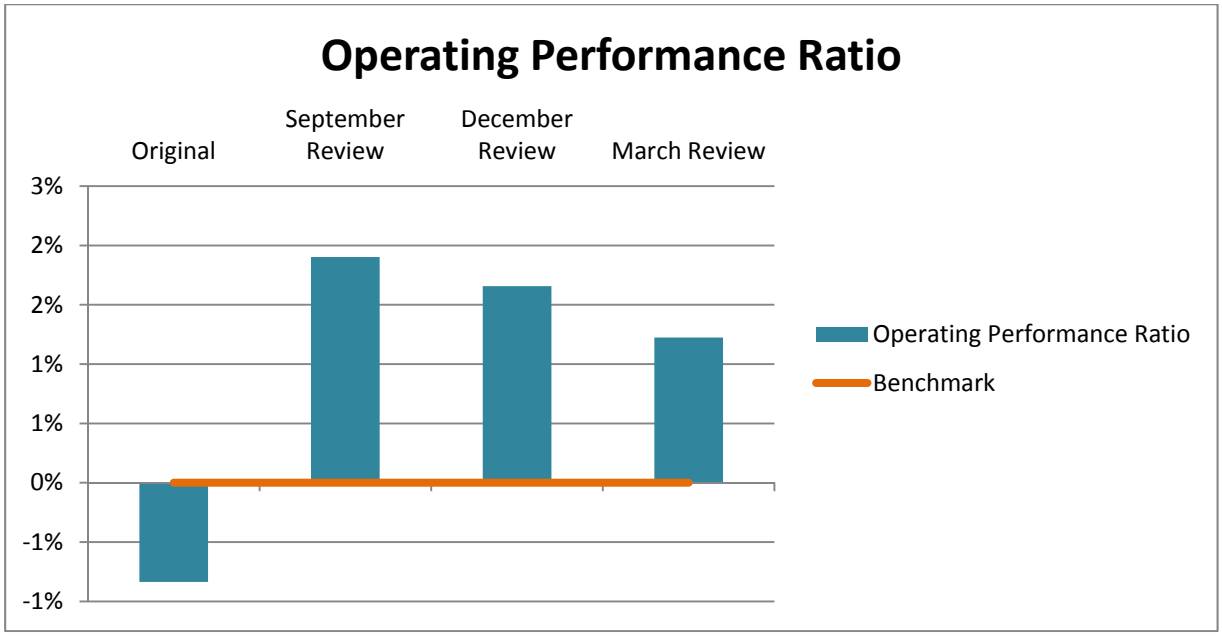
Purpose of Capital Expenditure Ratio	Commentary on 2017/18 Result
	March 2017/18 Ratio 260%
To assess the extent to which Council is expanding its asset base through capital expenditure	A capital expenditure ratio of 2.6 times suggests that Council has a solid and expansive capital works program.



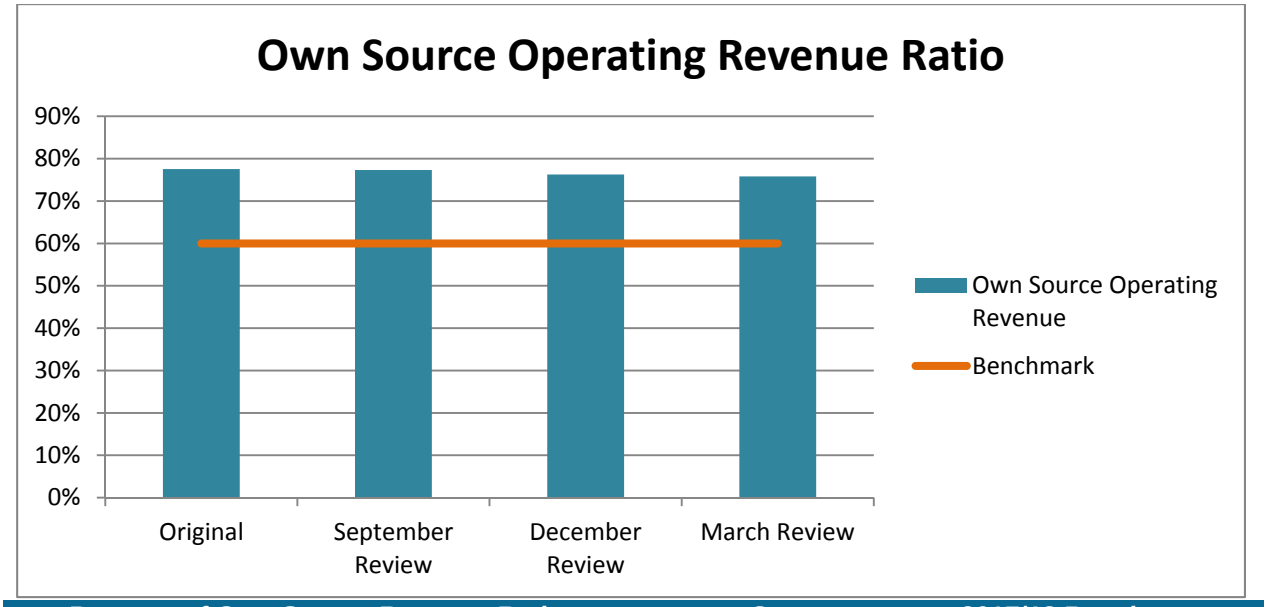
Purpose of Debt Service Cover Ratio	Commentary on 2017/18 Result
	March 2017/18 Ratio 7.6x
This ratio measures the availability of operating cash to service debt including principal, interest and lease payments	A debt service ratio of 7.6 times means Council has capacity to borrow more funds if required (borrowings are planned for 2018/19).



Purpose of Interest Cover Ratio	Commentary on 2017/18 Result
	March 2017/18 Ratio 21.1x
This ratio measures the availability of operating cash to service interest payments.	An Interest Cover ratio of 21.1 times means Council has more than adequate cash to cover interest repayments on its debt. This suggests Council has the capacity to borrow more funds as planned.



Purpose of Operating Performance Ratio	Commentary on 2017/18 Result
	March 2017/18 Ratio 1.22%
This ratio measures Councils achievement if containing operating expenses within operating revenue.	Council continues to work towards the benchmark as a part of Fit for the Future. A result below the 0% benchmark is forecast for the 2017/18 year.



Purpose of Own Source Revenue Ratio	Commentary on 2017/18 Result
	March 2017/18 Ratio 76%
This ratio measures fiscal flexibility. It is the degree of reliance on external funding sources such as grants and contributions.	This ratio shows that Council meets the benchmark and is not overly reliant on external grant funding.

Part A: Contracts Review Statement

2017/18 March Quarterly Budget Review Statement

Contracts Review Statement

For the period 01 January 2018 to 31 March 2018

Contractor	Contract Detail and Purpose	Contract Value (GST Inc.)	Date	Minute No.	Length of Contract	Budgeted (Y/N)
Note: Contracts listed are those entered into during the quarter, under review and have not been fully performed or completed of $50,000 or greater. Contracts for employment are not required to be included.						
TechnologyOne	Asset Management Solution Implementation – Stage 1	$291,061.00	22/01/18	18-11	10 Months	Y
Hanson Construction Materials Pty Ltd	Ready mix concrete	Unspecified – Per Price Schedule	26/02/18	18-48	3 Years	Y
Downer EDI	Bitumen sealing	Unspecified – Per Price Schedule	26/03/18	18-80	3 Months	Y
J&E Asphalt & Civil Pty Ltd	Asphalt services	$356,160.20	26/03/18	18-79	3 Months	Y
Peters Earthmoving	Water and sewer works for Blast Furnace toilets	$92,608.95	15/02/18	N/A	3 Months	Y
Abergeldie Watertech	Sewer mains relining	$246,974.63	23/03/18	NA	4 Months	Y
Abberfield Industries Pty Ltd	Credit card standpipes/bulk water filling stations	$176,880.00	2/03/18	NA	3 Months	Y
Peters Earthmoving	Bonaventure Road renewal	$143,040.00	9/03/18	NA	1 Month	Y
Gracey's Earthmoving	Cullenbong Road Reseal	$70,852.25	23/02/18	NA	2 Months	Y

Part B: Consultancy and Legal Expenses Review Statement

2017/18 March Quarterly Budget Review Statement Contracts Review Statement		
	Actual expenditure 1 July 2017 to 31 March 2018	
Expense	**Year to Date**	**Legal Budget Allocation (Y/N)**
Consultancies	183,536.93	Y
Legal Fees	58,236.97	Y

Note: A consultant is a person or organisation engaged under contract on a temporary basis to provide recommendations or high level specialist or professional advice to assist decision making by management. Generally it is the advisory nature of the work that differentiates a consultant from other contractors.

ITEM FIN - 28/05/18 - COUNCIL INVESTMENT REPORT - APRIL 2018

REPORT BY: CHIEF FINANCIAL & INFORMATION OFFICER

REFERENCE

Min No 18-101: Ordinary meeting of Council held on 23 April 2018.

SUMMARY

To advise Council of investments held as at 30 April 2018 and to note the certification of the Responsible Accounting Officer that funds have been invested in accordance with legislation, regulations and Council policy.

COMMENTARY

Council's total investment portfolio, as at 30 April 2018 when compared with 31 March 2018, has decreased by $3,200,000 from $30,390,000 to $27,190,000. Cash in Council's bank account increased by $330,447.47 from $74,117.97 to $404,565.44.

There is an overall decrease in cash and investments of $2,869,552.53 since 31 March 2018, which is due to general operations and the 2017/18 capital works program.

If the movement in the bank account is negative, this is shown as a net redemption. If the movement in the bank account is positive this is shown as a net new investment.

The movement in Investments for the month of April 2018 were as follows:

Opening Balance of cash and investments as 01 April 2018	$30,464,117.97
Plus New Investments – April 2018	$330,447.47
Less Investments redeemed – April 2018	-$3,200,000.00
Closing Balance of cash and investments as at 30 April 2018	$27,594,565.44

A large proportion of Council's investments are held as restricted assets for specific purposes. Restricted assets may consist of externally restricted assets which must be spent for the purpose for which they have been received (e.g. Water, Wastewater, Stormwater, Domestic Waste, Parking) or internally restricted assets which have been set aside by Council resolution. Some internal restrictions are held to fund specific liabilities such as employee leave entitlements and bonds and deposits.

POLICY IMPLICATIONS

Investments are held in accordance with the Lithgow City Council's Investment Policy at the date of investing funds. On 14 August 2017, Council adopted a revised Investment Policy which includes the Minister's Investment Order of 12 January 2011

FINANCIAL IMPLICATIONS

- YTD Budget approved – $508,148
- Cost centre - 3259
- YTD Income to date - $417,602
- Future potential impact – Nil

Please note that interest revenue has decreased from March 2018 due to the reversal of $132,000 interest accrual at the 30 June 2017. It is expected that an accrual of a similar amount will be made at 30 June 2018 and result in interest revenue for the 2017/18 financial year reaching $640,000 in total.

Interest is paid on the maturity date of the investment. The budget for interest income is determined by the average level of funds held and the rate of return. Adjustments to the budget estimate are processed through Council's Quarterly Budget Review process. Interest Returns are determined by average funds invested and the rate of interest return.

LEGAL IMPLICATIONS
Investments are held in accordance with the Lithgow City Council's Investment Policy at the date of investing the funds. On 14 August 2017 Council adopted a revised Investment Policy and investments comply with this Policy.

CERTIFICATION OF THE RESPONSIBLE ACCOUNTING OFFICER

I hereby certify that the investments listed in the report have been made in accordance with Section 625 of the Local Government Act 1993, clause 212 of the Local Government (General) Regulation 2005 and Council's Investments Policy.

Ross Gurney
Chief Financial and Information Officer (Responsible Accounting Officer)

ATTACHMENTS

1. Investment Register 2017/18

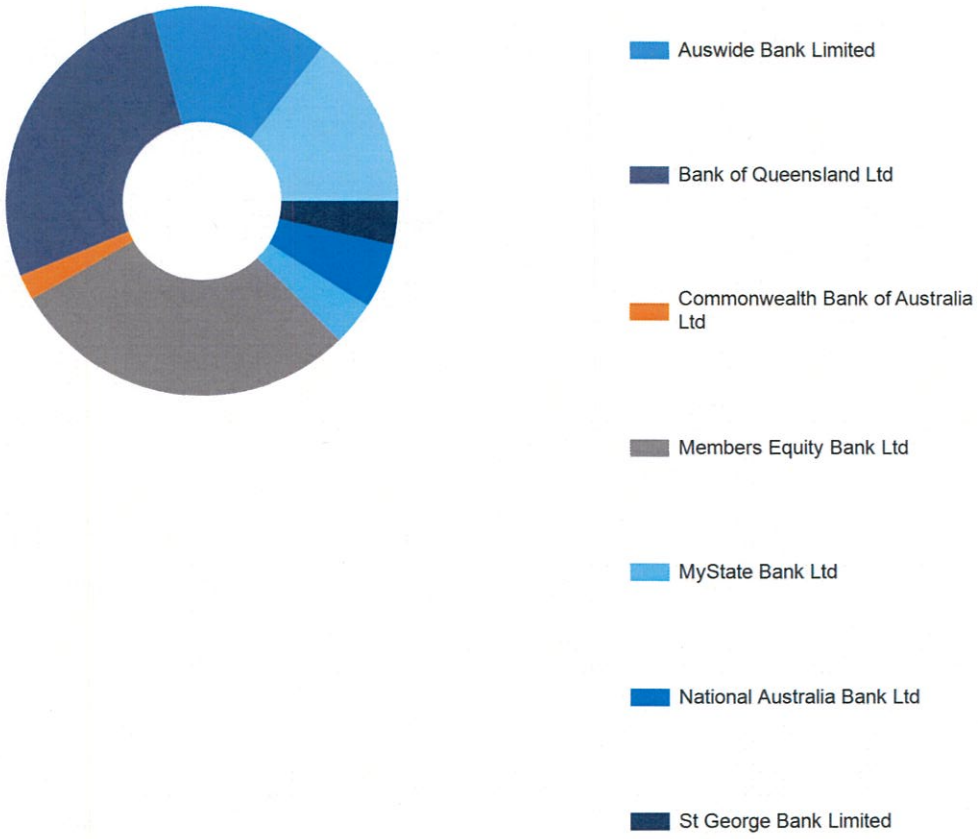
RECOMMENDATION

THAT :

1. Investments of $27,190,000.00 and cash of $404,490.44 for the period ending 30 April 2018 be noted.
2. The enclosed certificate of the Responsible Accounting Officer be noted.

Issuer	Market Value	% Total Value
AMP Bank Ltd	**4,030,202.75**	14.50%
Auswide Bank Limited	**4,042,545.22**	14.54%
Bank of Queensland Ltd	**7,559,823.29**	27.20%
Commonwealth Bank of Australia Ltd	**570,000.00**	2.05%
Members Equity Bank Ltd	**8,076,991.77**	29.06%
MyState Bank Ltd	**1,010,282.19**	3.63%
National Australia Bank Ltd	**1,504,273.98**	5.41%
St George Bank Limited	**1,002,589.04**	3.61%
Portfolio Total	**27,796,708.24**	100.00%

Market Value by Issuer



ITEM FIN - 28/05/18 - NSW AUDITOR-GENERAL'S REPORT ON LOCAL GOVERNMENT 2017

REPORT BY: CHIEF FINANCIAL AND INFORMATION OFFICER

SUMMARY

To provide information to Council on the NSW Auditor-General's Report on Local Government 2017. The report was presented to the NSW Parliament on 20 April 2018.

COMMENTARY

The Auditor-General's report focuses on the results of their 2016/17 financial audits, highlights issues that were common across the local government sector and provides guidance that councils should consider. The aim of the report is to help the NSW Parliament to understand the challenges that councils face and the measures that can improve their financial management and reporting.

The focus areas of the report are:

- Financial reporting;
- Financial performance and sustainability;
- Asset management;
- Governance and internal controls; and
- Information Technology.

The "better practice guidance" provided in the report will assist Councils to improve their systems and processes for the preparation of annual financial statements.

Council staff have reviewed the Auditor-General's report and identified improvement actions to bring Council's processes to best practice, as well as to ensure an efficient and effective audit with minimal issues raised.

Improvement actions for the 2017/18 financial statements process include:

- Financial statements to be reviewed by the Audit Committee prior to finalisation;
- Review of financial statements close processes;
- Reassessment of the useful lives of all assets, with consideration of condition assessments;
- Development of a risk management framework;
- Finalising the business continuity plan; and
- Implementation of a Compliance Register

A number of issues raised in the report have been acted upon by the Council in the past twelve months, including:

- Action to complete asset revaluations prior to the end of the financial year;
- Addressing audit findings before the financial statements are prepared;
- Developing strategies that support financial sustainability and Council's ability to meet the OLG's operating performance benchmark over the long term;
- Ongoing improvement is asset management, e.g. the implementation of the Asset Management Solution;
- Establishing an Audit Committee;
- Strengthening of internal controls; and
- Completing a cyber security audit (May 2018.

POLICY IMPLICATIONS
Nil.

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

LEGAL IMPLICATIONS
Nil.

ATTACHMENTS

1. NSW Auditor-General's Report on Local Government 2017

RECOMMENDATION

THAT Council note the NSW Auditor-General's Report on Local Government 2017 and ongoing action to be taken by Council to improve processes for the preparation of the annual financial statements.

auditoffice
OF NEW SOUTH WALES

Report on Local Government 2017

20 APRIL 2018

NEW SOUTH WALES AUDITOR-GENERAL'S REPORT

FINANCIAL AUDIT

THE ROLE OF THE AUDITOR-GENERAL

The roles and responsibilities of the Auditor-General, and hence the Audit Office, are set out in the *Public Finance and Audit Act 1983* and the *Local Government Act 1993*.

We conduct financial or 'attest' audits of State public sector and local government entities' financial statements. We also audit the Total State Sector Accounts, a consolidation of all agencies' accounts.

Financial audits are designed to add credibility to financial statements, enhancing their value to end-users. Also, the existence of such audits provides a constant stimulus to entities to ensure sound financial management.

Following a financial audit the Audit Office issues a variety of reports to entities and reports periodically to parliament. In combination these reports give opinions on the truth and fairness of financial statements, and comment on entity compliance with certain laws, regulations and government directives. They may comment on financial prudence, probity and waste, and recommend operational improvements.

We also conduct performance audits. These examine whether an entity is carrying out its activities effectively and doing so economically and efficiently and in compliance with relevant laws. Audits may cover all or parts of an entity's operations, or consider particular issues across a number of entities.

As well as financial and performance audits, the Auditor-General carries out special reviews and compliance engagements.

Performance audits are reported separately, with all other audits included in one of the regular volumes of the Auditor-General's Reports to Parliament – Financial Audits.

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Sydney NSW 2001

The Legislative Assembly
Parliament House
Sydney NSW 2000

The Legislative Council
Parliament House
Sydney NSW 2000

In accordance with section 421C of the *Local Government Act 1993*, I present a report titled '**Report on Local Government 2017'.**

Margaret Crawford
Auditor-General
20 April 2018

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Report on Local Government 2017

This report analyses the results of the financial statement audits of NSW councils in 2016–17.

Auditor-General's foreword

Under section 421C of the *Local Government Act 1993*, I am pleased to present our first report on the statutory financial audits of councils, to NSW Parliament.

My appointment as the auditor of local government in New South Wales is the most significant change to the Auditor-General's mandate in nearly three decades.

Moving to the new audit arrangements over the past 18 months has been challenging but rewarding. It has confirmed my appreciation of local government – a sector passionate about the community and focused on delivering local services.

The unique relationship each council has with its community differentiates it from other tiers of government.

Our audits

I am pleased to report that we completed 139 out of 140 financial statement audits for the 2016–17 audit cycle. The remaining council received an extension to lodge its financial statements.

We have also released a performance audit report on council reporting on service delivery. We will soon release another report on fraud controls in local councils and a report on council shared services later this year.

While the new audit mandate brings immense responsibility, my office has embraced the challenges involved and the objectives that NSW Parliament gave us:

- strengthening governance and financial oversight in local government
- providing greater consistency in external audit
- ensuring reliable financial information is available to assess council performance
- improving financial management, fiscal responsibility and public accountability in how councils use citizens' funds.

This report

This report is rich in data extracted from the results of the 2016–17 financial audits. For the first time, it presents a consistent view of financial performance across the New South Wales local government landscape. The report also provides guidance and includes recommendations to councils and the Office of Local Government aimed at strengthening financial reporting, asset management, governance and internal controls.

The report will help NSW Parliament understand the common challenges that councils face. It provides points of comparison for councils and signposts matters that will be the focus of future audits. Importantly, this report and the data visualisation that accompanies it, provides comprehensive and accessible information to citizens regarding the management and performance of their councils.

I would like to acknowledge the cooperation of councils throughout the audit process and our partnerships with the contract audit firms that helped us to deliver the audits. Together we can learn from each other and work towards improving outcomes for the community.

Executive summary

1. Introduction

Local government sector

NSW has 140 councils: 128 local councils serving a geographic area and 12 county councils formed for a specific purpose.

We completed audits of 139 councils' 2016–17 financial statements and eight councils' 2015–16 financial statements. Bayside Council received a lodgement extension from the Office of Local Government (OLG) and has not yet presented their 2016–17 financial statements for audit.

Service delivery

Each council provides a range of services, influenced by population density, demographics, the local economy, geographic and climatic characteristics. These differences influence the financial profile of councils.

2. Financial reporting

Quality of financial reporting

The overall quality of financial reporting needs to improve:

- we issued modified (qualified) audit opinions on the financial statements of three councils in 2016–17 and one council and one water authority in 2015–16
- we reported 39 significant matters to 29 councils. They related to material accounting issues and significant deficiencies in internal controls
- twenty-two councils required material adjustments to correct errors in previous audited financial statements
- moderate risk issues were identified in financial statement preparation processes for 43 councils.

OLG guidance for council year-end financial reporting needs to align with Australian Accounting Standards and be issued earlier.

Timeliness of financial reporting

Timeliness of financial reporting needs to improve. Forty councils required lodgement extensions past the 31 October 2017 statutory reporting deadline.

3. Financial performance and sustainability

Operating revenue

Eighteen councils operating expenses exceed current operating revenue.

Fifty-nine councils do not meet OLG's target of 60 per cent for own source operating revenue.

Liquidity and working capital

Most councils have sufficient liquidity and working capital. However, there are indicators that:

- three councils may not have the ability to meet short-term obligations as measured by the unrestricted current ratio
- two councils may not have sufficient operating cash available to service debt as measured by the debt service cover ratio
- eighteen councils do not meet the OLG benchmark for the collection of rates and annual charges
- five councils may not have sufficient cash to continue paying expenses without additional cash inflows as measured by the cash expense cover ratio.

Asset management measures

Reporting against OLG's asset management performance measures highlights that councils need to consider whether spending on existing infrastructure assets is sufficient to ensure they continue to meet service delivery standards:

- seventy councils are not renewing assets in line with the rate of their depreciation
- eighty-four councils did not meet OLG's benchmark for managing the infrastructure maintenance backlog
- seventy-one councils are not maintaining their assets in accordance with their asset management plans.

4. Asset management

High risk issues

We reported ten high risk issues relating to councils' asset management and accounting practices.

Asset reporting

The accuracy of asset registers requires improvement and all assets need to be reported in the financial statements.

At 30 June 2017, 62 councils did not record all rural fire-fighting equipment in their financial statements. A large proportion of rural fire-fighting equipment is not reported in either State government or local government financial statements.

Asset valuation

We reported seven high risk matters related to asset valuations, including two that resulted in qualified audit opinions.

Asset useful life estimates

We identified that accounting for the useful lives of similar assets varied across councils, resulting in variable depreciation expense for these assets.

In addition, the useful lives of assets need to be reviewed annually. This review should be supported by current condition assessments.

Asset policy and planning

Thirteen councils do not have an asset management strategy, policy and plan, as required by the Office of Local Government's Integrated Planning and Reporting Framework.

5. Governance and internal controls

High risk issues

We reported 17 high risk issues relating to governance, financial accounting, purchasing and payables and payroll matters.

Governance

There is currently no requirement for councils to have an audit, risk and improvement committee and internal audit function. Consequently, 53 councils do not have an audit committee and 52 councils do not have an internal audit function.

The Office of Local Government has incomplete information on the number of entities established by councils. There is no financial reporting framework for the variety of entities established by councils.

Councils can strengthen policies and procedures to support critical business processes, practices for risk management and compliance with key laws and regulations.

Internal controls

Councils can improve internal controls over manual journals, reconciliations, purchasing and payables and payroll.

6. Information technology

High risk issues

We reported nine high risk issues relating to information technology.

Access to IT systems

Controls over user access to IT systems need to be strengthened.

Information Technology governance

IT governance benefits from appropriate policies, standards and guidelines across all critical IT processes. We identified that:

- around one in four councils do not have an IT strategy or operational plan
- half of NSW councils have an IT security policy
- seventeen councils do not have a documented plan to recover from a disaster.

1. Introduction

The Auditor-General has the mandate under the *Local Government Act 1993* to audit the NSW local government sector. One-hundred and thirty-nine councils presented their 2016–17 financial statements and eight councils also presented their 2015–16[1] financial statements for audit. These audits have been completed. The Office of Local Government (OLG) granted Bayside Council an extension until 31 May 2018 to lodge their 2016–17 financial statements and Bayside Council has not yet presented them for audit.

We also tabled a performance audit report on 'Council reporting on service delivery' on 1 February 2018. We will soon release a report on 'Fraud controls in local councils' and a report on 'Council shared services' later this year.

This report focuses on the results of our financial audits, highlights issues that were common across the local government sector and provides guidance that councils should consider. This will help Parliament understand the challenges that councils face and the measures that can improve their financial management and reporting.

Each council provides a range of services to meet its communities' needs

New South Wales has 128 local councils servicing a geographic area, and 12 county councils formed for specific purposes, such as supplying water, managing flood plains or eradicating noxious weeds. Each council provides a range of services, influenced by population density, demographics, the local economy, geographic and climatic characteristics. These differences also influence the spending profile of metropolitan, regional and rural councils.

2. Financial reporting

Each year, councils lodge their audited financial statements with OLG and publish them on their website. Council financial statements capture their financial activities, performance and position.

We issued five modified (qualified) audit opinions and identified a range of material financial reporting errors and significant accounting and control issues

We issued unmodified audit opinions on the financial statements of:

- one-hundred and thirty-six out of 139 councils for 2016–17
- two water authorities for 2016–17
- seven out of eight councils for 2015–16
- two out of three water authorities for 2015–16.

An unmodified audit opinion means that the financial statements present fairly the financial position and performance of the council. The Hills Shire Council, Junee Shire Council and Yass Valley Council received modified (qualified) audit opinions for 2016–17. We also issued disclaimers of opinion for the City of Botany Bay Council and Gosford Water Authority for 2015–16.

Our audits identified a further 33 material errors in the previous years' audited financial statements of 22 councils that have been corrected. Eighty-eight per cent of these errors related to the way councils account for and value assets.

We also reported 39 significant matters to 29 councils. These related to material accounting issues and internal control weaknesses, of which 77 per cent related to assets. Councils should improve the way they account for their assets as a priority.

[1] The Auditor-General was appointed statutory auditor of eight councils for the 2015–16 reporting period due to the following reasons:

- specific request of councils
- failure by councils to appoint an auditor
- inability of the previous auditor to complete the audit due to external investigation
- auditor retirement.

Chapter 4 of this report further discusses the asset accounting issues identified during our audits.

Councils can improve their financial reporting processes

Our audits found that 43 councils need to improve the way they prepare their financial statements. A more robust review of the financial statements by councils prior to submitting them for audit would improve both quality and timeliness.

Recommendation

> Councils can improve the quality of financial reporting by reviewing their financial statements close processes to identify areas for improvements.

Our experience at the State level shows that the preparation of annual financial statements benefits from review by independent audit committees.

Councils are not currently required to have an audit, risk and improvement committee and consequently 53 councils do not have an audit committee. For those councils with an audit committee, 55 per cent play no role in the review of financial statements.

Amendments made to the *Local Government Act 1993* by the *Local Government Amendment (Governance and Planning) Act 2016* will require all councils to appoint an audit, risk and improvement committee. Under transitional provisions, councils will not be required to comply until March 2021, six months after the next ordinary election.

Recommendation

> Councils can improve the quality of financial reporting by involving an audit, risk and improvement committee in the review of financial statements.

OLG can improve the quality and timeliness of guidance provided to councils each year

The Office of Local Government (OLG) needs to release key guidance documents, such as the Local Government Code of Accounting Practice and Financial Reporting (Code) and end of year financial reporting circular, to councils earlier.

Councils are required to prepare financial statements in accordance with Australian Accounting Standards and the Code. The Code applicable for 2016–17 financial reporting provided options and guidance that in some instances did not align with Australian Accounting Standards.

Recommendation

> The Office of Local Government should release the Local Government Code of Accounting Practice and Financial Reporting and the End of Year Financial Reporting Circular earlier in the audit cycle, ideally by 30 April each year.
>
> The Local Government Code of Accounting Practice and Financial Reporting should align with Australian Accounting Standards.

Seventy-one per cent of councils lodged audited financial statements by the statutory deadline

Councils must lodge audited financial statements with OLG by 31 October each year, that is, within four months after the end of their financial year. Forty councils did not meet this deadline for their 2016–17 financial statements and required an extension from OLG. Bayside Council received a lodgement extension for their 2016–17 financial statements to 31 May 2018 and has not yet presented them for audit.

Early close procedures help to improve the quality and timeliness of financial reporting

Early close procedures can identify issues and key risk areas that councils need to consider and resolve before the year-end process. Asset valuation issues affected the quality and timeliness of many councils' financial statements in 2016–17. Completing infrastructure, property plant and equipment valuations is a key early close procedure that can improve the quality and timeliness of financial reporting.

Recommendation

> The Office of Local Government should introduce early close procedures with an emphasis on asset valuations.

3. Financial performance and sustainability

Our next chapter reviews the financial performance of councils using indicators that the OLG prescribe. Councils must report against these in their audited financial statements:

- operating performance
- own source operating revenue
- unrestricted current ratio
- debt service cover ratio
- rates and annual charges outstanding percentage
- cash expense cover ratio.

Councils' annual reports also include the unaudited Special Schedule 7 'Report on Infrastructure Assets', in which councils report performance against four further measures:

- building and infrastructure renewals ratio
- infrastructure backlog ratio
- asset maintenance ratio
- cost to bring assets to agreed service level.

Three rural councils did not meet OLG benchmarks for three audited performance measures

Most councils met OLG benchmarks for at least five or all of the six audited performance measures. Eight rural, four regional, four metropolitan and two county councils did not meet OLG's benchmarks for two out of the six audited performance measures. Three rural councils did not meet OLG's benchmarks for three out of the six audited performance measures.

Eighteen councils operating expenses exceed their revenue base

The first measure of financial sustainability looks at the operating revenue that councils raise to cover their operating expenses. Eighteen councils operating expenses exceed their revenue base. For 11 councils, this has been the case for the past three years. Another 20 councils would not have met the operating performance benchmark without the advance receipt of their 2017–18 financial assistance grant, which was recorded as revenue during 2016–17.

Fifty-nine councils did not meet the OLG benchmark for generating own source revenue

Councils are also expected to generate 60 per cent of their revenue from their own sources. Fifty-nine councils did not meet this OLG benchmark, and 42 of these were rural councils. Rural councils have high-value infrastructure assets that cover large areas, with smaller populations and less capacity to raise revenue from alternative sources compared with metropolitan councils.

Most councils have sufficient liquidity and working capital

All but three councils met OLG's benchmark for the unrestricted current ratio, meaning the councils can meet short-term obligations as they fall due.

Most councils also have the capacity to cover more than three months of operating expenditure as measured by the cash expense cover ratio. However, some of the funds held by councils are restricted and should only be used for specific purposes.

A council with a high proportion of restricted funds may have limited flexibility to pay operating expenses. While a council can resolve to lift internal restrictions on funds to use them for a different purpose, the Minister for Local Government's approval is required to use externally restricted funds for another purpose.

All but two councils met OLG's debt service cover ratio benchmark

The debt service cover ratio measures the operating cash available to service debt. All but two councils met OLG's benchmark of greater than two times. This was due to these two councils repaying borrowings early.

One-hundred and twenty-three councils reported borrowings at 30 June 2017. Councils utilise borrowings to fund capital projects and to address backlog maintenance. Regional councils accounted for 56 per cent of the value of total council borrowings because they also borrow to manage water and sewerage infrastructure.

Eighteen councils did not meet OLG's benchmark for collecting rates and annual charges

Most councils are collecting rates and annual charges levied. However, eight rural, five regional, three metropolitan and two county councils did not meet the benchmark of having less than five per cent (metropolitan) or ten per cent (regional, rural and county) of rates and charges outstanding. These eighteen councils also did not meet the infrastructure backlog ratio.

Many councils did not meet OLG's benchmarks for renewing and maintaining infrastructure assets

The infrastructure asset indicators reported by councils suggest that many need to examine their asset management plans and consider whether investment in infrastructure assets is sufficient. Thirty-one councils reported they do not meet the OLG benchmarks for either the buildings and infrastructure renewals ratio, the infrastructure backlog ratio or the asset maintenance ratio. Individually:

- seventy councils reported that they are not renewing infrastructure assets at the same rate they are depreciating them
- eighty-four councils reported that they have not kept the infrastructure maintenance backlog below OLG's benchmark
- seventy-one councils reported actual asset maintenance lower than planned asset maintenance.

4. Asset management

NSW councils own and manage a significant range of assets, including infrastructure, property, plant and equipment with a value of $136 billion. Many of our audit report qualifications, significant matters, prior-period errors and high risk issues related to assets.

Councils need to strengthen their asset registers

Our audits identified $145 million worth of land and infrastructure assets at 24 councils that were not recorded in asset registers or the financial statements. This is in addition to the rural fire-fighting equipment not recorded by councils that is discussed in the following sections. We also found examples of multiple asset registers with conflicting information, inaccurate or incomplete registers and unreconciled registers.

Effective asset management requires accurate records of the assets that councils control. Council asset registers should accurately capture all assets to improve the quality and timeliness of financial statements. It is important that councils regularly update registers and reconcile them with asset management systems. Where manual spreadsheets are used to record asset details, suitable controls must be in place.

A large part of rural fire-fighting equipment is not reported in government financial statements

Our 2016–17 audits of the NSW local government sector noted that 46 councils did record vested rural fire-fighting equipment in their financial statements. However, 62 councils do not record similar rural fire-fighting assets in their financial statements. These councils are of the view that they do not control these rural fire-fighting assets used by the NSW Rural Fire Service.

NSW Treasury and the NSW Rural Fire Service are of the view that the NSW Rural Fire Service does not control rural fire-fighting equipment which has been vested in councils under the *Rural Fires Act 1997*. NSW Treasury and NSW Rural Fire Service consider that these assets are controlled by councils. The financial statements of the NSW Total State Sector and the NSW Rural Fire Service do not include these assets. Consequently, a large portion of rural fire-fighting assets are not reported in either State government or local government financial statements.

Recommendation

> The Office of Local Government should address the different practices across the local government sector in accounting for rural fire-fighting equipment before 30 June 2018.
>
> In doing so, the Office of Local Government should work with NSW Treasury to ensure there is a whole-of-government approach.

Asset valuation methods are not capturing asset values effectively

The Code requires that council assets reflect the fair value principles in Australian Accounting Standards.

Many significant issues arose in our audits because council asset revaluation processes were not robust. This affected both the quality and timeliness of the financial statements.

Our audits identified that ten councils overstated the fair value of land assets as their valuations did not take into account external restrictions on community land or land under roads as required by the Code and Australian Accounting Standards. This was the reason for one-third of the material errors that needed to be corrected in councils' previous years' audited financial statements and for the qualified audit opinion issued on The Hills Shire Council's 2016–17 financial statements.

We also found multiple cases where councils did not adequately review valuation results, comply with applicable codes or obtain accurate valuations. This was the reason for the qualified audit opinion issued on Junee Shire Council's 2016–17 financial statements.

Councils need to improve their asset valuation processes by strengthening reviews, supporting valuations with robust documentation and commencing the revaluation process earlier in the financial year.

Considerable variability in the way councils report the useful lives of similar assets

We found considerable variability in the way councils reported the useful lives of similar assets in their financial statements. This in turn affects the depreciation expense recognised in councils' financial statements and the key performance indicators that councils report. The useful lives of all assets need to be reviewed annually using current asset condition assessments.

All councils should comply with OLG asset planning requirements

Sound asset management requires effective planning. All councils should meet the asset management planning requirements in OLG's Integrated Planning and Reporting Framework to help ensure they have a plan to manage assets efficiently over their life.

We found that 13 councils did not have an asset management policy, strategy and plan.

5. Governance and internal controls

Councils should prioritise high risk governance and control deficiencies

Our audits reported 17 high risk issues relating to policies and procedures, risk management, manual journals, reconciliations, purchasing and payables, and payroll processes. It is important to address high risk matters as a priority.

Councils can improve management oversight and governance structures

We found that councils can strengthen governance measures, by having audit committees and internal audit functions, policies and procedures for critical business processes, legislative compliance frameworks and risk management practices.

Councils are not currently required to have an audit, risk and improvement committee and consequently 53 councils do not have an audit committee. Proposed legislative changes will require all councils to appoint an audit, risk and improvement committee by March 2021.

Recommendation

> Councils should early adopt the proposed requirement to establish an audit, risk and improvement committee.

An internal audit function is currently not a requirement for councils, and consequently, 52 councils do not have this function. In addition, the Office of Local Government (OLG) has not updated its Internal Audit Guidelines since they were issued in 2010.

Recommendation

> The Office of Local Government should introduce the requirement for councils to establish internal audit functions and update its 2010 Internal Audit Guidelines.

The Office of Local Government's register of council entities is not complete

The *Local Government Act 1993* requires councils to obtain the consent of the Minister for Local Government before forming a corporation or any other entity[2], as defined under section 358(4) of the Act (referred to as a 'council entity'). OLG maintains a register of council entities for which ministerial approval has been sought. Our audit work concluded that the register that OLG maintains is not complete.

Recommendation

> The Office of Local Government should maintain an accurate register of entities approved under section 358 of the *Local Government Act 1993.*

[2] Section 358(4) of the *Local Government Act 1993* defines entity as 'any partnership, trust, joint venture, syndicate or other body (whether or not incorporated), but does not include any such entity that is of a class prescribed by the regulations as not being within this definition'.

We also found that the *Local Government Act 1993* does not stipulate a financial reporting framework for council entities. As a result, there are disparate reporting and auditing practices for entities established across the sector.

Recommendation

> The Office of Local Government should consider establishing a financial reporting framework for council entities.

Councils can strengthen policies and procedures to support business processes

Our audits identified two high risk instances in two councils where business and IT policies and procedures did not exist to support critical business and information technology processes. It is important that critical policies, standards and guidelines are available to staff and contractors to provide direction for the day-to-day operations of a council, promote consistency in processes, clarify roles and responsibilities and support compliance with laws, regulations and codes.

Councils can improve internal controls in business processes

Effective internal controls are important to help councils operate efficiently and effectively, to meet service delivery objectives, and to enable accurate and timely reporting.

We identified two high risk issues where councils had weak controls over manual journals. In one instance, this resulted in significant errors in the financial statements. Councils should independently review manual journals and prepare and review account reconciliations earlier.

We identified five high risk internal control deficiencies in the purchasing function relating to unauthorised expenditure, non-compliance with tendering guidelines and a significant breakdown of purchasing controls.

We noted one high risk internal control deficiency in the payroll function related to payroll staff having unrestricted access to amend sensitive payroll data in the system.

6. Information technology

Like many organisations, councils increasingly rely on information technology (IT) to deliver services and manage sensitive information.

Our audits reported nine high risk issues, predominantly related to inappropriate user access. Information technology deficiencies represented the highest number of issues we reported.

Controls over user access to IT systems need to be strengthened

User access controls reduce the risk of users having excessive access to critical financial systems and sensitive information. Our audits found many instances where user access controls were insufficient. These controls should ensure that individuals only have access to financial systems and data necessary to undertake their job responsibilities.

Our audits also found examples of users with inappropriate privileged access In addition, we found instances of inadequate review and insufficient retention of access logs to monitor the activities of privileged system users. Privileged access occurs when a person can change key system configurations and has wide access to system data, files and accounts. We also identified external IT service providers with unrestricted privileged access to council systems and data.

It is important that councils strengthen user access administration to prevent inappropriate access. They should update user access roles in line with the responsibilities of a position and review the level of user access regularly. Councils also need to ensure their existing risk management framework provides assurance for controls over IT outsourcing, and strengthen controls where required.

We identified weaknesses in user developed applications (UDAs), which are developed or managed outside IT administration. This increases the risk of errors that may adversely affect the integrity and quality of information produced. Councils need to adequately control UDAs where they continue to use them and back up business-critical information.

Councils need to strengthen information technology governance

IT governance should be founded on:

- a fit-for-purpose IT strategy and operational plan
- appropriate policies, standards and guidelines across all critical IT processes.

We found that one in four councils do not have an IT strategy or IT operational plan and some need to develop or improve IT policies and procedures. Sixty-six councils do not have an adequate information security policy.

Seventeen councils also do not have a documented plan to recover from a disaster. Councils need to develop a plan and periodically review it. They also need to periodically test that they can restore backed-up data to ensure business continuity in the face of a system disaster.

1. Introduction

1.1 The local government sector

Local government is the third tier of government. It is established under State legislation, which defines the powers and geographical areas each council is responsible for.

Each council is a statutory corporation. Elected councillors form the governing body that directs council affairs in line with the *Local Government Act 1993* and Local Government (General) Regulations 2005.

Local councils deliver services and infrastructure to a geographic area. County councils are formed for specific purposes such as to supply water, manage flood plains or eradicate noxious weeds.

During 2016, the NSW local government sector was reduced from 166 to 140 councils, resulting in 128 local councils and 12 county councils. This was due to council amalgamations that formed 19 new councils on 12 May 2016 and one new council on 9 September 2016. Appendix four lists the former councils that were amalgamated into 20 new councils.

The table below shows the number of councils before and after amalgamations.

Council categories	Number of councils before amalgamations	Number of councils after amalgamations (as at 30 June 2017)
Metropolitan	38	34
Regional	48	37
Rural	66	57
County	14	12
Total	**166**	**140**

From 1 July 2017, two more county councils were dissolved. The functions of:

- Mid-Coast County Council were transferred into the newly formed Mid-Coast Council
- Southern Slopes County Council were transferred into the Yass Valley Council and the newly formed Hilltops Council.

This report includes the audit results of the 139 councils that have lodged their 2016–17 audited financial statements with the Office of Local Government, plus two water authorities. Bayside Council received a lodgement extension for their 2016–17 financial statements to 31 May 2018 and has not yet presented them for audit.

This report also includes the audit results of the 2015–16 financial statements of eight councils and three water authorities.

In preparing this report, the comments and analysis are drawn from:

- audited financial statements
- data collected from councils
- audit findings reported to councils
- data from external sources, including population, kilometres of roads, and council area data obtained from the Australian Bureau of Statistics and the Office of Local Government.

We have also classified councils into four groups – metropolitan, regional, rural and county. Further details are provided in Appendix three.

1.2 Service delivery

Councils invest significant resources each year to deliver a wide range of services to the community. These include waste collection, planning, child and family day care, and recreational services. Councils also build and maintain infrastructure, including roads, footpaths and drains, and enforce various laws.

Council services vary depending on community needs

While core functions, such as waste collection, are similar across councils, the range of services that each council provides varies greatly. The mix is influenced by population density, demographics, the local economy, geographic and climatic characteristics.

Spending on services

The following graphic shows the councils' expenditure by function in 2016–17.

a Categories are based on the Local Government Purpose Classifications issued by the Australian Bureau of Statistics.

b Appendix six provides further information on council expenditure by function.

Source: Audited financial statements for 2016–17. Excludes county councils.

In 2016–17, councils collectively reported expenditure of $11.4 billion, of which:

- $2.1 billion was for governance and administration, including corporate and support services, engineering works, council elections, meetings and policy-making committees, members' fees and expenses, subscriptions, public disclosures and legislative compliance.
- $2.1 billion was for transport and communications, including sealed and unsealed roads, bridges, footpaths, parking areas and aerodromes.
- $2.0 billion was spent on the environment, including waste management, sanitation and garbage, street cleaning, drainage and stormwater management, and environmental protection.
- $1.7 billion was spent on recreation and culture, including public libraries, museums, art galleries, community centres, public halls and performing arts venues, sporting grounds and venues, swimming pools, parks, gardens and lakes.

Metropolitan councils service sixty-five per cent of the State's population in an area of 12,135 square kilometres (1.7 per cent of the total State area). Regional and rural councils provide water and sewerage services to communities outside areas covered by metropolitan water utilities. Rural councils maintain almost 60 per cent of all roads controlled by local government authorities.

Twelve county councils perform activities that typically span across a number of council areas, such as supplying water, managing flood plains and eradicating noxious weeds.

Audit Office performance audit report on how councils report on service delivery

On 1 February 2018, the Auditor-General tabled a performance audit report on 'Council reporting on service delivery'. It concluded that councils reported well on their outputs, but there are opportunities to improve reporting on outcomes, efficiencies and results against targets.

1.3 Council data visualisation

To aid access, transparency, and comparison of councils' financial statement data, we have created a data visualisation as part of this report, which is available on the Audit Office of New South Wales website. The visualisation presents revenue, expense, operating surplus, asset and liability data, along with key financial performance and sustainability indicators for each council. The 2016–17 financial statement data used in the data visualisation tool is summarised in Appendix nine and ten of this report.

The data visualisation also presents minimum, median and maximum values within selected council groupings. While these values aid in comparison and assist further inquiry, a good or bad performance conclusion cannot be drawn from this data alone.

The visualisation excludes financial statement data for four councils due to either an incomplete audit, or where our audit opinion on the councils' financial statements was modified (qualified).

Financial reporting

2. Financial reporting

Accurate and timely financial statements are an important element of sound financial management. They bring accountability and transparency to the way councils use public resources. Our financial audits assessed the following aspects of councils' financial reporting:

- quality of financial reporting
- timeliness of financial reporting.

Observation	Conclusion or recommendation
2.1 Quality of financial reporting	
Qualified audit opinions	
We issued unmodified audit opinions on the: • 2016–17 financial statements of 136 councils and two water authorities • 2015–16[3] financial statements for seven councils and two water authorities.	The councils that received unmodified audit opinions prepared financial statements that fairly present their financial position and results.
We issued modified (qualified) opinions on the: • 2016–17 financial statements of three councils • 2015–16 financial statement of one council and one water authority.	Councils with modified opinions should address the issues that give rise to the audit qualification.
Significant audit matters	
We reported 39 significant matters in 29 councils. They included material accounting issues and significant deficiencies in internal controls. Seventy-seven per cent of the matters related to assets.	Significant issues with the quality of financial reporting delayed the completion of a number of audits. Improving the reporting on assets should be a priority.
Prior period errors	
We found 33 material errors worth $9.1 billion in the previous audited financial statements of 22 councils. These all required prior-year audited balances to be corrected. Eighty-eight per cent of these were asset-related.	The high number of asset-related prior-period errors reinforces the need for councils to improve the way they value and account for assets.
Financial statements	**Recommendation**
We reported 43 moderate risk findings where councils can improve the way they complete their financial statements.	Councils can improve the quality of financial reporting by reviewing their financial statements close processes to identify areas for improvements.
Of the councils that had an audit, risk and improvement committee, 55 per cent of these did not review the financial statements before audit.	**Recommendation** Councils can improve the quality of financial reporting by involving an audit, risk and improvement committee in the review of financial statements.

[3] The Auditor-General was appointed statutory auditor of eight councils for the 2015–16 reporting period at the specific request of councils, due to the failure by councils to appoint an auditor, or the inability of the previous auditor to complete the audit due to external investigation or auditor retirement.

Observation	Conclusion or recommendation
OLG guidance	**Recommendation**
To support councils in preparing 30 June 2017 financial statements, OLG issued guidance documents in June 2017 and September 2017. This limited the time councils had to prepare financial statements in the prescribed form and resolve financial reporting and audit issues.	The Office of Local Government should release the Local Government Code of Accounting Practice and Financial Reporting and the End of Year Financial Reporting Circular earlier in the audit cycle, ideally by 30 April each year.
The Code applicable for the 2016–17 financial reporting period provided options and guidance that in some instances did not fully align with Australian Accounting Standards.	**Recommendation** The Local Government Code of Accounting Practice and Financial Reporting should align with Australian Accounting Standards.
2.2 Timeliness of financial reporting	
Statutory deadlines	
One hundred councils submitted audited financial statements to OLG by the statutory deadline of 31 October 2017. Thirty-nine councils received reporting extensions up to 28 February, including 16 of the 20 newly amalgamated councils. Bayside Council received a reporting extension to 31 May 2018 and has not yet presented their financial statements for audit.	Councils need to improve their financial reporting processes in order to lodge their financial statements by the statutory reporting deadline.
Early close procedures	**Recommendation**
Councils currently do not use early close procedures to resolve accounting issues before the end of the financial year.	The Office of Local Government should introduce early close procedures with an emphasis on asset valuations.

2.1 Quality of financial reporting

Three indicators help to assess the quality of councils' financial statements:

- modified and unmodified audit opinions
- significant matters reported to management and those responsible for the governance of a council
- prior-period errors.

While we issued unmodified audit opinions for most councils, the number of significant matters and prior period errors indicate that the overall quality of financial reporting requires improvement.

Asset valuation issues affected the quality of many councils' financial statements in 2016–17, and were the reason for:

- two modified (qualified) audit opinions
- most of the prior-period errors, significant matters and high risk matters reported.

Audit opinions

The key outcome of our audits is an independent audit report on the financial statements that councils must produce each year. We issue either a modified or unmodified opinion on these reports, which indicates whether councils' financial statements fairly present their financial position and performance.

We issued five modified (qualified) audit opinions

We issued modified audit opinions on the:

- 2016–17 financial statements of three councils
- 2015–16[4] financial statements of one council and one water authority.

The following tables explain the reasons for our modified audit opinions.

Council	Reason for modified audit opinion on the financial statements
2016–17 financial statements	
The Hills Shire Council	The method used by council to value land under roads did not appropriately reflect external restrictions on the use of this land as required by Australian Accounting Standards.
Junee Shire Council	Council could not demonstrate that roads, bridges, footpaths and bulk earthworks were reported at fair value, as it did not value these asset classes during the year. The last valuation was conducted in 2012.
Yass Valley Council	Council did not record the receipt of financial assistance grants from the Australian Government as revenue in the year received, as required by Australian Accounting Standards.
2015–16 financial statements	
City of Botany Bay Council	Significant breakdowns in administrative, financial and governance internal controls affected the reliability of financial reporting of the former Council. A significant fraud involving former management was also identified in the reporting period. Consequently, councillors and management were unable to provide written representation that the financial statements present fairly the financial performance and position of the Council. As a result, Australian Auditing Standards require a disclaimer of opinion to be issued.
Gosford Water Authority	Management could not confirm it had recorded all transactions in the financial statements due to control weaknesses in the Authority's finance system.

In addition, one council received an unmodified audit opinion on its 2016–17 financial statements, that also emphasised an important matter.

Council	Reason for the emphasis of matter in the unmodified audit opinion
2016–17 financial statements	
Central Darling Shire Council	It was uncertain if the council could continue operating without using restricted water and sewer funds. Using externally restricted funds for other purposes requires Ministerial approval under the *Local Government Act 1993*. Ministerial approval was not obtained.

We issued unmodified audit opinions for the remaining:

- 136 councils and two water authorities on the 2016–17 financial statements
- seven councils and two water authorities on the 2015–16 financial statements.

[4] The Auditor-General was appointed statutory auditor of eight councils for the 2015–16 reporting period at the specific request of councils due to the failure by councils to appoint an auditor, or the inability of the previous auditor to complete the audit due to external investigation or auditor retirement.

We are yet to issue an audit opinion on Bayside Council's 2016–17 financial statements.

Council	Approved lodgement extension date	Reason for extension
Bayside Council	31 May 2018	The Office of Local Government approved a reporting extension for this council until 31 May 2018 due to incomplete financial records of the former City of Botany Bay Council.

The outcome of this incomplete audit will be reported in next year's report to Parliament.

Councils received unqualified audit opinions on special purpose financial information

Councils must also prepare two further documents that are audited:

- special purpose financial statements for declared business activities
- special schedule 8 'Permissible Income'.

The special purpose financial statements are required when councils provide services that compete in the marketplace. Special schedule 8 details the amount that councils can levy from rates for the next financial year. This amount is capped by the rate-peg limit set by the Independent Pricing and Regulatory Tribunal NSW.

The City of Botany Bay Council's 2015–16 special purpose financial statements were modified for the reason noted above. The Council did not prepare Special Schedule 8 'Permissible Income' in 2015–16.

Significant matters

Australian Auditing Standards require that we report significant matters identified during the audit to those responsible for the governance of a council. This includes the mayor or administrator, councillors and general manager. We also report significant matters to existing audit, risk and improvement committees, given their role in overseeing the financial reporting process.

Significant matters can include material accounting issues and internal control weaknesses.

The 2016–17 audits reported 39 significant matters

Our 2016–17 audits reported 39 significant matters in 29 councils. Most related to asset valuation and accounting issues, including:

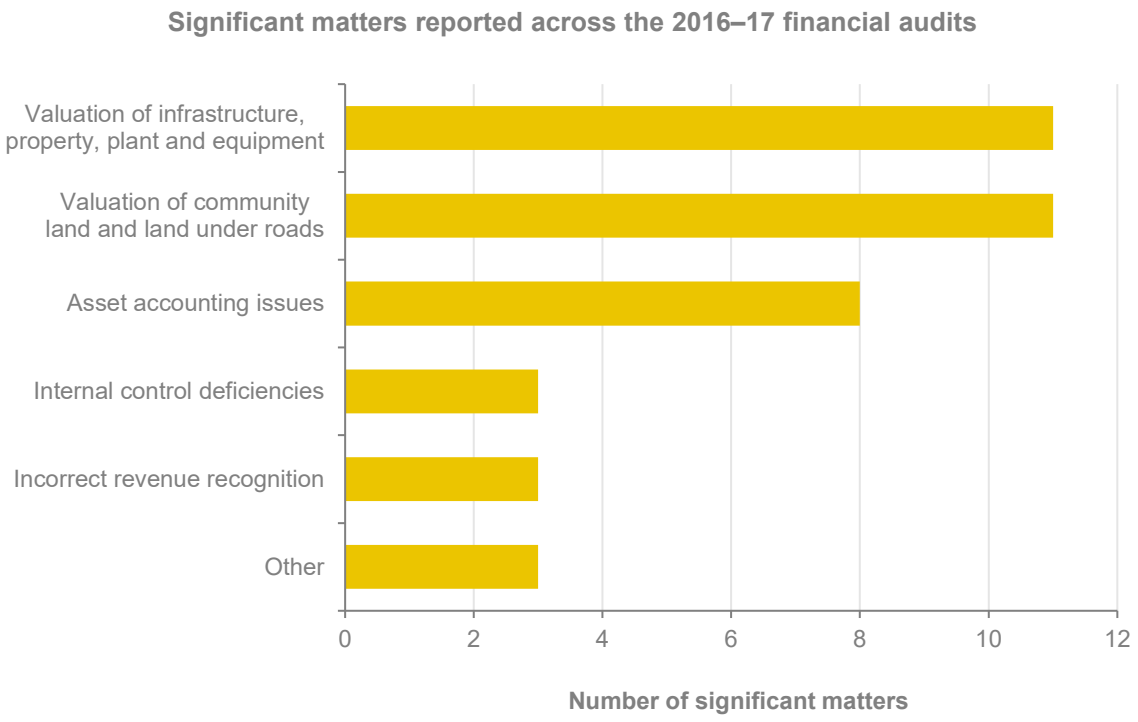
- ineffective controls and procedures to support asset valuations
- not appropriately considering external restrictions on the use of community land and land under roads when determining the fair value of assets
- incorrect accounting for Crown reserves and investment properties.

We discuss the asset-related issues further in Chapter 4.

The non asset-related significant matters included:

- internal control deficiencies over IT security
- incorrect recognition of revenue from government grants
- inappropriate use of corporate credit cards
- restricted funds used inappropriately.

The following graph below captures the range of significant matters we reported.



Source: Audited financial statements for 2016–17.

Prior-period errors

A prior-period error is an error identified in the current year that relates to the previous year's audited financial statements.

We found 33 material prior period financial reporting errors relating to 22 councils

Eighty-eight per cent of material prior-period errors related to assets, including:

- failure to account for external restrictions on the use of community land and land under roads
- assets that were not recorded in the financial statements
- incorrect accounting for Crown reserves and investment properties.

We discuss the asset-related issues further in Chapter 4.

The remaining errors related to applying Australian Accounting Standards incorrectly, such as recognising the revenue from government grants.

The graph below illustrates the nature of the prior-period errors we found, which had a total value of $9.1 billion. These errors meant that previous financial statements had to be corrected.

Material prior period errors identified across the 2016–17 financial audits

Source: Audited financial statements for 2016–17.

Financial statements

Councils need to improve the way they prepare financial statements

Recommendation

Councils can improve the quality of financial reporting by reviewing their financial statements close processes to identify areas for improvement.

The lack of robust quality assurance processes resulted in errors and disclosure deficiencies in councils' financial statements. At 43 councils, we considered these issues were significant enough to report as moderate risk findings in our management letters. Common issues include:

- incomplete note disclosures required by the Code, such as for related parties, commitments, fair value measurement, financial instruments, accounting policies and subsequent events
- incorrect classification of balances, such as employee provisions
- incorrect reporting of council entities, ownership percentages for interests in other entities and assets transferred on amalgamation
- errors in the cash flow statement and statement of changes in equity.

Better practice guides, such as the Australian National Audit Office's 'Public Sector Financial Statements: High quality reporting through good governance and processes' provide useful guidance, as the following checklist shows.

Better practice: Financial statements preparation process

A better practice financial statements preparation process has the following attributes:

- Has the visible commitment and support of the council and management.
- Applies the concept of materiality to the preparation of the financial statements, including in deciding the level of disclosure required.
- Maintains a strong and effective internal control framework.
- Maintains effective, open and constructive relationships with key stakeholders.
- Adopts good financial reporting practices throughout the year.
- Invests in a skilled and knowledgeable finance team.
- Applies good practice project management including the development of a detailed work plan and a focus on meeting agreed deadlines.
- Applies robust risk management practices.
- Identifies technical accounting issues and ensures there is consultation with stakeholders at an early stage.

Source: Australian National Audit Office, 'Public Sector Financial Statements: High quality reporting through good governance and processes'.

An audit, risk and improvement committee can support councils' financial management

Recommendation

Councils can improve the quality of financial reporting by involving an audit, risk and improvement committee in the review of financial statements.

Councils are not currently required to have an audit, risk and improvement committee and consequently 53 councils do not have an audit committee. Changes to the *Local Government Act 1993* made by the *Local Government Amendment (Governance and Planning) Act 2016* will require councils to establish an audit, risk and improvement committee (ARIC). This is expected to be a requirement by March 2021.

Of the 85 councils (60 per cent) that already have an ARIC in some form, only 45 per cent reviewed financial statements before they were submitted for external audit.

Councils can make better use of the ARIC, where it does exist, to oversee the council's financial information including the process to prepare the annual financial statements. The ARIC can support quality financial reporting by:

- ensuring key risk areas (such as asset revaluations) have been addressed
- tracking the resolution of audit findings from prior years
- confirming that key estimates and judgements in financial statements are reasonable
- recommending to the council whether the financial statements are appropriate to sign.

Office of Local Government guidance

The Office of Local Government needs to release key guidance documents earlier

Recommendation

The Office of Local Government should release the Local Government Code of Accounting Practice and Financial Reporting and the End of Year Financial Reporting Circular earlier in the audit cycle, ideally by 30 April each year.

The Office of Local Government (OLG) released two key documents to guide councils in preparing their 2016–17 financial statements:

- June 2017: Local Government Code of Accounting Practice and Financial Reporting (the Code)
- September 2017: End of year financial reporting 2016–17 Circular.

This timing meant there was limited scope for councils to apply the guidance in these documents when preparing financial statements by the statutory deadline of 31 October 2017. This also reduced the capacity of councils to resolve financial reporting, audit and compliance issues.

The Office of Local Government released the Code for the 2017-18 financial reporting year on 18 April 2018.

Local Government Code of Accounting Practice should align with Australian Accounting Standards

Recommendation

The Local Government Code of Accounting Practice and Financial Reporting should align with Australian Accounting Standards.

The Office of Local Government's Code of Accounting Practice and Financial Reporting (Code) sets the financial reporting requirements for councils. The Code requires councils to prepare financial statements in accordance with Australian Accounting Standards.

The Code applicable for 2016–17 financial reporting provided options and guidance that in some instances did not fully align with Australian Accounting Standards. For example, the Code:

- allowed councils the option to either recognise, or to not recognise rural fire-fighting equipment assets. This resulted in varying accounting practices across the sector and a significant portion of these assets not being reported in any government financial statements
- provided three methods for the valuation of land under roads and one of them did not specify that the restricted use of these assets needed to be considered as required by Australian Accounting Standards. This resulted in overstated asset values for this asset class for some councils.

2.2 Timeliness of financial reporting

Statutory deadlines

Councils had a statutory requirement to lodge their audited financial statements with OLG by 31 October 2017.

Seventy-one per cent of councils lodged audited financial statements by the statutory deadline

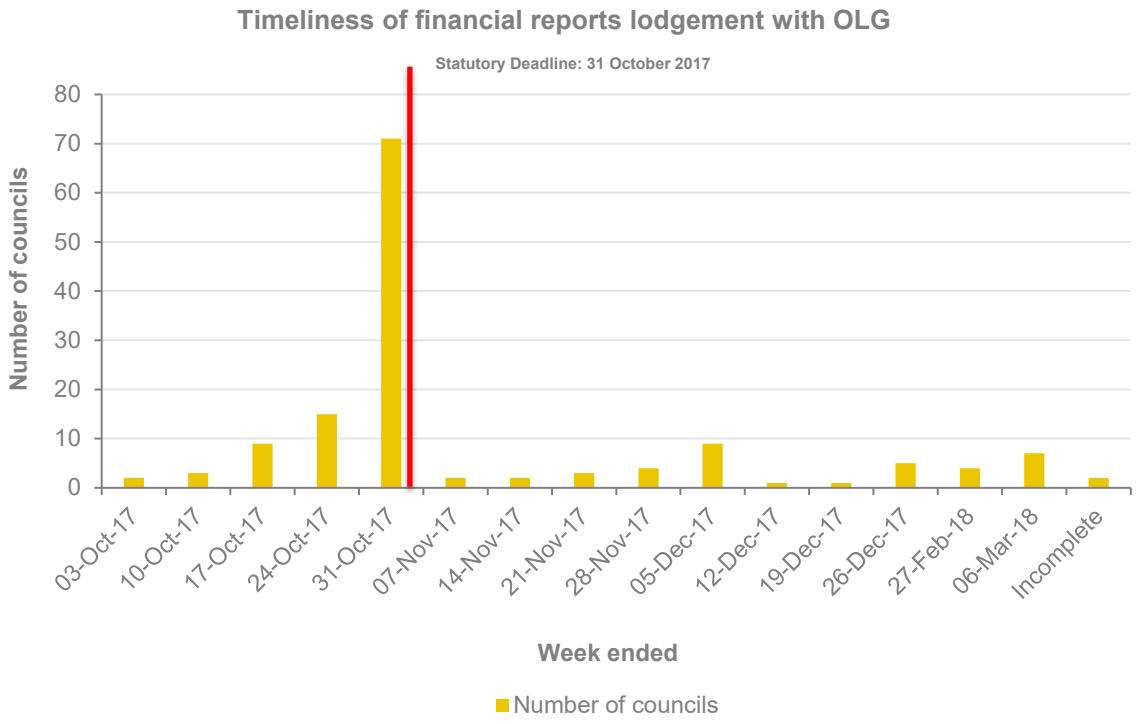
One hundred councils (71 per cent) met this requirement for the 2016–17 financial reporting period. However, of these, 71 councils submitted their audited financial statements to OLG during the last week of October 2017.

In many cases, councils provided multiple versions of the financial statements during the audit, including one council where 15 versions of the financial statements were presented for audit. This significantly delayed the audit and the lodgement of audited financial statements with OLG.

Under the *Local Government Act 1993*, a council may apply to OLG for an extension to the statutory reporting deadline. Forty councils received extensions for their 2016–17 financial statements including 16 newly amalgamated councils. These councils experienced challenges in harmonising accounting policies and practices and combining separate and distinct information technology and reporting systems.

Other reasons that councils put forward to support an extension were council resourcing issues and lack of financial records (particularly poor asset records). These issues had implications on audit resourcing and the timely completion of some audits by the Audit Office.

The graph below maps the lodgement dates of councils' financial statements.



Note: No council(s) lodged audited financial statements with OLG in January 2018.

2.3 Early close procedures

Early close procedures help to improve the quality and timeliness of financial reporting

Recommendation

The Office of Local Government should introduce early close procedures with an emphasis on asset valuations.

Early close procedures are those done before the end of a financial year, usually at the end of a month, such as 30 April. These procedures help to improve the timeliness and quality of financial reporting. They can identify issues and key risk areas that councils need to resolve before the year-end process. The table provides examples of early close procedures.

Asset valuation issues affected the quality of many councils' 2016–17 financial statements and were the reason for two modified (qualified) audit opinions and the majority of high risk and significant matters reported.

Preparing proforma financial statements at an early close date is a good test of a council's processes and controls.

The audit, risk and improvement committee could support the early close process by ensuring that audit findings are addressed before the year-end financial statements are prepared.

Early close procedures

- Complete infrastructure, property plant and equipment valuations.
- Prepare proforma financial statements and associated disclosures.
- Prepare variance analysis and meaningful explanations for movements in financial balances.
- Perform key account reconciliations.
- Assess the impact of material, complex and one-off significant transactions.
- Explain any unresolved prior year audit issues including the proposed action plan to resolve them.
- Assess the impact of new and revised accounting standards effective in the current and future years.
- Review of financial statements and processes by management and the audit, risk and improvement committee.

Financial performance and sustainability

3. Financial performance and sustainability

Strong and sustainable financial performance provides the platform for councils to deliver services and respond to the needs of their community. This chapter outlines our audit observations on the performance of councils against the Office of Local Government's (OLG) performance indicators, grouped in three areas:

- operating revenue performance measures
- liquidity and working capital performance measures
- asset management performance measures.

Our analysis indicates that some councils face challenges in meeting these performance and sustainability measures.

Observation	Conclusions
3.1 Operating revenue performance measures	
Operating performance	
Operating expenses for 18 councils exceeded their operating revenue. Another 20 councils would not have met OLG's operating performance benchmark without the receipt of 2017–18 financial assistance grants which was recorded as revenue during 2016–17. Eleven councils have not met OLG's operating performance benchmark for the last three years.	It is important that councils have financial management strategies that support their financial sustainability and ability to meet OLG's operating performance benchmark over the long term.
Operating performance measures how well councils contain operating expenses within operating revenue. OLG has prescribed a benchmark of greater than zero.	
Own source operating revenue	
Fifty-nine councils did not meet OLG's benchmark, and 42 of those were rural councils.	Rural councils have high-value infrastructure assets that cover large areas with smaller populations and less capacity to raise revenue from alternative sources compared with metropolitan councils.
Own source operating revenue measures a council's fiscal flexibility and the degree to which it can generate revenue from own sources compared with total revenue from all sources. OLG has prescribed a benchmark of more than 60 per cent of total revenue.	

Observation	Conclusions
3.2 Liquidity and working capital performance measures	
Unrestricted current ratio	
All but three councils met OLG's benchmark.	Most councils can meet short-term obligations as they fall due.
The unrestricted current ratio represents a council's ability to meet its short-term obligations as they fall due. OLG has prescribed a benchmark of greater than 1.5 times.	
Debt service cover ratio	
All but two councils met OLG's benchmark. These two councils did not meet OLG's benchmark due to the early repayment of borrowings. Regional councils have 56 per cent of the value of all borrowings in the sector.	Most councils have sufficient operating cash available to service their borrowings. Regional councils borrow more heavily than metropolitan councils to deliver water and sewerage infrastructure. Metropolitan councils do not have the responsibility to provide water and sewerage infrastructure.
The debt service cover ratio measures the operating cash available to service debt including interest, principal and lease payments. OLG has prescribed a benchmark of greater than two times.	
Rates and annual charges outstanding	
Eight rural, five regional, three metropolitan and two county councils did not meet OLG's benchmark. These councils also did not meet the infrastructure backlog ratio.	Most councils are collecting rates and annual charges levied. Councils with higher levels of uncollected rates and charges can experience increased pressure on the working capital available to fund operations.
The rates and annual charges outstanding measure assesses the impact of uncollected rates and annual charges on a council's liquidity and the adequacy of debt recovery efforts. OLG has prescribed a benchmark of less than five per cent for metropolitan and less than ten per cent for other councils.	
Cash expense cover ratio	
Three rural and two county councils did not meet OLG's benchmark.	Most councils have the capacity to cover more than three months of operating expenses.
The cash expense cover ratio indicates the number of months a council can continue paying its expenses without additional cash inflows. OLG has prescribed a benchmark of greater than three months.	
This measure does not exclude externally and internally restricted funds. If externally restricted funds are excluded, all councils would still meet OLG's benchmark. If both externally and internally restricted funds are excluded: • an additional 32 councils would have a cash expense cover ratio of less than three months • a further nine councils are left without any unrestricted funds for general operations.	Councils with a higher proportion of restricted funds may have less flexibility to pay operational expenses than the cash expense cover ratio suggests. However, councils can resolve to lift internal restriction if required.

Observation	Conclusions
3.3 Asset management performance measures (not audited)	
Building and infrastructure renewals ratio	
Seventy councils reported to OLG they do not meet the benchmark for this ratio. Most councils included expenditure related to work-in-progress in calculating this ratio. OLG are of the view that work-in-progress should be excluded and as a result identified that a further 23 councils do not meet the benchmark.	These councils appear to not be renewing assets in line with the rate they are depreciating them. This raises questions as to whether council asset management plans are adequate to determine whether assets are being kept up to agreed standards. Uncertainty on the inclusion of work-in-progress assets does need to be is clarified in order to ensure consistency in determining whether councils are adequately renewing their assets.
The building and infrastructure renewals ratio represents the rate at which assets are being renewed relative to the rate at which they are depreciating. OLG has prescribed a benchmark of greater than 100 per cent.	
Infrastructure backlog ratio	
Eighty-four councils reported to OLG that they do not meet the benchmark for this ratio.	These councils may not be maintaining their infrastructure backlog at a manageable level.
The infrastructure backlog ratio represents the proportion of infrastructure backlog relative to the total net book value of a council's infrastructure assets. OLG has prescribed a benchmark of less than two per cent.	
Asset maintenance ratio	
Seventy-one councils reported to OLG they do not meet the benchmark for this ratio.	These councils' maintenance expenditure may be insufficient to sustain their assets in a functional state so they reach their predicted useful life.
The asset maintenance ratio represents the rate at which assets are being maintained relative to the rate at which they are required to be maintained. OLG has prescribed a benchmark of greater than 100 per cent.	
Cost to bring assets to agreed service level	
One-hundred and two councils reported results against this indicator to OLG. The reported results ranged from 0.1 per cent to 19.8 per cent.	There is variability between councils in the amount of outstanding renewal works to be completed.
This ratio represents the estimated cost to renew or rehabilitate existing infrastructure assets that have reached the condition-based interval level adopted by a council, relative to the gross replacement cost of all infrastructure assets. OLG has not prescribed a benchmark for this performance measure.	

OLG's benchmarks for financial performance and sustainability

Each local council has unique characteristics such as its size, location and services provided to their communities. These differences affect the nature of each council's assets and liabilities, revenue and expenses, and in turn the financial performance measures against which it reports.

The Office of Local Government prescribes performance indicators for council reporting

The analysis in this chapter is based on performance measures prescribed in OLG's Code of Accounting Practice and Financial Reporting (the Code). Councils report against these measures in their annual report, which includes the audited financial statements and other unaudited information. In the audited financial statements, councils report performance against six financial sustainability measures:

- operating performance
- own source operating revenue
- unrestricted current ratio
- debt service cover ratio
- rates and annual charges outstanding percentage
- cash expense cover ratio.

Councils also include the unaudited Special Schedule 7 'Report on Infrastructure Assets' in their annual reports. In this schedule, councils report to OLG on performance against four further measures:

- building and infrastructure renewals ratio
- infrastructure backlog ratio
- asset maintenance ratio
- cost to bring assets to agreed service level.

Each audited measure and three of the four unaudited measures has a prescribed benchmark. OLG's benchmarks are the same for metropolitan, regional, rural and county councils, with the exception of the rates and annual charges outstanding percentage. Regional, rural and county councils have a different benchmark to metropolitan councils for this measure.

Three rural councils did not meet three of the audited OLG benchmarks

Most councils met OLG's benchmarks for at least five or all of the six audited performance measures. Eight rural, four regional, four metropolitan and two county councils did not meet OLG's benchmarks for two out of the six audited performance measures. Three rural councils did not meet OLG's benchmarks for three out of the six audited performance measures.

The following table summarises how the councils performed across the six audited performance measures.

Number of OLG benchmarks met by councils	Number of councils			
	Metropolitan	Regional	Rural	County
6	12	12	29	5
5	17	21	17	5
4	4	4	8	2
3	--	--	3	--
Not available*	1	--	--	--
Total	**34**	**37**	**57**	**12**

* The financial statements for Bayside Council are not yet presented for audit.

Source: Audited Financial Statements for 2016–17.

Appendix ten lists the performance of each council against all performance measures.

3.1 Operating revenue performance measures

The first pair of performance indicators relate to the revenue that councils raise to deliver services:

- operating performance
- own source operating revenue.

Operating performance measures how well councils keep operating expenses within operating revenue. Own source operating revenue measures the degree to which a council can generate its own source revenue compared with the total revenue from all sources.

Operating performance

Operating revenue in this measure includes rates and annual charges, user charges and fees, interest, investment and other revenue. It excludes capital grants, capital contributions and changes in the fair value of assets.

OLG sets a benchmark of greater than zero per cent for this measure. Achieving this benchmark means councils are raising enough operating revenue to fund their operating expenses.

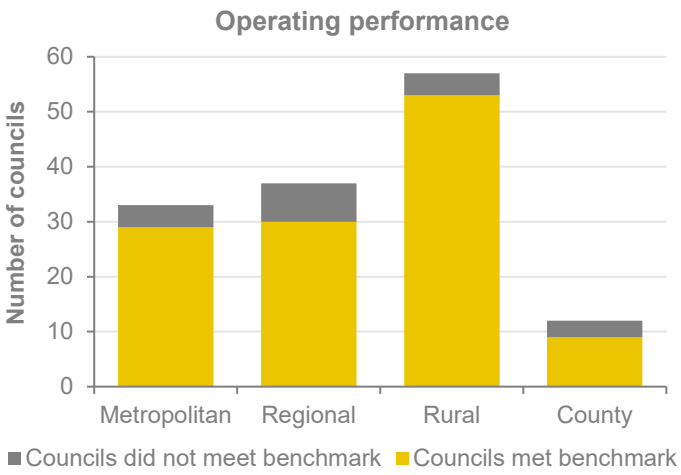
This measure assesses performance annually, so the result can be affected by short-term or one-off events and transactions, such as the profit or loss on disposal of assets and the cost of natural disasters.

Eighteen councils reported negative operating performance

Seven regional, four metropolitan, four rural and three county councils reported negative operating performance in 2016–17.

Of these 18 councils:

- five regional, two metropolitan, two rural and two county councils had reported a negative operating performance for the past three years
- fourteen councils also did not meet the infrastructure backlog ratio and twelve councils also did not meet the buildings and infrastructure renewals ratio.



Source: Audited financial statements for 2016–17.

Councils need to have financial management strategies that support their financial sustainability and meeting OLG's operating performance benchmark over the long term.

Five councils reported a net operating deficit

Yass Valley Council

In Chapter 2 Financial Reporting, we note that the audit opinion issued on the Yass Valley Council's 2016–17 financial statements was modified because Yass Valley Council did not record the receipt of financial assistance grants from the Australian Government as revenue in the year received, as required by Australian Accounting Standards.

The application of Australian Accounting Standards and the Code, with additional disclosure when appropriate, is necessary for financial statements to be presented fairly.

This resulted in an understatement of the net operating result for the year ended 30 June 2017 by $1.48 million and overstatement of a liability recorded as 'income received in advance' by the same amount. It also affected the OLG indicators reported in the Council's financial statements.

In our audit report, we recalculated affected indicators and noted that if Council had correctly recognised this grant, its operating performance measure would have improved from negative 2.32 per cent to positive 2.48 per cent and met OLG's benchmark.

A council's net result is its operating surplus or deficit after expenses are deducted from revenue. The net result includes revenue from grants and contributions intended for capital purposes, but excludes the impact of extraordinary events such as amalgamations and boundary adjustments.

In 2016–17, one metropolitan, two regional and two county councils reported operating deficits. The remaining councils, including all rural councils, reported operating surpluses.

However, these results are affected by the timing of government grants. In 2016–17, councils received $365 million of 2017–18 financial assistance grants from the Australian Government, which was recorded as revenue during 2016–17, consistent with the requirements of Australian Accounting Standards.

A council's financial statements present fairly their financial position and performance when transactions are recorded in accordance with the requirements of Australian Accounting Standards and the Code.

This grant income, received in advance, helped the 2016–17 operating performance of councils that had a net result close to break-even. Without these advance grant payments, a further 20 councils (four metropolitan, six regional and ten rural councils) would have reported negative operating performance and not met OLG's benchmark.

Own source operating revenue

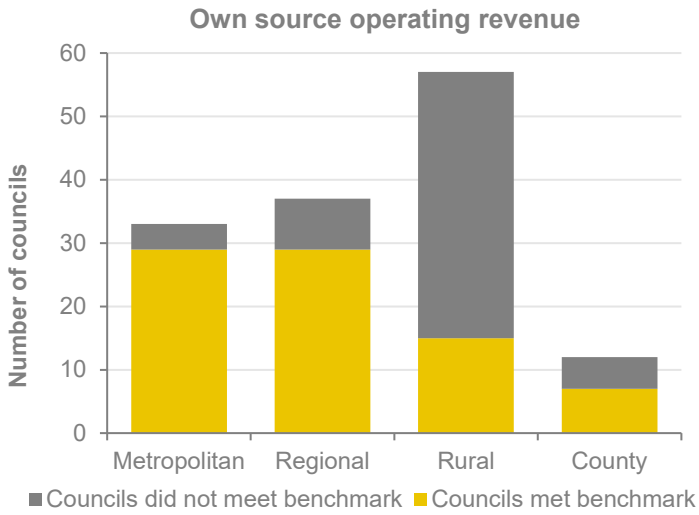
The second operating revenue measure helps to assess a council's fiscal flexibility and the degree to which it can generate own source revenue compared with the total revenue from all sources. The OLG benchmark is for own source operating revenue to be more than 60 per cent of total revenue.

This measure is sensitive to revenue from capital grants and developer contributions, and the percentage will fall where these revenue sources are significant.

Rural councils face challenges generating own source revenue

In 2016–17, forty-two rural, eight regional, five county and four metropolitan councils did not meet OLG's benchmark for own source operating revenue. This may result in councils not generating enough operating revenue to cover operating expenses.

Rural councils report challenges in generating their own revenue from rates, annual charges, user charges and fees. This is because they can have smaller populations and rating bases and lower economic activity. This reduces their capacity to generate revenue from alternative sources such as parking fees, infringement notices and rental income.



Source: Audited financial statements for 2016–17.

Seven of these 59 councils were also unable to meet the benchmark for OLG's performance measure for the collection of rates and annual charges, which is discussed later in the chapter. It is important for these councils to collect rates and annual charges on time given their challenges in generating this type of own source operating revenue.

Rural councils are responsible for maintaining infrastructure over large geographical areas. Thirteen of the 42 rural councils that did not meet OLG's benchmark for own source operating revenue also did not meet OLG's benchmarks for the buildings and infrastructure renewals ratio and infrastructure backlog ratio. These asset management performance measures are discussed later in this chapter.

Council revenue and expenses

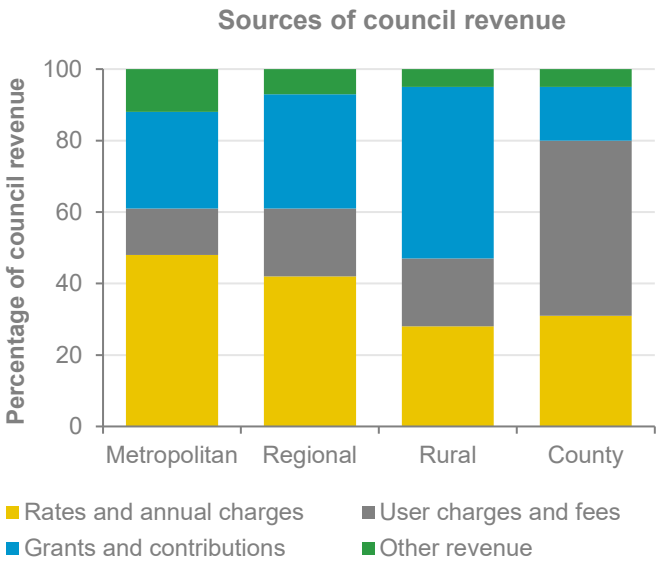
The following section details the main sources of council revenue, including special rate variations approved by the Independent Pricing and Regulatory Tribunal NSW, and the major categories of council expenditure. These are key drivers underlying several performance measures.

Revenue sources can vary significantly between councils

A council's total revenue comes from rates and annual charges, user charges and fees, operating and capital grants and contributions, and other revenue (such as interest, investments and asset disposals).

The graph illustrates the proportion of revenues from these sources for metropolitan, regional, rural and county councils.

Councils in metropolitan areas have the greatest capacity to generate other revenue, such as from childcare, parking fees, rental income and infringement notices. Rural councils rely more on grant funding to deliver their services.



Source: Audited financial statements for 2016–17.

County councils do not receive rates but do levy annual charges. They receive the highest proportion of user charges and fees, which they use to provide services such as water supply, management of flood plains, and eradication of noxious weeds.

Forty councils received revenue from special rate variations

In 2016–17, the Independent Pricing and Regulatory Tribunal NSW (IPART) set the allowable percentage increase in a council's annual rates income (the rate peg) at 1.8 per cent. However, IPART can approve special rate variations above the rate peg for things such as:

- extra services
- capital expenditure
- financial sustainability
- infrastructure such as roads, bridges and stormwater drainage.

Forty councils received additional revenue from special rate variations in 2016–17. Seventeen regional, 12 rural and ten metropolitan councils received revenue from special rate variations, ranging from three per cent to 11 per cent of their rates revenue. One rural council received approval to levy a special rate of 30 per cent.

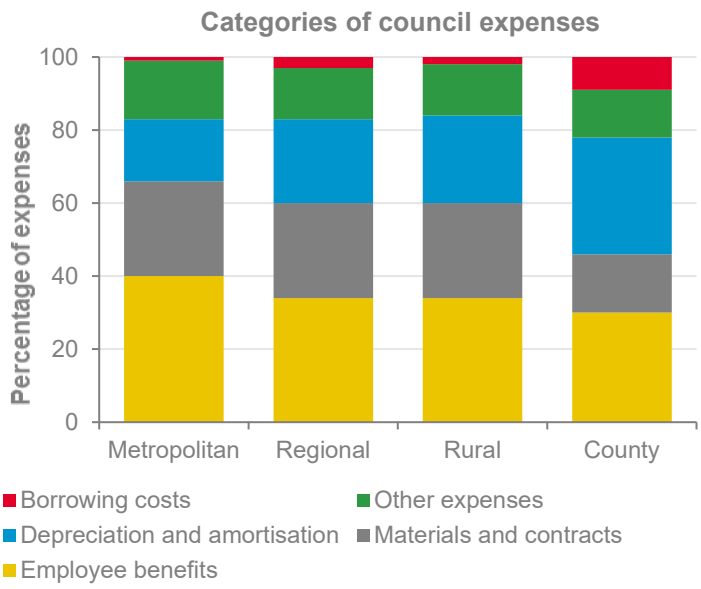
However, even with this extra revenue, four regional, one rural and one metropolitan council reported negative operating performance in 2016–17.

Employee benefits expense is the largest expense category for most councils

The largest overall expense categories for metropolitan, regional and rural councils are employee benefits, materials and contracts, and depreciation and amortisation.

The graph illustrates the proportion of expenses from various sources for metropolitan, regional, rural and county councils.

Regional, rural and county councils have a relatively larger proportion of depreciation and amortisation expenses compared to metropolitan councils because they have extensive infrastructure asset bases over large areas. This includes water supply and sewage infrastructure, which State agencies provide in metropolitan areas.



Source: Audited financial statements for 2016–17.

3.2 Liquidity and working capital performance measures

The next group of indicators help to assess the way councils can:

- meet short term obligations
- service their debt
- collect outstanding rates and annual charges
- meet their future expenses.

Unrestricted current ratio

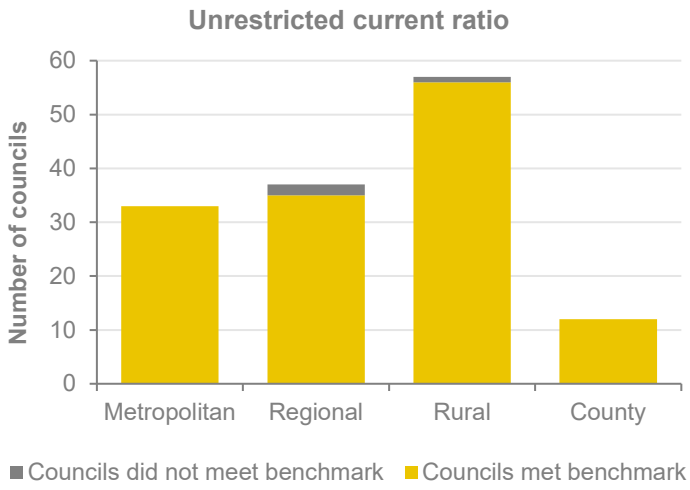
The unrestricted current ratio captures a council's ability to meet its short-term obligations as they fall due. The ratio excludes externally restricted assets and liabilities. OLG sets a benchmark of having available in unrestricted current assets more than 1.5 times the value of unrestricted current liabilities.

Two regional and one rural council did not meet OLG's benchmark for unrestricted current ratio.

The assets and liabilities of a council can fall into three categories:

- externally restricted
- internally restricted
- unrestricted.

Externally restricted assets are those affected by legislation or other externally imposed requirements. Internally restricted assets are affected by council resolution or policy, usually for an identified future works program. All other assets are unrestricted. Liabilities are restricted (specific purpose) if they relate to externally restricted assets.



Source: Audited financial statements for 2016–17.

Ninety-six councils had twice OLG's minimum benchmark for working capital

Forty-six rural, 21 metropolitan, 19 regional and ten county councils reported an unrestricted current ratio exceeding twice the OLG benchmark.

Two regional and one rural council did not meet OLG's benchmark for the unrestricted current ratio. One of these regional councils also did not meet OLG's benchmark for the collection of rates and annual charges. To meet operational needs, councils with a low unrestricted current ratio may need to:

- consider the availability of borrowings
- seek the Minister for Local Government's approval to use externally restricted funds
- look at ways to reduce expenditure or seek extra revenue from other sources.

Debt service cover ratio

One metropolitan and county council did not meet OLG's benchmark for the debt service cover ratio

The debt service cover ratio measures the operating cash available to service a council's debt, including interest, principal and lease payments. The benchmark OLG sets is to have available greater than twice the amount required to service debt.

The debt service cover ratio compares the operating result (before capital grants, capital contributions, depreciation and amortisation) with the repayment of borrowings and borrowing costs.

Fifty-seven rural, 37 regional, 27 metropolitan and five county councils reported borrowings at 30 June 2017. Councils utilise borrowings to fund capital projects and to address backlog maintenance. Regional councils accounted for 56 per cent of the value of total council borrowings because they also borrow to manage water and sewerage infrastructure.

One metropolitan and one county council did not meet this ratio as they repaid significant borrowings during 2016–17. One of these councils was newly amalgamated and the other was winding up.

Rates and annual charges outstanding percentage

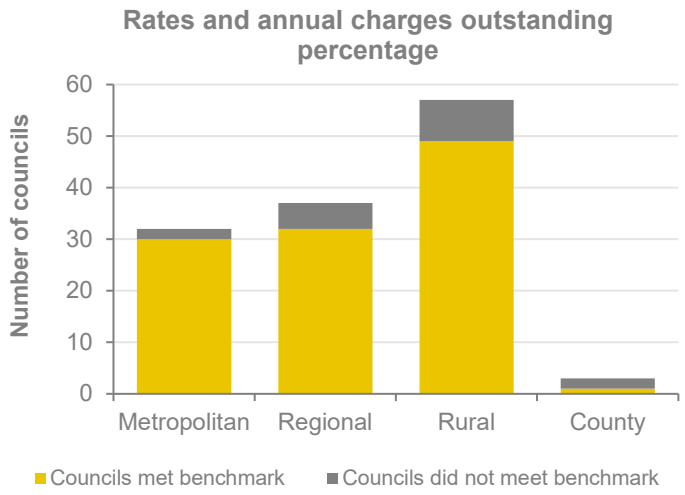
The rates and annual charges outstanding percentage assesses how successful councils are in collecting rates and annual charges. The indicator measures the percentage of rates and annual charges levied throughout the year that remain unpaid as at 30 June.

The OLG benchmark is that unpaid rates and annual charges for metropolitan councils should be less than five per cent and less than ten per cent for regional, rural and county councils.

Eighteen councils did not meet OLG's benchmark for outstanding rates and annual charges

Eight rural, five regional, three metropolitan and two county councils did not meet OLG's benchmark for the rates and annual charges outstanding percentage. Nine county councils do not levy rates and annual charges.

Councils with high levels of outstanding rates and annual charges may have less working capital available to fund operations. These eighteen councils also did not meet the infrastructure backlog ratio, which is discussed later in this chapter.



Source: Audited financial statements for 2016–17.

One rural council reported a rates and annual charges outstanding percentage of 36 per cent. Its inability to collect rates and charges resulted in less cash available for operations. This council also reported a cash expense cover ratio of 1.6 months, which is short of OLG's benchmark of more than three months. Unpaid rates are a debt on property. In certain circumstances, councils can assume ownership of land to recover a debt.

Cash expense cover ratio

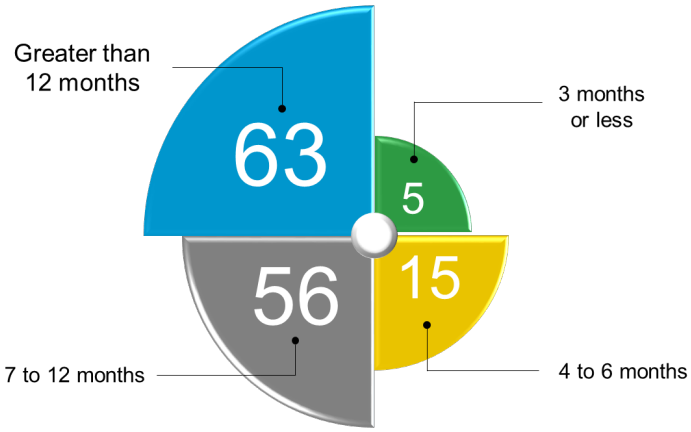
The cash expense cover ratio estimates the number of months a council can continue paying its expenses without extra cash. It compares the total cash, cash equivalents and term deposit balances against the total payments for operating and financing activities from the cash flow statement. OLG sets a benchmark of greater than three months for this ratio.

Most councils met the cash expense cover ratio benchmark of more than three months

All but three rural and two county councils were able to cover more than three months of expenditure without extra cash inflows.

Sixty-three councils (45 per cent) had enough cash on hand to fund more than 12 months of expenditure. Another 56 councils (40 per cent) had enough cash to fund between seven and 12 months of expenditure, and 15 councils (11 per cent) had enough cash to cover four to six months of expenditure.

Cash expense cover ratio



Source: Audited financial statements for 2016–17.

Cash expense cover ratio is lower when restricted funds are excluded

Central Darling Shire Council

In Section 1.1 of Chapter 2 Financial Reporting, we note that the audit opinion issued on the 2016–17 general purpose financial statements of Central Darling Shire Council referred to uncertainty over the council's ability to continue operating without using restricted water and sewer funds. This council used externally restricted funds for daily operations without ministerial approval.

On 2 March 2018, the council's administrator sought approval from the Minister for Local Government to continue using restricted cash as necessary.

Councils are not required to exclude externally and internally restricted funds when calculating the cash expense cover ratio. Restricted and unrestricted funds are held in accounts that councils control.

Section 409(3) of the *Local Government Act 1993* does not permit the use of externally restricted funds for general operations. A council with a high proportion of restricted funds may have a positive cash expense cover ratio, but limited flexibility to pay its operating expenses.

Section 410(3) of the *Local Government Act 1993* requires a council to obtain the Minister for Local Government's approval before using externally restricted funds collected from levying special rates and charges for another purpose. A council must pass a resolution to use internally restricted funds for another purpose.

If externally restricted funds are excluded from the cash expense cover ratio, all councils would still meet OLG's benchmark. However, if both internally and externally restricted funds are excluded:

- six regional, one rural and two county councils are left without any unrestricted funds, meaning there are no available funds for general operations, such as to pay salaries and suppliers
- seventeen rural, nine regional, four metropolitan and two county councils would have a cash expense cover ratio of three months or less.

Of these councils, 18 did not meet OLG's benchmark for own source operating revenue.

3.3 Asset management performance measures

The Office of Local Government (OLG) has prescribed four indicators to assess councils' asset management:

- buildings and infrastructure renewals ratio
- infrastructure backlog ratio
- asset maintenance ratio
- cost to bring assets to agreed service level.

Appendix ten lists the results of each indicator reported by councils to OLG.

Councils report to OLG against these indicators in the Special Schedule 7 'Report on Infrastructure Assets'. Special Schedule 7 is not required to be externally audited and does not form part of a council's independently audited financial statements. It provides information in addition to that available in the audited financial statements related to the maintenance, renewal, condition and costs of infrastructure assets. The Code requires that the information in Special Schedule 7 is consistent with the council's asset management plans.

Data reported against OLG's benchmarks is an indicator of whether councils' spending on renewing and maintaining their infrastructure assets is sufficient

Thirty-one councils reported they do not meet the OLG benchmarks for either the buildings and infrastructure renewals ratio, the infrastructure backlog ratio or the asset maintenance ratio. These councils may need to examine their asset management plans and consider if their investment in maintaining and renewing infrastructure assets is sufficient.

Councils are required to have asset management plans that consider community needs, available funds, the council's risk appetite, and the whole-of-life costs of owning and/or managing the infrastructure assets under their control.

The asset management indicators reported in Special Schedule 7 provide a snapshot of data at a point in time. While they may assist with further inquiry, a good or bad performance conclusion cannot be drawn from this data alone.

Buildings and infrastructure renewals ratio

Seventy councils do not meet OLG's buildings and infrastructure renewals ratio benchmark

The buildings and infrastructure renewals ratio is used to assess the rate at which infrastructure assets are being renewed against the rate at which they are depreciating. OLG sets a benchmark of greater than 100 per cent. The underlying information used to calculate this indicator is derived from a council's audited financial statements.

Achievement of the OLG benchmark indicates that a council is renewing its assets at the same rate it is depreciating them. Twenty-six rural, 24 regional, 16 metropolitan and four county councils reported to OLG they do not meet the prescribed benchmark for the buildings and infrastructure renewals ratio.

OLG's Code requires that the buildings and infrastructure renewals ratio is calculated based on a council's renewal expenditure on specific infrastructure assets listed in Special Schedule 7. OLG has informed the Audit Office that work-in-progress assets are not infrastructure assets for the purposes of reporting in Special Schedule 7. Eighty per cent of councils included work-in-progress assets in calculating the ratio. If work-in-progress assets are excluded from the calculation, a further 23 councils would not meet OLG's benchmark. This means that 93 councils, or 69 per cent of those that reported this indicator, did not meet the OLG benchmark for renewing their assets.

OLG will need to clarify the requirements for calculating the buildings and infrastructure renewals ratio with councils.

Infrastructure backlog ratio

Eighty-four councils do not meet OLG's infrastructure backlog ratio benchmark

The infrastructure backlog ratio shows the amount of infrastructure backlog expenditure relative to the total net book value of a council's infrastructure assets. OLG sets the benchmark for this ratio at less than two per cent. Achievement of the OLG benchmark indicates that infrastructure backlog is kept at a manageable level. The underlying information used to calculate this indicator is derived from a council's audited financial statements and other unaudited sources.

Infrastructure backlog is defined in Special Schedule 7 as the estimated cost to bring a council's infrastructure, buildings, other structures and depreciable land improvements back to a condition determined to be satisfactory by the council and the community.

Thirty-seven rural, 28 regional, 15 metropolitan and four county councils reported to OLG they do not meet the prescribed benchmark for the infrastructure backlog ratio. This means that 60 per cent of councils that reported this indicator did not meet OLG's benchmark for maintaining their infrastructure backlog.

Asset maintenance ratio

Seventy-one councils do not meet OLG's asset maintenance ratio benchmark

The asset maintenance ratio compares a council's actual asset maintenance expenditure to the amount planned in their asset management plans. OLG sets a benchmark of greater than 100 per cent. Achievement of the OLG benchmark indicates that a council is investing enough funds to sustain their assets in a functional state so they reach their predicted useful life. The underlying information used to calculate this indicator is derived from a council's unaudited asset management plans and other unaudited sources.

Twenty-nine rural, 26 regional, 13 metropolitan and three county councils reported to OLG that they do not meet the prescribed benchmark for the asset maintenance ratio. This means that 54 per cent of councils that reported this indicator did not maintain their assets in accordance with their asset management plans.

Cost to bring assets to agreed service level

The cost to bring assets to agreed service level compares the estimated cost to renew or rehabilitate existing infrastructure assets, that have reached the condition-based intervention level adopted by a council, to the gross replacement cost of all infrastructure assets. OLG has not prescribed a benchmark for this indicator. The underlying information used to calculate this indicator is derived from unaudited sources.

One-hundred and two councils reported results against this indicator to OLG, expressed as a percentage. The reported results ranged from 0.1 per cent to 19.8 per cent. This reflects significant variability between councils in the proportion of outstanding renewal works compared to the total replacement cost of infrastructure assets under their care and stewardship.

Asset Management

4. Asset management

NSW councils own and manage a significant range of assets, including infrastructure, property, plant and equipment with a total value of $136 billion.

Many of the issues that our local government audits identified related to asset management. This chapter discusses some of the asset accounting issues we found, focusing on five areas:

- overall asset management issues
- asset registers
- asset valuation
- recognition and asset useful life estimates
- asset policy and planning.

Observation	Conclusion or recommendation
4.1 High risk issues	
Significant matters reported to those charged with council governance	
Our 2016–17 audits identified ten high risk issues related to the accuracy of asset registers, restricted assets and asset revaluations.	High risk issues affect council's ability to maintain their assets in the condition required to deliver essential services.
4.2 Asset reporting	
Accuracy of asset registers	
Our audits identified instances where councils had multiple asset registers, inaccurate or incomplete registers, unreconciled registers, or uncontrolled manual spreadsheets.	Maintaining accurate asset records is important as it enables councils to manage their assets effectively and report on finances appropriately.
Unrecorded land and infrastructure assets	
Twenty-four councils had not recorded $145 million worth of assets, mainly land and infrastructure assets.	Assets not captured in council records is at risk of not being subject to their care and control, nor recorded in the financial statements.
Rural fire-fighting equipment	
At 30 June 2017, forty-six councils did report vested rural fire-fighting equipment in their financial statements. However, 62 councils did not record vested fire-fighting equipment in their financial statements. These rural fire-fighting equipment assets are not reported in either State government or local government financial statements.	**Recommendation** The Office of Local Government should address the different practices across the local government sector in accounting for rural fire-fighting equipment before 30 June 2018. In doing so, the Office of Local Government should work with NSW Treasury to ensure there is a whole-of-government approach.

Observation	Conclusion or recommendation
4.3 Asset valuation	
Restricted assets	
Our audits found that ten councils did not appropriately consider restrictions on the use of community land and land under roads when determining asset fair values in accordance with Australian Accounting Standards. Nine councils corrected the land values in their 2016–17 financial statements, reducing the reported value of community land and land under roads by $12.1 billion.	The valuation of community land and land under roads should reflect the physical and legislative restrictions on these assets as required by Australian Accounting Standards. The impact of restrictions can be significant. Councils should consider engaging experts to assist with the determination of asset fair values, as necessary.
Asset revaluations	
Our audits found many cases where councils did not review valuation results, comply with applicable codes, or work effectively with valuers to obtain accurate asset valuations.	Valuing large infrastructure assets is a complex process. Councils would benefit if the process is started earlier and there is a clear plan to ensure valuations are appropriately managed and documented.
4.4 Asset useful life estimates	
Asset useful life estimates	
We found considerable variability in councils' useful lives for similar assets.	Depreciation is a significant expense for councils and therefore impacts on reported financial results and key performance indicators.
In some cases, the useful lives of assets are not reviewed annually or supported by regular condition assessment.	To comply with Australian Accounting Standards, councils need to reassess the useful lives of all assets annually. Regular condition assessments are essential to identify maintenance requirements and maintain service delivery.
4.5 Asset policy and planning	
Asset management strategy	
Thirteen councils do not have an asset management policy, strategy and plan, as required by OLG's Integrated Planning and Reporting Framework. Newly amalgamated councils have until 30 June 2018 to implement this.	An effective asset management strategy, policy and plan helps councils to manage their assets appropriately over their life cycle and to make informed decisions on the allocation of resources.

Assets overview

NSW councils own and manage a significant range of assets, including infrastructure, property, plant and equipment.

At 30 June 2017, the combined carrying value of NSW council assets was as follows.

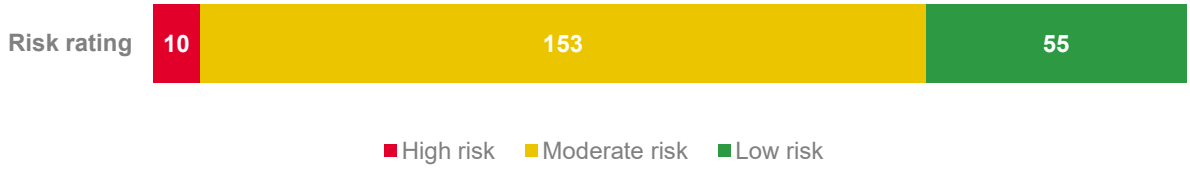
Source: Audited financial statements for 2016–17.

4.1 High risk issues

Significant matters reported to those charged with council governance

We reported ten high risk asset management issues

Our audits identified ten high risk issues related to asset practices.



Councils should address high risk issues as a priority because they can affect their ability to maintain their assets in the condition required to deliver essential services.

The high risk issues were in three areas:

- accuracy of asset registers
- restricted assets
- asset revaluations.

This chapter also discusses the need to strengthen asset depreciation practices and asset management strategies.

4.2 Asset reporting

Accuracy of asset registers

Effective asset management calls for accurate records of the assets that councils control. Our audits found that council asset registers and systems need to improve. Councils should regularly update asset registers and reconcile them with asset management systems. Suitable controls must be in place to ensure the integrity of manual spreadsheets.

Councils should improve how they manage asset registers

Asset registers record key data on the infrastructure, property, plant and equipment that a council holds. Our 2016–17 audits found:

- twenty-two examples where manual spreadsheets stored asset data without any controls to protect their integrity (discussed further in chapter 6)
- sixteen cases of multiple fixed-asset registers with inconsistent content and formats
- nine instances of inaccurate and incomplete asset registers without supporting documents
- six examples of asset registers that do not, or are not, reconciled with the asset management system used for operational activities
- five instances of completed works-in-progress not capitalised as assets on a timely basis.

Three high risk issues related to councils where multiple fixed asset registers were not reconciled and incomplete. This resulted in numerous errors identified during the audits.

Multiple and decentralised asset registers limit council's ability to manage and maintain the asset base and report on finances accurately. Manual spreadsheets increase the risk of errors in more complex asset data.

Unrecorded land and infrastructure assets

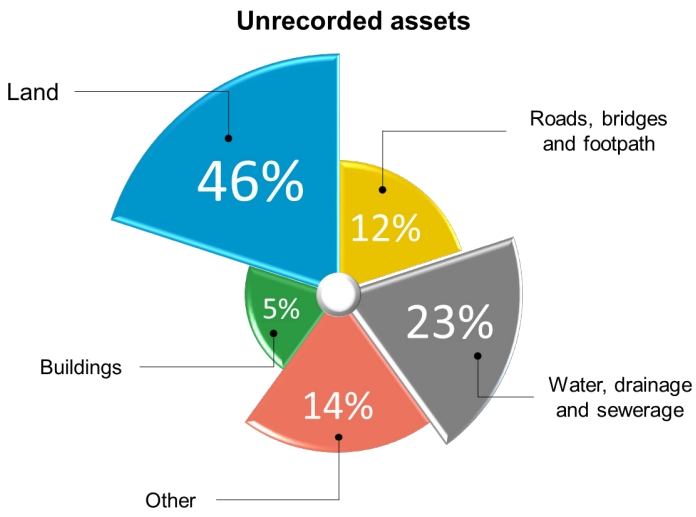
Councils had $145 million in unrecorded land and infrastructure assets

Our 2016–17 audits identified $145 million of unrecorded land and infrastructure assets at 24 councils. This is in addition to rural fire-fighting equipment not recorded by councils as discussed below.

The assets were mostly identified:

- during asset revaluations
- when reconciling asset registers and operational asset management systems
- during asset count processes to support the amalgamation of certain councils.

These assets are now recorded in the councils' 2016–17 financial statements. In eight councils, this also meant correcting the previous year's audited financial statements.



Source: Audited financial statements for 2016–17.

Rural fire-fighting equipment

A significant portion of rural fire-fighting equipment is not reported in either State government or local government financial statements

Recommendation

The Office of Local Government should address the different practices across the local government sector in accounting for rural fire-fighting equipment before 30 June 2018.

In doing so, the Office of Local Government should work with NSW Treasury to ensure there is a whole-of-government approach.

The 2016–17 Local Government Code of Accounting Practice and Financial Reporting required that council financial statements are prepared in accordance with Australian Accounting Standards. Forty-six councils did record vested rural fire-fighting equipment in their 2016–17 financial statements. However, sixty-two councils did not record these assets and, consequently, they are not reported in the financial statements of the State government or the local government.

Rural fire-fighting equipment is vested in councils under the *Rural Fires Act 1997*. This includes buildings, vehicles and other equipment used in connection with the prevention or suppression of fire. Service agreements govern the way the NSW Rural Fire Service can use these assets for fire mitigation and safety works in a council area.

NSW Treasury and the NSW Rural Fire Service are of the view that the NSW Rural Fire Service does not control rural fight-fighting equipment vested in councils. The financial statements of the NSW Total State Sector and the NSW Rural Fire Service do not include these assets.

The following factors suggest that councils control rural fire-fighting equipment:

- councils have responsibilities for fire mitigation and safety works in their area
- assets are vested in councils giving them legal ownership and title
- a council allows the NSW Rural Fire Service the use and occupancy of these assets within its council area through a service agreement
- councils are responsible for maintenance and insurance of the assets, although insurance of the vested vehicles is managed by the NSW Rural Fire Service.

4.3 Asset valuation

Seven high risk matters related to asset valuations, including two that resulted in qualified audit opinions

While having accurate asset registers is important, councils must also review the carrying value of their assets regularly so they reflect fair value.

Valuing large infrastructure assets is a complex process that needs to be well planned, managed and documented. The process should commence early in the financial year and, where used, instructions to external valuers need to clearly define the scope of work.

We found that councils need to improve their processes and controls over asset revaluations. Where experts are engaged, council management need to critically review the results to ensure they are robust.

The Office of Local Government (OLG) requires that councils comprehensively revalue each asset class on a five-year cycle. For those asset classes not subject to a comprehensive revaluation in a given year, councils must still satisfy themselves that asset values materially reflect fair value at the reporting date.

Restricted assets

Valuation methods need to consider restrictions that may affect asset values

At 30 June 2017, councils owned and managed $33.5 billion worth of land, including $17.8 billion (53 per cent) of community land and $4.1 billion (12 per cent) of land under roads.

OLG's Local Government Code of Accounting Practice and Financial Reporting (Code) sets the financial reporting requirements for councils. The Code requires councils to report assets, such as land under roads and community land, at 'fair value'.

The Hills Shire Council

The method used by the Hills Shire Council to value land under roads did not appropriately reflect restrictions on the use of this land as required by Australian Accounting Standards.

This resulted in a modified (qualified) audit opinion on its 2016–17 financial statements.

Australian Accounting Standards define 'fair value' as the current exit price to sell or transfer an asset. They require that 'fair value' measurement considers an asset's characteristics, including its condition, location and any restrictions on its sale or use. Such restrictions may be imposed by legislation, regulation or planning instrument.

Most council community land is subject to legislative zoning restrictions though a Local Environment Plan. Land under public roadways is subject to physical restrictions and legislative restrictions under the *Roads Act 1993*. Councils cannot lift these restrictions without the approval of external bodies.

Our 2016–17 audits found ten councils where the 2015–16 audited financial statements had overstated the value of land assets because the valuation of community land and land under roads did not reflect the physical and legislative restrictions on these assets. Of these, nine corrected the land values in their 2016–17 financial statements.

As a result, the reported value of community land and land under roads at these nine councils reduced by $12.1 billion from the previous years' audited financial statements. Over 90 per cent of

the reduction occurred in metropolitan councils, where the value of community land decreased by $7.8 billion and land under roads decreased by $3.5 billion.

Asset revaluations

Asset valuation processes can improve

Councils should have effective controls and procedures to support their asset valuations. Our 2016–17 audits found:

- twelve instances where council management did not sufficiently review valuation results, requiring adjustments in the financial statements
- seven cases where councils did not comprehensively revalue assets in line with the five-year cycle set by the Local Government Code of Accounting Practice and Financial Reporting
- five examples where council management did not agree on the scope and method of the required valuation with the external valuer before work was completed
- four instances where councils gave the valuer incomplete asset records, resulting in some assets being excluded
- four cases where there were no policies and procedures to support asset valuation processes
- four instances where the revaluation process did not start early enough to update the asset register and general ledger in time for year-end financial reporting
- four examples where supporting papers did not give enough detail of management's accounting treatments, judgements and assumptions underlying asset valuation.

Junee Shire Council

Junee Shire Council could not demonstrate that roads, bridges, footpaths and bulk earthworks were reported at fair value, as it did not value these asset classes during the year. The last valuation was conducted in 2012.

This led to a modified audit opinion on its 2016–17 financial statements.

4.4 Asset useful life estimates

The useful lives of road assets vary across councils

The useful life of an asset is the length of time it should be available for use. The remaining useful life is the period remaining that a council intends to use an asset, largely influenced by its physical condition. The useful life estimates determine the amount of depreciation expense reported in councils' financial statements.

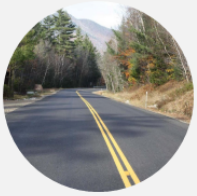
Our audits reviewed the range of useful lives that councils reported for roads. We found considerable variability in the way councils reported the useful lives of similar road assets.

Sealed roads: Surface

Metropolitan Councils - from 19 to 41 years

Regional Councils - from 16 to 40 years

Rural Councils - from 19 to 28 years



Sealed roads: Structure

Metropolitan Councils - from 97 to 116 years

Regional Councils - from 45 to 192 years

Rural Councils - from 104 to 141 years

Unsealed roads

Metropolitan Councils - approximately 12 years

Regional Councils - from 19 to 88 years

Rural Councils - from 25 to 63 years

Source: Audited financial statements for 2016–17.

Some variability in the useful lives of roads can be expected due to different soil types, methods of construction, geography and the environment. However, these differences do not fully explain the large variation in the useful lives of similar assets across councils. This variability impacts the depreciation expense calculated by councils for similar assets and reported in the financial statements. This in turn may affect the key sustainability indicators that councils report.

Useful lives of assets need to be reviewed annually considering condition assessments

Australian Accounting Standards require that councils reassess the useful lives of all assets annually. Our 2016–17 audits identified six instances where there was no annual review of assets' remaining useful lives or regular condition assessment of assets. In three instances, the useful lives of assets were not adjusted to align with the physical condition assessments.

4.5 Asset policy and planning

Effective asset management should be tied together by an effective policy and planning processes. This helps to mitigate risk, support decision-making and ensure that councils manage assets efficiently and effectively over their life cycle. It also helps councils to determine future funding needs in maintaining, renewing and extending their asset base.

Asset management strategy

Thirteen councils do not have an asset management strategy, policy and plan

In 2013, OLG released an Integrated Planning and Reporting Framework (IP&R framework). This helps councils to integrate its plans and policies and align them with its strategic goals.

A key element of the IP&R framework is that all councils have an integrated asset management strategy, policy and plan. Newly amalgamated councils have until 30 June 2018 to finalise these.

Thirteen councils do not have the required asset management strategy, policy and plan. Eleven of these are regional and rural councils.

Governance and Internal Controls

5. Governance and internal controls

Good governance systems help councils to operate effectively and comply with relevant laws and standards. Internal controls assist councils to operate reliably and produce effective financial statements.

This chapter highlights the high risk issues we found and reports on a range of governance and control areas. Governance and control issues relating to asset management and information technology are covered in separate chapters.

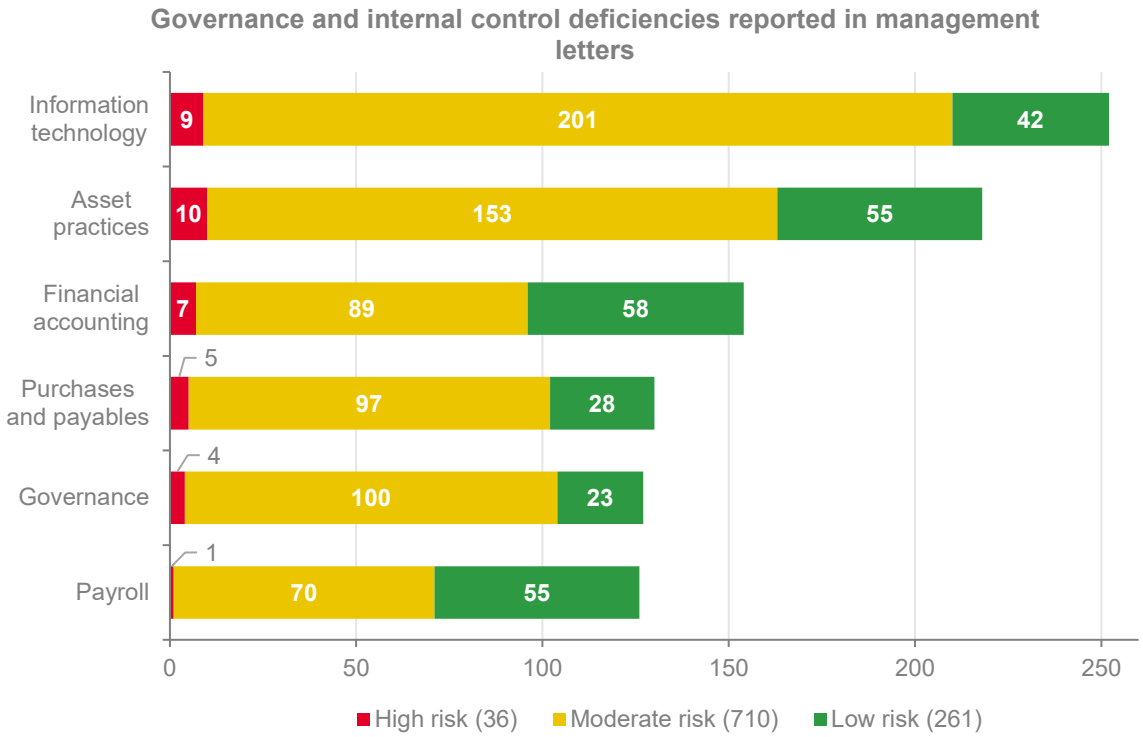
Observation	Conclusion or recommendation
5.1 High risk issues	
Significant matters reported to those charged with council governance	
Our 2016–17 audits identified 36 high risk governance and internal control deficiencies across 17 councils. We reported: • seventeen high risk issues relating to governance, purchase-to-pay, financial accounting and payroll processes • ten high risk issues relating to asset practices • nine high risk issues related to information technology management.	Asset practices accounted for the highest number of high risk issues and information technology accounted for the largest overall number of control deficiencies. These matters are covered in chapters four and six respectively. High risk issues affect council's ability to achieve their objectives and increase the risk of fraud and error.
5.2 Governance	
Audit committees	
Councils are currently not required to have an audit, risk and improvement committee. Consequently, 53 councils do not have an audit committee.	Proposed legislative changes will require councils to establish an audit, risk and improvement committee by March 2021. **Recommendation** Councils should early adopt the proposed requirement to establish an audit, risk and improvement committee.
Internal audit	
Councils are currently not required to have an internal audit function. Consequently, 52 councils do not have this function.	**Recommendation** The Office of Local Government should introduce the requirement for councils to establish internal audit functions and update its 2010 Internal Audit Guidelines.
Council entities	
The Office of Local Government's register of entities approved under section 358 of the *Local Government Act 1993* is incomplete.	**Recommendation** The Office of Local Government should maintain an accurate register of council entities approved under section 358 of the *Local Government Act 1993.*
The *Local Government Act 1993* does not stipulate a financial reporting framework for council entities.	**Recommendation** The Office of Local Government should establish a financial reporting framework for council entities.

Observation	Conclusion or recommendation
Policies and procedures	
We identified 50 high and moderate risk issues across 33 councils where policies and procedures over critical business processes did not exist or had not been updated.	It is important there are current policies, standards and guidelines available to staff and contractors across all critical business processes.
Legislative compliance frameworks	
Our audits found that 45 councils do not have sufficient processes to show they are complying with legislative requirements.	Councils can improve practices in monitoring compliance with key laws and regulations. This includes implementing a legislative compliance framework, register and policy.
Risk management	
We identified 15 high and moderate risk issues across 15 councils where risk management practices could be strengthened.	Council risk management practices are enhanced when there is a fit-for-purpose risk management framework, register and policy to outline how risks are identified, managed and monitored.
5.3 Internal controls	
Financial accounting	
We identified 45 high and moderate risk control deficiencies across 41 councils concerning the use of manual journals to adjust council financial records. This can increase the risk of fraud and error. We identified 51 high and moderate risk issues across 39 councils where reconciliation processes need to improve to support the preparation of accurate financial statements.	Sound financial accounting processes include controls to ensure: • a person other than the preparer authorises manual journals • key account reconciliations are prepared and reviewed.
Purchasing and payables	
We found 102 high and moderate risk deficiencies in purchasing and payable controls across 64 councils. Sound purchasing controls are important to minimise error, unauthorised purchases, fraud and waste.	As councils spend a substantial amount each year to procure goods and services, strong controls over purchasing and payment practices are critical. These include: • a review of changes to vendor master file data by an appropriate independent officer • an independent review and approval of purchases, including credit card transactions • compliance with Tendering Guidelines for NSW Local Government.
Payroll	
We identified 71 high and moderate risk deficiencies in payroll controls across 48 councils. Weaknesses in payroll controls could result in incorrect payments being made to employees, due to error or fraud.	Effective payroll controls are important because employee expenses represent a large portion of council expenditure. These controls include segregation of duties in the review of payroll master file data, timesheets, leave forms, payroll exception reports and termination payments.
Managing excess annual leave balances was a challenge for 32 councils.	Excessive annual leave balances can have implications on employee costs, disrupts service delivery and affect work, health and safety. Excess annual leave balances should be continuously monitored and managed.

5.1 High risk issues

Significant matters reported to those charged with council governance

During our 2016–17 audits, we identified 36 high risk governance and internal control deficiencies.



The high risk issues fell across six areas. We discuss four of these in this chapter and the remaining two in other chapters:

- information technology (see chapter 6)
- asset management (see chapter 4)
- governance
- purchasing and payables
- financial accounting
- payroll.

Councils should address high risk issues as a priority as these can increase the risk of fraud and error.

5.2 Governance

Governance refers to the frameworks, processes and behaviours that help a council achieve its objectives, comply with legislative and other requirements, and meet standards of probity, accountability and transparency.

Effective governance builds community confidence and enables the effective and efficient use of public resources. Governance models need to be fit for purpose and tailored to the needs of each council.

In 2015, the Audit Office released its Governance Lighthouse to provide a best practice model of public sector governance for entities to follow. This covers eight principles and 17 key elements of good governance. Councils may find it useful to assess existing governance practices against the key principles in the lighthouse and address any gaps they find.

While this year's financial audit did not assess every aspect of governance in councils, this report highlights our findings and observations related to:

- audit committees and internal audit
- council entities
- policies and procedures
- legislative compliance frameworks
- risk-management.

Audit committees and internal audit

The combined benefit of an audit committee and internal audit function is that councillors can obtain general assurance that internal controls and risk management are working effectively. The 36 councils that do not have an audit committee and internal audit function are operating without important safeguards and generally accepted checks and balances.

Fifty-three councils have not established an audit, risk and improvement committee

Recommendation

Councils should early adopt the proposed requirement to establish an audit, risk and improvement committee.

An effective audit, risk and improvement committee is an important part of good governance.

Councils are not currently required to have an audit, risk and improvement committee. At present, 53 councils do not have a functioning audit committee.

Changes outlined in section 428A of the *Local Government Amendment (Governance and Planning) Act 2016* will require councils to establish an audit, risk and improvement committee. This is expected to be a requirement by March 2021.

Council type	Number of councils with an audit, risk and improvement committee	Number of councils without an audit, risk and improvement committee	% without
Metropolitan	32	2	5.9
Regional	29	8	21.6
Rural	23	34	59.6
County	1	9	90.0
Total	**85**	**53**	**38.4**

Note: Mid-Coast and Southern Slopes county councils were dissolved on 1 July 2017. They have been excluded from the table.

Section 428B of the *Local Government Amendment (Governance and Planning) Act 2016* specifies that councils may jointly appoint an audit, risk and improvement committee to exercise functions for more than one council.

Fifty-two councils do not have an internal audit function

Recommendation

The Office of Local Government should introduce the requirement for councils to establish internal audit functions and update its 2010 Internal Audit Guidelines.

Internal audit is another important element of an effective governance framework as it supports a risk and compliance culture. Internal audit provides assurance that a council's governance practices and internal control environment are effective, and identifies where performance can improve.

Councils are not currently required to have an internal audit function. As the following table shows, 33 rural councils, eight county councils, eight regional councils and three metropolitan councils do not have an internal audit function. Of these councils, nine are newly amalgamated.

Council type	Number of councils with an internal audit function	Number of councils without an internal audit function	% without
Metropolitan	31	3	8.8
Regional	29	8	21.6
Rural	24	33	57.9
County	2	8	80.0
Total	**86**	**52**	**37.7**

Note: Mid-Coast and Southern Slopes county councils were dissolved on 1 July 2017 and have therefore been excluded from the table.

There are 13 councils with an internal audit function but without an audit, risk and improvement committee. An effective audit committee would complement the internal audit function and provide it with a separate reporting line independent of management.

The Office of Local Government (OLG) has not updated the Internal Audit Guidelines it released in 2010. The OLG should, at a minimum, introduce the requirement for councils to establish internal audit functions and update its 2010 Internal Audit Guidelines.

An internal audit function is mandatory for all State government agencies. A useful reference point for councils is available in TPP 15-03 Internal Audit and Risk Management Policy for the NSW Public Sector, issued by NSW Treasury.

Council entities

The Office of Local Government does not have complete information on council entities

Recommendation

The Office of Local Government should maintain an accurate register of entities approved under section 358 of the *Local Government Act 1993.*

Section 358 of the *Local Government Act 1993* (Act) specifies that councils must not form or participate in forming a corporation or other entity, or acquire a controlling interest in a corporation or other entity, except with the consent of the Minister for Local Government. These entities are referred to as ‘council entities’.

Section 415 of the Act deals with auditing of the financial statements of council entities. The definition of a council entity in section 415 includes a wide and diverse range of bodies and is consistent with the definition of entities under section 358 of the Act. Our initial audit work identified 261 entities that met the definition of a council entity.

OLG maintains a register of entities where a council has sought approval from the Minister under section 358 of the Act. The register maintained by OLG was not complete and accurate. It also did not identify what entities had been approved by the Minister.

The legislation does not clarify the financial reporting obligations of council entities

> **Recommendation**
>
> **The Office of Local Government should consider establishing a financial reporting framework for council entities.**

We found uncertainty in the legislative framework governing the oversight of council entities[5] and their financial reporting and auditing requirements. This can result in a lack of transparency and accountability over the activities of council entities.

The *Local Government Act 1993* does not require council entities to keep records or prepare financial statements. Some council entities prepare financial statements, while others do not. The financial statements of some entities are audited, where others remain unaudited.

Given this uncertainty, we sought advice from the NSW Crown Solicitor about the Auditor-General's obligations under the Act. This confirmed that arrangements for council entities under the Act need clarification. Appendix 11 attaches this advice.

Policies and procedures

Formal policies and procedures support effective governance and internal control as they:

- provide direction for the day-to-day operations of a council
- promote consistency
- clarify accountability and other issues to staff and management
- support compliance with laws, regulations and codes.

Policies and procedures are not always in place or kept up to date

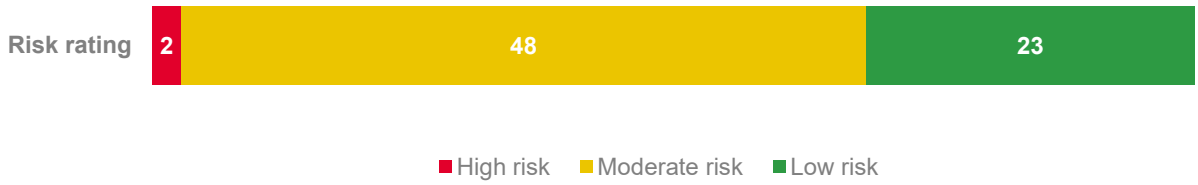
Councils need to ensure that policies, standards and guidelines are available to staff and contractors across all critical business processes, and that they are reviewed and updated regularly, including when significant changes occur.

Our financial audits did not review all council policies and procedures, but looked at whether policies and procedures for critical business processes exist and are updated. We found 73 cases across 47 councils where policies and procedures did not exist or had not been updated for:

- financial management
- information technology
- procurement
- contract management.

[5] Section 358(4) of the *Local Government Act 1993* defines entity as 'any partnership, trust, joint venture, syndicate or other body (whether or not incorporated), but does not include any such entity that is of a class prescribed by the regulations as not being within this definition'.

Of the 73 issues, two were high risk, 48 were moderate risk and 23 were rated low risk.



The two high risk issues were:

- one council without any policies for numerous critical business processes, including payroll, purchases, property, plant and equipment and revenue
- one council with no IT strategic plan, disaster recovery plan, business continuity plan and only limited IT operating procedures.

Legislative compliance frameworks

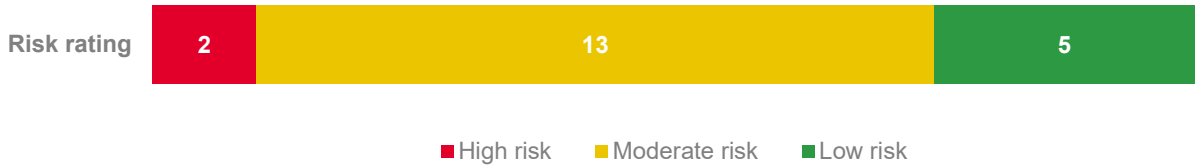
Councils need to improve practices to comply with key laws and regulations

Our audits found 45 councils do not have a legislative compliance framework, which would include a compliance policy and compliance register. Without these, there is an increased risk that councils may breach legislative requirements. This can attract penalties, affect service delivery and cause significant reputational damage.

A compliance framework needs to be suited to the size of a council, but sufficient to help it comply with key legislative obligations. We reported this as a moderate risk at 43 councils and a low risk at two councils.

Risk management

While our financial audits are not designed to assess every aspect of risk management, we did identify 20 instances in 17 councils where risk management practices could be strengthened. Two of these were high risk, 13 were moderate risk and five were low risk.



Councils should address the high risk issues as a priority because they may affect their ability to achieve their objectives or comply with relevant legislation.

The high risk issues related to:

- one council where high-rated risks were identified on the risk register but there was no indication of how the risks were being managed. In addition, roles and responsibilities for risk management were not clearly defined
- one council where fraud-related risks identified by management were not being addressed.

The remaining moderate and low risk issues related to the lack of, or out-dated, risk management frameworks, risk registers and/or policies and procedures. Of the 20 issues identified in risk management practices, 14 related to rural councils.

Councils may find it useful to assess their risk management practices using the Audit Office's Risk Maturity Toolkit. The toolkit is based on the principles and guidance of International Standards on Risk Management AS/NZS ISO 31000:2009 Risk Management and NSW Treasury Policy Guidelines TPP 12-03 and TPP 15-03. The risk management toolkit needs to be applied in a way that is fit for purpose, considering the size and complexity of each council.

5.3 Internal controls

Our financial audits focus on key internal controls that underpin the financial statements that councils prepare each year. Our audits assess whether key internal controls are designed, implemented and operating effectively to manage the risk of material error in the financial statements.

We report any control deficiencies we find to management and those charged with governance of a council through our audit management letters.

Financial accounting

The two main financial control weaknesses we found related to manual journals and reconciliations. A high proportion of these weaknesses were of moderate risk.

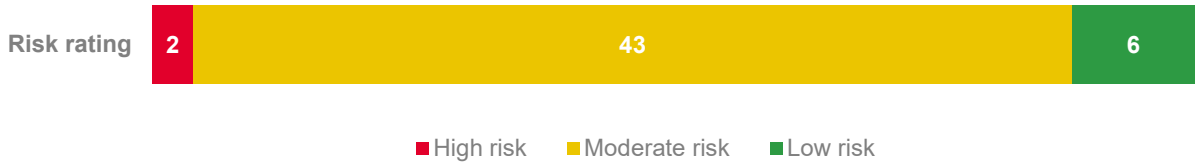
Councils can improve internal controls for manual journals

Staff use manual journals to make changes directly to the general ledger, which supports the preparation of council financial statements. Unlike IT controls, which are typically automated, most manual journals rely on human intervention and oversight. Using manual journal entries without appropriate controls and oversight can increase the risk of error and fraud.

Our audits found 51 cases in 43 councils where there were control weaknesses around manual journals. These included:

- manual journals not reviewed by an independent officer
- the finance system not preventing the same officer from posting and approving manual journals
- inadequate supporting documentation for manual journals posted
- staff with access to process manual journals beyond their job requirements.

Of the 51 cases, two were considered high risk, 43 of moderate risk and six low risk.



The high risk issues related to:

- one case where journals were posted to incorrect accounts and this had a significant impact on the financial statements. It could have been prevented if there was an appropriate review of the journals
- one case where journals could be posted without review by another officer. This was classified high risk, as fraud had been committed at this council in the past.

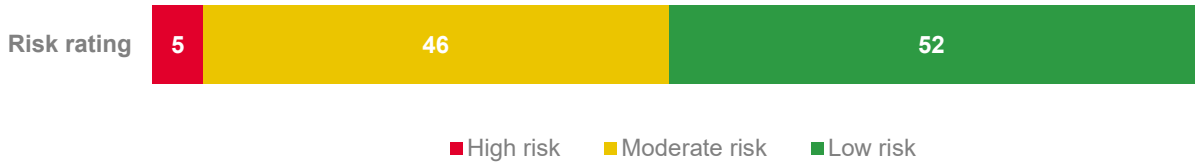
Councils should reconcile their accounts timely and review them independently

Councils need to improve processes in preparing and reviewing account reconciliations.

Council financial statements are based on information in the general ledger. Balances are often supported by information in subsidiary ledgers, such as for:

- accounts payable
- accounts receivable
- fixed assets
- payroll.

It is important that councils periodically reconcile the general ledger with these subsidiary ledgers to confirm that data is accurate and complete. Our audits found 103 deficiencies across 61 councils relating to key account reconciliations. Five were high-risk, 46 of moderate risk and 52 low risk.



The issues included:

- reconciliations not prepared for key account balances
- reconciliations not reviewed in a timely manner by an appropriate officer
- long-outstanding reconciling items remaining unresolved for long periods.

The deficiencies were assessed as high risk if they could significantly affect the councils' financial statements.

If key account reconciliations are not prepared and reviewed promptly, management's ability to identify and resolve issues is affected. That could result in misstatements in financial reporting.

Purchasing and payables

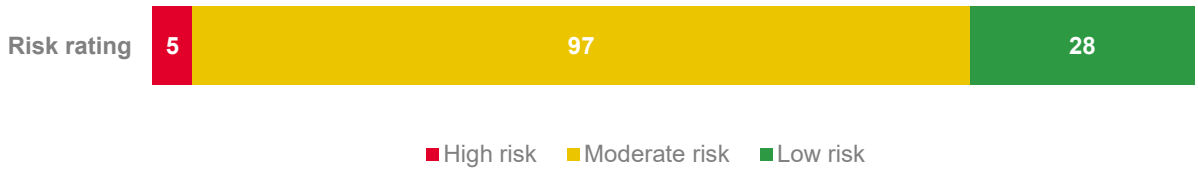
Councils purchase significant amounts of goods and services each year. In 2016–17, for example, councils collectively spent:

- $3.5 billion to acquire property, plant and equipment
- $3.9 billion on supplies, services and other general expenditure.

Seventy-six councils need to improve purchasing and payables controls

Sound controls for purchasing and payment functions are important to minimise the risk of unauthorised purchases, fraudulent activity and waste. For example, the report from the recent Independent Commission Against Corruption (ICAC) investigation into the conduct of employees at the former City of Botany Bay Council highlighted serious, systemic failures in procurement practices and internal controls. This led to financial loss and reputational damage.

Our audits identified 130 internal control weaknesses related to the purchasing and payables process across 76 councils. Five were high risk, 97 of moderate-risk, and 28 rated low risk.



The high risk issues related to:

- unauthorised expenditure, or expenditure approved by an officer without the necessary delegation
- non-compliance with Tendering Guidelines for NSW Local Government.

The moderate and low risk matters span these same issues but also included:

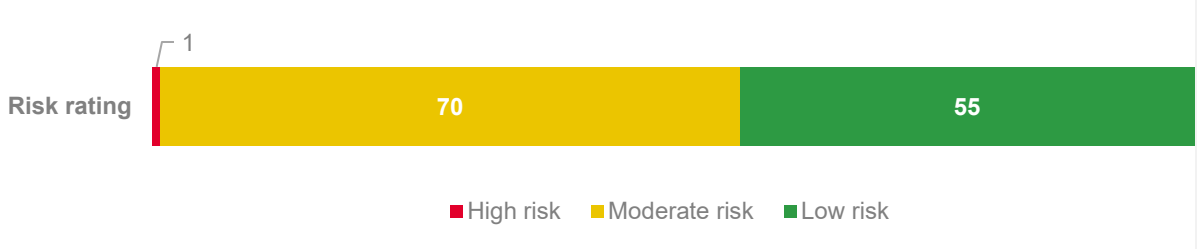
- purchase orders raised only after the goods or services were received and paid for
- reports designed to detect irregular or unusual changes that were not reviewed
- inadequate segregation of duties in the purchases and payables function
- inadequate review of credit card transactions and retention of supporting documents
- lack of review of changes to vendor master file data
- purchase orders not raised at all.

Payroll

Councils need to have effective payroll controls because employee expenses represent a large portion of their total expenditure. Weaknesses in payroll controls could result in incorrect payments to employees due to either error or fraud.

Seventy-two councils need to improve payroll controls

Our audits identified 126 internal control weaknesses related to payroll processes at 72 councils. One was assessed as high risk, 70 moderate risk and 55 rated low risk.



The high risk issue involved a council where payroll staff had unrestricted access to amend sensitive payroll data in the system. There were no mitigating controls as:

- system logs detailing changes to employee details were not generated
- exception reports which can be used to identify unusual changes in pay details were not reviewed by an officer independent of the payroll team.

Common issues from the remaining moderate and low risk deficiencies included:

- no review of changes to details in the payroll master file
- unapproved staff timesheets
- unapproved staff leave forms
- payroll exception reports not reviewed
- termination payments not reviewed.

Managing excess annual leave is a challenge for some councils

Under the Local Government Award, council employees should have less than eight weeks of annual leave accrued at any time.

We identified staff with annual leave balances greater than eight weeks at 32 councils.

There are several implications of excessive leave balances, including:

- higher employee costs in the future due to salary increases
- work, health and safety implications
- disruptions to service delivery when employees eventually take lengthy periods of leave
- employee fraud remaining undetected.

Information Technology

6. Information technology

Like most public sector agencies, councils increasingly rely on information technology (IT) to deliver services and manage sensitive information. While IT delivers considerable benefits, it also presents risks that councils need to address.

Our review of council IT systems focused on understanding the processes and controls that support the integrity, availability and security of the data used to prepare financial statements. This chapter outlines issues in three broad areas:

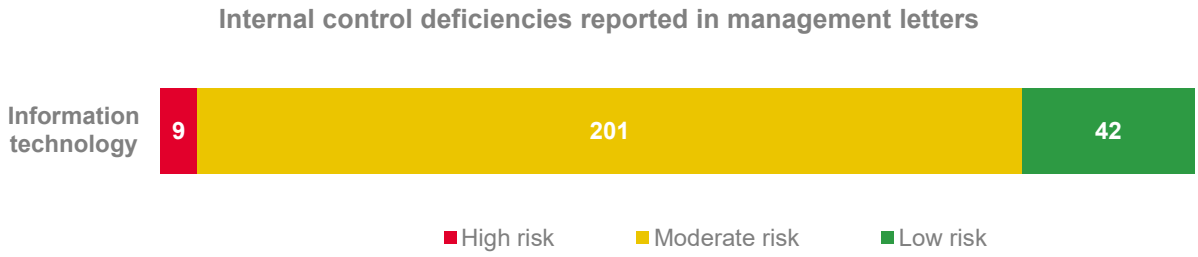
- high risk issues
- access to IT systems
- IT governance.

Observation	Conclusion
6.1 High risk issues	
Significant matters reported to those charged with council governance	
Our 2016–17 audits identified nine high risk IT control deficiencies across seven councils. The issues related to user access controls, privileged access controls and user developed applications.	High risk issues affect council's ability to achieve their objectives and increase the risk of fraud and error.
6.2 Access to IT systems	
User access controls	
We identified 107 issues across 56 councils where user access controls could be strengthened.	Inadequate IT policies and controls around user access, including privileged access, increases the risk of individuals having excessive or unauthorised access to critical financial systems and data.
Privileged access	
We identified 86 examples across 64 councils of inappropriate privileged access, inadequate review of access and insufficient retention and review of access logs.	
User developed applications	
User developed applications (UDAs) are computing applications, tools and processes developed or managed outside IT administration. UDAs may allow users to bypass formal user access controls. Our audits found 22 councils using spreadsheets for business operations, decision making and financial reporting that were not adequately secured, with changes that were not tracked, tested or reviewed. We also identified five councils where finance staff and senior management use database query tools to directly modify financial data, circumventing system-based business process controls.	It is important councils are aware of all circumstances they are relying on UDAs to limit the risk of errors and potential misuse. This allows councils to: • transition UDA functions to internal systems where possible • ensure UDAs are adequately controlled where they continue to use them • regularly review access rights to UDAs and back-up business-critical information.

Observation	Conclusion
6.3 IT governance	
Strategy, policies and procedures	
Around one in four councils do not have an IT strategy or operational plan. Some councils also need to develop or improve IT policies and procedures. Sixty-six councils do not have an adequate information security policy.	IT governance is enhanced where there is: • a fit-for-purpose IT strategy and operational plan • appropriate policies, standards and guidelines across all critical IT processes • a formally defined process to support security and access to all systems.
Disaster recovery and business continuity	
Our audits identified that 17 councils do not have a documented plan to recover critical business functions in the event of a disaster. The ability to restore data from backups is critical to ensure business continuity in the face of a system disaster. We also found that 15 councils do not periodically test their ability to restore backups of data relevant to financial reporting.	Sound management of disaster recovery and business continuity includes: • a documented plan for how critical business functions will be recovered in the event of a disaster, which is periodically reviewed and tested • the ability to restore backed-up data, which is periodically tested. We expect to focus on these areas in our future audits.

6.1 High risk issues

Our audits reported nine high risk information technology control issues in our audit management letters to councils.



Councils should address high risk issues as a priority as these can increase the risk of fraud and error. The high risk issues fell into three areas:

- user access controls
- privileged access controls
- user developed applications.

The chapter rounds out with some findings on IT governance.

6.2 Access to IT systems

User access controls

Access controls are informally documented and inconsistently applied

Our audit found that controls over user access at 38 councils were insufficient, or the councils could not provide evidence that their controls were operating effectively.

User access controls should ensure that individuals only have access to financial systems and data necessary to undertake their job responsibilities.

Councils need to have effective policies and procedures to create, modify and deactivate user access to minimise the risk of individuals having excessive or unauthorised access.

Our audits sought to confirm the effectiveness of user access administration over key financial systems against these principles. Where we found issues, these were mostly moderate rather than high risk because councils had mitigating controls in place.

Effective user access control involves the following good practice:

- Clear policies and procedures
- Formal approval to establish and modify user accounts
- Removal of access when no longer required
- Regular review of user access
- Password parameters in line with good practice
- Clear records of user access.

We identified staff at 35 councils with access to systems beyond what their job requires.

In three councils, the risks were high because there were only limited mitigating controls. In each case, we were required to perform extra audit procedures. These three councils have remediation plans in place, which we will review during our next audit.

We also found that 30 councils need to strengthen their password parameters for financial reporting systems.

Privileged access

Privileged access occurs when a person can change key system configurations and has wide access to system data, files and accounts. Our audits found examples of inappropriate privileged access, inadequate review and insufficient retention of access logs to monitor the activities of privileged system users.

To minimise the risk of individuals having inappropriate access to IT systems, councils need to strengthen their policies and procedures over privileged user access.

Staff and third-party contractors had unmonitored access to some council systems

Privileged access controls should follow the same good practice principles as general access controls discussed above. However, the impact of poor administration of privileged access controls can be greater than general access controls, because privileged access enables greater control over key IT systems.

Access to IT systems should be granted using the principle of 'least privilege'. This means that system users should only have the system access privileges needed to perform their job, and no-one should have ongoing access to highly privileged functions unless their job demands it.

Where individuals have privileged access, independent oversight should detect and rectify any inappropriate activity. Activity logs of users with privileged access should be reported to someone in a position of authority who is independent of the IT team.

Our audits found:

- IT staff, finance staff and senior management at 22 councils with inappropriate access to privileged finance applications and council data. They could bypass system-based controls or make direct changes to financial data
- fifty-six councils where there is no review of access and usage for users with highly privileged system access
- eleven councils where highly privileged generic user accounts were shared between staff and third-party contractors, limiting the effectiveness of any audit logs
- nine councils with no audit logs detailing the activity of privileged users
- two councils where audit logs were not reviewed or secured
- one council where IT staff could develop and implement changes to financial systems without any authorisation and oversight.

At five councils, these observations were high risk due to a combination of weaknesses. As a result, we were required to perform extra audit procedures to address the risk. These councils also have remediation plans in place, which we will review during our next audit.

Access controls over third-party service providers needs to be strengthened

Most councils rely on third-party service providers for IT administration support. This can be from the vendor of key council systems or an independent IT contractor. Councils need to ensure their existing risk management framework provides assurance for controls over IT outsourcing.

Our audits identified:

- nine councils where there were third parties with unrestricted and unmonitored access to council systems and data
- three councils that had cloud-based financial reporting systems where the council has no assurance that key controls at the service provider are operating effectively
- one council where there was significant reliance on the systems, knowledge and expertise of third parties with no plan should these services be withdrawn.

These examples presented a moderate risk given mitigating controls in place.

User developed applications

User developed applications (UDAs) are computing applications, tools and processes that are developed or managed outside IT administration. These pose extra risks because controls used by internal IT systems may be absent.

User developed applications allow users to bypass user access controls

Councils commonly use UDAs such as spreadsheets, databases and reporting tools in day-to-day operations. There may be internally developed workarounds when a vendor-supplied solution is absent or too expensive to implement.

Reasons why councils might use UDA tools include that they can:

- allow users to interact with council data directly and independently
- be developed cheaply and quickly compared to system enhancements that use a more traditional system development lifecycle.

At the same time, UDAs can pose significant risks. They can lack the traditional controls of a formally deployed business application, and often sit outside the defined control environment. Over time, their original purpose can be lost and their use and complexity can expand. This increases the risk of errors or intentional misuse.

Because of these risks, councils should consider migrating from UDAs to internal IT systems wherever possible. Where this is not feasible, they should implement mitigating controls such as:

- ensuring that UDAs are subject to the council's software development lifecycle requirements for specification, design, building, testing and maintenance
- reviewing and updating policies for user access controls and ensuring assigned access rights to UDAs are appropriate and periodically reviewed
- ensuring all business-critical UDAs are backed up regularly and their recoverability tested.

Our audits found:

- twenty-two councils where spreadsheets were used for business operations, decision making and financial reporting that were not adequately secured, with changes that were not tracked, tested or reviewed. Examples included the calculation of development application fees and depreciation
- five councils where finance staff and senior management had inappropriate access, using database query tools to directly modify financial data in database tables, circumventing system-based business process controls.

These observations were mostly classed as moderate risk as there were mitigating controls in place. However, it was a high risk issue at one council because of the importance of the data maintained in spreadsheets and the lack of access and version controls.

6.3 Information technology governance

IT governance refers to the strategies and frameworks, polices and processes that councils use to oversee and manage IT risks.

Strategy, policies and procedures

One in three councils do not have an IT strategy or operational plan

An IT strategy and an operational plan are important for achieving the best use of IT resources.

An IT strategy links technology use to the wider objectives of a council. It needs to be fit for purpose and take into account the size and complexity of a particular council.

An IT operational plan sets out the day-to-day tasks, time frames, responsibilities and resources needed to realise the goals of an IT strategy.

Thirty-one councils did not have an IT strategy or operational plan.

Effective IT governance is strengthened when:

- There is an IT strategy and operational plan in place that is fit for purpose and suits the size and complexity of the council
- Appropriate policies (such as an information security policy), standards and guidelines are available to staff and contractors across all critical IT processes. These are reviewed and updated periodically, including when significant system or process changes occur
- There are processes to consider, capture and monitor IT risks that would affect operations.

We also found that 16 councils had an IT operational plan but not an IT strategy. Without an IT strategy, there is a risk that IT investment is not aligned with council priorities. Some councils need to develop or improve IT policies and procedures.

Clear and well-defined IT policies and procedures help organisations to implement their strategies and plans. Our audits found the following issues across 33 councils:

- twenty-four councils without formal IT policies and procedures over IT security, change management, disaster recovery and/or business continuity
- seventeen councils without a formal and defined process to appropriately support access management for financial reporting systems
- seventeen councils that need to strengthen existing policies and procedures for IT security, change management or disaster recovery
- two councils that had not reviewed or updated IT policies and procedures in several years.

Over half of councils do not have an information security policy

We identified that 66 councils do not have a formal information security policy. Without this, councils are likely to rely on the knowledge, risk appetite and diligence of individual staff to maintain the security of key IT systems. All councils should have a formally defined process to support the security of and access to all systems.

On 2 March 2018, the Audit Office tabled a performance audit report on 'Detecting and responding to cyber security incidents'. Cyber security incidents can harm government service delivery and may include theft of personal information, denial of access to critical technology, or even the hijacking of systems for profit or malicious intent. Recent global and national security incidents highlight the importance for councils to have systems and processes for detecting and responding effectively to security incidents.

Disaster recovery and business continuity

Councils can improve backup, disaster recovery and business continuity controls

The ability to restore data from valid backups is critical to ensure business continuity. Without it, councils may be unable to continue providing essential public services in the face of a system disaster.

Councils need to thoroughly assess their business systems and documented plan outlining how critical business functions will be recovered in the event of a disaster. Once plans are in place, they then need to be reviewed and tested regularly. The ability to restore backed-up data should also be periodically tested.

We found that 17 councils do not have a documented plan to recover from a disaster. We also found that 15 councils do not periodically test their ability to restore backups of data relevant to financial reporting.

Without these measures, there may not be a clear process to minimise the impact of a significant incident interrupting critical business functions to ensure the continued delivery of services.

We expect to focus on these areas in our future audits.

Appendices

Appendix one – Response from the Office of Local Government

Strengthening local government

NSW GOVERNMENT | Office of Local Government

5 O'Keefe Avenue NOWRA NSW 2541
Locked Bag 3015 NOWRA NSW 2541

Our Reference: A586791
Your Reference:
Contact: Performance Team
Phone: 02 4428 4100

Ms Margaret Crawford
Auditor-General of New South Wales
Audit Office of New South Wales
GPO Box 12
SYDNEY NSW 2001

Dear Ms Crawford

Thank you for your letter dated 23 March 2018 and for the opportunity to respond to your proposed Local Government 2017 report to Parliament.

The Office of Local Government welcomes the contribution from the Audit Office towards strengthening governance, financial management and reporting in the local government sector and notes your findings and recommendations.

We look forward to continuing work with the Audit Office in the future.

Yours sincerely

Tim Hurst
Acting Chief Executive
Office of Local Government
19/4/18

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Appendix two – List of recommendations

The table below lists the recommendations made in this report.

Financial reporting

Quality of financial reporting	Councils can improve the quality of financial reporting by reviewing their financial statements close processes to identify areas for improvements. Councils can improve the quality of financial reporting by involving an audit, risk and improvement committee in the review of financial statements. The Office of Local Government should release the Local Government Code of Accounting Practice and Financial Reporting and the End of Year Financial Reporting Circular earlier in the audit cycle, ideally by 30 April each year. The Local Government Code of Accounting Practice and Financial Reporting should align with Australian Accounting Standards.
Timeliness of financial reporting	The Office of Local Government should introduce early close procedures with an emphasis on asset valuations.

Asset management

Recognition and asset useful life estimates	The Office of Local Government should address the different practices across the local government sector in accounting for rural fire-fighting equipment before 30 June 2018. In doing so, the Office of Local Government should work with NSW Treasury to ensure there is a whole-of-government approach.

Governance and internal controls

Governance	Councils should early adopt the proposed requirement to establish an audit, risk and improvement committee. The Office of Local Government should introduce the requirement for councils to establish internal audit functions and update its 2010 Internal Audit Guidelines. The Office of Local Government should maintain an accurate register of entities approved under section 358 of the *Local Government Act 1993.* The Office of Local Government should consider establishing a financial reporting framework for council entities.

Appendix three – Sources of information and council classifications

Sources of information

This report comments on the results of audits completed on the 2016–17 financial statements of 139 councils and two water authorities and the completed audits of eight councils' and three water authorities' 2015–16 financial statements. The audit of one council's 2016–17 financial statements is ongoing as the council received a lodgement extension from the Office of Local Government.

In addition to the audited financial statements, the comments and analysis in this report has been drawn from:

- data collected from councils
- audit findings reported to councils
- data from external sources, including population, kilometres of roads, and council area data from the Australian Bureau of Statistics and the Office of Local Government.

Council classifications

We adopted the following methodology when classifying councils in our report.

OLG classification	Audit Office grouping
Metropolitan	Metropolitan
Regional Town/City	Regional
Metropolitan Fringe	Metropolitan
Rural	Rural
Large Rural	Rural

Source: OLG classifications and Audit Office of New South Wales.

Below is a list of councils and county councils by classification.

Council classifications

Local councils	OLG classification	Classification in this report
Albury City Council	Regional Town/City	Regional
Armidale Regional Council	Regional Town/City	Regional
Ballina Shire Council	Regional Town/City	Regional
Balranald Shire Council	Rural	Rural
Bathurst Regional Council	Regional Town/City	Regional
Bayside Council	Metropolitan	Metropolitan
Bega Valley Shire Council	Regional Town/City	Regional
Bellingen Shire Council	Large Rural	Rural
Berrigan Shire Council	Large Rural	Rural
Blacktown City Council	Metropolitan	Metropolitan
Bland Shire Council	Large Rural	Rural
Blayney Shire Council	Large Rural	Rural
Blue Mountains City Council	Metropolitan Fringe	Metropolitan

Local councils	OLG classification	Classification in this report
Bogan Shire Council	Rural	Rural
Bourke Shire Council	Rural	Rural
Brewarrina Shire Council	Rural	Rural
Broken Hill City Council	Regional Town/City	Regional
Burwood Council	Metropolitan	Metropolitan
Byron Shire Council	Regional Town/City	Regional
Cabonne Council	Large Rural	Rural
Camden Council	Metropolitan Fringe	Metropolitan
Campbelltown City Council	Metropolitan Fringe	Metropolitan
City of Canada Bay Council	Metropolitan	Metropolitan
Canterbury Bankstown Council	Metropolitan	Metropolitan
Carrathool Shire Council	Rural	Rural
Central Coast Council	Metropolitan Fringe	Metropolitan
Central Darling Shire Council	Rural	Rural
Cessnock City Council	Regional Town/City	Regional
Clarence Valley Council	Regional Town/City	Regional
Cobar Shire Council	Large Rural	Rural
Coffs Harbour City Council	Regional Town/City	Regional
Coolamon Shire Council	Rural	Rural
Coonamble Shire Council	Rural	Rural
Cootamundra-Gundagai Regional Council	Large Rural	Rural
Cowra Shire Council	Large Rural	Rural
Cumberland Council	Metropolitan	Metropolitan
Dubbo Regional Council	Regional Town/City	Regional
Dungog Shire Council	Large Rural	Rural
Edward River Council	Large Rural	Rural
Eurobodalla Shire Council	Regional Town/City	Regional
Fairfield City Council	Metropolitan	Metropolitan
Federation Council	Large Rural	Rural
Forbes Shire Council	Large Rural	Rural
Georges River Council	Metropolitan	Metropolitan
Gilgandra Shire Council	Rural	Rural
Glen Innes Severn Council	Large Rural	Rural
Goulburn Mulwaree Council	Regional Town/City	Regional
Greater Hume Shire Council	Large Rural	Rural
Griffith City Council	Regional Town/City	Regional
Gunnedah Shire Council	Large Rural	Rural
Gwydir Shire Council	Large Rural	Rural
Hawkesbury City Council	Metropolitan Fringe	Metropolitan

Local councils	OLG classification	Classification in this report
Hay Shire Council	Rural	Rural
Hills Shire Council, The	Metropolitan Fringe	Metropolitan
Hilltops Council	Large Rural	Rural
Hornsby, The Council of the Shire of	Metropolitan Fringe	Metropolitan
Hunters Hill, The Council of the Municipality of	Metropolitan	Metropolitan
Inner West Council	Metropolitan	Metropolitan
Inverell Shire Council	Large Rural	Rural
Junee Shire Council	Large Rural	Rural
Kempsey Shire Council	Regional Town/City	Regional
Kiama, the Council of the Municipality of	Regional Town/City	Regional
Ku-ring-gai Council	Metropolitan	Metropolitan
Kyogle Council	Large Rural	Rural
Lachlan Shire Council	Large Rural	Rural
Lake Macquarie City Council	Regional Town/City	Regional
Lane Cove Municipal Council	Metropolitan	Metropolitan
Leeton Shire Council	Large Rural	Rural
Lismore City Council	Regional Town/City	Regional
Lithgow Council, City of	Regional Town/City	Regional
Liverpool City Council	Metropolitan	Metropolitan
Liverpool Plains Shire Council	Large Rural	Rural
Lockhart Shire Council	Rural	Rural
Maitland City Council	Regional Town/City	Regional
Mid-Coast Council	Regional Town/City	Regional
Mid-Western Regional Council	Regional Town/City	Regional
Moree Plains Shire Council	Large Rural	Rural
Mosman Municipal Council	Metropolitan	Metropolitan
Murray River Council	Large Rural	Rural
Murrumbidgee Council	Rural	Rural
Muswellbrook Shire Council	Large Rural	Rural
Nambucca Shire Council	Large Rural	Rural
Narrabri Shire Council	Large Rural	Rural
Narrandera Shire Council	Large Rural	Rural
Narromine Shire Council	Large Rural	Rural
Newcastle City Council	Regional Town/City	Regional
North Sydney Council	Metropolitan	Metropolitan
Northern Beaches Council	Metropolitan	Metropolitan
Oberon Council	Large Rural	Rural
Orange City Council	Regional Town/City	Regional

Local councils	OLG classification	Classification in this report
Parkes Shire Council	Large Rural	Rural
Parramatta Council, City of	Metropolitan	Metropolitan
Penrith City Council	Metropolitan Fringe	Metropolitan
Port Macquarie-Hastings Council	Regional Town/City	Regional
Port Stephens Council	Regional Town/City	Regional
Queanbeyan-Palerang Regional Council	Regional Town/City	Regional
Randwick City Council	Metropolitan	Metropolitan
Richmond Valley Council	Regional Town/City	Regional
Ryde City Council	Metropolitan	Metropolitan
Shellharbour City Council	Regional Town/City	Regional
Shoalhaven City Council	Regional Town/City	Regional
Singleton Council	Regional Town/City	Regional
Snowy Monaro Regional Council	Regional Town/City	Regional
Snowy Valleys Council	Large Rural	Rural
Strathfield Municipal Council	Metropolitan	Metropolitan
Sutherland Shire Council	Metropolitan	Metropolitan
Sydney, Council of the City of	Metropolitan	Metropolitan
Tamworth Regional Council	Regional Town/City	Regional
Temora Shire Council	Large Rural	Rural
Tenterfield Shire Council	Large Rural	Rural
Tweed Shire Council	Regional Town/City	Regional
Upper Hunter Shire Council	Large Rural	Rural
Upper Lachlan Shire Council	Large Rural	Rural
Uralla Shire Council	Large Rural	Rural
Wagga Wagga City Council	Regional Town/City	Regional
Walcha Council	Rural	Rural
Walgett Shire Council	Large Rural	Rural
Warren Shire Council	Rural	Rural
Warrumbungle Shire Council	Large Rural	Rural
Waverley Council	Metropolitan	Metropolitan
Weddin Shire Council	Rural	Rural
Wentworth Shire Council	Large Rural	Rural
Willoughby City Council	Metropolitan	Metropolitan
Wingecarribee Shire Council	Regional Town/City	Regional
Wollondilly Shire Council	Metropolitan Fringe	Metropolitan
Wollongong City Council	Regional Town/City	Regional
Woollahra Municipal Council	Metropolitan	Metropolitan
Yass Valley Council	Large Rural	Rural

Source: OLG classifications and Audit Office of New South Wales.

County councils

County council	Geographical region	Classification in this report
Castlereagh-Macquarie County Council	Far West	County
Central Murray County Council	Riverina Murray	County
Central Tablelands County Council	Central West and Orana	County
Goldenfields Water County Council	Riverina Murray	County
Hawkesbury River County Council	Metropolitan Sydney	County
Mid-Coast County Council*	Hunter	County
New England Tablelands County Council	New England North West	County
Riverina Water County Council	Riverina Murray	County
Rous County Council	North Coast	County
Southern Slopes County Council*	South East and Tablelands	County
Upper Hunter County Council	Hunter	County
Upper Macquarie County Council	Central West and Orana	County

* Mid-Coast and Southern Slopes county councils were dissolved on 1 July 2017.

Source: OLG classifications and Audit Office of New South Wales.

Appendix four – Councils amalgamated in 2016

Newly amalgamated council	Former councils	Date of amalgamation
Armidale Regional Council		**12 May 2016[1]**
	Armidale Dumaresq Council	
	Guyra Shire Council	
Bayside Council		**9 September 2016[3]**
	City of Botany Bay Council	
	Rockdale City Council	
Canterbury-Bankstown Council		**12 May 2016[1]**
	Bankstown City Council	
	Canterbury City Council	
Central Coast Council		**12 May 2016[1]**
	Gosford City Council	
	Wyong Shire Council	
City of Parramatta Council		**12 May 2016[2]**
	Parramatta City Council	
	The Hills Shire Council	
	Auburn City Council	
	Holroyd City Council	
	Hornsby Shire Council	
Cootamundra-Gundagai Council		**12 May 2016[1]**
	Cootamundra Shire Council	
	Gundagai Shire Council	
Cumberland Council		**12 May 2016[2]**
	Parramatta City Council	
	Auburn City Council	
	Holroyd City Council	
Dubbo Regional Council		**12 May 2016[1]**
	Dubbo City Council	
	Wellington Council	
Edward River Council		**12 May 2016[1]**
	Conargo Shire Council	
	Deniliquin Council	
Federation Council		**12 May 2016[1]**
	Corowa Shire Council	
	Urana Shire Council	

Newly amalgamated council	Former councils	Date of amalgamation
Georges River Council		**12 May 2016[1]**
	Hurstville City Council	
	Kogarah City Council	
Hilltops Council		**12 May 2016[1]**
	Boorowa Council	
	Harden Shire Council	
	Young Shire Council	
Inner West Council		**12 May 2016[1]**
	Ashfield Council	
	Leichhardt Municipal Council	
	Marrickville Council	
Mid-Coast Council		**12 May 2016[1]**
	Gloucester Shire Council	
	Great Lakes Council	
	Greater Taree City Council	
Murray River Council		**12 May 2016[1]**
	Murray Shire Council	
	Wakool Shire Council	
Murrumbidgee Council		**12 May 2016[1]**
	Jerilderie Shire Council	
	Murrumbidgee Shire Council	
Northern Beaches Council		**12 May 2016[1]**
	Manly Council	
	Pittwater Council	
	Warringah Council	
Queanbeyan-Palerang Regional Council		**12 May 2016[1]**
	Palerang Council	
	Queanbeyan City Council	
Snowy Monaro Regional Council		**12 May 2016[1]**
	Bombala Council	
	Cooma-Monaro Shire Council	
	Snowy River Shire Council	
Snowy Valleys Council		**12 May 2016[1]**
	Tumbarumba Shire Council	
	Tumut Shire Council	

1 Local Government (Council Amalgamations) Proclamation 2016 dated 12 May 2016.

2 Local Government (City of Parramatta and Cumberland) Proclamation 2016 dated 12 May 2016.

3 Local Government (Bayside) Proclamation 2016 dated 9 September 2016.

Appendix five – Status of audits

Below is a summary of the status of the 2016–17 and 2015–16 financial statement audits, including the type of audit opinion and the date it was issued.

2016–17 audits

Key

Type of audit opinion		Date of audit opinion	
Unmodified opinion.	✔	Financial statements were lodged by the statutory deadline of 31 October 2017.	✔
Unmodified opinion with emphasis of matter.	⊖	Extensions to the statutory deadline (and met).	✔
Modified opinion: Qualified opinion, an adverse opinion, or a disclaimer of opinion.	!	Financial statements not submitted as at tabling date.	✖
Audit report not yet issued.			

Local council	Type of audit opinion		Date of audit opinion	
Albury City Council	Unmodified	✔	23 October 2017	✔
Armidale Regional Council	Unmodified	✔	7 December 2017	✔
Ballina Shire Council	Unmodified	✔	26 October 2017	✔
Balranald Shire Council	Unmodified	✔	31 October 2017	✔
Bathurst Regional Council	Unmodified	✔	23 October 2017	✔
Bayside Council[6]	Not yet issued	!	Not yet issued	✖
Bega Valley Shire Council	Unmodified	✔	31 October 2017	✔
Bellingen Shire Council	Unmodified	✔	25 October 2017	✔
Berrigan Shire Council	Unmodified	✔	18 October 2017	✔
Blacktown City Council	Unmodified	✔	26 October 2017	✔
Bland Shire Council	Unmodified	✔	28 February 2018	✔
Blayney Shire Council	Unmodified	✔	24 October 2017	✔
Blue Mountains City Council	Unmodified	✔	31 October 2017	✔
Bogan Shire Council	Unmodified	✔	25 October 2017	✔
Bourke Shire Council	Unmodified	✔	27 October 2017	✔
Brewarrina Shire Council	Unmodified	✔	28 February 2018	✔
Broken Hill City Council	Unmodified	✔	19 October 2017	✔
Burwood Council	Unmodified	✔	18 October 2017	✔
Byron Shire Council	Unmodified	✔	26 October 2017	✔
Cabonne Council	Unmodified	✔	23 October 2017	✔

[6] The Office of Local Government granted Bayside City Council with an extension until 31 May 2018. The council has not yet presented their 2016–17 financial statements for audit as the financial records were not ready. The outcome of this incomplete audit will be reported in next year's report.

Local council	Type of audit opinion		Date of audit opinion	
Camden Council	Unmodified		27 October 2017	
Campbelltown City Council	Unmodified		15 September 2017	
City of Canada Bay Council	Unmodified		12 October 2017	
Canterbury Bankstown Council	Unmodified		30 November 2017	
Carrathool Shire Council	Unmodified		30 October 2017	
Central Coast Council	Unmodified		9 March 2018	
Central Darling Shire Council	Unmodified (with Emphasis of Matter)		28 February 2018	
Cessnock City Council	Unmodified		11 October 2017	
Clarence Valley Council	Unmodified		6 November 2017	
Cobar Shire Council	Unmodified		30 November 2017	
Coffs Harbour City Council	Unmodified		26 October 2017	
Coolamon Shire Council	Unmodified		23 October 2017	
Coonamble Shire Council	Unmodified		10 November 2017	
Cootamundra-Gundagai Regional Council	Unmodified		30 October 2017	
Cowra Shire Council	Unmodified		26 October 2017	
Cumberland Council	Unmodified		21 December 2017	
Dubbo Regional Council	Unmodified		27 February 2018	
Dungog Shire Council	Unmodified		28 February 2018	
Edward River Council	Unmodified		15 December 2017	
Eurobodalla Shire Council	Unmodified		27 October 2017	
Fairfield City Council	Unmodified		25 October 2017	
Federation Council	Unmodified		30 October 2017	
Forbes Shire Council	Unmodified		30 October 2017	
Georges River Council	Unmodified		14 November 2017	
Gilgandra Shire Council	Unmodified		22 November 2017	
Glen Innes Severn Council	Unmodified		19 December 2017	
Goulburn Mulwaree Council	Unmodified		4 December 2017	
Greater Hume Shire Council	Unmodified		23 October 2017	
Griffith City Council	Unmodified		23 October 2017	
Gunnedah Shire Council	Unmodified		20 October 2017	
Gwydir Shire Council	Unmodified		31 October 2017	
Hawkesbury City Council	Unmodified		30 November 2017	
Hay Shire Council	Unmodified		30 October 2017	
Hills Shire Council, The	Qualified opinion		29 September 2017	

Local council	Type of audit opinion		Date of audit opinion	
Hilltops Council	Unmodified	✓	29 November 2017	✓
Hornsby, The Council of the Shire of	Unmodified	✓	20 October 2017	✓
Hunters Hill, The Council of the Municipality of	Unmodified	✓	31 October 2017	✓
Inner West Council	Unmodified	✓	27 October 2017	✓
Inverell Shire Council	Unmodified	✓	26 October 2017	✓
Junee Shire Council	Qualified opinion	!	30 October 2017	✓
Kempsey Shire Council	Unmodified	✓	9 November 2017	✓
Kiama, The Council of the Municipality of	Unmodified	✓	20 November 2017	✓
Ku-ring-gai Council	Unmodified	✓	12 October 2017	✓
Kyogle Council	Unmodified	✓	31 October 2017	✓
Lachlan Shire Council	Unmodified	✓	30 November 2017	✓
Lake Macquarie City Council	Unmodified	✓	24 October 2017	✓
Lane Cove Municipal Council	Unmodified	✓	30 October 2017	✓
Leeton Shire Council	Unmodified	✓	19 October 2017	✓
Lismore City Council	Unmodified	✓	17 October 2017	✓
Lithgow Council, City of	Unmodified	✓	21 November 2017	✓
Liverpool City Council	Unmodified	✓	27 October 2017	✓
Liverpool Plains Shire Council	Unmodified	✓	30 November 2017	✓
Lockhart Shire Council	Unmodified	✓	20 October 2017	✓
Maitland City Council	Unmodified	✓	13 October 2017	✓
Mid-Coast Council	Unmodified	✓	20 December 2017	✓
Mid-Western Regional Council	Unmodified	✓	3 October 2017	✓
Moree Plains Shire Council	Unmodified	✓	27 February 2018	✓
Mosman Municipal Council	Unmodified	✓	25 October 2017	✓
Murray River Council	Unmodified	✓	23 February 2018	✓
Murrumbidgee Council	Unmodified	✓	29 November 2017	✓
Muswellbrook Shire Council	Unmodified	✓	30 October 2017	✓
Nambucca Shire Council	Unmodified	✓	27 October 2017	✓
Narrabri Shire Council	Unmodified	✓	31 October 2017	✓
Narrandera Shire Council	Unmodified	✓	20 October 2017	✓
Narromine Shire Council	Unmodified	✓	26 October 2017	✓
Newcastle City Council	Unmodified	✓	13 October 2017	✓
North Sydney Council	Unmodified	✓	31 October 2017	✓
Northern Beaches Council	Unmodified	✓	20 December 2017	✓

Local council	Type of audit opinion		Date of audit opinion	
Oberon Council	Unmodified	✓	18 October 2017	✓
Orange City Council	Unmodified	✓	30 October 2017	✓
Parkes Shire Council	Unmodified	✓	5 October 2017	✓
Parramatta Council, City of	Unmodified	✓	13 December 2017	✓
Penrith City Council	Unmodified	✓	26 September 2017	✓
Port Macquarie-Hastings Council	Unmodified	✓	31 October 2017	✓
Port Stephens Council	Unmodified	✓	26 October 2017	✓
Queanbeyan-Palerang Regional Council	Unmodified	✓	27 February 2018	✓
Randwick City Council	Unmodified	✓	13 October 2017	✓
Richmond Valley Council	Unmodified	✓	19 October 2017	✓
Ryde City Council	Unmodified	✓	25 October 2017	✓
Shellharbour City Council	Unmodified	✓	20 October 2017	✓
Shoalhaven City Council	Unmodified	✓	31 October 2017	✓
Singleton Council	Unmodified	✓	27 October 2017	✓
Snowy Monaro Regional Council	Unmodified	✓	22 November 2017	✓
Snowy Valleys Council	Unmodified	✓	27 October 2017	✓
Strathfield Municipal Council	Unmodified	✓	30 October 2017	✓
Sutherland Shire Council	Unmodified	✓	24 October 2017	✓
Sydney, Council of the City of	Unmodified	✓	24 October 2017	✓
Tamworth Regional Council	Unmodified	✓	26 October 2017	✓
Temora Shire Council	Unmodified	✓	23 October 2017	✓
Tenterfield Shire Council	Unmodified	✓	28 November 2017	✓
Tweed Shire Council	Unmodified	✓	27 October 2017	✓
Upper Hunter Shire Council	Unmodified	✓	31 October 2017	✓
Upper Lachlan Shire Council	Unmodified	✓	10 October 2017	✓
Uralla Shire Council	Unmodified	✓	31 October 2017	✓
Wagga Wagga City Council	Unmodified	✓	23 October 2017	✓
Walcha Council	Unmodified	✓	25 October 2017	✓
Walgett Shire Council	Unmodified	✓	23 February 2018	✓
Warren Shire Council	Unmodified	✓	17 October 2017	✓
Warrumbungle Shire Council	Unmodified	✓	16 November 2017	✓
Waverley Council	Unmodified	✓	31 October 2017	✓
Weddin Shire Council	Unmodified	✓	31 October 2017	✓
Wentworth Shire Council	Unmodified	✓	31 October 2017	✓

Local council	Type of audit opinion		Date of audit opinion	
Willoughby City Council	Unmodified	✓	30 October 2017	✓
Wingecarribee Shire Council	Unmodified	✓	16 October 2017	✓
Wollondilly Shire Council	Unmodified	✓	16 October 2017	✓
Wollongong City Council	Unmodified	✓	10 October 2017	✓
Woollahra Municipal Council	Unmodified	✓	31 October 2017	✓
Yass Valley Council	Qualified opinion	!	30 October 2017	✓

County council	Type of audit opinion		Date of audit opinion	
Castlereagh Macquarie County Council	Unmodified	✓	28 February 2018	✓
Central Murray County Council	Unmodified	✓	31 October 2017	✓
Central Tablelands County Council	Unmodified	✓	20 November 2017	✓
Former MidCoast Water	Unmodified	✓	22 February 2018	✓
Goldenfields Water County Council	Unmodified	✓	11 October 2017	✓
Hawkesbury River County Council	Unmodified	✓	30 November 2017	✓
New England Tablelands County Council	Unmodified	✓	10 October 2017	✓
Riverina Water County Council	Unmodified	✓	11 October 2017	✓
Rous County Council	Unmodified	✓	18 October 2017	✓
Southern Slopes County Council	Unmodified	✓	31 October 2017	✓
Upper Hunter County Council	Unmodified	✓	30 October 2017	✓
Upper Macquarie County Council	Unmodified	✓	27 October 2017	✓

Water authority	Type of audit opinion		Date of audit opinion	
Central Coast Council Water Supply Authority	Unmodified	✓	9 March 2018	✓
Cobar Water Board	Unmodified	✓	22 September 2017	✓

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Type of audit opinion		Date of audit opinion	
Unmodified opinion.		Financial statements were lodged by the statutory deadline of 31 October 2017.	
Unmodified opinion with emphasis of matter.		Extensions to the statutory deadline (and met).	
Modified opinion: Qualified opinion, an adverse opinion, or a disclaimer of opinion.			
Audit report not yet issued.			

Local council	Type of audit opinion		Date of audit opinion	
Armidale Dumaresq Council, The former	Unmodified		14 February 2017	
City of Botany Bay Council, The former	Disclaimer of opinion		9 April 2018	
Conargo Shire Council, The former	Unmodified		21 December 2016	
Deniliquin Council, The former	Unmodified		3 February 2017	
Guyra Shire Council, The former	Unmodified		20 December 2016	
Liverpool City Council	Unmodified		26 October 2016	
MidCoast Water	Unmodified		27 October 2016	

County council	Type of audit opinion		Date of audit opinion	
New England Tablelands County Council	Unmodified		5 September 2016	

Water authority	Type of audit opinion		Date of audit opinion	
Cobar Water Board	Unmodified		4 October 2016	
Gosford Water Supply Water Authority, The former	Disclaimer of opinion		25 May 2017	
Wyong Shire Council Water Authority, The former	Unmodified		14 December 2016	

Appendix six – Council spending by function – Definitions from the Local Government Code of Accounting Practice and Financial Reporting

Category	Council expenditure on:
Governance	Costs relating to council's role as a component of democratic government, including elections, councillors' fees and expenses, subscriptions to local authority associations, meetings of Council and policy-making committees, public disclosure and legislative compliance.
Administration	Corporate support and other support services, engineering works and council policy compliance.
Public order and safety	Delivery of fire protection, emergency services, beach control, enforcement of regulations and animal control services.
Health	Immunisation, food control and health centres.
Environment	Noxious plants and insect/vermin control, other environmental protection, solid waste management including domestic and other waste, other sanitation, garbage, street cleaning, drainage and stormwater management.
Community services and education	Administration and education, social protection (welfare), migrant, Aboriginal and other community services and administration, youth services, aged and disabled persons services, children's' services including family day care, child care and other family and child services.
Housing and community amenities	Public cemeteries, public conveniences, street lighting, town planning, other community amenities including housing development, accommodation for families, children, aged persons, disabled persons, migrants and Indigenous persons.
Water	Water services.
Sewerage	Sewer services.
Recreation and culture	Public libraries, museums, art galleries, community centres and halls including public halls and performing arts venues, sporting grounds and venues, swimming pools, parks, gardens, lakes and other sporting, recreational and cultural services.
Agriculture	Administration of agricultural services, supervision and regulation of the agricultural industry, operation of flood control and irrigation systems, operation of support services to farmers including vet services, pest control services, crop inspection and crop grading services.
Fuel and energy	Gas supplies.
Mining, manufacturing and construction	Building control, quarries and pits, mineral resources and abattoirs.
Transport and communication	Sealed and unsealed roads, bridges, footpaths, parking areas and aerodromes.
Economic affairs	Camping areas and caravan parks, tourism and area promotion, industrial development promotion, sale yards and markets, real estate development, commercial nurseries and other business undertakings.

Source: Local Government Code of Accounting Practice and Financial Reporting.

Appendix seven – OLG's performance indicators from the audited financial statement - Descriptions

Audited performance indicator	Formula	Description
Operating performance	Total continuing operating revenue# excluding capital grants and contributions less operating expenses Total continuing operating revenue# excluding capital grants and contributions	The 'operating performances ratio' measures how well local councils contained expenses within revenue. The benchmark set by the Office of Local Government (OLG) for the ratio is greater than zero per cent.
Own source operating revenue	Total continuing operating revenue# excluding all grants and contributions Total continuing operating revenue# inclusive of all grants and contributions	The 'own source operating revenue ratio' measures a council's fiscal flexibility and the degree to which it relies on external funding sources such as operating grants and contributions. The benchmark set by OLG for the ratio is greater than 60 per cent.
Unrestricted current ratio	Current assets less all external restrictions Current liabilities less specific-purpose liabilities	The 'unrestricted current ratio' is specific to the local government sector and represents a council's ability to meet its short-term obligations as they fall due. The benchmark set by OLG for the ratio is greater than 1.5 times.
Debt service cover ratio	Operating result# before capital excluding interest and impairment, depreciation and amortisation Principal repayments plus borrowing costs	The 'debt service cover ratio' measures the operating cash available to service debt including interest, principal and lease payments. The benchmark set by OLG for the ratio is greater than two times.
Rates and annual charges outstanding percentage	Rates and annual charges outstanding Rates and annual charges collectible	The 'rates and annual charges outstanding ratio' assesses the impact of uncollected rates and annual charges on a council's liquidity and the adequacy of debt recovery efforts. The benchmark set by OLG for the ratio is less than five per cent for metropolitan and less than ten per cent for rural councils.
Cash expense cover ratio	Current year cash and cash equivalents, and term deposits *12 Payments from cash flow of operating and financing activities	The 'cash expense cover ratio' indicates the number of months a council can continue paying its expenses without additional cash inflows. The benchmark set by OLG for the ratio is greater than three months.

Excludes fair value adjustments, reversal of revaluation decrements, net gain/loss on sale of assets, and net share/loss of interests in joint ventures.

Source: Local Government Code of Accounting Practice and Financial Reporting.

Appendix eight – OLG's performance indicators from the unaudited special schedule 7 - Descriptions

Unaudited performance indicator	Formula	Description
Buildings and infrastructure renewals ratio	Asset renewals / Depreciation, amortisation and impairment	The 'building and infrastructure renewals ratio' assesses the rate at which assets are being renewed against the rate at which they are depreciating. The benchmark set by OLG for the ratio is greater than 100 per cent.
Infrastructure backlog ratio	Estimated cost to bring assets to a satisfactory condition / Carrying value of infrastructure, building, other structures and depreciable land improvement assets	The 'infrastructure backlog ratio' represents the proportion of infrastructure backlog to the total net book value of a council's infrastructure assets. The benchmark set by OLG for the ratio is less than two per cent.
Asset maintenance ratio	Actual asset maintenance / Required asset maintenance	The 'asset maintenance ratio' compares actual versus required annual asset maintenance. The benchmark set by OLG for the ratio is greater than 100 per cent.
Cost to bring assets to agreed service level	Estimated cost to bring assets to an agreed level of service set by council / Gross replacement cost	The 'cost to bring assets to agreed service level' reflects the actual value of identified renewal works to be delivered in the future, compared to the total replacement cost of assets. OLG has not prescribed a benchmark for this performance indicator.

Source: Local Government Code of Accounting Practice and Financial Reporting.

Appendix nine – Financial information

We have included a summary of key financial information from the 2016–17 audited financial statements of councils.

	2016–17				
Local council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
Albury City Council	139	104	35	1,395	74
Armidale Regional Council	93	77	16	909	48
Ballina Shire Council	115	85	30	1,257	104
Balranald Shire Council	15	13	2	123	5
Bathurst Regional Council	129	93	36	1,325	48
Bayside Council !	--	--	--	--	--
Bega Valley Shire Council	96	93	3	1,002	53
Bellingen Shire Council	31	29	2	466	15
Berrigan Shire Council	26	19	7	254	5
Blacktown City Council	583	314	269	4,016	162
Bland Shire Council	29	19	10	400	10
Blayney Shire Council	23	18	5	237	7
Blue Mountains City Council	119	110	9	800	61
Bogan Shire Council	21	17	4	224	5
Bourke Shire Council	29	21	8	256	8
Brewarrina Shire Council	16	13	3	138	5
Broken Hill City Council	37	43	(6)	242	18
Burwood Council	49	42	7	421	23
Byron Shire Council	99	78	21	854	82
Cabonne Council	50	37	13	621	11
Camden Council	189	92	97	1,400	79
Campbelltown City Council	254	143	111	2,639	51
City of Canada Bay Council	110	81	29	1,629	31
Canterbury Bankstown Council	355	314	41	3,707	101
Carrathool Shire Council	24	18	6	231	7

! Bayside council received a lodgement extension for the 2016–17 financial statements to 31 May 2018 and has not yet presented them for audit.

	2016–17				
Local council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
Central Coast Council	724	568	156	7,388	494
Central Darling Shire Council	25	19	6	174	4
Cessnock City Council	95	76	19	789	38
Clarence Valley Council	135	146	(11)	2,130	156
Cobar Shire Council	37	33	4	316	5
Coffs Harbour City Council	219	165	54	2,229	193
Coolamon Shire Council	17	13	4	187	10
Coonamble Shire Council	25	19	6	306	4
Cootamundra-Gundagai Regional Council	49	44	5	416	9
Cowra Shire Council	42	35	7	614	26
Cumberland Council	244	206	38	2,356	68
Dubbo Regional Council	202	141	61	2,549	98
Dungog Shire Council	22	20	2	319	7
Edward River Council	48	38	10	421	9
Eurobodalla Shire Council	129	106	23	1,382	82
Fairfield City Council	195	153	42	1,918	43
Federation Council	54	38	16	504	11
Forbes Shire Council	37	36	1	310	33
Georges River Council	180	140	40	1,412	36
Gilgandra Shire Council	36	28	8	309	20
Glen Innes Severn Council	32	27	5	268	25
Goulburn Mulwaree Council	82	63	19	1,012	55
Greater Hume Shire Council	38	31	7	504	14
Griffith City Council	64	50	14	757	32
Gunnedah Shire Council	47	36	11	463	30
Gwydir Shire Council	28	25	3	434	18
Hawkesbury City Council	94	76	18	1,032	27
Hay Shire Council	14	12	2	81	4

	2016–17				
Local council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
The Hills Shire Council !	**257**	**130**	**127**	**5,026**	**67**
Hilltops Council	85	83	2	605	36
The Council of the Shire of Hornsby	162	118	44	1,660	54
The Council of the Municipality of Hunters Hill	16	16	--	219	6
Inner West Council	316	258	58	2,391	78
Inverell Shire Council	41	33	8	688	13
Junee Shire Council !	**17**	**14**	**3**	**143**	**10**
Kempsey Shire Council	73	73	--	1,065	59
The Council of the Municipality of Kiama	74	53	21	486	79
Ku-ring-gai Council	151	118	33	1,364	48
Kyogle Council	33	27	6	399	10
Lachlan Shire Council	39	36	3	383	14
Lake Macquarie City Council	288	218	70	2,689	183
Lane Cove Municipal Council	78	38	40	619	13
Leeton Shire Council	31	25	6	245	7
Lismore City Council	121	102	19	1,425	93
City of Lithgow Council	57	48	9	547	34
Liverpool City Council	284	179	105	2,540	86
Liverpool Plains Shire Council	30	26	4	571	10
Lockhart Shire Council	17	10	7	231	3
Maitland City Council	148	97	51	1,110	65
Mid-Coast Council	211	175	36	2,145	113
Mid-Western Regional Council	82	63	19	962	33
Moree Plains Shire Council	67	56	11	572	64
Mosman Municipal Council	52	44	8	507	25
Murray River Council	68	46	22	726	12
Murrumbidgee Council	37	23	14	288	5

! The audit reports of these councils included an audit modification.

	2016–17				
Local council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
Muswellbrook Shire Council	52	42	10	650	40
Nambucca Shire Council	47	36	11	482	52
Narrabri Shire Council	57	42	15	517	16
Narrandera Shire Council	23	18	5	246	4
Narromine Shire Council	25	19	6	326	6
Newcastle City Council	289	265	24	1,727	190
North Sydney Council	133	106	27	1,001	48
Northern Beaches Council	404	355	49	4,912	143
Oberon Council	19	15	4	295	7
Orange City Council	120	86	34	1,208	50
Parkes Shire Council	69	43	26	711	30
City of Parramatta Council	352	274	78	3,026	148
Penrith City Council	259	207	52	1,916	111
Port Macquarie-Hastings Council	248	149	99	2,204	114
Port Stephens Council	132	110	22	970	51
Queanbeyan-Palerang Regional Council	229	138	91	1,453	68
Randwick City Council	157	147	10	1,557	39
Richmond Valley Council	56	49	7	727	37
Ryde City Council	146	107	39	1,470	41
Shellharbour City Council	122	85	37	844	57
Shoalhaven City Council	258	222	36	2,817	169
Singleton Council	67	54	13	905	24
Snowy Monaro Regional Council	100	85	15	1,222	22
Snowy Valleys Council	72	63	9	626	20
Strathfield Municipal Council	43	34	9	361	15
Sutherland Shire Council	270	205	65	2,426	71
Council of the City of Sydney	722	578	144	12,087	184
Tamworth Regional Council	166	126	40	1,584	120
Temora Shire Council	23	18	5	212	6
Tenterfield Shire Council	26	18	8	366	10

	2016–17				
Local council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
Tweed Shire Council	230	187	43	3,283	220
Upper Hunter Shire Council	45	39	6	702	26
Upper Lachlan Shire Council	38	26	12	426	10
Uralla Shire Council	21	19	2	248	10
Wagga Wagga City Council	154	121	33	1,485	82
Walcha Council	17	12	5	439	4
Walgett Shire Council	37	29	8	304	9
Warren Shire Council	17	13	4	188	3
Warrumbungle Shire Council	47	42	5	511	15
Waverley Council	138	127	11	1,259	41
Weddin Shire Council	16	12	4	187	8
Wentworth Shire Council	32	25	7	433	9
Willoughby City Council	119	98	21	1,570	75
Wingecarribee Shire Council	144	103	41	1,481	54
Wollondilly Shire Council	65	56	9	504	39
Wollongong City Council	324	255	69	2,536	178
Woollahra Municipal Council	105	90	15	961	110
Yass Valley Council !	**36**	**30**	**6**	**374**	**27**

Source: Audited financial statements 2016–17.

! The audit reports of these councils included an audit modification.

	2016–17				
County council	**Total revenue**	**Total expenses**	**Operating result**	**Total assets**	**Total liabilities**
	$m	**$m**	**$m**	**$m**	**$m**
Castlereagh-Macquarie County Council	1	1	--	1	--
Central Murray County Council	1	1	--	1	--
Central Tablelands County Council	6	5	1	76	3
Goldenfields Water County Council	21	17	4	308	3
Hawkesbury River County Council	2	2	--	3	1
MidCoast Water (MidCoast County Council)	88	81	7	969	191
New England Tablelands County Council	1	1	--	2	--
Riverina Water County Council	31	20	11	366	18
Rous County Council	27	23	4	506	33
Southern Slopes County Council	1	1	--	1	--
Upper Hunter County Council	2	2	--	1	--
Upper Macquarie County Council	2	2	--	1	--

Source: Audited financial statements 2016–17.

Appendix ten – OLG's performance indicators

We have included a summary of how each council has performed against the performance measures prescribed by the Office of Local Government (OLG). The first six measures are audited and reported in councils' general purpose financial statements. The remaining four asset-related measures are not audited and reported in councils' special schedule 7 'Report on Infrastructure Assets'.

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Albury City Council	16.8	79.5	3.3	7.1	10.3	16.2	63.3	3.1	80.7	1.9
Armidale Regional Council	12.3	59.5	2.2	6.0	6.8	14.4	44.1	10.6	96.3	4.3
Ballina Shire Council	8.9	64.6	4.9	2.7	3.6	12.0	84.2	1.9	82.9	0.9
Balranald Shire Council	6.8	31.9	6.2	15.3	10.5	9.4	54.6	2.6	84.7	1.7
Bathurst Regional Council	(5.4)	62.4	2.3	4.1	5.7	10.0	60.2	8.0	158.8	0.7
Bayside Council[10]	--	--	--	--	--	--	--	--	--	--
Bega Valley Shire Council	(2.9)	71.7	1.5	4.4	3.6	10.0	45.4	0.7	95.8	--
Bellingen Shire Council	0.7	68.1	2.5	6.3	5.8	17.7	88.0	11.6	89.3	--
Berrigan Shire Council	22.5	53.9	8.1	34.9	3.7	24.0	80.3	--	114.7	--
Blacktown City Council	3.5	47.5	2.6	--	4.1	19.0	82.9	2.4	99.3	1.6
Bland Shire Council	30.7	37.8	4.0	32.4	6.2	0.3	112.8	5.1	110.5	3.2

[10] Bayside council received a lodgement extension for the 2016–17 financial statements to 31 May 2018 and has not yet presented them for audit.

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Blayney Shire Council	11.0	60.9	3.9	21.1	2.2	15.7	199.9	10.7	145.9	2.5
Blue Mountains City Council	5.4	80.1	2.3	2.6	3.4	4.4	35.1	2.0	99.1	1.2
Bogan Shire Council	14.0	46.2	6.4	52.2	6.8	8.5	67.7	1.9	93.5	2.2
Bourke Shire Council	21.3	40.8	4.3	8.6	14.9	12.9	114.3	3.2	99.9	1.6
Brewarrina Shire Council	19.2	43.5	3.9	24.0	6.8	9.7	87.3	1.9	47.7	--
Broken Hill City Council	(0.9)	62.6	1.8	3.8	11.7	9.9	112.8	25.5	121.6	13.1
Burwood Council	5.6	84.0	4.4	12.4	2.4	11.4	117.7	7.3	102.6	5.2
Byron Shire Council	6.0	69.7	3.2	3.3	3.4	14.3	108.0	7.9	90.7	4.8
Cabonne Council	15.4	56.5	7.8	46.0	5.6	18.4	136.0	3.6	117.8	2.0
Camden Council	0.0	43.0	2.7	3.2	3.4	14.9	38.2	1.2	100.0	1.0
Campbelltown City Council	10.6	64.0	4.8	8.2	3.3	18.0	94.8	1.6	104.9	1.3
Canterbury Bankstown Council	(1.2)	75.7	2.9	18.0	4.0	11.9	75.8	4.7	94.2	2.6
Carrathool Shire Council	19.3	40.7	6.8	30.9	6.1	17.0	79.9	1.3	104.9	--
Castlereagh-Macquarie County Council	9.1	16.5	3.6	2.3	0.0	5.6	--	--	--	--
Central Coast Council	10.7	76.4	2.7	4.5	5.9	9.0	142.2	2.6	104.9	1.7

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Central Darling Shire Council	18.2	47.4	2.0	33.2	35.7	1.6	94.4	21.1	79.4	2.0
Central Murray County Council	(18.6)	81.2	3.3	--	--	4.4	--	--	--	--
Central Tablelands County Council	4.8	96.1	8.0	3.9	--	19.7	112.4	34.9	99.2	1.4
Cessnock City Council	4.0	63.4	2.4	8.1	2.0	6.3	158.5	3.4	102.2	9.6
City of Canada Bay Council	7.0	80.2	4.2	28.6	1.3	12.9	119.5	3.5	88.7	2.3
City of Lithgow Council	4.2	64.9	3.1	5.4	5.8	9.1	99.2	7.2	81.5	--
City of Parramatta Council	0.4	68.5	4.7	2.9	3.0	6.4	92.5	2.4	103.6	4.3
Clarence Valley Council	(3.8)	69.2	4.4	3.2	6.3	12.0	25.6	4.3	69.0	3.0
Cobar Shire Council	7.5	52.1	4.6	25.1	8.2	6.6	37.1	7.0	92.1	7.2
Coffs Harbour City Council	18.7	74.3	14.8	3.1	6.6	9.1	76.8	--	100.5	--
Coolamon Shire Council	18.9	43.4	8.4	81.6	4.9	19.7	107.4	1.8	139.2	0.9
Coonamble Shire Council	18.3	55.1	6.1	158.4	7.3	19.9	108.7	1.0	262.6	0.7
Cootamundra-Gundagai Regional Council	4.7	44.8	8.5	19.6	4.0	16.4	60.0	10.9	--	--
Council of the City of Sydney	4.9	79.7	2.7	--	1.2	6.5	62.6	3.5	100.1	1.3

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Cowra Shire Council	11.2	71.3	4.0	4.8	9.0	8.9	78.4	1.9	105.4	0.8
Cumberland Council	(2.7)	66.1	3.5	11.4	2.8	7.9	106.1	9.8	125.9	7.2
Dubbo Regional Council	13.2	62.5	3.6	5.8	3.3	16.6	108.6	1.0	100.0	--
Dungog Shire Council	(17.5)	40.5	8.2	11.5	6.0	8.3	92.4	7.0	72.3	10.1
Edward River Council	16.7	39.1	8.6	25.6	5.5	21.9	117.8	1.5	88.6	0.8
Eurobodalla Shire Council	9.7	71.3	2.4	3.4	2.5	14.7	79.2	7.2	100.0	4.5
Fairfield City Council	11.4	77.0	3.1	146.3	3.1	4.9	170.5	1.9	100.8	1.4
Federation Council	6.3	40.0	2.7	27.9	5.5	18.7	108.5	5.8	95.8	3.7
Forbes Shire Council	(0.5)	68.3	7.4	3.4	10.3	15.4	36.2	3.7	94.0	1.7
Georges River Council	11.3	76.2	4.4	46.0	2.7	9.5	116.3	1.8	127.9	3.8
Gilgandra Shire Council	19.4	63.5	4.3	18.4	6.5	9.8	192.9	2.3	102.2	1.7
Glen Innes Severn Council	12.8	58.7	5.2	4.3	4.7	9.9	97.0	10.9	100.0	6.0
Goldenfields Water County Council	14.3	95.0	6.0	--	23.8	49.6	22.8	4.4	105.2	0.6
Goulburn Mulwaree Council	7.9	61.0	3.6	5.7	3.1	24.5	125.8	2.5	99.9	--
Greater Hume Shire Council	13.0	48.5	5.5	13.2	6.6	13.0	156.3	0.1	145.0	0.1

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Griffith City Council	15.1	74.3	2.5	8.0	6.8	7.1	63.7	--	--	--
Gunnedah Shire Council	19.9	65.1	6.1	18.7	4.3	28.2	120.7	2.4	120.2	1.6
Gwydir Shire Council	16.5	52.0	2.0	6.8	4.4	4.8	113.5	3.1	100.0	--
Hawkesbury City Council	(6.6)	68.4	3.3	11.5	5.5	8.9	131.9	3.1	95.2	--
Hawkesbury River County Council	(11.6)	23.3	2.8	--	--	10.1	113.6	--	--	--
Hay Shire Council	11.3	39.1	5.0	15.8	13.3	12.2	76.0	3.1	72.4	1.4
The Hills Shire Council*	16.2	50.5	8.5	--	4.2	42.5	216.8	--	154.0	--
Hilltops Council	(6.6)	44.6	5.5	2.3	6.8	12.1	78.6	6.5	97.8	1.1
The Council of the Shire of Hornsby	6.9	79.3	3.9	10.7	1.9	20.7	90.7	0.9	94.0	0.7
The Council of the Municipality of Hunters Hill	(4.2)	90.7	7.3	23.0	3.0	16.5	76.6	1.6	105.8	1.7
Inner West Council	4.4	74.6	3.3	5.2	3.1	8.6	145.5	9.6	100.0	3.6
Inverell Shire Council	20.4	61.3	12.0	19.3	5.8	25.1	192.2	1.1	106.2	0.8
Junee Shire Council*	9.9	53.8	1.0	4.2	8.8	3.0	158.5	4.7	81.2	2.4
Kempsey Shire Council	1.9	72.6	2.6	3.8	6.7	9.3	38.9	10.6	107.3	5.4

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
The Council of the Municipality of Kiama	4.4	60.4	3.9	8.7	1.5	10.7	199.2	0.3	95.9	--
Ku-ring-gai Council	9.0	82.4	3.2	13.5	3.3	13.9	76.5	4.5	103.6	--
Kyogle Council	17.2	49.6	6.3	27.9	7.2	17.2	281.8	10.7	100.5	--
Lachlan Shire Council	11.3	38.3	4.6	137.9	7.5	16.8	42.0	6.4	93.5	4.1
Lake Macquarie City Council	9.0	65.6	2.9	10.3	3.7	10.9	112.8	2.5	92.2	1.7
Lane Cove Municipal Council	11.0	68.6	6.7	--	1.9	19.2	294.2	0.7	325.1	0.6
Leeton Shire Council	16.2	69.0	4.5	28.3	3.1	20.7	54.0	3.0	100.8	1.8
Lismore City Council	6.5	74.4	1.5	4.0	10.5	9.1	144.9	19.9	93.0	9.8
Liverpool City Council	2.4	54.5	1.9	4.7	4.3	8.5	115.8	3.3	104.5	2.5
Liverpool Plains Shire Council	4.5	55.3	4.5	12.9	9.9	15.3	140.3	2.4	--	1.8
Lockhart Shire Council	40.6	23.3	4.8	100.6	4.5	11.3	106.9	1.3	106.5	--
Maitland City Council	0.3	54.1	3.2	4.6	2.1	14.5	87.0	10.1	133.8	3.7
Mid-Coast Council	(0.3)	55.2	4.5	3.4	4.1	10.6	65.6	8.5	75.5	4.4
MidCoast Water (MidCoast County Council)	(2.2)	87.1	2.3	1.9	6.0	8.8	5.4	13.5	73.7	--

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Mid-Western Regional Council	9.6	55.2	3.7	8.7	3.4	16.7	137.3	6.6	108.5	2.9
Moree Plains Shire Council	13.5	68.1	2.4	5.4	6.3	8.3	114.9	1.9	95.0	1.4
Mosman Municipal Council	6.2	87.7	1.7	4.1	2.6	4.7	138.0	1.1	115.7	0.7
Murray River Council	17.7	39.4	5.1	17.8	7.2	20.1	95.1	3.4	100.0	1.1
Murrumbidgee Council	5.5	27.1	4.2	45.5	7.1	22.1	41.0	0.5	128.0	--
Muswellbrook Shire Council	8.1	70.3	5.3	4.9	14.9	10.3	93.5	6.1	83.1	3.5
Nambucca Shire Council	17.8	68.1	2.5	3.4	5.1	10.9	62.6	3.9	97.9	--
Narrabri Shire Council	18.1	58.8	5.2	13.1	7.6	19.5	136.9	12.1	110.6	--
Narrandera Shire Council	17.4	52.2	7.6	806.7	7.5	23.3	96.2	9.7	98.0	3.8
Narromine Shire Council	18.7	47.9	5.4	20.0	9.2	19.9	93.4	11.6	60.4	6.1
New England Tablelands County Council	2.7	22.3	5.7	--	--	14.9	--	--	--	--
Newcastle City Council	3.5	84.3	2.5	7.4	4.2	8.7	94.9	11.1	117.6	6.1
North Sydney Council	7.7	80.3	3.5	84.3	1.1	7.8	269.0	--	99.5	--
Northern Beaches Council	1.3	81.1	2.7	1.0	2.8	5.9	92.2	0.3	103.7	0.3
Oberon Council	20.9	63.8	4.6	12.1	7.7	11.8	224.8	4.2	93.8	0.6

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Orange City Council	11.7	67.5	1.6	6.9	5.7	13.6	52.5	4.1	32.8	2.6
Parkes Shire Council	8.0	46.4	3.2	4.8	6.4	13.8	272.6	1.4	115.0	0.6
Penrith City Council	7.4	71.9	2.5	3.2	3.0	6.5	45.5	1.1	100.7	0.7
Port Macquarie-Hastings Council	7.3	56.2	2.0	4.3	4.9	25.3	82.2	5.3	87.8	--
Port Stephens Council	7.1	76.6	3.3	6.4	2.8	5.8	100.0	1.9	93.3	1.6
Queanbeyan-Palerang Regional Council	5.8	52.4	2.4	8.0	3.4	9.0	140.7	2.9	67.3	2.1
Randwick City Council	3.7	89.6	3.3	--	2.8	3.8	107.0	0.6	154.8	0.4
Richmond Valley Council	7.5	68.1	3.5	5.0	14.9	7.0	82.9	3.8	113.8	2.7
Riverina Water County Council	31.0	90.1	7.5	9.0	12.4	16.0	104.8	29.3	101.7	19.8
Rous County Council	4.8	81.3	6.1	2.5	0.0	21.0	62.2	1.3	89.4	1.0
Ryde City Council	11.5	75.8	3.4	27.7	3.6	15.9	193.6	2.7	92.9	2.0
Shellharbour City Council	9.0	70.4	2.5	19.6	4.6	11.1	232.7	2.0	112.6	2.8
Shoalhaven City Council	2.6	77.7	2.0	3.7	8.9	9.9	71.7	3.1	88.5	1.5
Singleton Council	(1.6)	64.0	2.9	6.3	3.2	13.4	107.1	2.1	62.7	1.3

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Snowy Monaro Regional Council	1.5	49.8	3.7	14.2	14.3	15.3	55.1	11.9	96.9	3.3
Snowy Valleys Council	3.4	56.4	6.0	7.4	4.2	12.0	82.7	--	101.4	3.3
Southern Slopes County Council	5.1	75.3	8.6	--	--	9.0	--	--	--	--
Strathfield Municipal Council	4.9	73.4	3.6	--	3.0	22.1	127.8	1.5	115.3	1.0
Sutherland Shire Council	9.3	76.4	2.4	21.2	3.6	6.1	57.6	1.9	101.0	3.4
Tamworth Regional Council	12.4	68.7	4.4	5.2	5.2	19.4	39.0	0.6	97.4	--
Temora Shire Council	14.3	51.9	2.1	22.2	3.8	6.6	64.7	3.5	116.3	--
Tenterfield Shire Council	15.7	45.3	4.4	11.8	6.8	12.6	135.4	8.9	101.3	1.7
Tweed Shire Council	11.3	74.4	3.5	3.7	4.4	20.7	44.2	1.7	92.9	--
Upper Hunter County Council	13.7	4.1	3.9	--	--	2.3	--	--	--	--
Upper Hunter Shire Council	9.9	66.6	3.0	7.2	8.5	10.1	139.9	0.9	96.4	0.5
Upper Lachlan Shire Council	16.5	52.1	5.1	25.5	3.4	19.3	136.5	1.7	118.4	1.0
Upper Macquarie County Council	3.6	43.5	10.0	--	--	5.5	--	--	--	--
Uralla Shire Council	11.6	71.3	2.1	16.7	4.3	10.5	86.6	0.9	131.8	0.3

	Audited						Unaudited			
	Operating performance (%)	Own source operating revenue (%)	Unrestricted current ratio (times)	Debt service cover ratio (times)	Rates and annual outstanding percentage (%)	Cash expense cover ratio (months)	Buildings and infrastructure renewals ratio (%)	Infrastructure backlog ratio (%)	Asset maintenance ratio (%)	Cost to bring assets to agreed service level (%)
OLG Benchmark	**Greater than zero per cent**	**Greater than 60 per cent**	**Greater than 1.5 times**	**Greater than two times**	**Less than five per cent for metro and 10 per cent for other councils**	**Greater than three months**	**Greater than 100 per cent**	**Less than two per cent**	**Greater than 100 per cent**	**OLG has not set a benchmark**
Wagga Wagga City Council	(6.4)	59.2	3.1	5.4	5.1	7.2	39.7	28.4	55.8	11.9
Walcha Council	16.7	50.3	4.5	38.3	3.4	10.6	309.2	7.3	105.5	2.9
Walgett Shire Council	20.2	52.0	5.7	17.8	10.4	16.3	142.1	8.9	73.0	4.6
Warren Shire Council	23.0	47.6	7.5	62.6	2.5	17.7	143.5	0.8	158.3	--
Warrumbungle Shire Council	2.0	46.5	4.3	9.9	7.9	6.5	64.4	0.1	117.6	1.8
Waverley Council	2.4	86.5	12.4	20.3	3.8	14.5	77.1	1.1	98.2	0.7
Weddin Shire Council	19.9	44.2	5.2	42.5	5.9	11.9	293.8	2.2	100.7	--
Wentworth Shire Council	13.4	48.0	6.9	42.3	10.2	18.0	100.7	12.7	119.3	4.3
Willoughby City Council	12.7	89.6	4.7	6.0	1.4	14.4	98.3	1.4	100.0	1.2
Wingecarribee Shire Council	9.0	67.0	4.9	6.0	2.2	18.8	60.9	2.1	105.7	1.2
Wollondilly Shire Council	0.9	69.7	3.0	4.2	5.2	10.4	99.4	15.3	123.9	8.4
Wollongong City Council	10.7	74.7	2.6	8.5	5.9	6.9	104.9	5.7	98.1	3.7
Woollahra Municipal Council	4.3	90.4	3.9	3.0	4.1	7.0	103.1	1.4	99.7	0.9
Yass Valley Council*	(2.3)	63.7	1.8	2.6	4.0	7.6	106.7	2.6	95.4	--

* The audit report of this council was subject to an audit qualification.

The council met the benchmark prescribed by OLG for the relevant performance measure.

The council did not meet the benchmark prescribed by OLG for the relevant performance measure.

Source: First six measures are obtained from the audited financial statements 2016–17. Last four measures are obtained from the unaudited Special Schedule 7 'Report on Infrastructure Assets' 2016–17.

Appendix 11 – NSW Crown Solicitor's advice

CROWN SOLICITOR
NEW SOUTH WALES

Advice

Audit of council entities

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Prepared for: AUD018 Auditor-General of NSW
Date: 31 August 2017
Client ref: Steven Martin
CSO ref: 201702268 T08 Sally Johnston/Lea Armstrong

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1. Summary of advice

1.1 You seek my advice as to the Auditor-General's obligations with regard to auditing of "council entities" pursuant to the *Local Government Act 1993* ("the Act"). Pursuant to s. 415(4), a council's auditor (who is the Auditor-General: s 422) must, in auditing the financial reports of a council, audit the financial reports of any council entity and report on same as part of the report on the council. You have proposed an interpretation of this provision for my comment.

1.2 In my view, it is clear that the obligation to audit a council entity in s. 415(4) forms a part of the audit of the council. As to what such "audit" involves, the preferable interpretation must take account of both the lack of any obligation in the Act for council entities to prepare financial reports, and the functions and powers of the Auditor-General in relation to the audit of such entities in the Act. Whilst the Auditor-General's audit functions in relation to councils in Div. 3 of Pt. 3 of Ch. 13 are extended to council entities, the accounting and financial reporting obligations of councils generally in Divs. 1 and 2 of that Part are not so extended. Given the diverse range of bodies which may constitute a "council entity", whether or not such an entity has prepared a financial report will depend on statutory obligations elsewhere arising and, in my view, where no financial report of a council entity exists, the obligation to audit that entity in s. 415(4) does not arise. Where the obligation does arise, it may necessarily be limited by the nature of the council entity in question and the financial reports which it does prepare.

1.3 For those reasons, to the extent that your proposed construction of the duty in s. 415(4) is that the Auditor-General (as the council auditor) is required to perform "those audit procedures on a council entity considered necessary to form an opinion on the council's consolidated general purpose financial report", I think that is a reasonable and open interpretation of the duty, where it arises.

1.4 Insofar as your proposed construction of the duty in s. 415(4) also suggests that "any matters as appropriate in respect of a council entity are included in the report on the conduct of the audit of the council's financial report required pursuant to s. 417(1) of the Act", I agree to the extent that the duty in s. 415(4) is discharged by the auditor reporting on the council entity audit in the auditor's report on the council, which is a reference to the two reports to be issued under s. 417(1).

1.5 Please note this is a summary of the central issues and conclusions in my advice. Other relevant or significant matters may be contained in the advice, which should be read in full.

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2. Background

2.1 By operation of the *Local Government Amendment (Governance and Planning) Bill 2016*, the Act was amended and ss. 415(4) and (5) were inserted. Section 415(4) relates to auditing of a "council entity" and s. 415(5) defines such entities. Your request for advice arises in the context where this provision has come into effect but no audits have yet been completed pursuant to it.

2.2 I note that conferences to discuss the background, issues and question for advice have been conducted between your officers and my officers on 21 July 2017 and 11 August 2017.

3. Advice sought

3.1 By letter dated 26 July 2017, you seek my advice as to whether:

> "In acquitting my responsibility under the Act, is it reasonable to interpret that I will satisfy my obligations under the Act if, when auditing the financial report of a council, I perform those audit procedures on any Council Entity considered necessary to form an opinion on the council's consolidated general purpose financial report and include any matters I consider appropriate in respect of Council Entities in my report on the conduct of the audit of the council's financial report required under s. 417(1) of the Act?"

4. Advice

4.1 Chapter 13 of the Act is entitled "How are councils made accountable for their actions?", with Pt. 3 addressing "Financial management" and Div. 2 of that Part "Accounting records, financial reports and auditing". Section 415 provides:

> "**415 Auditing of financial reports**
>
> (1) A council's auditor must audit the council's financial reports as soon as practicable (having regard to the requirements of section 416 (1)) after they are referred for audit.
>
> (2) A council's financial reports must be audited in accordance with the requirements of:
>
> (a) the publications issued by the Australian Accounting Research Foundation, on behalf of the Australian Society of Certified Practising Accountants and the Institute of Chartered Accountants in Australia, under the titles *Statements of Auditing Standards* and *Statements of Auditing Practice*, as in force for the time being, subject to the regulations, and
>
> (b) such other standards as may be prescribed by the regulations.

(3) The regulations may prescribe matters that an auditor must consider and provide comment on in auditing a council's financial reports.

(4) In auditing the financial reports of the council, a council's auditor must also audit the financial reports of any council entity and report on that audit as part of the report on the council by the auditor.

(5) In this Part:

council entity means:

(a) a partnership, trust, corporation, joint venture, syndicate or other body (whether or not incorporated) that a council has formed or participated in forming or has acquired a controlling interest in, other than an entity of a class prescribed by the regulations, or

(b) any other entity of a class prescribed by the regulations."

"Council entity"

4.2 In considering the scope of the duty in s. 415(4), it is first necessary to understand the nature of a "council entity", to which that duty relates. A "council entity" is defined for purposes of Pt. 3 of Ch. 13 of the Act in s. 415(5), as extracted above. There are currently no regulations made pursuant to s. 415(5)(a) or (b). In my view, the ordinary meaning and effect of the definition in s. 415(5)(a) is that a wide and diverse range of bodies may constitute a "council entity".

4.3 The definition operates by reference to factual matters. First, whether the entity in question is a "partnership, trust, corporation, joint venture, syndicate" or other type of body, and second, whether the council has "formed or participated in forming" or acquired a "controlling interest" in that body, both of which are questions of fact. To that end, I note that the phrase "controlling interest" is used in other relevant statutory regimes, particularly taxation contexts[1]. Whether a council has a "controlling interest" in relation to some other entity will usually be a factual test adapted to the particular type and nature of the entity in question. In the context of audit of financial statements, the Auditor-General would typically refer to Australian Accounting Standards AASB 10 'Consolidated Financial Statements' for guidance on what constitutes a "control".

4.4 It is clear that a "council entity" is potentially a very broad concept. There are a diverse range of entities which may constitute council entities, from unincorporated bodies or associations to large corporations. In turn, these bodies may be subject to different legislative regimes which impact upon their financial management, record keeping and

[1] See, for example, the *Payroll Tax Act 2007*. In the companies context, the phrase has a generally settled meaning of control of a majority of voting power at meetings of the board of management/ meeting of directors, power to appoint more than 50% of the members of a board of management/ directors, or direct or indirect exercise of control of more than 50% of the voting power attached to voting shares or a class of voting shares issued by a company (as applicable).

auditing. For example, no relevant statutory provisions may exist in relation to a small unincorporated body and such a body may not keep or generate financial statements etc. By contrast, a corporation may be subject to the provisions in the *Corporations Act 2001 (Cth)* which include record keeping and accounting obligations consistent with the standards made by the Australian Accounting Standards Board. This diversity in the potential range of bodies constituting "council entities" has implications for the practical operation of s. 415(4), as discussed below.

4.5 I also note that a comparable concept, although not expressly defined as a "council entity", is referred to in s. 358 of the Act. That section provides:

> **"358 Restrictions on formation of corporations and other entities**
>
> (1) A council must not form or participate in the formation of a corporation or other entity, or acquire a controlling interest in a corporation or other entity, except:
>
> (a) with the consent of the Minister and subject to such conditions, if any, as the Minister may specify, or
>
> (b) as provided by this Act.
>
> ...
>
> (4) In this section, *entity* means any partnership, trust, joint venture, syndicate or other body (whether or not incorporated), but does not include any such entity that is of a class prescribed by the regulations as not being within this definition."

4.6 In my view, s. 358 (particularly s. 358(1) and (4), adopt the same concepts as those in s. 415(5), namely "formation or participation in formation" and acquiring a "controlling interest" in relation to a corporation or "entity". In that way, the sections are equivalent in material elements and should be understood as encompassing the same entities. Indeed, in my view, one practical way of identifying which entities constitute "council entities" for purposes of s. 415(5) would be to consider those entities which have been subject to Ministerial review pursuant to s. 358. Having said that, it is not my view that an entity does not constitute a "council entity" for purposes of s. 415 merely because it has not been subject to review pursuant to s. 358 (for example, in the situation where there has been non-compliance with the requirement for Ministerial approval in s. 358).

Nature of obligation in s. 415(4)

4.7 I note that the Auditor-General is the auditor for a council: s. 422(1). In that capacity, the duty imposed on the Auditor-General pursuant to s. 415(4) is that:

> "In auditing the financial reports of the council, a council's auditor must also audit the financial reports of any council entity and report on that audit as part of the report on the council by the auditor."

4.8 The duty in s. 415(4) arises and falls upon the Auditor-General in her capacity as the council's auditor. The Act does not appoint the Auditor-General (or any other person) as the independent statutory auditor of a council entity. Indeed, a council entity may have its own auditor. Rather, a duty to "audit the financial reports" of the council entity arises in the Auditor-General in her capacity as the *council's* auditor.

4.9 That being said, a duty to "audit the financial reports" of a body, in this case a council entity, is ordinarily the duty of that body's auditor. So too I understand that an "audit of a financial report" usually entails an auditor issuing an opinion on that financial report, *qua* auditor of the body. There is a clear tension in s. 415(4) between the fact that the Auditor-General is not the auditor of the council entity and yet is required to "audit" its financial report.

4.10 As a result, the scope and nature of the duty to "audit" the financial reports of a council entity pursuant to s. 415(4) is open to doubt. Nonetheless, I think the following points can be made about the preferable interpretation of that duty.

4.11 I note that "audit" is not a defined term in the Act (although pursuant to s. 421A it "includes examination and inspection"), nor does it have a clearly settled meaning in law generally. Rather, legislation typically sets the framework for auditing in relation to particular bodies. For example, the Auditor-General's role in auditing councils is detailed in s. 417, which provides for matters such as inclusions in the auditor's financial report and matters on which the opinion or statement of the Auditor-General is required.

4.12 It is clear, from the introductory words of s. 415(4) "*in auditing* the financial reports of the *council*..." (emphasis added), that the "audit" of the financial reports of a council entity forms part of the process of, or is a corollary to, the audit of the council. However, it is presumably not equivalent to the audit of the council, which is addressed in ss. 415(1)-(3), or the terms of s. 415(4) would be rendered otiose. For example, it must presumably go beyond the audit of financial transactions between the council and council entity which would already be encompassed by the terms of the audit of the council pursuant to ss. 415(1)-(3).

4.13 The apparent purpose of s. 415(4) is to provide that council entities must be considered or examined in conducting the audit of a council. As noted in the second reading speech for the amending bill[2] which introduced the now s. 415(4) and (5):

> "The bill... support(s) the financial transparency of councils... under the amendments introduced by the bill, councils will become subject to oversight by the Auditor-General for their general audits and those of their subsidiary entities..."[3]

[2] *Local Government Amendment (Governance and Planning) Bill 2016.*

[3] NSW Legislative Assembly, *Hansard*, 22 June 2016, Second Reading speech, Mr Paul Toole (Minister for Local Government).

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("Subsidiary entities" apparently being used to refer to "council entities".)

4.14 In that way, the provision mirrors the requirement in s. 358 for Ministerial approval for council establishment of, or involvement in, such entities, by providing for ongoing oversight of the relationship between the council and the council entity, at least in a financial sense. However, as noted above, exactly what the additional obligation introduced by s. 415(4) is, and how it is to be fulfilled, is unclear and beset with practical difficulties.

4.15 Significantly, ss. 423 and 424 support the audit obligation in s. 415(4) by extending to "council entities" as well as councils: see s. 423(6) and 424(3). Pursuant to s. 423, the Auditor-General (or a person authorised by the Auditor-General) is entitled at all reasonable times to full and free access to a council's (or council entity's) accounting records and other records necessary in order to carry out her functions. She may direct persons to produce books, record or other documents in their custody or control, to appear personally and produce such documents, to answer any relevant question, to provide any necessary authorities to gain access to such documents, and to make copies or take extracts from such documents for the purposes of an audit or inspection carried out under the Act.

4.16 Pursuant to s. 424, the Auditor-General (or a person authorised by the Auditor-General) may direct an authorised deposit-taking institution or the person in charge of a council (or council entity) account in such an institution to give her a statement of the account or certificate as to the balance of the account and produce to her any relevant book, record or other document in its custody or control. The effect of these provisions is that the Auditor-General's functions and powers under Div. 3 ("Auditors") of Pt. 3 of Ch. 13 of the Act are extended to apply to council entities in the same way they apply to councils. This may suggest an equivalent "audit" function is intended in relation to council entities, as applies to councils.

4.17 However, the provisions of Div. 1 ("Funds") and Div. 2 ("Accounting records, financial reports and auditing) of Pt. 3 of Ch. 13 of the Act are not uniformly extended to encompass council entities in the same way as they apply to councils. Of particular significance, ss. 412 and 413, which provide that a council must keep accounting records and prepare financial reports respectively, do not extend to council entities.

4.18 For this reason, there is no obligation pursuant to the Act for council entities to prepare financial reports, equivalent to that which applies to councils. To some extent, financial information about council entities may be included in the council's financial reports, which must be prepared in accordance with s. 413. That includes a requirement in s. 413(3)(a) that the financial statement be prepared in accordance with the publications in force issued by the Australian Accounting Standards Board, and would pick up controlled entities pursuant to those standards. Such controlled entities would

presumably also be "council entities" for purposes of s. 415(5) (although only a subset of the range of entities which may be council entities). However, it is for the council to determine appropriate compliance with s. 413 (although the Auditor-General may review this as part of her audit and report under s. 417). Even if, by that means, financial information about council entities is captured in the council's financial report, in my view, this has little application in terms of the s. 415(4) obligation. That is because the s. 415(4) "audit" obligation applies to "financial reports *of the* council entity" (emphasis added) and not the council's financial reports *per se*.

4.19 As noted in my discussion above about the diverse range of bodies potentially encompassed by the definition of "council entity", whether or not a council entity has prepared such a financial report will depend upon the nature of the entity and whether it is required to do so pursuant to other statutory regimes. In my view, that necessarily limits the operation of s. 415(4) to only those council entities which have such obligations elsewhere arising or which voluntarily prepare such reports, given the plain words of s. 415(4), that the audit is of "...the *financial reports* of any council entity..." (emphasis added).

4.20 In addition, it may limit the Auditor-General's ability to perform audit functions in relation to those financial reports, even where they do exist, depending upon the framework in which they have been prepared. As there is no means to compel a council entity to prepare a financial report in a particular manner pursuant to the Act, in my view the obligation in s. 415(4) upon the Auditor-General to audit the financial reports of a council entity can only extend to that which is reasonably possible having regard to the particular entity. It may be that, in practice, the Auditor-General can only comment on the limitations which apply to her audit.

4.21 In summary, it is clear that, whilst there is a diverse range of bodies which may constitute a "council entity", the obligation in s. 415(4) only arises in relation to "financial reports" and so only applies in relation to council entities which do prepare such financial reports. As to the nature of the duty to audit those financial reports, there are indications that s. 415(4) was intended to impose a duty of auditing of council entities which goes beyond that which would flow from proper auditing of the council in accordance with s. 415(2), and yet the scope of that duty is necessarily limited by the statutory context, functions and powers which are available to support it. The statutory language of s. 415(4) in my view reveals an intention to impose a duty on the council auditor in his or her capacity as council auditor (not as auditor of the council entity), and in the context of performing his or her audit of the council. That is, it is not an equivalent duty to that imposed in relation to the council, for which the Auditor-General is the auditor. Rather, the audit of the financial reports of the council entity must form, in some way, a component or part of the audit of the council.

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4.22 It is, in a practical sense, difficult to articulate precisely what that "audit" duty involves in the context of s. 415(4), beyond noting these features which point to it being less than equivalent to the role of an external auditor of the council entity (or equivalent to the audit of the council itself) and yet more than what would already be encompassed by the audit of the council pursuant to s. 415(1)-(3). What can be said is that the audit of the financial reports of a council entity should be conducted to the fullest extent necessary and possible to provide a report on that audit in the council report, in light of the audit functions and powers which the Auditor-General acquires in relation to both councils and council entities pursuant to Div. 3 of Pt. 3 of Ch. 13, especially ss. 423 and 424, as outlined above.

Conclusion re: proposed interpretation

4.23 Given the uncertainties about the scope of the duty in s. 415(4), outlined above, in my view your proposed construction of the duty is both reasonable and open. That is, your suggestion that the duty in s. 415(4) is that the Auditor-General (as the council auditor) is required to perform "those audit procedures on a council entity considered necessary to form an opinion on the council's consolidated general purpose financial report", is a clearly arguable interpretation of the duty, where it arises. I note that, strictly, I would prefer to phrase it as "those audit procedures necessary to form an opinion on the council's financial reports", but given that the report required pursuant to s. 417(1) of the Act is a report as to the council's general purpose financial report, I do not disagree with your phrasing. I also observe that, whilst an "audit of the financial reports" of a body may in other contexts generally be understood to require the issuing of an opinion by the auditor, in my view, the statutory context and fact that the Auditor-General performs the function in s. 415(4) in her capacity as auditor of the council, make it arguable that the duty can be discharged through performing "audit procedures" rather than necessarily requiring the issuance of an opinion by the auditor.

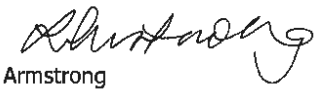
4.24 To the extent that your proposed construction of the duty in s. 415(4) also suggests that "any matters as appropriate in respect of a council entity are included in the report on the conduct of the audit of the council's financial report required pursuant to s. 417(1) of the Act", I agree that the duty in s. 415(4) is discharged by the auditor reporting on the council entity audit in the report on the council. The reference in section s. 415(4) to "the report on the council by the auditor" is, in my view, a reference to either of the two reports made under s. 417(1).

Comment: possible means to resolve uncertainty

4.25 The relevant provisions of the Act contain several powers for matters to be prescribed by regulation, which could assist to resolve the uncertainty and practical difficulties surrounding the operation of s. 415(4). The preparation and promulgation of regulations is a matter on which Parliamentary Counsel's advice should be sought, but I note the powers of regulation contained in s. 415(5)(a) and (b) as a potential means to clarify or limit the scope of the definition of "council entity", and the power in s. 415(3)

to regulate what matters an auditor must consider and provide comment on in auditing a council's financial reports, which could in turn assist to clarify the scope of the audit required pursuant to s. 415(4), given that such audit is performed as part of the audit of the council financial reports.

Signed:



Lea Armstrong
Crown Solicitor

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Professional people with purpose

OUR VISION

Our insights inform and challenge government to improve outcomes for citizens.

OUR PURPOSE

To help parliament hold government accountable for its use of public resources.

OUR VALUES

Purpose – we have an impact, are accountable, and work as a team.

People – we trust and respect others and have a balanced approach to work.

Professionalism – we are recognised for our independence and integrity and the value we deliver.

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ITEM FIN - 28/05/18 - POLICY REVIEWS

REPORT BY: CHIEF FINANCIAL & INFORMATION OFFICER

SUMMARY

The purpose of this report is to seek Council adoption of reviewed policies. As only minor changes were made to the policies, there is no requirement to place the policies on public exhibition.

COMMENTARY

Policy 9.3 Competitive Neutrality ensures that the Council deals with complaints regarding competitive neutrality in an efficient manner. The policy relates to the 1995 National Competition Policy which remains in effect with no change to the National Competition Policy since the last policy review in 2014.

Policy 9.7 Tenders – Canvassing / Lobbying of Councillors and Staff remains a relevant policy and no changes were required to policy document.

POLICY IMPLICATIONS
Implementation of reviewed Policy 9.3 Competitive Neutrality and Policy 9.7 Tenders – Canvassing / Lobbying of Councillors and Staff.

FINANCIAL IMPLICATIONS

- Budget approved – N/A
- Cost centre - N/A
- Expended to date - N/A
- Future potential impact - N/A

LEGAL IMPLICATIONS
Policies are prepared to assist in decision making and may provide further guidance with regard to statutory obligations.

ATTACHMENTS

1. Policy 9.3 Competitive Neutrality.
2. Policy 9.7 Tenders – Canvassing / Lobbying of Councillors and Staff.

RECOMMENDATION

THAT Council adopt the following reviewed policies:
1. Policy 9.3 Competitive Neutrality
2. Policy 9.7 Tenders – Canvassing / Lobbying of Councillors and Staff.

Lithgow CITY COUNCIL

Surrounded by Nature · Steeped in History

9. GOVERNANCE

Policy 9.3

COMPETITIVE NEUTRALITY

Version 4

9. GOVERNANCE

9.3 COMPETITIVE NEUTRALITY

OBJECTIVE:

To ensure Council deals with complaints regarding competitive neutrality in an efficient manner.

POLICY:

INTRODUCTION

In April 1995, the Council of Australian Governments (COAG) ratified the National Competition Policy. The Policy is aimed at increasing consumer and business choice, reducing production and transportation costs in an effort to lowers prices for goods and services, and creating an overall business environment in which to improve Australia's international competitiveness.

One of the major components of the National Competition Policy is the principles contained in the *Competition Principles Agreement.* The Agreement is aimed at encouraging, efficient public sector (government) service provision by exposing public (government) business functions to competition, where appropriate. The Agreement provides a policy framework that facilitates the creation of competitive markets for public sector goods and services, where appropriate.

The Competition Principles Agreement requires the creation of an effective regime to deal with complaints that Council business activities are not competing in the market against private businesses on a "level playing field" and are operating with competitive advantage.

This document constitutes a formal mechanism established by Lithgow City Council for the handling and management of competitive neutrality complaints. By establishing clear guidelines and procedures for the handling and management of competitive neutrality complaints, the Council will be in stronger position to ensure:

- non regulatory service functions operate under similar competitive pressures to those experienced by the private sector; and
- Services provided are relevant, cost effective and operationally efficient.

This document has a threefold purpose.

- Firstly, it may be used by members of the public and the owners of businesses competing in the same market as Lithgow City Council to submit complaints to the Council alleging that the Council is operating with net competitive advantages as a result of the Council's ownership of a business activity or service.
- Secondly, it will provide a formal mechanism for the investigation, determination and advice of the outcome of a complainant alleging that non regulatory service functions discharged or business activities operated by the Council are operating with competitive advantage over other private businesses.
- Thirdly, it will serve to ensure that Council staff continuously monitor non regulatory services provided by the Council and that services provided operate under the principles of Competitive Neutrality.

THE COMPETITIVE NEUTRALITY PRINCIPLE

Competitive neutrality is one of the principles of National Competition Policy which is applied throughout Australia at all levels of Government, including Local Government. Competitive neutrality is based on the concept of a "level playing field" for competitors in a market, be they public or private sector competitors. Government business organisations, whether they are Commonwealth, State or Local Government, should operate without net competitive advantages over businesses as a result of their public ownership.

Where Lithgow City Council competes in the market place with other private businesses, the Council will do so on the basis that it does not utilise its public position to gain an unfair advantage over private businesses who may be in competition with the Council.

WHAT IS A COMPETITIVE NEUTRALITY COMPLAINT?

A complaint regarding competitive neutrality **IS**:

- A complaint Lithgow City Council has not met its requirements under the National Competition Policy Statement of Pricing and Costing for Council Businesses - a Guide to Competitive Neutrality and includes concern that the Council has not established an effective Competitive Neutrality Complaints Management System.
- A complaint that Lithgow City Council has not abided by the spirit of competitive neutrality in the conduct of Council business activities.

A competitive neutrality complaint is **NOT**:

- A complaint regarding the level of service provided by a business activity such as water quality inadequate, a mobile garbage bin not collected or the condition of a road or footpath.
- A complaint regarding the cost of the service, unless it is that Lithgow City Council has not costed the service the service to take competitive neutrality into account.
- A complaint regarding the trade practices laws and their application to the Lithgow City Council.

COUNCIL BUSINESS ACTIVITIES SUBJECT TO COMPETITIVE NEUTRALITY

Category 1 Business Activities

The following Lithgow City Council owned and operated activities have been categorised as *Category 1 Businesses* and are subject to competitive neutrality. Each business activity has an annual gross operating income over $2M per year.

- Water
- Sewerage

Council has adopted the following attributes in respect of Category 1 Business Activities:

- A Corporatisation Model
- Full cost attribution including:
  - tax equivalent regime payments
  - debt guarantee fees, where the business benefits from Council's borrowing position by comparison with commercial rates
  - return on capital invested
- Identified any subsidies paid to the business
- Operate within the same regulatory framework as private businesses

HOW TO LODGE A COMPETITIVE NEUTRALITY COMPLAINT

A competitive neutrality complaint should be made in writing using a standard form available for that specific purpose from the Customer Service Centre at the Lithgow City Council Administrative Headquarters, 180 Mort Street Lithgow.

Complaints may also be made over the counter and by telephone. Council's Public Officer will provide advice and assistance with the preparation and submission of competitive neutrality complaints.

1. Time Limits

Competitive neutrality complaints will be acknowledged within 7 days and responded to by Lithgow City Council within 30 days of the date of submission of the complaint.

If the competitive neutrality complaint requires detailed investigation, the complainant will be informed of progress at regular intervals.

2. Remedies

Competitive neutrality complaints which establish that Lithgow City Council:

(i) has not met its requirements under the National Competition Policy Statement or *Pricing and Costing for Council Businesses - a Guide to Competitive Neutrality;*

OR

(ii) has not abided by the spirit of competitive neutrality in the conduct of Council business activities,

will result in changes to the Council's business practice to ensure future and continued compliance with the principle of competitive neutrality.

3. Alternatives

Any complainant dissatisfied with Lithgow City Council's determination of a competitive neutrality complaint may refer the complaint to either the:

- NSW Department of Local Government; or
- NSW Ombudsman; or
- NSW Independent Commission Against Corruption (ICAC); or
- Australian Competition and Consumer Commission (ACCC).

Alternatively, the competitive neutrality complaint may be referred direct to one of these agencies and Lithgow City Council bypassed.

WHO WILL BE DEALING WITH THE COMPETITIVE NEUTRALITY COMPLAINT?

The Lithgow City Council Public Officer will diligently, fairly and honestly investigate all competitive neutrality complaints. The Public Officer will submit an investigation report to the Council's General Manager within 21 days of the competitive neutrality complaint being received. Where the complaint is justified, such report will contain recommendations for changes to the Council's business activities practice to ensure future and continued compliance with the principle of competitive neutrality.

A response to the competitive neutrality complaint will be provided by the General Manager within 30 days of the date of submission of the complaint.

The Public Officer performs a role which is independent and separated from the management and control of Council business activities.

CONFIDENTIALITY

All competitive neutrality complaints received will be determined by the Council in the strictest confidence.

FURTHER INFORMATION

Further information or advice may be obtained by contacting the Lithgow City Council Public Officer between 8.15 am and 4.30 pm on telephone (02) 6354 9999. All enquiries or requests for further information will be maintained in the strictest confidence.

Maintained by Department:	Executive	**Approved by:**	Council		
Reference:	Dataworks: Policy Register	**Council Policy No:**	9.4	**Effective Date:**	21 Oct 2008
Min No:	V1 - 06-349 V2 - O08-165 V3 – 14-140	**Version No:**	2	**Review Date:**	Oct 2009 July 2014
Attachments:					

9. GOVERNANCE

Policy 9.7

TENDERS – CANVASSING / LOBBYING OF COUNCILLORS AND STAFF

Version 4

9. GOVERNANCE

9.7 TENDERS - CANVASSING/LOBBYING OF COUNCILLORS AND STAFF

OBJECTIVE:

To ensure the probity and integrity of the Public Tender Process pursuant to Section 55 of the Local Government Act, 1993 and the Local Government (General) Regulation 2005.

POLICY:

For the purpose of ensuring and maintaining the integrity and probity of the process of invitation and acceptance of tenders, tenderers are expected to refrain from the canvassing or lobbying of councillors and staff.

Action of this nature could result in the disqualification of the tender on the grounds that the tenderer has attempted to influence the impartial performance of the public duty of councillors and staff.

The canvassing or lobbying of councillors or staff accompanied by the offer of a bribe or other inducement constitutes corrupt conduct and will be reported to the Independent Commission Against Corruption for appropriate action to be taken.

The Council's Tender Specification and Public Advertisement will include the following reference to canvassing or lobbying councillors and staff.

Canvassing or lobbying for the purpose of the attempting to influence the impartial performance of the public duty of councillors and Council staff could result in disqualification of the tender.

Maintained by Department:	Executive	**Approved by:**	Council		
Reference:	Dataworks: Policy Register	**Council Policy No:**	9.7	**Effective Date:**	21 Oct 08
Min No:	V1 - 06-349 V2 - O08-165 V3 – 14-138	**Version No:**	3	**Review Date:**	Oct 2009 Jul 2014
Attachments:					

ITEM FIN - 28/05/18 - PROVISIONS 30/06/17 AND DEBT WRITE OFF

REPORT BY: CHIEF FINANCIAL AND INFORMATION OFFICER

REFERENCE

Min No 17-63 Ordinary Meeting of Council 27 February 2017.

SUMMARY

For Council to consider the write off of doubtful debts and inventory stock provisions for 30 June 2017 and bad/unrecoverable debt for the financial year ending 30 June 2018.

COMMENTARY

During 2016/17, Council's Store and Depot identified a number of stock items that were obsolete or out of date and recommended that they be written off and removed from the store. A provision was raised at 30 June 2017 totalling $30,169.24. Attachment 1 provides a list of store items included in the provision. As these items were provided for in the 30 June 2017 financial statements, there are no financial implications for the operating budget in the current financial year ending 30 June 2018.

Council's contract auditors, Crowe Horwath, in conjunction with Council's Finance Department reviewed debtors/accounts receivable for the financial year ending 30 June 2017 and recommended that Council make a provision for bad debts totalling $252,403.04. As these items were provided for in the 30 June 2017 financial statements, there are no financial implications for the operating budget in the current financial year ending 30 June 2018. Attachment 2 provides a list of debtors and the reason they have become bad/unrecoverable.

In addition, Council's Finance Department recommends writing off legal fees which are related to a debt which was written off last financial year. The total recommended for write off is $1,218.20. Attachment 2 provides details the debt. Refer Council Minute 17-63 (Ordinary Meeting 27 February 2017) for the original debt write off.

POLICY IMPLICATIONS
Local Government Code of Accounting Practice and Financial Reporting and Australian Accounting Standards Board – AASB137 – Provisions, Contingent Liabilities and Contingent Assets and AASB1049 – Whole of Government and General Government Sector Financial Reporting.

FINANCIAL IMPLICATIONS

- Budget approved - $71,848.01(doubtful debts expense)
- Cost centre – 3269 - General Purpose Revenue
- Expended to date - Nil
- Future potential impact - Nil

LEGAL IMPLICATIONS
Nil

ATTACHMENTS

1. Inventory stock listing provided for 30 June 2017
2. Bad/unrecoverable debts list

RECOMMENDATION

THAT Council write off:

1. $30,169.24 of provisions as requested by Crowe Horwath at 30 June 2017 in accordance with AASB137 - Provisions, Contingent Liabilities and Contingent Assets and AASB1049 – Whole of Government and General Government Sector Financial Reporting.
2. $252,403.04 of unrecoverable debts in accordance with AASB1049 – Whole of Government and General Government Sector Financial Reporting.
3. $1,218.20 of unrecoverable debts in accordance with AASB1049 – Whole of Government and General Government Sector Financial Reporting.

Product Number	Description	Quantity	Value	Fund
064305	203X13mm Bolt	17	4.25	General
064205	254x16mm Bolt	12	5.28	General
075720	½”CU no12 Elbow	252	89.74	General
073205	1”x2” Gal Tee	2	4.11	Water
066704	90deg Malco	1	13.65	Water
064005	140x16mm Bolt	12	21.85	General
064105	203x16mm Bolt	6	4.36	General
079946	3”x5/8” Bolt	75	74.74	Water
076015	152x16mm Bolt	45	112.59	General
613140	Flexi Guide Post	620	12,028.00	General
613120	Flexi Guide Post 360Deg	6	144.00	General
613110	Guide Post PVC	4	36.00	General
409000	Insulation Bat	4	52.50	General
606121	CI Hydrant Box	6	391.11	Water
014401	6”Leak Clamp	2	315.47	Water
326555	1L Sunscreen	1	21.94	General
428120	Replaceable Cartridge	7	86.66	General
428110	Respirator	1	15.38	General
428115	Respirator Filter	8	1,367.20	General
203200	Graffiti Gel	2	39.49	General
000238	Dressing Pack	4	3.00	General
000255	Eye Wash	75	39.90	General
000260	Eye Wash	10	9.50	General
000220	Antiseptic wipes	62	4,777.10	General
000262	Eye Pad	40	9.80	General
094110	94L Drill Pants	13	310.25	General
077218	77R Cargo Pants	1	31.90	General

089118	89L Cargo Pants	8	260.00	General
094118	94L Cargo Pants	1	27.55	General
117318	117S Cargo Pants	2	65.00	General
026048	4XL ½ Zip Polar	3	96.92	General
515209	5XL Polo	2	55.86	General
112210	112R Drill Pants	3	78.14	General
082216	82R Shorts	12	224.37	General
097224	97R A/Back	2	75.66	General
092324	92S A/Back	2	51.00	General
092320	92S Overalls	2	95.60	General
057028	Green Hat	8	116.59	General
314021	Respirator Cartridge	2	33.44	General
314070	Dispos Lens	13	41.45	General
314090	Dispos Lens	9	17.96	General
511900	Lab Check Oil Test	7	195.65	General
302600	Globe BC Clear 150W	49	77.04	General
302700	Globe BC Clear 200W	21	51.58	General
087213	87R Olive P/Press Trousers	3	88.17	General
087313	87S Olive P/Press Trousers	2	53.78	General
026030	4XL Green/Yellow Flying Jacket	1	41.08	General
022039	2XL Yellow Rain Trousers	2	9.59	General
020039	XL Yellow Rain Trousers	7	36.15	General
016039	M Yellow Rain Trousers	4	22.14	General
018039	L Yellow Rain Trousers	4	24.50	General
022038	¾ 2XL Rain Coat	8	55.08	General
022037	2XL Rain Jacket	1	6.97	General
515209	5XL Green/Yellow Polo Top	2	55.86	General
602920	602920/ 6” CI Gibbolt	12	949.31	Water

615420	10” Stop Valve FL	2	2,577.65	General
322720	Tidy Dog Bin	2	1,266.67	General
200010	Super Petrol	1100	777.83	General
213404	Super Petrol - Wallerawang	2100	1,409.90	General
213410	Unleaded Petrol - Wallerawang	960	1,220.98	General
		Total Value	**$ 30,169.24**	

ATTACHMENT 2

BAD / UNRECOVERABLE DEBTS

- CBA Investment totalling $7,996.34: an investment of $500,000 was made during the Global Financial Crisis. Council was able to recover 32.5% of its capital losses via a class action against the Commonwealth Bank. $7,996.34 of the recoverable amount of $162,500 was held by Squire Patton Boggs as Council's pro-rata share of project costs and management fees. The amount of $7,996.34 requires write-off as unrecoverable income.
- Black Bridge Grant Debtor $45,723.23: the amount was accrued as a grant debtor for the year ended 30 June 2016. During the next financial year there was a contract dispute with the works contractor. The settlement agreed to was over and above the scope of works and hence, Restart NSW was under no obligation to cover costs as per the project agreement.
- Public Works Snow Storm Debtor $198,683.47 – this amount was raised as a debtor due to expenses incurred by Council to undertake necessary emergency works. Council has gone through an assessment process with the Department of Public Works regarding eligibility of expenditure and the department has determined only $10,698 of the original claim will be reimbursed in accordance with funding conditions. This will result in a write-off of $198,683.47.

REMAINING DEBT WRITE-OFF

Michael Bell (BELL2-00)

On 27 February 2017, Council approved the write off of provisions at 30 June 2016 (Minute No. 17-63). The write off included an amount owed by debtor BELL2-00, totalling $10,253.94. The debt related to damage to a Council guardrail. The amount written off included part of the legal fees. The balance of legal fees amount to $1,218.20 and are still outstanding. The debt was written off after an extensive legal process to locate the debtor via a skip trace. Council's debt recovery firm were unable to locate Michael Bell but believe he is possibly overseas.