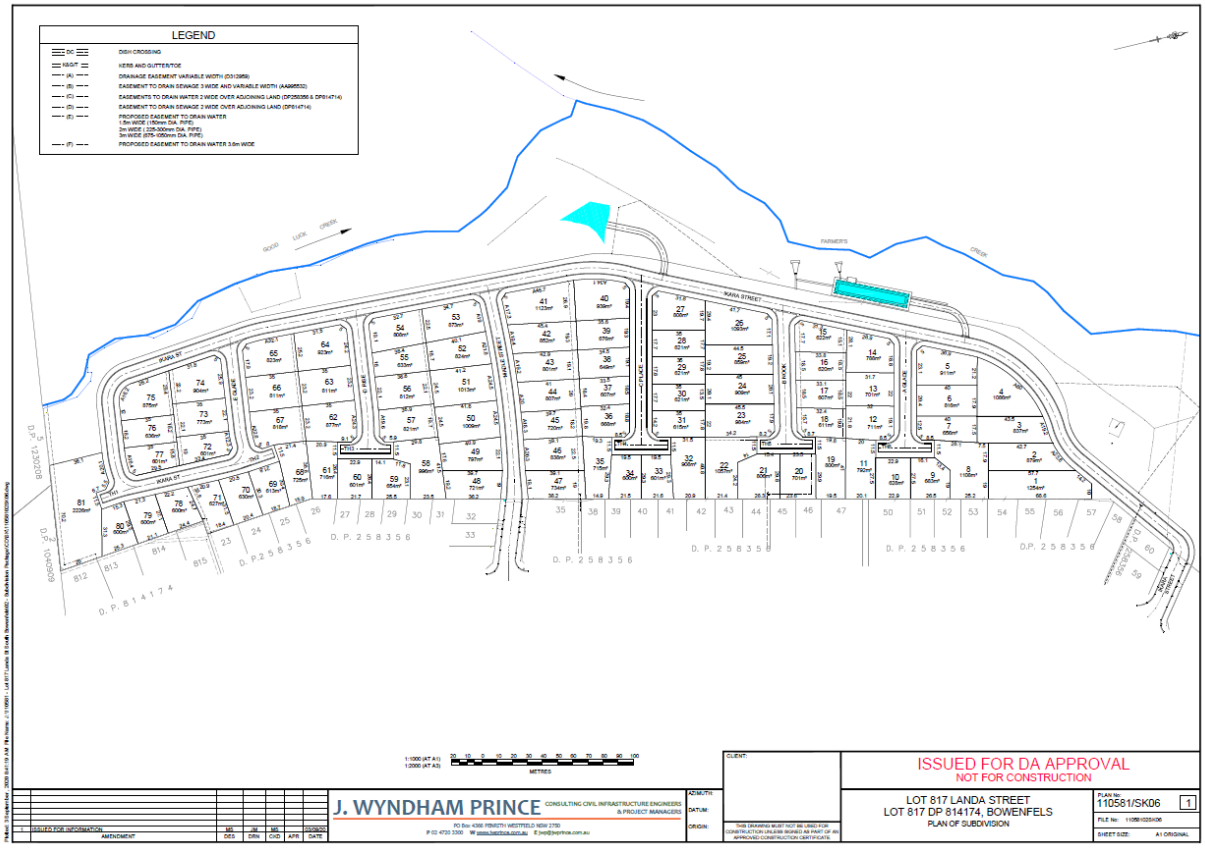
DEVELOPMENT ASSESSMENT REPORT – DA230/18 - SUBDIVISION – 81 RESIDENTIAL LOTS IKARA STREET, LITHGOW (LOT 817 DP 814174)

1. PROPOSAL

Development Application (DA230/18) was submitted to Council on 19 September 2018 seeking consent for the subdivision of Lot 817 DP 814174 (5 Ikara Street, Lithgow) into 81 residential lots. The proposal also includes new roads, provision of infrastructure services and the creation of a residue open space lot along the Good Luck Creek and Farmers Creek foreshore.

An extract of the plans submitted for approval is provided below:



The subject land has an area of 13.58 hectares and gently slopes towards the west with a steep drop off at the creek foreshore. Several minor drainage lines running east to west across the site also dissect the land. The subdivision design incorporates provision for these drainage lines and proposes to dedicate to Council the foreshore area for public purposes. This will include stormwater and sewer infrastructure and an area of open space that will include restored and rehabilitated riparian vegetation as part of the proposal.

The land directly adjoins the western edge of the Lithgow urban area (existing residential allotments off Landa Street) and adjoins Good Luck Creek and Farmers Creek to the west.

The new roads in the subdivision will connect to existing formed roads (Madle Street and Ikara Street) which run off Landa Street.

Two stormwater detention facilities are proposed within the open space area on the western side of the property adjacent the creek and will collect and manage stormwater runoff from the subdivision and from further upstream.

In general the lot layout and subdivision design will result in suitably sited lots that will facilitate their future development for residential purposes. The majority of the lots are north oriented and will have an acceptable gradient to enable the design and construction of future dwellings in a sustainable and livable manner with good amenity. In this regard, the subdivision is supported from a design perspective.

2. SUMMARY

To assess and provide a recommendation for the determination of DA 230/18 by way of approval subject to conditions.

3. LOCATION OF THE PROPOSAL

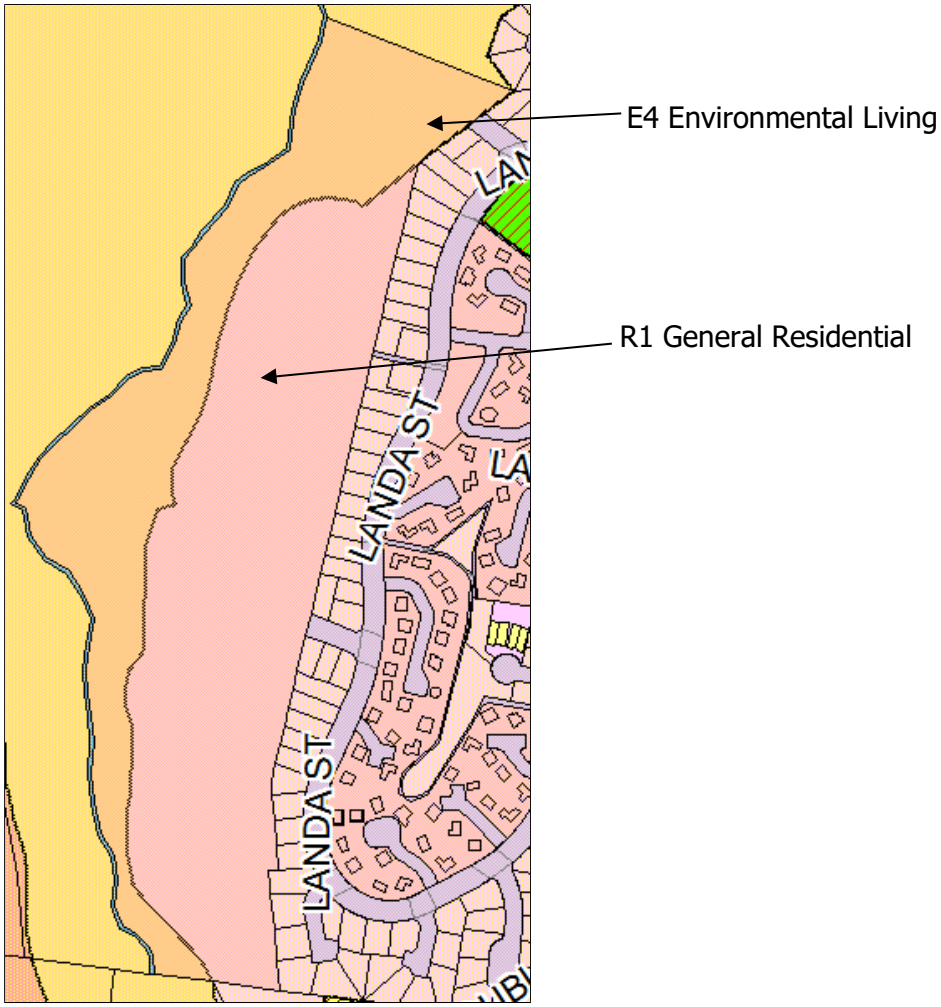
Legal Description:	Lot 817 DP 814174
Property Address:	5 Ikara Street, Lithgow

The general location of the subject land is shown in the map below.

The land is currently vacant and has no recognised former land uses. It is likely the land has been used for grazing purposes in the past but is believed to have remained vacant and unused since the development of the Landa Street subdivision in the 1970s. An image showing the current typical physical conditions of the site is provided below:

4. ZONING

The land is zoned part R1 General Residential and part E4 Environmental Living under the *Lithgow Local Environmental Plan 2014* (LEP). All the proposed residential lots are within the R1 zone. Some of the roads, the proposed open space lot, and certain infrastructure facilities are located within the E4 zone. An extract of the zoning map is provided below:



5. PERMISSIBILITY

The subdivision of land requires development consent under the provisions of clause 2.6 of the LEP. The proposed residential lots in the R1 zone will enable their future development for residential purposes under the LEP provisions.

5.1 POLICY IMPLICATIONS (OTHER THAN DCP's)

Policy 1.2 Acquisition and Disposal of Assets
The development will result in the acquisition and/or development of assets including new roads, water and sewer infrastructure, a new sewer pump station, stormwater treatment infrastructure and the dedication of open space. This aspect of the proposal has been assessed and is considered acceptable subject to consent conditions regulating the relevant approval process and construction of the assets to Council's specifications.

Policy 7.5 Notification of Development Applications
This policy has now been repealed and replaced by the Lithgow Community Participation Plan. At the time the application was submitted, the development proposal was placed on public exhibition for 28 days with surrounding landowners notified in accordance with the above policy in force at the time. No submissions were received from the public during the public exhibition period. In addition, the proposal was advertised in the local newspaper on four occasions during the public exhibition period.

Policy 7.10 Voluntary Planning Agreements
The applicant has offered to enter a Voluntary Planning Agreement (VPA) with Council as part of the development in accordance with section 7.4 of the *Environmental Planning & Assessment Act 1979.* The draft agreement submitted with the proposal will result in the payment of a contribution of $6,600 per lot (total of $534,600) to Council for community facilities and open space infrastructure. This proposal is considered acceptable and the draft Voluntary Planning Agreement is being reported to Council concurrently with this application with a recommendation approval and public exhibition in accordance with the requirements of this policy.

5.2 FINANCIAL IMPLICATIONS

Development Servicing Plan for Water & Sewerage
Section 64 of the *Local Government Act 1993* enables a local government council to levy developer charges for water supply and sewerage. Lithgow City Council levies these charges under its Development Servicing Plan for Water & Sewerage 2018 (DSP). The DSP allows Council to require a monetary contribution for the provision of water supply and sewerage services, proportional to the demands generated by development and to facilitate the provision of water supply and sewerage assets to meet the levels of service. 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. The subdivision will increase the demand for water and sewer services and will be levied contributions under the DSP. These will be payable prior to the issue of a Subdivision Certificate and will be included in consent conditions.

Section 94A (Section 7.12) Development Contributions Plan 2015
The Section 94A plan does not apply to this development.

Planning Agreements
A Voluntary Planning Agreement (VPA) has been negotiated with the developer in relation to this proposal. The developer has agreed to make a contribution of $534,600 ($6,600 per residential lot) to go toward community facilities, open space and infrastructure.

5.3 LEGAL IMPLICATIONS

Conveyancing Act 1919
Deposited Plan 814174 references drainage and sewage easements and a right of carriageway affecting the land. This provides servicing to an existing sewage pump station located in the northern section of the property. As part of this proposal, the existing pump station will be decommissioned and the right of carriageway extinguished. New easements for services will be incorporated into the final subdivision plans for the site. The application was referred to Endeavour Energy in relation to the electrical easement with conditional support provided.

Local Government Act 1993
If this application is approved, the applicant must obtain a written Section 68 application for the design and connection to Council's water and sewerage supply. This must be lodged and approved prior to commencement of any work on site and shall be at full cost to the applicant.

The Section 68 application requires the submission of all detailed engineering drawings/design, specifications and any applicably supporting information for the proposed works. All conditions of the Section 68 Approval must be complied with prior to the release of the Subdivision Certificate.

Biodiversity Conservation Act 2016
The proposal has been assessed in relation to clearing of native vegetation and the Biodiversity Offset Scheme threshold under the provisions of this Act. The works proposed do not require any further biodiversity assessment under this scheme. A desktop assessment of threatened species using the BioNet Atlas has also been undertaken and has not identified any threatened species present either on the site or within the locality.

Water Management Act 2000
The development proposes infrastructure works within/adjacent to a waterway and on water front land and which are "controlled activities" requiring approval under Section 91 of this Act. Because of this the development is "integrated development" under Section 4.46 of the *Environmental Planning & Assessment Act 1979.* In this regard, the application was referred to Natural Access Resource Regulator for an Integrated Approval. General Terms of Approval have been provided in response to the referral and satisfy the requirements of this Act. Development requiring integrated approval under the *Water Management Act 2000* is also identified in Schedule 1 of the *Environmental Planning & Assessment Act 1979* as "nominated integrated development" which requires a minimum public exhibition period of 28 days. The proposal was advertised in the local newspaper over a 4 week period which satisfies the above requirement

Rural Fires Act 1997
The development requires approval as a "special fire protection purpose" under section 100B of the *Rural Fires Act 1997*. Because of this the development is "integrated development" under Section 4.46 of the *Environmental Planning & Assessment Act 1979.* The application was referred to the NSW Rural Fire Service for approval under the above Act. A "bushfire safety authority" has been issued by the RFS for the proposal subject to consent conditions.

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 4.15 of the *Environmental Planning and Assessment Act 1979*. These matters for consideration are as follows:

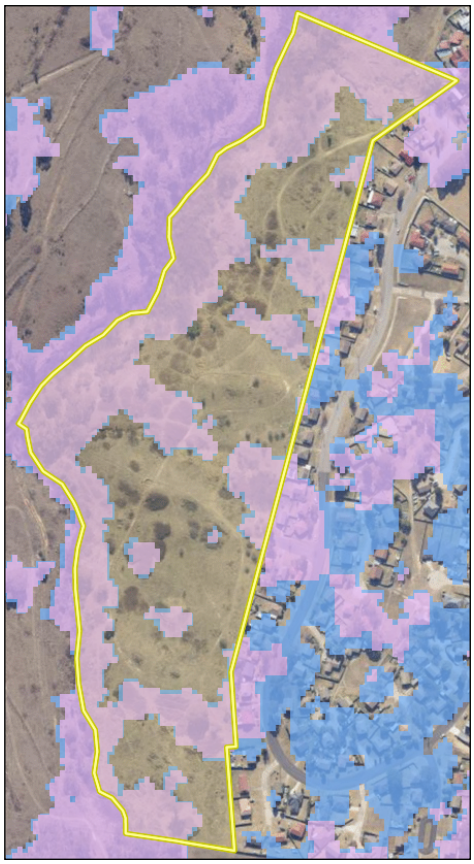
5.3.1 Any Environmental Planning Instruments

State Environmental Planning Policy (Koala Habitat Protection) 2019
Clause 9 of this SEPP requires the assessment of a development application to which the SEPP applies to take into account the requirements of the Koala Habitat Protection Guidelines. Development is classified as Tier 1 – Low or No Impact Development in the Guidelines where it meets all of the following criteria:

1. Indirect impacts that will not result in clearing of native vegetation within koala habitat,
2. The development is below the Biodiversity Offsets Scheme threshold under the BC Act,
3. There is no native vegetation removal,
4. The development footprint will not impede movement between koala habitat,
5. Adequate mitigation measures such as those listed in Table 1 of the guidelines are implemented as necessary.

Most of the proposed development will take place on land predominantly cleared of native vegetation. Areas of identified significant vegetation in the riparian zone along Farmers Creek will be protected and rehabilitated as part of the proposal. The proposed subdivision will not impede movement between koala habitat and will be generally consistent with the recommendations in Table 1 of the guidelines. Based on the above, the proposal is consistent with the requirements of this SEPP.

The Koala Development Application Map is shown below:



Koala Development Application Map

Site Investigation Area for Koala Plans of Management

State Environmental Planning Policy (Infrastructure) 2007

The development application was referred to Endeavour Energy as the incumbent energy authority for the area in accordance with clause 45 of this SEPP. The proposed development is within proximity of existing electricity infrastructure and may require the upgrade of these services. Endeavour Energy have provided conditional support for the proposal.

State Environmental Planning Policy No 55—Remediation of Land

The land has been subject to small scale illegal waste dumping for many years identifying potential contamination of the land. The application has been submitted with a "preliminary site investigation" for potential contamination prepared in accordance with State government guidelines. This assessment concludes that the land has been in a virtually natural state apart from clearing for grazing purposes for the last 50 years, and no contaminating activities are suspected to have had an impact on the land.

The pattern, type and mature size of the vegetation viewed from the aerial and site photos show that there has been no development on the site aside from some grazing in the past. The

size and relatively untouched condition of the vegetation including trees shrubs and grasses also indicates an absence of activity on the site.

The waste identified on the property appears to be domestic household goods that have been left on the property over time. The waste appears to have not impacted the soil in any way and would be removed from the property and taken to landfill. Any asbestos found would be removed in an appropriate manner.

The preliminary contamination report has been assessed and is considered satisfactory. No further investigation is required.

State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

The land is within the Sydney Drinking Water Catchment and has been referred to Water NSW for concurrent approval in accordance with the requirements of this SEPP. Development in the drinking water catchment is required to demonstrate a "neutral or beneficial effect" on water quality. Water NSW have assessed the proposal and have provided approval subject to consent conditions.

Lithgow Local Environmental Plan 2014

LEP 2014 – Compliance Check		
Clause		**Compliance**
Land Use table	R1 General Residential	Yes
Land Use table	E4 Environmental Living	Yes
4.1	Minimum subdivision lot size	Yes
7.1	Earthworks	Yes
7.2	Flood Planning	Yes
7.3	Stormwater management	Yes
7.4	Terrestrial biodiversity	Yes
7.6	Riparian land and watercourses	Yes
7.7	Sensitive lands	Yes
7.10	Essential Services	Yes

The proposed development will take place within zones R1 and E4. It is generally consistent with the zone objectives as outlined below

Objectives of the R1 General Residential Zone

- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To maintain or improve the water quality of receiving water catchments.*

The proposal will subdivide the land into 81 residential allotments within the R1 zone and will facilitate the future development of the land for housing and the general suite of residential and ancillary uses permitted in the R1 zone. The land adjoins Good Luck Creek and Farmers Creek and the impacts of the development on water quality, particularly in these waterways, has been assessed by both Council and WaterNSW.

Objectives of the E4 Environmental Living Zone

- *To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.*
- *To ensure that residential development does not have an adverse effect on those values.*
- *To maintain the rural character of the land in the zone while preserving the land for future urban growth.*
- *To ensure that development does not create unreasonable and uneconomic demands for the provision or extension of public infrastructure, amenities and services.*
- *To maintain or improve the water quality of receiving water catchments.*

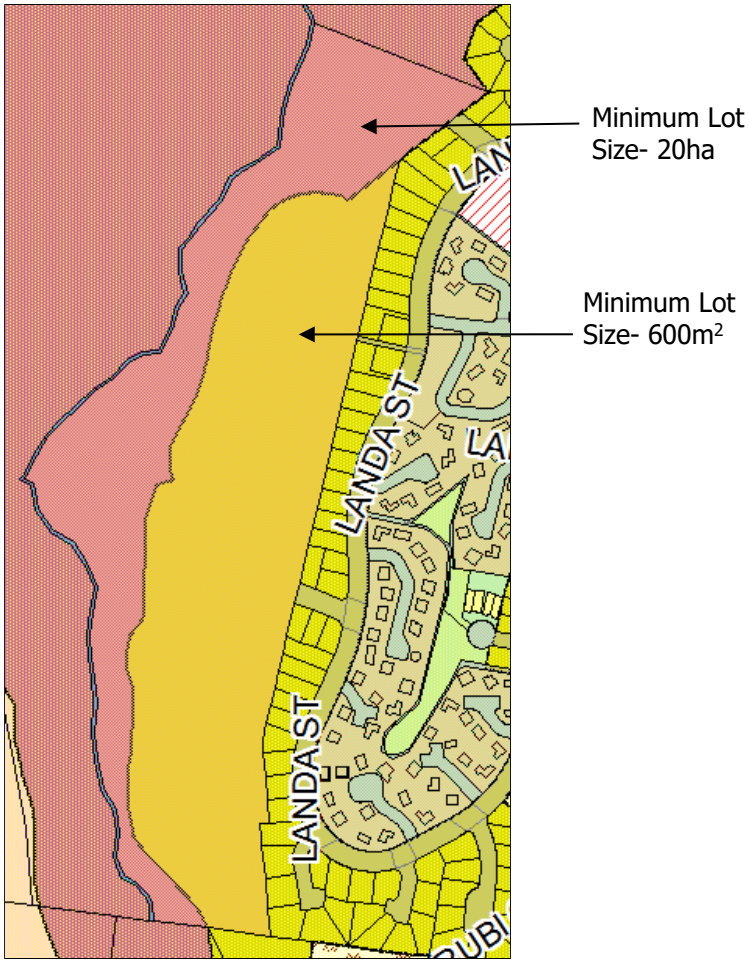
Some of the infrastructure works and roads proposed with the subdivision will be located within the E4 zone. No specific residential uses or residential lots are in the E4 zone. The proposal generally maintains the ecological and aesthetic features of the area.

Clause 4.1 Minimum Subdivision Lot Size

Clause 4.1 of the LEP provides the following:

> ***4.1 Minimum subdivision lot size***
> *(1) The objectives of this clause are as follows:*
> *(a) to minimise the cost to the community of:*
> *(i) fragmented and isolated development of rural land, and*
> *(ii) providing, extending and maintaining public amenities and services,*
> *(b) to ensure that the character and landscape setting of an area is protected and enhanced by any development,*
> *(c) to promote development on appropriately sized lots and to ensure access to available essential services.*
> *(2) This clause applies to a subdivision of any land shown on the Lot Size Map that requires development consent and that is carried out after the commencement of this Plan.*
> *(3) The size of any lot resulting from a subdivision of land to which this clause applies is not to be less than the minimum size shown on the Lot Size Map in relation to that land.*

The minimum lot sizes prescribed in the LEP for the land are shown in the Lot Size Map extract below:



The proposed residential lots within the designated 600m² minimum lot size area all exceed this size and the proposal therefore satisfies the requirements of this clause.

The area of the land within the E4 Environmental Living Zone is subject to a minimum lot size of 20 hectares. This land will be primarily contained within the residual lot and dedicated for open space and public infrastructure. Although the residual lot will have an area less than the prescribed minimum, the provisions of clause 4.1B apply. This clause provides as follows:

4.1B Minimum subdivision lot size for certain split zones

(1) The objectives of this clause are as follows:

(a) to provide for the subdivision of lots that are within more than one zone but cannot be subdivided under clause 4.1, 4.1AA or 4.2C,

(b) to ensure that the subdivision occurs in a manner that promotes sustainable land uses and development.

*(2) This clause applies to any lot (an **original lot**) that contains:*

(a) land in a residential, business or industrial zone, and

(b) land in a rural or environment protection zone.

(3) Development consent may be granted to the subdivision of an original lot to create other lots if:

(a) one of the resulting lots will contain:

(i) all of the land of the original lot that is in a rural or environment protection zone, and

(ii) land in a residential, business or industrial zone that has an area not less than the minimum size shown on the Lot Size Map in relation to that land, and

(b) each of the other resulting lots will have an area that is not less than the minimum size shown on the Lot Size Map in relation to that land.

(4) Development consent may be granted to the subdivision of an original lot to create another lot that:

(a) contains land in an environment protection zone, and

(b) is less than the minimum size shown on the Lot Size Map in relation to that land, but only if the consent authority is satisfied that the resulting lot will be used for a public purpose.

(5) Subclauses (3) and (4) have effect despite clauses 4.1, 4.1AA and 4.2C.

(6) Land identified as "Area 1" or "Area 2" on the Lot Size Map may not be subdivided under this clause.

(7) Development consent may only be granted under this clause if the consent authority is satisfied that the subdivision:

(a) is not likely to have a significant adverse impact on the environmental values of the land, and

(b) will not compromise the continued protection or long-term maintenance of any land in an environment protection zone, and

(c) is not likely to have a significant adverse impact on the primary production value of land in a rural zone.

The land within the E4 zone will be dedicated to Council for open space and drainage reserve. Because of this, Council is satisfied that the development complies with the requirements of the above clause as the proposed residential allotments are located within the R1 General Residential Zone and the open space/drainage lot will be wholly within the E4 Zone. The proposal will not have a significant impact on the environmental values of the land or the continued protection, or long-term maintenance of the area, subject to conditions.

Clause 7.1 Earthworks

This clause requires assessment of earthworks in association with a development proposal to ensure they will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

Large scale earthworks will be required as part of the proposal for infrastructure servicing, road construction and the filling/levelling of land for future residential uses. Adequate provision has been made in the design to minimise the effects of earthworks. In general, the proposed earthworks are considered acceptable and can be supported subject to consent conditions.

Clause 7.2 Flood Planning

The objectives of this clause are as follows—

(a) to minimise the flood risk to life and property associated with the use of land,

(b) to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change,

(c) to avoid significant adverse impacts on flood behaviour and the environment.

The riparian areas of the land are flood affected as identified in Council's flood study 2017. The area located within the flood mapped area is will contain the open space area with the majority of the development, including roads and residential lots, elevated and outside the flood affected area. In general, the proposal is consistent with the objective above.

Clause 7.3 Stormwater Management

The objective of this clause is to ensure development is designed to minimise the impacts of urban stormwater on land in urban zones and on adjoining properties, native bushland and receiving waters.

The proposed development has been submitted with a stormwater management plan that has been assessed by Council and Water NSW and is considered to satisfactorily address the stormwater impacts of the development. The design of the subdivision has considered the existing stormwater overflow that flows from adjoining land and incorporates stormwater management infrastructure to accommodate and adequately treat the runoff flows from the development.

The significant vegetation on the land is along the riparian corridor and within the E4 Environmental Living Zone. The biodiversity mapping under Council's LEP 2014 identifies the majority of the vegetation along the riparian corridors is an Endangered Ecological Community (EEC) being identified as Tableland Granite Grassy Woodland (Southern Tableland Grassy Woodland). It will be retained within the open space allotment. Therefore Council requested a more detailed site specific Vegetation Management Plan (VMP) to be prepared to ground truth and assess the vegetation on site. It would be conditioned on the consent that a full VMP be undertaken. Revegetation works such as weed removal and bush regeneration, are also proposed around the waterways.

The removal of vegetation has been minimised through the design and layout of the subdivision. The proposed removal of vegetation will be minimal and mainly for the provision of road and civil infrastructure. The development is not expected to have an impact to biodiversity structure, function or significance.

The development will require earthworks to be undertaken for civil and road works of the subdivision. This will be completed in stages and impacts minimised by proposed conditions of consent to control erosion and sedimentation issues. The development has also been assessed by Natural Resources Access Regulator in which conditions to protect the riparian corridor has been undertaken with no objection subject to conditions of consent being imposed if approved. The proposed works are necessary to allow for the development which is a suitable design for the area and enhances the existing landscape.

Swales are proposed to be created on the dedicated open space lot to treat water runoff from the roads and lots. The lots will require inter-allotment drainage with the construction of pit and pipe to direct the stormwater across the site and into the swale for treatment. This is considered satisfactory for the development.

Clause 7.4 Terrestrial Biodiversity

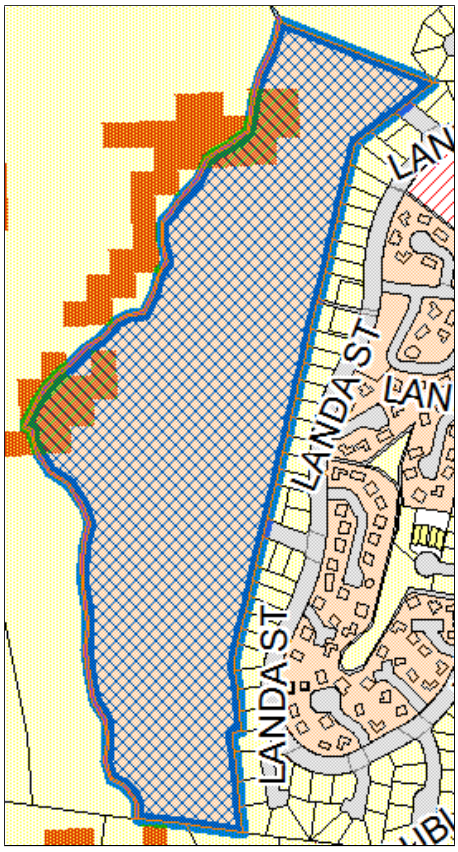
The objective of this clause is to maintain terrestrial biodiversity by—

(a) protecting native fauna and flora, and
(b) protecting the ecological processes necessary for their continued existence, and
(c) encouraging the conservation and recovery of native fauna and flora and their habitats.

Parts of the land along the riparian corridor is identified as containing significant biodiversity (see map extract below). This is further identified as Endangered Ecological Community (EEC) being Tableland Granite Grassy Woodland (Southern Tableland Grassy Woodland). These areas will be retained within the proposed open space allotment. A concept Vegetation Management Plan (VMP) has been submitted in support of the proposal to summarise existing conditions on

the site and to recommend potential options for rehabilitation and restoration of the areas of significance. Consent conditions are recommended that require a full Vegetation Management Plan to be undertaken and implemented a part of the development approval including revegetation works such as weed removal and bush regeneration.

In general, no significant adverse impact on ecological values or significant flora and fauna is expected. The majority of earthworks, drainage works and civil works will take place outside the mapped areas. Appropriate conditions will be imposed to ensure that biodiversity impacts are not impacted upon around the waterway.



Clause 7.6 Riparian Land and Watercourses

The riparian areas of the land are identified on the Environmentally Sensitive Areas—Water Overlay Map identified in this clause. The objective of this clause is to protect and maintain the following—

(a) water quality within watercourses,
(b) the stability of the bed and banks of watercourses,
(c) aquatic and riparian habitats,
(d) ecological processes within watercourses and riparian areas.

Some impacts on the riparian area will occur during construction and the installation of infrastructure. The impacts of this are considered minor and will be mitigated and regulated through consent conditions. Rehabilitation and restoration of riparian vegetation will be undertaken as part of the development approval and consent conditions including the implementation of a Vegetation Management Plan.

Clause 7.7 Sensitive Lands

The objective of this clause is to protect, maintain and improve the diversity and stability of landscapes including the restriction of—

(a) Development on land generally unsuitable for development due to steep slopes or shallow soils, and

(b) Development on land subject to salinity, and

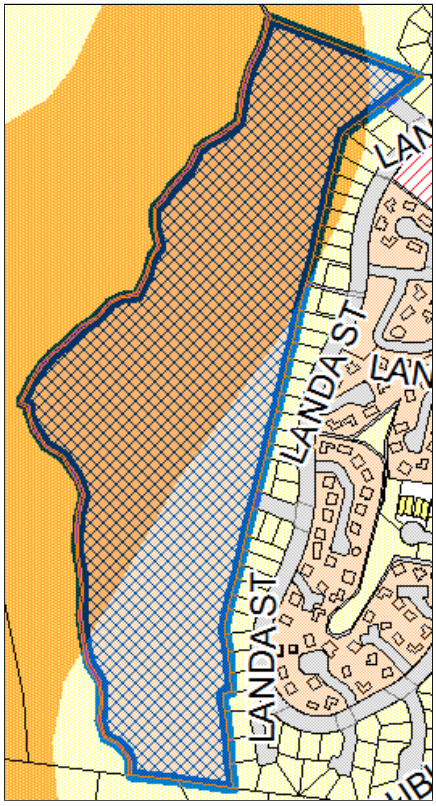
(c) The removal of native vegetation, and

(d) Development on land that is subject to regular or permanent inundation, and

(e) Development on land that is within significant karst environments.

The property is identified as being sensitive land (land subject to steep slopes). The land slopes towards the waterway from the existing urban fringe. Some areas on the property contain steep slopes adjacent to the waterways and drainage lines. Maximising existing slope and with some earthworks, all proposed residential lots generally have an acceptable gradient (no greater than 20%) which is considered acceptable for future residential development. The steep areas of the site will be retained in the proposed open space lot to be dedicated to Council and will not be subject to further development.

The sensitive land map is shown below:



Clause 7.10 Essential Services

Each lot in the proposed subdivision will be provided with connections to reticulated water, sewer, electricity, natural gas and telecommunication services.

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

Nil.

5.3.4 Any planning agreement that has been entered into under Section 7.4, or any draft planning agreement that a developer has offered to enter into under Section 7.4?

A Voluntary Planning Agreement (VPA) has been negotiated with the developer in relation to this proposal. The developer has agreed to make a contribution of $528,000 ($6,600 per residential lot) to go toward community facilities and infrastructure. Whilst the details of the VPA will be separately reported to a future Council meeting, a condition will be incorporated indicating the basic terms.

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

Nil

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

Context and Setting: The land is located on the western edge of the Lithgow urban area and adjoins established low density residential development on Landa Street. To the west, the land adjoins Good Luck Creek and Farmers Creek beyond which is open grazing land. To the south-west of the land (approximately 250m) is the Hillcrest residential estate.

The land is considered generally suitable for residential development and will comprise an acceptable urban extension that integrates with the existing built environment that is consistent with the immediate surrounds.

Services: Each residential lot in the subdivision will be provided connections to essential services including reticulated electricity and telecommunications services. Appropriate consent conditions will be imposed and service connections will be provided in accordance with utility authorities standards and statutory requirements.

There is an active and a disused pump station in the north eastern corner of the property. This pump station will be decommissioned and a new rising main will be connected. A new sewer pump station will be located on the western side of the land to service the lots in the subdivision.

Access/traffic: Road access to the property will be provided by construction of extensions to the existing open ends of Ikara Street and Madle Street which both intersect with Landa Street. The existing surrounding road network has capacity to accommodate the additional traffic demands generated by the future residential development of the subdivision.

The existing access from Ikara Street is shown in the image below:

The access from Madle Street is shown in the image below:

The development was referred to Council's Engineers who are satisfied with the development subject to conditions being placed on the consent.

Heritage: The property is not heritage listed and does not contain heritage items. There are no heritage items located within the vicinity of the development.

Flora and Fauna: The development requires removal of some non-significant vegetation. The development is not expected to result in significant impacts on flora or fauna or their habitats.

The land containing the riparian corridor and foreshore land along Good Luck Creek and Farmers Creek will be dedicated to Council as open space. This will allow the ongoing restoration, rehabilitation and management of the area for its environmental values and will allow better natural resource outcomes to be achieved.

A concept vegetation management plan (VMP) was submitted with the application and proposes the retention of endemic species and removal of weeds within the riparian area. It identifies some species in the creek lines that are environmental weeds such as Basket Willows, Lombardy Poplars, and Pussy Willows. These and other species have the propensity to spread and overtake the native species, causing water quality problems and stream bank issues. As environmental weeds, these species will be removed. Other recommendations are provided in the concept plan such as collecting native seeds from the creek so that they are retained and replanted.

Staff in Council's Infrastructure directorate have assessed the application and considers the application to be satisfactory subject to conditions being placed on the consent.

Social and Economic Impact: The development will provide a positive impact to the area as it will provide more opportunity for future housing developments being identified on demand. The proposed development will also be generally in keeping with the provisions of the planning instrument and is reasonably compatible with other similar development in the locality (subdivisions within the South Bowenfels area).

Soils: The civil and infrastructure works for the subdivision will require earthworks and soil disturbance. Consent conditions will be imposed to provide adequate sediment and erosion controls during works.

A contamination investigation has been undertaken which states that there is evidence that the land has been in a virtually natural state apart from clearing for grazing purposes for the last 50 years, no contaminating activities are suspected to have had an impact on the land. This assessment is considered satisfactory and no further investigation is required.

Water: Each of the proposed residential lots will be serviced by reticulated water supply and sewage services. Stormwater runoff will be captured and conveyed via interallotment drainage lines and on-street drainage infrastructure. Detention basins and facilities are provided to manage the effects of stormwater runoff and protect natural waterways. The proposal has been referred to both the Natural Resources Access Regulator (waterways approval) and Water NSW (drinking water catchment approval) who have assessed the proposal and have provided conditional support.

Air and Microclimate: There will be no significant impact on air or microclimate. Standard consent conditions will be imposed requiring that dust suppression be used during construction works to minimise impacts on the surrounding area.

Natural Hazards:
BUSHFIRE: The land is mapped as bushfire prone and a bushfire report was submitted in support of the application. The site contains grassland and woodland type vegetation. The report states that access will be suitable for the development and that there is adequate water supply for fire hydrants are provided. The proposal has been granted integrated approval by the NSW Rural Fire Service (see comments earlier in this report).

FLOODING: The property is located within the flood prone area (Council's flood study 2017). The property adjoins Farmers Creek with the development being within 40m of the water courses. The area located within the flood mapped area will contain the drainage reserve and a road. The property also has a slope to the west. As no residential allotments are proposed to be located within the flood mapped area and the area is to be designated for open space purposes, the development would have minimal impact on flooding.

5.3.7 The Suitability of the site for the development

The land is currently vacant but has been zoned for residential uses for some time. It is generally considered suitable for future residential use that will be facilitated by the proposed subdivision.

All of the lots have varied frontage depths with a range between 10m to 20m on lot sizes above 600m². This is considered appropriate given that the minimum frontages are at the end of the cul-de-sacs. All of the proposed lot sizes are consistent with the LEP minimum allotment sizes.

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

The development application was referred to the following agencies for review and comment:

- Department of Industry, Crown Lands and Water Division,
- Department of Primary Industries (Agriculture),
- Water NSW (for concurrence),
- Endeavour Energy,
- Natural Resource Access Regulator (integrated approval),
- NSW Rural Fire Service (integrated approval),
- Council's Water & Wastewater Officer, and
- Council's Infrastructure Department (Development Engineer).

Written notification of the development application was provided to surrounding landowners and placed on public display in Council's Administration Building for a period of 21 days. No submissions in response to the public exhibition were received.

DEPARTMENT OF INDUSTRY, CROWN LANDS AND WATER DIVISION
No objections raised. Standard recommended consent conditions regarding Crown land provided.

WATER NSW
Concurrence approval provided with consent conditions. A copy of Water NSW's response is provided in Schedule B.

ENDEAVOUR ENERGY
No objections. Standard urban residential subdivision requirements specified.

NATURAL RESOURCES ACCESS REGULATORS (NRAR)
Integrated approval required under the *Water Management Act 2000.* General Terms of Approval granted. A copy of NRARs response is provided in Schedule B.

NSW RURAL FIRE SERVICE (RFS)
Integrated approval required under the *Rural Fires Act 1997*. Bushfire Safety Authority issued with consent conditions. A copy of the RFS response is provided in Schedule B.

COUNCIL'S WATER & WASTEWATER DIRECTORATE
No objections to the application subject to general design requirements in relation to the servicing requirements for water and sewage infrastructure.

COUNCIL'S INFRASTRUCTURE DIRECTORATE
The proposal was assessed by Council's development engineers for compliance with civil design requirements and in consideration of the transfer of new urban infrastructure as a Council asset. In general the proposal is supported subject to standard civil engineering consent conditions. This will require the applicant to obtain a "subdivision works certificate" under the provisions of the *Environmental Planning and Assessment Act 1979* and require civil designs to be certified prior to works commencing.

The proposed cul-de-sac heads in the design do not comply with Council's Guidelines for Civil Engineering Design and Construction for Development which require circular turning heads. The Guidelines do, however, allow for alternatives to be considered subject to approval of Council's Director of Infrastructure. The proposed cul-de-sac heads are acceptable to the NSW Rural Fire Service and comply with the requirements of Planning for Bushfire Protection and the applicant has adequately justified the need for alternative road design outcomes in the circumstances. Having regard for the above, Council's Director of Infrastructure has authorised the variation to the Guidelines in this instance.

5.3.9 The public interest

The public interest is best served by the orderly and economic use of land for permissible uses in a form which is cognisant of and does not impact unreasonably on the use and development of surrounding land.

Subject to appropriate regulation and conditions, the proposed subdivision will facilitate the orderly and economic use of the land for future residential development without unreasonably compromising the future and ongoing use of the land and its surrounds. Because of this, the proposed development is considered to be in the public interest.

Specific public infrastructure aspects of the proposal are addressed further as follows

Road Extension: The subdivision will provide new public roads to service the lots within the subdivision. These roads will be dedicated to the public as an asset in the control and maintenance of Council. Therefore, Council is required to be satisfied that these roads will be at a standard acceptable as a roads authority. This is of public interest as the additional road extension will be required to be maintained by Council resulting in future costs to the community.

Sewer: The subdivision will require the augmentation and reconfiguration of Council's reticulated sewer network. This requires potential upgrades of existing services to allow for the additional loadings. The cost of these of upgrades will be borne by the developer; however, the ongoing maintenance of the services will be the responsibility of Council. It is important for Council to ensure that these services are properly provided to minimise potential unnecessary maintenance in the future. This is of public interest as there are additional sewer services that will be required to be maintained by Council resulting in future costs to the community. However, contributions under Section 64 of the *Local Government Act 1993* will be applicable and will provide support to Council's ongoing maintenance of this utility.

Water: The subdivision will require extensions to reticulated water infrastructure. The cost of these of upgrades will be borne by the developer; however, the ongoing maintenance of the services will be the responsibility of Council. It is important for Council to ensure that these services are properly provided to minimise potential unnecessary maintenance in the future. This is of public interest as there are additional water services that will be required to be maintained by Council resulting in future costs to the community. However, contributions under Section 64 of the *Local Government Act 1993* will be applicable and will provide support to Council's ongoing maintenance of this utility.

Designation of land and associated assets: The development proposes to dedicate land to Council which contains the stormwater management infrastructure. This land and infrastructure will require ongoing maintenance once the land is dedicated to Council. This is of public interest as there is additional land and infrastructure that will require maintenance by Council resulting in future costs to the community. This process will be covered by proposed conditions of consent if approved.

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 – Recommended conditions of consent.
Schedule B – Referral Authority Responses

8. RECOMMENDATION

THAT development application DA 230/18 is approved subject to conditions set out in Schedule A.

Report prepared by Lachlan Sims, Acting Team Leader Development, 1 September 2020

REPORTED TO COUNCIL ORDINARY MEETING FOR DETERMINATION

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 protect the environment.
- To prevent, minimise, and/or offset adverse environmental impacts.
- To ensure lots are adequately serviced.
- 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) and General Terms of Approval (Integrated Approval Body)

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

   The plans and documents approved as part of this application include:

   - Statement of Environmental Effects; dated September 2018 prepared by Ian Rufus;
   - Plan of Subdivision, Plan No. 1108581/SK06, dated 3 September 2020, prepared by J. Wyndham Prince;
   - Concept Vegetation Plan; dated August 2018 prepared by Ian Rufus;
   - Conceptual Stormwater Management Plan; revised 26 November 2017 prepared by Calare Civil Pty Ltd;
   - Traffic Impact Study; dated August 2018 prepared by Ian Rufus;
   - Stage 1 Preliminary Investigation; dated March 2020 prepared by Ian Rufus;
   - Bushfire Assessment Report; dated 27 May 2020 prepared by Bushfire Consulting Services Pty Ltd;
   - Civil Engineering Drawings as detailed below prepared by J. Wyndham Prince

Plan No.	Plan Name	Rev	Date
110581/DA01	Cover Sheet	4	01/09/2020
110581/DA02	Engineering Plan Sheet 1	4	01/09/2020
110581/DA03	Engineering Plan Sheet 2	4	01/09/2020
110581/DA04	Road Longitudinal Sections Sheet 1	3	09/04/2020
110581/DA05	Road Longitudinal Sections Sheet 2	2	24/10/2019
110581/DA06	Road Longitudinal Sections Sheet 3	3	09/04/2020
110581/DA07	Road Longitudinal Sections Sheet 4	3	09/04/2020
110581/DA08	Cut/Fill Plan	4	01/09/2020
110581/DA09	Site Sections Sheet 1	3	01/09/2020
110581/DA10	Site Sections Sheet 2	4	01/09/2020
110581/DA11	Typical Turning Path	3	09/04/2020
110581/DA12	Plan of Subdivision Sheet 1	2	09/04/2020
110581/DA13	Plan of Subdivision Sheet 2	2	09/04/2020
110581/DA14	Soil & Water Management Plan Sheet 1	2	01/09/2020

110581/DA15	Soil & Water Management Plan Sheet 2	2	01/09/2020
110581/DA16	Soil & Water Management Notes	1	09/04/2020
110581/DA17	Slope Analysis Plan	1	01/09/2020
110581/DA18	Indicative Sewer Layout Plan Sheet 1	1	01/09/2020
110581/DA19	Indicative Sewer Layout Plan Sheet 2	1	01/09/2020

CONDITIONS APPLYING PRIOR TO ISSUE OF SUBDIVISION WORKS CERTIFICATE

2. **Engineering Requirements - General**

(1) All subdivision works must be designed in accordance with the development consent, Council's "Guidelines for Civil Engineering Design and Construction for Development", Austroads Guidelines and best engineering practice.

(2) Engineering plans shall be generally consistent with the stamped approved concept plans prepared by J. Wyndham Prince as referenced in this consent.

(3) All engineering works are to be designed to the standard specified in 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.

3. **Authorised Subdivision Works**

The subdivision works may include but are not limited to the following:

- Public and private roads
- Stormwater management (quantity and quality)
- Private access driveways
- Sediment and erosion control measures
- Overland flow paths
- Traffic facilities
- Earthworks
- culverts, retaining walls and other structures
- Landscaping and embellishment works

4. **Roads and Traffic Design**

Details of the following roads and traffic design matters are to be detailed in the engineering drawings submitted in support of an application for Subdivision Works Certificate:

(1) Prior to the issue of a Subdivision Works Certificate, the Certifying Authority shall ensure that the proposed road has been designed in accordance with Lithgow City Council's Guidelines for Civil Engineering Design and Construction for Developments. ESA shall be 5×105 for Madle Street/Ikara Street and 1×105 for other roads.

(2) Where road embankments along Ikara Street exceed 1m in height and the batter slope exceeds 1(V):4 (H), safety barriers (for vehicles), for roads and road embankments, shall be provided in accordance with the RMS "Road Design Guide".

(3) A minimum 2.5m wide cycle path is to be provided on the verge of Ikara Street along the creek side.

(4) A copy of the pavement design prepared and certified by a suitably qualified geotechnical engineer is to be submitted in support of the application for Subdivision Works Certificate.

(5) Street signs are required at all road junctions. Signs shall be purchased from Council. The location of proposed street signs is to be shown on the engineering drawings submitted with the application for Subdivision Works Certificate.

(6) "No Parking Signs" shall be provided for "T" turning areas, such as TH3, TH4, TH5 and TH6, in order to avoid on-street car parking obstruction waste collection vehicle maneuvering.

(7) Traffic signs, traffic signals, pavement markings, guide posts, delineators, safety barriers and the like, whether permanent or temporary, are to be designed and installed on all roads in accordance with guidelines contained within the Austroads publication, "Guide to Traffic Engineering Practice – Part 8: Traffic Control Devices", Australian Standard 1742 – Manual of Uniform Traffic Control Devices and the Roads and Traffic Authority "Road Design Guide". All traffic control devices and signage are to be detailed in the engineering drawings submitted with the application for Subdivision Works Certificate. The consent of Lithgow City Council's Executive Manager of Operations or appointed officer will be required prior to the installation of any traffic control devices on existing roads.

(8) A detailed design Road Safety Audit (RSA) is to be undertaken in accordance with Austroads Guide to Road Safety Part 6: Road Safety Audit on the proposed roadworks by an accredited auditor who is independent of the design consultant. A copy of the RSA shall accompany the design plans submitted with the application for Subdivision Works Certificate.

(9) Prior to the issue of the Subdivision Works Certificate, the Certifying Authority shall ensure that the recommendations of the RSA have been considered in the final design, through review of the Road Safety Audit Checklist, including Findings, Recommendations and Corrective Actions.

(10) The applicant shall provide integral kerb and guttering and one layback crossing for each new lot. Alternatively the kerb and guttering may be of roll top formation.

5. **Utilities**

Details of the location of all proposed utility infrastructure, including electricity, telecommunications and gas (where provided) are to be submitted to Council prior to the issue of a Subdivision Works Certificate. Evidence of the design of utility infrastructure in accordance with the relevant service authority's requirements is to be provided.

6. **Street Lighting Plan**

A street lighting plan is to be submitted to Council detailing how adequate street lighting in will be provided accordance with AS/NZS 1158. The street lighting plan is to be prepared to the satisfaction of the distribution network service provider (Endeavour Energy). The lighting chosen is to be of LED type and is to be chosen from Endeavour Energy's Approved Materials List. Street light design shall be completed to minimise its visual impact and to complement the streetscape.

7. **Vegetation Management Plan**

A Vegetation Management Plan is to be submitted to and approved by Council prior to the issue of a Subdivision Works Certificate. The plan is to include detailed cost estimates for the implementation of all components and stages of the work including materials, labour, watering, maintenance (including plant replacement, monitoring, and reporting).

8. **Street Tree Plan**

The applicant is to provide a street tree plan for the subdivision for approval by Council prior to the issue of a Subdivision Works Certificate. Trees are to be selected that will grow to about 20 metres in height, that are suitable to the climate and soil characteristics of the street and are consistent with any requirements of the NSW Rural Fire Service. Street tree planting is to be carried out in accordance with the approved plan together with ongoing watering and maintenance for a 12 month period. Alternatively, a payment of $200 per street tree to Council, for provision

and short term maintenance of one street tree per residential lot, may be paid to fund the provision of street trees after building work on the lots has been completed.

9. **Service Access Ramps**

A minimum 4m wide maintenance access ramp is to be provided for each stormwater management basin and for access to the sewer pump station. A vehicle manoeuvring area (turning area) is to be provided at the end of each maintenance access ramp to enable service vehicles to exit in forward direction. Maximum ramp grades and rate of change of grate shall be designed according to AS2890.02 Part 2: Off-street commercial vehicle facilities. Adequate safety provisions are to be incorporated along any steep or vertical edges. Details are to be submitted on the engineering drawings submitted with the application for Subdivision Works Certificate.

10. **Retaining Walls**

All retaining walls shall be clearly detailed on the engineering plans submitted for the Subdivision Works Certificate. Structural Design Certificates issued by a qualified structural engineer are to be provided for all retaining walls along Ikara Street and for any retaining wall more than 1m in height. The absolute maximum slope for rock batter shall be 1:0.25 (V:H).

11. **Sediment and Erosion Control Plan**

The applicant shall submit a soil erosion and sedimentation control plan with the engineering design for Council approval prior to the issue of a Subdivision Works Certificate. Such shall address both short and long term management of all disturbed areas and specified methods and structures to be employed to minimise any impact.

12. **Stormwater Infrastructure**

Engineering drawings submitted with the application for Subdivision Works Certificate shall include the following details with regard to stormwater infrastructure:

(1) The Location of kerb inlet pits and maximum spacing between any two consecutive pits is 85m,

(2) Stormwater pits shall not be located on the carriageways,

(3) Stormwater drainage infrastructure (Council's asset) shall be kept clear from the private property boundary of proposed Lot 64,

(4) The southern bio-swale adjacent to basin 2 needs to be justified to integrate quality control within the basin,

(5) Engineering plans and supporting calculations for the stormwater management systems are to be prepared by a suitably qualified person and shall accompany the application for a Subdivision Works Certificate.

(6) All detention basins are to be designed utilising flood hydrograph estimation and flood routing modelling approaches in accordance with AR&R 2016 for all durations in a range of storm events up to and including 1% AEP storms in order to determine the maximum storage requirements and the size of outlets for the basin, so that the post-development discharge from the site does not exceed the pre-development conditions. Debris control and scour protection shall be provided to all inlet and outlet structures of the basin.

13. **Stormwater Drainage Design and Construction**

Stormwater Drainage plans shall submitted to Council with the application for Subdivision Works Certificate, drawn at a scale sufficient to show all necessary details, nominally 1:200, 1:500, 1:1000 or 1:2000. The following data is to be included with a contoured catchment area plan:

i. Catchment areas and sub-areas, watershed (catchment boundary), overland flow paths, existing and proposed pipe layout. For large catchments, the total catchment area should be shown at a large scale on a separate plan or inset.

ii. All sub-areas, drainage lines and pits are to be logically numbered.

iii. A schedule of pipe details, including pipe number, size, class, bedding type, joint type, invert levels at inlet and outlet, slope, and length.

iv. A schedule of pit details, including pit number, type, road chainage, surface level to the Australian Height Datum (AHD), invert level to AHD, depth, and lintel length.

v. North point and legend.

vi. Setout information.

vii. Accurate position and level of all services and utilities which cross underground drainage pipelines.

viii. Identify those building allotments adjacent to channels and major storm flow paths which may be liable to flooding in major flood events, and the minimum design habitable floor level adjacent to prevent flooding in the design flood event.

ix. Inlet and outlet treatments.

x. Measures for the prevention of erosion and sedimentation.

14. **Drainage Requirements**

All stormwater run-off shall be discharged to a Council road or directly into Councils stormwater system or defined natural watercourse. In the instance this cannot be achieved, inter-allotment drainage shall be provided for individual allotments in accordance with Lithgow City Councils "Guidelines for Civil Engineering Design and Construction for Development" 2011 document. Details are to be shown on the engineering drawings submitted with the application for Subdivision Works Certificate.

15. **Water & Wastewater Requirements**

The following design and specification requirements are to be satisfied prior to the issue of a Subdivision Works Certificate:

(1) Detailed design for all water and sewer works in accordance with the requirements of this condition shall be either approval under section 68 of the *Local Government Act 1993* prior to the issue of a Subdivision Works Certificate or sufficient details submitted with the application for Subdivision Works Certificate.

(2) All lots are to be provided with a connection to a gravity sewer reticulation system. This will coincide with the construction of new sewerage pump station to service this area in accordance with Councils Development Services Plan and the West Bowenfels Sewerage Strategy.

(3) The sewer pump station shall be located as shown in the location authorised by Council on the approved plans. The subject land is to be dedicated to Council upon registration of the plan for the first lots created.

(4) Council will design and construct the sewage pump station and rising main to Buttress Place. The cost of the construction of the sewage pump station will be borne by Council and recovered through Development Contributions in accordance with Council's Development Servicing Plan. Should the applicant wish to proceed prior to Council allocating a budget for the construction the applicant can opt to pay contributions in advance to fund the construction.

(5) All reticulation works, water and sewer are to be constructed by the developer at full cost to the developer.
(6) The existing Sewer Pump Station located on the northern boundary of the land is to be decommissioned and removed. The applicant shall design the connection of the existing gravity sewer pipeline to include a changeover manhole once the new sewer pump station has been completed and commissioned.
(7) The sewer rising main from the newly constructed Sewer Pump Station will connect to the existing rising main that serves Buttress Place SPS 1227 and continues to Councils gravity sewer that discharges to Tweed Mills Pump Station if design criteria allows.
(8) The applicant shall provide a full Water and Sewer Design Plan for approval prior to the release of the S68 Approval or Subdivision Works Certificate. Design is to include, longitudinal sections for each main, minimum depth and cover, maximum depth, grade, chainage, inverts, size, depths, manholes, manhole numbers, manhole depths, pipe velocity, proposed material and positions of junctions and dead ends for all Lots.
(9) Maximum Grade of 20% is permitted for gravity sewer design purposes. Applicant is to provide details of addressing hydraulic jump, odour suppression and the use of energy dissipaters and sewer vents.
(10) The maximum allowable sewer flow velocity shall be 3.0 m/s.
(11) The developer is to to gain full approval for any easements required for water and sewer works prior to the issue of a Subdivision Works Certificate.
(12) Privately owned low pressure sewer systems and package pump stations shall not be accepted.
(13) Sewer mains located within lots adjacent to stormwater drainage lines shall be a minimum of 750mm clear of the stormwater pipe.
(14) Plans showing all proposed easements to be created over water and sewer infrastructure shall be submitted to Council prior to the release of S68 Approval or Subdivision Works Certificate.
(15) All Water and Sewer works, including minimum and maximum flows and velocities, shall be designed in accordance WSAA code.
(16) Manholes that have been elevated for flood zone requirements shall require work platforms for WHS purposes.
(17) Full vehicular access shall be provided to all sewer man holes to allow for servicing and maintenance.
(18) Rain gardens, Bio Retention Basins and Swales are not to be constructed over sewer mains. A sewer design plan with stormwater overlay shall be required for assessment prior to the issue of S68 Approval or Subdivision Works Certificate.
(19) The applicant shall provide detailed water design to include a ring main. Water reticulation system shall be connected to the existing 100mm water supply line located in Ikara Street and Madle Street. The new water supply network shall connect into the Council reticulation network via two points of connection. Live connections undertaken by Council at owner's/ developers costs.
(20) The design of water reticulation shall generally be in accordance with the latest version of the Water Services Association of Australia (WSAA) "Water Supply Code of Australia" (WSA 03).

(21) The applicant shall provide fire flow analysis for all water supply networks prior to the issue of a Subdivision Works Certificate, to ensure that the network is capable of providing the performance for the design of pressure for spring hydrants. Maximum spacing of hydrants shall be 60 metres. (Residential)

(22) Subdivision Works Certificate design drawings and specifications shall clearly address the following:
   a. Location of pipelines, valves, hydrants, pipe materials, size, pressure class, jointing methods and corrosion protection measures.
   b. Specifications for products, materials, site investigation, excavation/trench details and other technical matters.
   c. Documentation of design assumptions, constraints and issues relevant to the design and not otherwise noted in the Concept Plan.

(23) Water supply design to provide Desirable Minimum Static Pressure of 350kpa. Static Pressure shall not to exceed 500kpa at each house hold boundary.

(24) Stop (dividing and isolating) and control valves shall be positioned to give required control of the system and to provide an alternative means of supply when a distribution main is taken out of service.

(25) Minimum and maximum allowable service pressures will not be exceeded in each zone.

(26) Minimum and maximum flows and velocities shall be in accordance with the WSAA Code.

(27) A geotechnical report shall be submitted to Council prior to the release of the Construction Certificate. All Pipe and fitting materials must be suitable for application and environment.

(28) The spacing and positioning of valves shall allow for isolation of individual zones.

(29) Water mains shall only be installed in undisturbed ground or Engineered Certified road fill.

(30) All stop valves shall be anticlockwise closing and be positioned at a minimum of every 300 metres. Valves shall be positioned adjacent to branch take offs. A total of three valves to be used at a branch take off.

(31) Each lot shall have an individual water meter, which shall be purchased from Council at the applicants full cost and held at Council store. The water meter will be issued at DA stage.

(32) Right angled 90 degree brass lockable bottom entry meter ball valves to be used as meter control valves and a type approved by the Water and Wastewater Director. Council will secure the water meter valve with a stainless steel locking device prior to the subdivision certificate being released. Water meter boxes to be supplied by the owner/developer.

(33) Water meters to be purchased by the owner after submitting to Council a Service Connection Application. Council will installed the meter when a Development Application has been approved for the new allotment and a S68 Approval granted for connection to draw water.

CONDITIONS APPLYING PRIOR TO COMMENCEMENT OF CIVIL WORKS

16. **Subdivision Works Certificate**

A Subdivision Works Certificate must be obtained from Lithgow City Council prior to the commencement of any civil construction works for the subdivision.

17. **Site Access**

Prior to the commencement of any works on the land, a single vehicle/plant entry/access to the site shall be provided to minimise ground disturbance and prevent the transportation of soil onto any public place. Single sized 40mm or larger aggregate placed 150mm deep, and extending from the street, kerb/road to the site is to be provided as a minimum requirement.

18. **Site 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 principal 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.

19. **Protection of adjoining areas**

A temporary hoarding or temporary construction site fence must be erected between the work site and adjoining lands before the works begin, and must be kept in place until after the completion of works, if the works—

(a) could cause a danger, obstruction or inconvenience to pedestrian or vehicular traffic, or

(b) could cause damage to adjoining lands by falling objects, or

(c) involve the enclosure of a public place or part of a public place.

20. **Toilet facilities**

(1) Toilet facilities must be available or 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.

(2) Each toilet must—

(a) be a standard flushing toilet connected to a public sewer, or

(b) have an on-site effluent disposal system approved under the Local Government Act 1993, or

(c) be a temporary chemical closet approved under the Local Government Act 1993.

21. **Waste management**

(1) A waste management plan for the work must be prepared before work commences on the site.

(2) The waste management plan must—

(a) identify all waste (including excavation, demolition and construction waste material) that will be generated by the work on the site, and

(b) identify the quantity of waste material, in tonnes and cubic metres, to be—

(i) reused on-site, and

(ii) recycled on-site and off-site, and

(iii) disposed of off-site, and

(c) if waste material is to be reused or recycled on-site—specify how the waste material will be reused or recycled on-site, and

(d) if waste material is to be disposed of or recycled off-site—specify the contractor who will be transporting the material and the waste facility or recycling outlet to which the material will be taken.

22. **Traffic Control Plan**

A fully certified traffic control plan and road works signage plan is to be submitted to Council prior to the commencement of any works where machinery may obstruct traffic on any public road while construction work is being undertaken. A traffic control plan and certification of fully qualified contractors/persons is to be submitted to Council prior to any work commencing on the shoulder of any public road. Failure to comply may result in Work Cover intervention and may also include Council stopping all work immediately until the developer complies with suitable traffic management procedures.

23. **Adjoining wall dilapidation report**

(1) Before commencing any demolition or excavation works, the person having the benefit of the development consent must obtain a dilapidation report on any part of a building that is within 2m of the works.

(2) If the person preparing the report is denied access to the building for the purpose of an inspection, the report may be prepared from an external inspection.

24. **Run-off and erosion controls**

Run-off and erosion controls must be implemented to prevent soil erosion, water pollution or the discharge of loose sediment on the surrounding land by—

(a) diverting uncontaminated run-off around cleared or disturbed areas, and

(b) erecting a silt fence and providing any other necessary sediment control measures that will prevent debris escaping into drainage systems, waterways or adjoining properties, and

(c) preventing the tracking of sediment by vehicles onto roads, and

(d) stockpiling top soil, excavated materials, construction and landscaping supplies and debris within the lot.

These controls are to be implemented in accordance with the approved Sedimentation and Erosion Control Plan.

CONDITIONS APPLYING DURING THE WORKS

Note. The Protection of the Environment Operations Act 1997 and the Protection of the Environment Operations (Noise Control) Regulation 2008 contain provisions relating to noise.

25. **Standard hours for construction**

Construction may only be carried out between 7.00 am and 6.00 pm on Monday to Friday and between 8.00am and 1.00pm on Saturday. No construction is to be carried out at any time on a Sunday or a public holiday.

26. **Construction Noise**

Construction noise shall be in accordance with the 'Noise Control Guidelines for Construction Noise Standards'.

27. **Compliance with plans**

(1) Works must be carried out in accordance with the plans and specifications to which the development consent relates.

(2) A copy of the stamped and approved plans, development consent are to be on the site at all times.

28. **Maintenance of site**

(1) All materials and equipment must be stored wholly within the work site unless an approval to store them elsewhere is held.

(2) Waste materials (including excavation, demolition and construction waste materials) must be managed on the site and then disposed of at a waste management facility.

(3) Any run-off and erosion control measures required must installed in accordance with the approved Sedimentation and Erosion Control Plan and be maintained within their operating capacity until the completion of the works to prevent debris escaping from the site into drainage systems, waterways, adjoining properties and roads.

(4) During construction—

(a) all vehicles entering or leaving the site must have their loads covered, and

(b) all vehicles, before leaving the site, must be cleaned of dirt, sand and other materials, to avoid tracking these materials onto public roads.

(5) Only those areas involved in the construction of the civil works shall be disturbed, with all other areas of the site to be maintained with existing vegetation cover.

(6) The developer shall ensure that during construction works, all measures are taken to eliminate/suppress any dust nuisance emanating from the site.

29. **Earthworks, retaining walls and structural support**

(1) Any earthworks (including any structural support or other related structure for the purposes of the development)—

(a) must not cause a danger to life or property or damage to any adjoining building or structure on the lot or to any building or structure on any adjoining lot, and

(b) must not redirect the flow of any surface or ground water or cause sediment to be transported onto an adjoining property, and

(c) that is fill brought to the site—must contain only virgin excavated natural material (VENM) as defined in Part 3 of Schedule 1 to the *Protection of the Environment Operations Act 1997*, and

(d) that is excavated soil to be removed from the site—must be disposed of in accordance with any requirements under the *Protection of the Environment Operations (Waste) Regulation 2005*.

(2) Any excavation must be carried out in accordance with Excavation Work: Code of Practice (ISBN 978-0-642-785442 [PDF] and ISBN 978-0-642-785459 [DOCX]), published in July 2012 by Safe Work Australia.

(3) All earthworks shall be undertaken in accordance with AS3798 and Lithgow City Council's Guidelines for Civil Engineering Design and Construction for Development".

30. **Pavement Testing**

Each layer of pavement shall be tested for compaction and deflection as detailed below. The Executive Manager of Operations or his delegate must approve each layer prior to the placing and compaction of subsequent layers:

(a) Compaction Testing:

The subgrade, and all pavement layers, shall be density tested in-situ at the start and finish of the work (within the first/last five metres), and thereafter at intervals of no more than 50 metres, or as indicated by Council's Development Engineer. A minimum of two tests will be required for road pavements less than 50 metres in length. At cul-de-sacs, additional testing will be required at the turning head. The test sites selected should be representative of the likely minimum pavement compaction levels achieved. Density testing must be undertaken by an authorised representative of a laboratory registered by the National Association of Testing Authorities (NATA). Density testing may be conducted using either the sand replacement test, nuclear gauge, or other NATA approved method.

Where a nuclear gauge in direct transmission mode is used to determine pavement density, the test method shall comply with RTA Test Method T173. Results of density testing shall be forwarded directly to Council for approval. No pavement layer shall be covered by a subsequent layer until the results of the density testing have been delivered to and approved by Council's Development Engineer. Table 1 below sets out the minimum compaction requirement for each pavement layer.

Layer	Compaction Requirement	Standard
Subgrade	98% standard maximum dry density California Bearing Ratio (CBR) test	AS 1289.E1.1 AS 1289.F1.1
Sub-Base	100% standard maximum dry density	AS 1289.E1.1
Base	100% standard maximum dry density • *Unbound Materials* • *Cemented Materials* Density in place test California Bearing Ratio (CBR) test	 AS 1289.E2.1 AS 1289.E3.1 AS 1289.E3.1 AS 1289.F1.1

Laboratory determination of maximum dry density for pavement materials which have been modified with cement must be undertaken within 4 hours of the cement being added to the material. Materials tested outside this time will be subject to an adjustment to correctly determine the maximum dry density of the sample. For either natural or modified material, the laboratory determination of maximum dry density shall be undertaken at a frequency of no less than one determination for each days production of material.

(b) Deflection Testing:

All pavement layers must be proof-rolled, and approved by Council's Development Engineer prior to the placement of subsequent pavement layers.

The proof-rolling will be conducted using either:

(i) a roller having a load intensity of seven (7) tonnes per metre width of roller, or

(ii) a tandem axle rigid vehicle, having a maximum load of 15 tonnes per axle group (8 tyres), 12 tonnes per axle group (6 tyres), or 10 tonnes per axle group (4 tyres). Single axle vehicles should have maximum loads of 8.5 tonnes (dual tyres), or 5.4 tonnes (single tyres).

Any movement of the pavement layer under loading will be deemed a failure.

Although not a subdivision requirement at this stage, Council strongly encourages Developers to specify in their contracts the use of Benkelman Beam tests to test for any deflection in the pavement layers, and as a means of quality assurance.

(c) Final Road Profile:

The mean construction tolerance on pavement surface crossfalls should be within ±5% of the design crossfall. The maximum allowable construction tolerance is ±5%, and the maximum standard deviation of crossfalls is 5%.The vertical alignment should not deviate by more than 25mm from the value shown on the drawings.

31. **Critical Inspections**

All road, drainage, kerb and gutter, water and sewerage reticulation works associated with a development shall be inspected by Council's Operations Department. The whole of the works are to be carried out to the satisfaction of the Executive Manager of Operations. Council shall inspect engineering works at the following stages as a minimum:

- Following site regrading and shaping, and prior to installation of footway services;
- Installation of erosion and sedimentation control measures;
- Storm water drainage lines prior to backfill;
- Water and sewer lines prior to backfill;
- Testing of water and sewer lines;
- Subgrade preparation, before placing pavement;
- Establishment of line and level for kerb and gutter placement;
- Completion of each pavement layer ready for testing;
- Road pavement surfacing;
- Completion of works

The developer or contractor shall give Council a minimum 24 hours' notice when requesting an inspection to ensure that development works are not delayed. The developer shall, if required by a Council Engineer, submit delivery dockets for all materials used, and all material and performance test results obtained in the development.

32. **Works as Executed Plans**

A "Work-As-Executed" (WAE) plan is to be prepared by a Registered Surveyor or professional engineer and forwarded to Council prior to the final inspection. The WAE is to include, as a minimum:

- certification that all works have been completed generally in accordance with the approved plans and specification,
- any departure from the approved plans,
- any additional/deleted work,
- the location of conduits, subsoil lines, stub mains and inter-allotment drainage lines,
- pipeline long sections showing the constructed invert levels of each pipe at each pit and pipe dimensions,
- details of overland flow provisions,
- site regrading areas by new contours, and
- all other details which have a bearing on the extent of works and their acceptance by Council
- The WAE drawings shall be accompanied by plans indicating the depth of cut / fill for the entire development site. The survey information is required to show surface levels and site contours at 0.5m intervals. All levels are to be shown to AHD.
- A copy of all documentation, reports and manuals, technical guidelines for handover of stormwater management facilities (bioretention basin/swell) to Lithgow City Council.
- A Geotechnical Report certifying that all earthworks and road formation have been completed in accordance with AS3798 and Penrith City Council's Design Guidelines and Construction specifications. The report shall include:
    - Compaction reports for road pavement construction
    - Compaction reports for bulk earthworks and lot regarding.
    - Soil classification for all residential lots
    - Statement of Compliance
- Structural Engineer's construction certification of all structures, such as retain walls (>1m in height)

- Soil testing for each lot to be classified according to AS2870 "Residential Slabs and Footings".

33. **Archaeology discovered during excavation**

If any object having interest due to its age or association with the past is uncovered during the course of the work—

(a) all work must stop immediately in that area, and

(b) the Office of Environment and Heritage must be advised of the discovery.

Note. Depending on the significance of the object uncovered, an archaeological assessment and excavation permit under the Heritage Act 1997 may be required before further the work can continue.

34. **Aboriginal objects discovered during excavation**

If any Aboriginal object (including evidence of habitation or remains) is discovered during the course of the work—

(a) all excavation or disturbance of the area must stop immediately in that area, and

(b) the Office of Environment and Heritage must be advised of the discovery in accordance with section 89A of the *National Parks and Wildlife Act 1974*.

Note. If an Aboriginal object is discovered, an Aboriginal heritage impact permit may be required under the National Parks and Wildlife Act 1974.

35. **Completion of Works**

Upon completion of all works in the road reserve, all verge areas fronting and within the development are to be turfed. The turf shall extend from the back of kerb to the property boundary, with the exception of concrete footpaths, service lids or other infrastructure which is not to be turfed over. Turf laid up to concrete footpaths, service lids or other infrastructure shall finish flush with the edge.

CROWN LAND CONDITIONS (Department of Planning, Industry & Investment)

36. No development drainage, overflow or contaminated waste (contaminated runoff or septic) shall impact negatively on the Crown land or waterway.

37. No materials are permitted to be dumped or stored on Crown land, roads, or waterways.

38. The development is to be conducted with minimal environmental disturbance to the Crown land and is to avoid the removal or damage of any native trees located within the subject Crown lands or waterways.

39. Public access on the Crown land and waterway is retained and not restricted on and along the Crown land and waterways.

40. Appropriate pollution control measures shall be provided for the duration of the works. Such measures are not to be located on Crown land or the adjacent Crown waterways, Good Luck Creek or Farmers Creek.

41. Measures should be taken by the applicant to ensure that the work does not contribute to the spread of noxious weeds.

42. The Department should be notified of any sedimentation events that flow into the Crown waterways, Farmers Creek and Good Luck Creek or any encroachment of the earthworks into the Crown waterway.

BUSHFIRE CONDITIONS (NSW Rural Fire Service)

Asset Protection Zones

Intent of measures: to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact.

43. At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, the proposed residential allotments must be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of P*lanning for Bush Fire Protection 2019*. When establishing and maintaining an IPA the following requirements apply:

- Tree canopy cover should be less than 15% at maturity;
- Trees at maturity should not touch or overhang the building;
- Lower limbs should be removed up to a height of 2m above the ground;
- Tree canopies should be separated by 2 to 5m;
- Preference should be given to smooth barked and evergreen trees;
- Large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- Shrubs should not be located under trees;
- Shrubs should not form more than 10% ground cover; and
- Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- Leaves and vegetation debris should be removed.

44. At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, the site must be maintained as an inner protection area (IPA) as follows:

- North for a distance of 14 metres;
- West for a distance of 21 metres;
- Southwest for a distance of 21 metres; and,
- South for a distance of 14 metres.

When establishing and maintaining an IPA the following requirements apply in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*:

- Tree canopy cover should be less than 15% at maturity;
- Trees at maturity should not touch or overhang the building;
- Lower limbs should be removed up to a height of 2m above the ground;
- Tree canopies should be separated by 2 to 5m;
- Preference should be given to smooth barked and evergreen trees;
- Large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- Shrubs should not be located under trees;
- Shrubs should not form more than 10% ground cover; and
- Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and

● Leaves and vegetation debris should be removed

Where the required APZs extend beyond the proposed 15m wide road reserve and into the proposed residential allotments, a suitably worded instrument(s) created pursuant to section 88 of the *Conveyancing Act 1919* must be placed on the proposed lots which requires the provision remainder of the above asset protection zones (APZ) and prohibits the construction of buildings other than class 10b structures within the APZ. The name of authority empowered to release, vary or modify the instrument shall be Lithgow City Council.

Access – Public Roads

Intent of measures: to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

45. Access roads must comply with the following general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:

- Subdivisions of three or more allotments have more than one access in and out of the development;
- Traffic management devices are constructed to not prohibit access by emergency services vehicles;
- maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient;
- All roads are through roads;
- dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum 12 metres outer radius turning circle or a turning are coming with Appendix 3 A3.3, and are clearly sign posted as a dead end;
- Where kerb and guttering is provided on perimeter roads, roll top kerbing should be used to the hazard side of the road;
- Where access/egress can only be achieved through forest, woodland and heath vegetation, secondary access shall be provided to an alternate point on the existing public road system;
- One way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression;
- The capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/causeways are to clearly indicate load rating;
- Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;
- Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - F*ire hydrant installations System design, installation and commissioning*; and
- There is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.

46. Perimeter roads must comply with the general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:

- are two-way sealed roads;
- minimum 8m carriageway width kerb to kerb;
- parking is provided outside of the carriageway width;
- hydrants are located clear of parking areas;

- are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
- curves of roads have a minimum inner radius of 6m;
- the maximum grade road is 15 degrees and average grade of not more than 10 degrees;
- the road crossfall does not exceed 3 degrees; and
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

47. Non-perimeter roads must comply with the general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:
    - Minimum 5.5m carriageway width kerb to kerb;
    - Parking is provided outside of the carriageway width;
    - Hydrants are located clear of parking areas;
    - Roads are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
    - Curves of roads have a minimum inner radius of 6m;
    - the road crossfall does not exceed 3 degrees; and
    - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

48. Non-perimeter roads must comply with the general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:
    - Minimum 5.5m carriageway width kerb to kerb;
    - Parking is provided outside of the carriageway width;
    - Hydrants are located clear of parking areas;
    - Roads are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
    - Curves of roads have a minimum inner radius of 6m;
    - the road crossfall does not exceed 3 degrees; and
    - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

Water and Utility Services

Intent of measures: to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

49. The provision of water, electricity and gas must comply the following in accordance with Table 5.3c of *Planning for Bush Fire Protection 2019*:
    - reticulated water is to be provided to the development where available;
    - fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS2419.1:2005;
    - hydrants are and not located within any road carriageway;
    - reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads;
    - fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005;

- all above-ground water service pipes are metal, including and up to any taps;
- where practicable, electrical transmission lines are underground;
- where overhead, electrical transmission lines are proposed as follows:
  - lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
  - no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 *Guideline for Managing Vegetation Near Power Lines*.
- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - *The storage and handling of LP Gas,* the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets.

SYDNEY DRINKING WATER CATCHMENT CONDITIONS (Water NSW)

General

50. The lot layout shall be as specified in the Statement of Environmental Effects prepared by Ian Rufus (dated September 2018) and as shown on the approved plans. No revisions to lot layout or staging of the subdivision that will impact on water quality, shall be permitted without the agreement of Water NSW.

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

Sewage Pump Station and associated infrastructure

51. The existing sewage pump station to the north of the proposed subdivision shall be decommissioned as per the Statement of Environmental Effects prepared by Ian Rufus (dated September 2018).

52. Final design and construction of the sewage pump station proposed to be located on the western side of the proposed subdivision and associated sewer reticulation as shown on the Sewer Layout Plan (Plan Nos. 110581/DA18 & 110581/DA19) prepared by J. Wyndham Prince shall be finalised to the satisfaction of Council prior to the issuance of a Subdivision Certificate. The final design of the sewage pump station shall have consideration for and include the following:
    - the electrical switchgear and access points associated with the sewage pump station shall be located above the 1% Annual Exceedance Probability (1 in 100 year) flood level
    - the sewage pump station shall have a minimum emergency storage volume equivalent to at least 3 hours peak wet weather flow
    - the sewage pump station and the rising main(s) shall be designed with sufficient capacity to collect and transfer all wastewater generated by the subdivision
    - the upgrade of any existing sewerage infrastructure shall ensure it has sufficient hydraulic capacity to accommodate the additional wastewater load generated by the subdivision

- an appropriate emergency storage capacity of the sewage pump station to accommodate wet weather flow, including a permanent standby pump and access to an emergency power generation unit to ensure continuity of operation in the event of pump or power failure
- an alarm system to trigger when the pump fails or when the system is reaching its capacity to ensure sufficient residual capacity for emergencies such as power failure or pump malfunction, and
- appropriate bunding around the sewage pump station so as to divert run-on away from the sewage pump station and prevent any overflows reaching natural drainage system or stormwater drains.

53. **Prior to issuance of a Subdivision Certificate**, wastewater from the proposed lots shall be connected to via sewer main to the sewerage pumping station as shown on the Sewer Layout Plan (Plan Nos. 110581/DA18 & 110581/DA19) prepared by J. Wyndham Prince.

Reason for the above Conditions – To ensure that the design and operation of the sewerage infrastructure is undertaken in a way that minimises the risk of sewage overflows so as to ensure a sustainable neutral or beneficial effect on water quality over the longer term.

Subdivision Roads

54. The subdivision roads shall be located and constructed as shown on the Subdivision Plans prepared by J. Wyndham Prince, but with the following specifications and requirements:
    - be sealed and otherwise constructed in accordance with Council's engineering standards, and
    - incorporate suitable crossfall with runoff to be collected via a series of pits and pipes and directed to various water quality treatment measures detailed in the following conditions.

55. All stormwater structures and drainage works associated with the proposed subdivision roads shall be wholly included in the road or drainage reserve or within suitably defined easements.

Reason for the above Conditions – To ensure that the proposed subdivision roads and associated infrastructure will have a sustainable neutral or beneficial impact on water quality during the operational phase of the development.

Stormwater Management

56. All stormwater management measures as specified in the Conceptual Stormwater Management Plan (dated 26/11/2017) prepared by Calare Civil and shown on the approved plans prepared by J. Wyndham Prince, shall be incorporated in the final stormwater drainage plan to be approved by Council **prior to the issue of a Subdivision Works Certificate**, in particular as elaborated or varied in the following conditions. The stormwater management measures as a minimum shall include:
    - pits, pipes, and interallotment drainage,
    - grassed swales,
    - bioretention swales, and
    - detention basins

57. Bioretention swales shall be designed and constructed as per the Conceptual Stormwater Management Plan (dated 26/11/2017) and shown on the Overall Layout and Catchment Plan, Basin 01 Details, Basin 02 Details and Bio-retention Swale & Outfall Details Plans (Job No. 17.1018; Dwg. Nos. P01, P02, P03 & P04; Iss P1; dated 26/11/2017) all prepared by Calare Civil to capture and treat all runoff from all subdivision roads and residential areas. Each bioretention swale shall also incorporate the following specifications and requirements:

- all bioretention basins shall be designed consistent with the Adoption Guidelines for Stormwater Biofiltration Systems Version 2 (Payne *et al*, 2015, Melbourne, CRC for Water Sensitive Cities) and shall also incorporate the following specifications:
    - be located above the 2% Annual Exceedance Probability (1 in 50 year) flood level of Good Luck Creek and Farmers Creek
    - a filter media consisting of a clean sandy loam with a certified median particle diameter of 0.5 mm, a maximum orthophosphate concentration of 40 mg/kg and a maximum total nitrogen concentration of 400 mg/kg
    - be planted with appropriate deep-rooted, moisture-tolerant vegetation protected by rock mulch (grass and turf is not appropriate vegetation and organic mulch is not suitable)
    - direct all discharge and overflow to Farmers Creek via armoured discharge points such that discharge does not cause erosion, as per the Bio-retention Swale & Outfall Details Plans (Job No. 17.1018; Dwg. No. P04; Iss P1; dated 26/11/2017) prepared by Calare Civil
    - be accessible from the subdivision roads by machinery to facilitate cleaning, monitoring and maintenance of the structures
    - the discharge point shall also be consistent with the requirements of any Controlled Activity Approval under the *Water Management Act* (*2000*) from the the Natural Resources Access Regulator (NRAR)
    - be permanently protected from vehicular damage by bollards, fences, castellated kerbs or similar structures, with a sign to be erected to advise of its nature and purpose in water quality management, and
    - be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised.

58. The bioretention swales shall be constructed after all hardstand areas i.e. road construction for that stage of the subdivision, have been completed and all ground surfaces have been stabilised.

59. No changes to stormwater treatment and management that will impact on water quality, shall be permitted without the agreement of Water NSW.

60. A suitably qualified stormwater consultant or engineer shall certify in writing to Water NSW and Council prior to the issuance of a Subdivision Certificate for each stage of the subdivision that all stormwater management structures have been installed as per these conditions of consent and are in a functional state.

61. An Operational Environmental Management Plan (OEMP) for each stage of the subdivision shall be prepared in consultation with Water NSW and Council by a person with knowledge and experience in the preparation of such plans. Each OEMP shall be prepared prior to the issuance of a Subdivision Certificate for that stage of the subdivision, and may be updated from the OEMP for the previous stage. The OEMP shall be provided to Council when the management and maintenance of the bioretention basins is handed over to Council. The OEMP as a minimum shall include but not be limited to:
    - details on the location, description and function of stormwater management structures such as pits, pipes, interallotment drainage, swales, bioretention swales, detention basins, and any other stormwater structures and drainage works
    - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, before and after handing over to Council, including the frequency of such activities

- the identification of the individuals or positions responsible for inspection and maintenance activities, before and after handing over to Council, including a reporting protocol and hierarchy
- the identification of detailed requirements and measures for the protection of bioretention basins from future upstream construction works i.e. construction of dwellings on future lots, and
- checklists for recording inspections and maintenance activities.

62. All stormwater treatment devices, particularly bioretention swales, shall be monitored, maintained and managed as per the Operational Environmental Management Plan referred in the Condition above.

Reason for the Conditions above – To ensure that the stormwater quality management measures and structures for the proposed subdivision have a sustainable neutral or beneficial impact on water quality over the longer term.

Construction Activities

63. A Soil and Water Management Plan shall be prepared, in consultation with Water NSW, for all works proposed or required as part of the subdivision, including the subdivision roads and vegetation management, by a person with knowledge and experience in the preparation of such plans. 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". The Plan shall be developed in consultation with Water NSW and be prepared prior to Council issuance of a Construction Certificate for that stage of the subdivision and shall be to the satisfaction of Council.

64. A suitably qualified, certified professional shall oversee the implementation of the Soil and Water Management Plan for the subdivision and effective erosion and sediment controls at the site prior to and during any construction activity including site access and works within waterways and shall certify in writing to Water NSW and Council that erosion and sediment controls have been installed and maintained at the site in accordance with the Condition above. The controls shall prevent sediment or polluted water leaving the site or entering any stormwater drain or natural drainage system. The controls shall be regularly maintained and retained until works have been completed and ground surface stabilised or groundcover re-established.

Reason for the above Conditions – To manage adverse environmental and water quality impacts during the construction phase of the development so as to minimise the risk of erosion, sedimentation and pollution within or from the site during this phase.

NATURAL RESOURCE ACCESS REGULATOR GENERAL TERMS OF APPROVAL

65. The attached General Terms of Approval issued by the Natural Resources Access Regulator do not constitute an approval under the *Water Management Act 2000*. The development consent holder must apply to the Natural Resource Access Regulator for a Controlled Activity approval after consent has been issued by Council and before the commencement of any work or activity.

    A completed application form must be submitted to NRAR together with any required plans, documents, application fee, security deposit or bank guarantee (if required) and proof of Council's development consent. Finalisation of an approval can take up to eight (8) weeks from the date the application and all required supporting documentation is received.

    Application forms are available from the NRAR website at:

    www.industry.nsw.gov.au Water Licensing & Trade Approvals.

PRIOR TO ISSUE OF SUBDIVISION CERTIFICATE

66. **Application Requirements**

An application for Subdivision Certificate is to be lodged with Council including payment of relevant fees, two copies of the registered surveyors plans of subdivision, any associated 88B instrument (if applicable) following the compliance with all conditions of this consent.

67. **Maintenance Bond – Civil Works**

A maintenance bond of 10% of final construction costs is to be paid to Council upon final inspection and approval of all civil works and prior to the issue of a Subdivision Certificate. The value of the maintenance bond shall be approved by Council after witnessing a certified copy of the contract documentation showing all civil construction costs for the subdivision. The maintenance period will start from the date of final inspection for a period of 12 months. At the conclusion of the 12 month period a final inspection is to be undertaken by Council at the request of the developer to determine if any defects have arisen during this time. All deficiencies are to be rectified by the developer, should outstanding works remain Lithgow City Council reserves the right to expend bond monies on rectification works.

68. **Certificate of Compliance – *Water Management Act 2000***

A Certificate of Compliance issued by Lithgow City Council as the water authority under Section 305 of the Water Management Act 2000 is to be obtained prior to the issue of a Subdivision Certificate. This will require the payment in full of any water and sewer contributions applicable to release the Certificate of Compliance. The amount of contribution is calculated at the time of payment in accordance with Lithgow City Council's adopted fees and charges and the Development Servicing Plans for Water Supply and Sewerage 2018.

69. **Utility Services**

Utility service connections are to be provided and completed to each lot in accordance with the relevant telecommunications, electricity and gas authorities requirements prior to the issue of a Subdivision Certificate. Written confirmation from each utility authority that services have been completed and provided to each lot is to be submitted to Council prior to the issue of a Subdivision Certificate.

70. **Voluntary Planning Agreement**

The Voluntary Planning Agreement (VPA) is to be endorsed by all parties as proposed by the developer of the land prior to the issue of the Subdivision Certificate. The contribution agreed to within the VPA is to be paid at a rate of $6,600.00 per lot for community facilities and public open space.

71. **Vegetation Management Plan**

The requirements and commitments in the approved Vegetation Management Plan are to be commenced and implemented prior to the issue of a Subdivision Certificate. A Vegetation Management bond of 5% of full costs of all components of the plan is to be shall be paid to Council upon final inspection and approval of the vegetation management works. The value of the maintenance bond shall be approved by Council after witnessing a certified copy of the contract documentation showing all costs associated with the works. The maintenance period will start from the date of inspection for a minimum period of 24 months. At the conclusion of the 24 month period a final inspection is to be undertaken by Council at the request of the developer to ensure that the VMP has been complied with. All management and maintenance works are to be rectified by the developer, should outstanding works remain Lithgow City Council reserves the right to expend bond monies on rectification works.

72. **Street Tree Plan**

The approved Street Tree Plan is to be implemented and tree planting is to be carried out in accordance with the approved plan prior to the issue of a Subdivision Certificate. The street trees are to be watered and maintained by the applicant for a 12-month period. Alternatively, a payment of $200 per street tree to Council, for provision and short-term maintenance of one street tree per residential lot, may be paid to fund the provision of street trees after building work on the lots has been completed.

73. **Street Lighting**

Street lighting is to be installed and completed in accordance with the approved Street Lighting Plan prior to the issue of a Subdivision Certificate.

74. **Works as Executed Plans**

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 prior to the issue of a Subdivision Certificate. 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.

75. **Stormwater Drainage**

Prior to the issue of a Subdivision Certificate, CCTV footage in DVD format and a report in "SEWRAT" format for all stormwater drainage as identified as Council's future assets shall be provided to Council to review. Any damage that is identified is to be rectified in consultation with Lithgow City Council.

76. **Service Locations**

Prior to issue of any Subdivision Certificate, a Surveyor's Certificate certifying that all pipes and services are located wholly within the property or within appropriate easements and that no services encroach boundaries, private or public lands.

77. **Easements**

Prior to the issue of a Subdivision Certificate the following easements shall be created on the plan of subdivision:

- Easements for drainage
- Right of carriageway
- Any other easements identified during the construction process.

78. **Road Naming**

Prior to the issue of a Subdivision Certificate, the applicant shall submit options for road names to Council for consideration and approval in accordance with the guidelines for the naming of roads (Geographical Names Board of NSW).

79. **Street Identification Signage**

At the developer's cost, aluminium street blade(s) signs minimum 150mm in width, with smooth white reflective background are to be provided where required. Reflective material is to comply with AS 1906. The street blades shall be printed with approved street name in black non-reflective writing 100mm high on both sides of blade in block type writing, as per Lettering Serious C and shall also have Council logo on the blade(s). A 75mm OD Galvanised iron post(s) and iron cap(s) with accompanying aluminium bracket(s) holes for fixture to galvanised iron post(s) and bolts shall also be supplied. Council can arrange for the manufacture and installation of above items, all works will be at the Developers cost. Street identification signage is to be finalised and installed to the satisfaction of Council prior to the issue of a Subdivision Certificate.

Schedule B
Referral Agency Responses

NSW GOVERNMENT Department of Industry

Standard submission

2 Oct 2018

Our reference DOC18/208353
Your reference DA230-2018

The General Manager
Lithgow City Council
PO Box 19
Lithgow NSW 2790

Proposed Development	DA 230/2018 – Application for Developme Consent for 82 82 Lot Subdivision
Applicant	Ian Rufus
Location	Lot 817 DP814174 – 5 Ikara St, Lithgow

To the General Manager,
I refer to your letter dated 25 September 2018 regarding comments for the above proposal.

Department of Industry, Crown Lands and Water Division (the Department) has reviewed the letter, together with the submitted application and plans and offers no objections to the proposed development providing:

1. This response does not imply the concurrence of the Minister for Lands and Forestry for the proposed development.
2. Any development or works including the extension of utilities to service the development will require a separate development application to be lodged. Should these works fall within Crown land such an application will require an Application for Landowner's Consent to the lodgement of a Development Application with respect to Crown land.
3. The Minister for Lands and Forestry reserves the right to make comments, lodge an objection and / or require conditions with respect to development proposed on Crown land.
4. Irrespective of any development consent or approval given by other public authorities, any work or occupation of Crown land cannot commence without a current tenure from the Department authorising such work or occupation.
5. No development drainage, overflow or contaminated waste (contaminated runoff or septic) shall impact negatively on the Crown land or waterway.
6. No materials are permitted to be dumped or stored on Crown land, roads, or waterways.
7. The development is conducted with minimal environmental disturbance to the Crown land and is to avoid the removal or damage of any native trees located within the subject Crown lands or waterways.
8. Public access on the Crown land and waterway is retained and not restricted on and along the Crown land and waterways.

Department of Industry, Crown Lands and Water Division
PO Box 2185 Dangar NSW 2309
Tel: 1300 886 235 Visit: www.crownland.nsw.gov.au

9. Appropriate pollution control measures shall be provided for the duration of the works. Such measures are not to be located on Crown land or the adjacent Crown waterways, Good Luck Creek or Farmers Creek (see figure 1 below)
10. Measures should be taken by the applicant to ensure that the work does not contribute to the spread of noxious weeds.
11. The Department should be notified of any sedimentation events that flow into the Crown waterways, Farmers Creek and Good Luck Creek (see figure 1 below) or any encroachment of the earthworks into the Crown waterway by email to orange.crownlands@crownland.nsw.gov.au.

Should you require any further information, please do not hesitate to contact Steve Pearson at the Orange Office by phone on 02 6391 4317.

Yours sincerely

S Pearson

Steve Pearson
Senior NRM Officer
Department of Industry, Crown Lands and Water Division

PO Box 398, Parramatta NSW 2124
Level 14, 169 Macquarie Street
Parramatta NSW 2150
www.waternsw.com.au
ABN 21 147 934 787

6 November 2018

Our Ref: 18161-a1
Your Ref: 230/18

Lauren Stevens
Development Planner
Lithgow City Council
PO Box 19
LITHGOW 2790

Dear Ms Stevens

Subject: Sydney Drinking Water Catchment SEPP
DA No 230/18; Lot 817 DP 814174; 5 Ikara Street, Lithgow

I refer to your letter received 27 September 2018 requesting the concurrence of Water NSW under State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (the SEPP) with a proposal for an 82-lot urban subdivision on the above land.

The subject property, which has been inspected by Water NSW, is located within the Warragamba catchment which forms part of Sydney's water supply.

The following documents have been considered in the assessment of the application:

- a Statement of Environmental Effects (dated September 2018) (SEE) and Concept Vegetation Management Plan (dated August 2018) prepared by Ian Rufus
- a Subdivision Plan (dated 12 December 2017) and Concept Lot Layout Plan (dated 20 March 2018) prepared Voerman & Ratsep Land Surveyors, and
- a Conceptual Stormwater Management Plan (dated November 2016) incorporating a MUSIC stormwater quality model and a Sewer Layout Plan (dated 26 November 2011) prepared by Calare Civil.

Water NSW notes the following from our assessment:

1. the SEE states that there may be a possible redesign, including staging, of the southern section of the site. Such redesign and staging, may require further assessment under the SEPP.

2. the site is highly sensitive with the following key issues identified:
   a. Highly erodible soils and/or steep slopes are present across the site, particularly within the steeper riparian zones of Good Luck Creek. No works are proposed within the creek. The stormwater management measures proposed are also likely to occur along the perimeter of these steep riparian areas, so suitably designed and stabilised discharge outlets would be required to minimise potential erosion and water quality risks. In this regard, it is also noted that the design of proposed detention basin 1 incorporates the tail of an existing inactive gully and the stormwater design ensures that stormwater from the developed site is directed around the gully and not through it.
   b. The site currently accepts stormwater runoff from the upstream catchment via a piped system. This stormwater has not been considered in the design of stormwater treatment devices for the proposed subdivision and stormwater plans show the external catchment runoff being piped through the site via 3 separate pipes.

c. A Concept Vegetation Management Plan has been prepared by Ian Rufus (dated August 2018) and notes the proposal will include removal of environmental weeds present throughout the riparian areas and across the site during the construction phase and the native vegetation within Farmers Creek and Good Luck Creek riparian zones will be retained with further revegetation along the creek lines. Water NSW strongly supports this to reduce the water quality impacts. However, erosion and sediment controls will be required if broad areas of vegetation are to be cleared.

d. Council has advised that the area can be sewered however, detailed design of the sewerage system, including the proposed new sewage pumping station (SPS), have not been finalised. The proposed SPS is proposed to be located directly above Farmers Creek, presenting a potential water quality risk from failure and overflows.

In light of the above, Water NSW has identified this development proposal as presenting a high-water quality risk. As such, Water NSW requests the following:

- Council please advise when construction is due to commence so that a joint inspection can be arranged with appropriate Water NSW and Council officers during that phase of the development
- a certified professional is required to oversee the construction works to ensure adequate erosion and sediment controls are in place, to reduce potential local water quality impacts, and
- Water NSW considers that the SPS design should include appropriate bunding around the perimeter so as to divert run-on away from the sewage pump station and prevent any overflows reaching Farmers Creek.

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.

If, after receipt of this letter, revisions are made to any of the DA plans, Council does not need to refer the plans to Water NSW if the revisions do not impact on water quality. Council is requested to amend the relevant Water NSW's condition/s to reference the revised plans, and notify the assessing officer by email.

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

General

1. The lot layout shall be as specified in the Statement of Environmental Effects prepared by Ian Rufus (dated September 2018) and as shown on the Subdivision Plan with Planning Constraints (Job Ref 17170; Rev 1; Sheet 5; dated 12/12/17) and the Concept Lot Layout Plan (Job Ref 17170; Rev 5; Sheet 1; dated 20/03/2018), both prepared by Voerman & Ratsep Land Surveyors. No revisions to lot layout or staging of the subdivision 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 State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on this version of the subdivision.

Sewage Pump Station and associated infrastructure

2. The existing sewage pump station to the north of the proposed subdivision shall be decommissioned as per the Statement of Environmental Effects prepared by Ian Rufus (dated September 2018).

3. Final design and construction of the sewage pump station proposed to be located on the western side of the proposed subdivision and associated sewer reticulation as shown on the Sewer Layout Plan (Job No. 17.1018; Dwg No. P05; Iss; P1; dated 26/11/2017) prepared by Calare Civil shall be finalised to the satisfaction of Council prior to the issuance of a Subdivision Certificate. The final design of the sewage pump station shall have consideration for and include the following:
   - the electrical switchgear and access points associated with the sewage pump station shall be located above the 1% Annual Exceedance Probability (1 in 100 year) flood level
   - the sewage pump station shall have a minimum emergency storage volume equivalent to at least 3 hours peak wet weather flow
   - the sewage pump station and the rising main(s) shall be designed with sufficient capacity to collect and transfer all wastewater generated by the subdivision
   - the upgrade of any existing sewerage infrastructure shall ensure it has sufficient hydraulic capacity to accommodate the additional wastewater load generated by the subdivision
   - an appropriate emergency storage capacity of the sewage pump station to accommodate wet weather flow, including a permanent standby pump and access to an emergency power generation unit to ensure continuity of operation in the event of pump or power failure
   - an alarm system to trigger when the pump fails or when the system is reaching its capacity to ensure sufficient residual capacity for emergencies such as power failure or pump malfunction, and
   - appropriate bunding around the sewage pump station so as to divert run-on away from the sewage pump station and prevent any overflows reaching natural drainage system or stormwater drains.

4. **Prior to issuance of a Subdivision Certificate**, wastewater from the proposed lots shall be connected to via sewer main to the sewerage pumping station as shown on the Sewer Layout Plan (Job No. 17.1018; Dwg No. P05; Iss; P1; dated 26/11/2017) prepared by Calare Civil.

Reason for Conditions 2 to 4 – To ensure that the design and operation of the sewerage infrastructure is undertaken in a way that minimises the risk of sewage overflows so as to ensure a sustainable neutral or beneficial effect on water quality over the longer term.

Subdivision Roads

5. The subdivision roads shall be located and constructed as shown on the Subdivision Plan with Planning Constraints (Job Ref: 17170; Sheet No 5/6; Rev 1; dated 12/12/2017) prepared by Voerman & Ratsep Land Surveyors, but with the following specifications and requirements:
   - be sealed and otherwise constructed in accordance with Council's engineering standards, and
   - incorporate suitable crossfall with runoff to be collected via a series of pits and pipes and directed to various water quality treatment measures detailed in the following conditions.

6. All stormwater structures and drainage works associated with the proposed subdivision roads shall be wholly included in the road or drainage reserve or within suitably defined easements.

Reason for Conditions 5 & 6 – To ensure that the proposed subdivision roads and associated infrastructure will have a sustainable neutral or beneficial impact on water quality during the operational phase of the development.

Stormwater Management

7. All stormwater management measures as specified in the Conceptual Stormwater Management Plan (dated 26/11/2017) and shown on the Overall Layout and Catchment Plan (Job No. 17.1018; Dwg. No. P01; Iss P1; dated 26/11/2017) both prepared by Calare Civil, shall be incorporated in the final stormwater drainage plan to be approved by Council **prior to issuance of a Construction Certificate**, in particular as elaborated or varied in the following conditions. The stormwater management measures as a minimum shall include:
   - pits, pipes, and interallotment drainage
   - grassed swales
   - bioretention swales, and
   - detention basins.

8. Bioretention swales shall be designed and constructed as per the Conceptual Stormwater Management Plan (dated 26/11/2017) and shown on the Overall Layout and Catchment Plan, Basin 01 Details, Basin 02 Details and Bio-retention Swale & Outfall Details Plans (Job No. 17.1018; Dwg. Nos. P01, P02, P03 & P04; Iss P1; dated 26/11/2017) all prepared by Calare Civil to capture and treat all runoff from all subdivision roads and residential areas. Each bioretention swale shall also incorporate the following specifications and requirements:
   - all bioretention basins shall be designed consistent with the Adoption Guidelines for Stormwater Biofiltration Systems Version 2 (Payne *et al*, 2015, Melbourne, CRC for Water Sensitive Cities) and shall also incorporate the following specifications:
     - be located above the 2% Annual Exceedance Probability (1 in 50 year) flood level of Good Luck Creek and Farmers Creek
     - a filter media consisting of a clean sandy loam with a certified median particle diameter of 0.5 mm, a maximum orthophosphate concentration of 40 mg/kg and a maximum total nitrogen concentration of 400 mg/kg
     - be planted with appropriate deep-rooted, moisture-tolerant vegetation protected by rock mulch (grass and turf is not appropriate vegetation and organic mulch is not suitable)
     - direct all discharge and overflow to Farmers Creek via armoured discharge points such that discharge does not cause erosion, as per the Bio-retention Swale & Outfall Details Plans (Job No. 17.1018; Dwg. No. P04; Iss P1; dated 26/11/2017) prepared by Calare Civil
     - be accessible from the subdivision roads by machinery to facilitate cleaning, monitoring and maintenance of the structures
     - the discharge point shall also be consistent with the requirements of any Controlled Activity Approval under the *Water Management Act* (*2000*) from the the Natural Resources Access Regulator (NRAR)
     - be permanently protected from vehicular damage by bollards, fences, castellated kerbs or similar structures, with a sign to be erected to advise of its nature and purpose in water quality management, and

- be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised.

9. The bioretention swales shall be constructed after all hardstand areas i.e. road construction for that stage of the subdivision, have been completed and all ground surfaces have been stabilised.

10. No changes to stormwater treatment and management that will impact on water quality, shall be permitted without the agreement of Water NSW.

11. A suitably qualified stormwater consultant or engineer shall certify in writing to Water NSW and Council prior to the issuance of a Subdivision Certificate for each stage of the subdivision that all stormwater management structures have been installed as per these conditions of consent and are in a functional state.

12. An Operational Environmental Management Plan (OEMP) for each stage of the subdivision shall be prepared in consultation with Water NSW and Council by a person with knowledge and experience in the preparation of such plans. Each OEMP shall be prepared prior to the issuance of a Subdivision Certificate for that stage of the subdivision, and may be updated from the OEMP for the previous stage. The OEMP shall be provided to Council when the management and maintenance of the bioretention basins is handed over to Council. The OEMP as a minimum shall include but not be limited to:
    - details on the location, description and function of stormwater management structures such as pits, pipes, interallotment drainage, swales, bioretention swales, detention basins, and any other stormwater structures and drainage works
    - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, before and after handing over to Council, including the frequency of such activities
    - the identification of the individuals or positions responsible for inspection and maintenance activities, before and after handing over to Council, including a reporting protocol and hierarchy
    - the identification of detailed requirements and measures for the protection of bioretention basins from future upstream construction works i.e. construction of dwellings on future lots, and
    - checklists for recording inspections and maintenance activities.

13. All stormwater treatment devices, particularly bioretention swales, shall be monitored, maintained and managed as per the Operational Environmental Management Plan referred in Condition 12 above.

Reason for Conditions 7 to 13 – To ensure that the stormwater quality management measures and structures for the proposed subdivision have a sustainable neutral or beneficial impact on water quality over the longer term.

Construction Activities

14. A Soil and Water Management Plan shall be prepared, in consultation with Water NSW, for all works proposed or required as part of the subdivision, including the subdivision roads and vegetation management, by a person with knowledge and experience in the preparation of such plans. 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". The Plan shall be developed in consultation with Water NSW

and be prepared prior to Council issuance of a Construction Certificate for that stage of the subdivision and shall be to the satisfaction of Council.

15. A suitably qualified, certified professional shall oversee the implementation of the Soil and Water Management Plan for the subdivision and effective erosion and sediment controls at the site prior to and during any construction activity including site access and works within waterways and shall certify in writing to Water NSW and Council that erosion and sediment controls have been installed and maintained at the site in accordance with Condition 14 above. The controls shall prevent sediment or polluted water leaving the site or entering any stormwater drain or natural drainage system. The controls 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 so as to minimise the risk of erosion, sedimentation and pollution within or from the site during this phase.

Subsequent Development Applications

Any subsequent applications for dwellings and/or other developments on the proposed lots will be subject to the provisions of State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (the SEPP) and will need to be assessed according to the Neutral or Beneficial Effect (NorBE) test in relation to the potential effect of the development on water quality.

Under Clause 11 of the SEPP, Council must provide Water NSW with a copy of its determination of the application within 10 days of the determination. Water NSW also requests that Council provide it with a copy of the final approved Plan of Subdivision.

If you wish to discuss this matter further please contact Nicole Wallwood via Nicole.wallwood@waternsw.com.au.

Yours sincerely

FIONA SMITH
Executive Manager Water and Catchment Protection

Natural Resources Access Regulator

Contact: Gina Potter
Phone:
Email: Gina.Potter@dpi.nsw.gov.au

Our ref: IDAS1110980
Our file: V18/534-4#88
Your ref: DA230/18

General Manager
Lithgow City Council
PO Box 19
LITHGOW NSW 2790

Attention: Lauren Stevens

14 August 2019

Dear Sir/Madam

Re: Integrated Development Referral – General Terms of Approval
Dev Ref: DA230/18
Description: Subdivision 1 lot into 82 residential lots and a lot for open space purposes
Location: 5 Ikara Street LITHGOW

I refer to your recent letter regarding an integrated Development Application (DA) proposed for the above location. Attached, please find Natural Resources Access Regulator's General Terms of Approval (GTA) for part of the proposed development requiring a Controlled Activity approval under the *Water Management Act 2000* (WM Act), as detailed in the subject DA.

Please note Council's statutory obligations under section 4.47 of the *Environmental Planning and Assessment Act 1979* (EPA Act) which requires a consent, granted by a consent authority, to be consistent with the general terms of any approval proposed to be granted by the approval body.

If the proposed development is approved by Council, NRAR requests these GTA be included (in their entirety) in Council's development consent. Please also note NRAR requests notification:

- if any plans or documents are amended and these amendments significantly change the proposed development or result in additional works or activities (i) in the bed of any river, lake or estuary; (ii) on the banks of any river lake or estuary, (iii) on land within 40 metres of the highest bank of a river lake or estuary; or (iv) any excavation which interferes with an aquifer.

  NRAR will ascertain from the notification if the amended plans require review of or variation/s to the GTA. This requirement applies even if the amendment is part of Council's proposed consent conditions and do not appear in the original documentation.

Natural Resources Access Regulator

General Terms of Approval

for proposed development requiring approval under s89, 90 or 91 of the Water Management Act 2000

Reference Number:	IDAS1110980
Issue date of GTA:	14 August 2019
Type of Approval:	Controlled Activity
Description:	Subdivision 1 lot into 82 residential lots and a lot for open space purposes
Location of work/activity:	5 Ikara Street LITHGOW
DA Number:	DA230/18
LGA:	Lithgow City Council
Water Sharing Plan Area:	Greater Metropolitan Region Unregulated River Water Sources

The GTA issued by NRAR do not constitute an approval under the *Water Management Act 2000*. The development consent holder must apply to NRAR for the relevant approval **after development consent** has been issued by Council **and before** the commencement of any work or activity.

Condition Number	Details
	Design of works and structures
GT0009-00010	Before commencing any proposed controlled activity on waterfront land, an application must be submitted to Natural Resources Access Regulator, and obtained, for a controlled activity approval under the Water Management Act 2000.
	Erosion and sediment controls
GT0006-00001	The following plan(s): - Erosion and Sediment Controls Plan must be: A. prepared in accordance with Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom, 2004), as amended or replaced from time to time, and B. submitted with an application for a controlled activity approval.
GT0021-00004	The proposed erosion and sediment control works must be inspected and maintained throughout the construction or operation period of the controlled activity and must not be removed until the site is fully stabilised.
	Plans, standards and guidelines
GT0002-00665	A. This General Terms of Approval (GTA) only applies to the proposed activity described in the plans and associated documents found in Schedule One, relating to Development Application 2019 provided by Council to Natural Resources Access Regulator. B. Any amendments or modifications to the proposed activity may render the GTA invalid. If the proposed controlled activity is amended or modified, Natural Resources Access Regulator, Parramatta Office, must be notified in writing to determine if any variations to the GTA will be required.
GT0003-00002	The application for a controlled activity approval must include the following document(s): - outlet structures; Erosion and Sediment Control Plan; Soil and Water Management Plan; Vegetation Management Plan.
GT0004-00003	A. A security deposit must be provided, if required by Natural Resources Access Regulator. B. The deposit must be: i. a bank guarantee, cash deposit or equivalent, and ii. equal to the amount required by Natural Resources Access Regulator for that controlled activity approval.
GT0010-00006	All documents submitted to Natural Resources Access Regulator as part of an application for a controlled activity approval must be prepared by a suitably qualified person.

Natural Resources Access Regulator

General Terms of Approval

for proposed development requiring approval under s89, 90 or 91 of the Water Management Act 2000

Reference Number:	IDAS1110980
Issue date of GTA:	14 August 2019
Type of Approval:	Controlled Activity
Description:	Subdivision 1 lot into 82 residential lots and a lot for open space purposes
Location of work/activity:	5 Ikara Street LITHGOW
DA Number:	DA230/18
LGA:	Lithgow City Council
Water Sharing Plan Area:	Greater Metropolitan Region Unregulated River Water Sources

GT0012-00004	Any proposed controlled activity must be carried out in accordance with plans submitted as part of a controlled activity approval application, and approved by Natural Resources Access Regulator.
GT0030-00006	The application for a controlled activity approval must include plans prepared in accordance with Natural Resources Access Regulator's guidelines located on the website https://www.industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities.

Rehabilitation and maintenance

GT0007-00006	When the proposed controlled activity is completed, and the rehabilitation plan has been implemented, maintenance of the site must be carried out for a period of 2 years in accordance with that rehabilitation plan submitted as part of the controlled activity approval, and approved by Natural Resources Access Regulator.

Reporting requirements

GT0020-00004	The consent holder must inform Natural Resources Access Regulator in writing when the proposed construction of the controlled activity has been completed.

SCHEDULE 1

The plans and associated documentation listed in this schedule are referred to in general terms of approval (GTA) issued by NRAR for integrated development associated with DA230/18 as provided by Council:

- SEE
- Council Referral
- Stream Order Details for SEE

NSW RURAL FIRE SERVICE

City of Lithgow Council
PO Box 19
LITHGOW NSW 2790

Your reference: DA230/18 (CNR-7630)
Our reference: DA20200513001700-Original-1

ATTENTION: Lauren Stevens

Date: Thursday 18 June 2020

Dear Sir/Madam,

Integrated Development Application
s100B – Subdivision – Torrens Title Subdivision
5 Ikara Street Bowenfels NSW 2790, 817//DP814174, 817//DP814174

I refer to your correspondence dated 11/05/2020 seeking general terms of approval for the above Integrated Development Application.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted. General Terms of Approval, under Division 4.8 of the *Environmental Planning and Assessment Act 1979*, and a Bush Fire Safety Authority, under section 100B of the *Rural Fires Act 1997*, are now issued subject to the following conditions:

Asset Protection Zones
Intent of measures: to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact.

Condition 1

At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, the proposed residential allotments must be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*. When establishing and maintaining an IPA the following requirements apply:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m;
- preference should be given to smooth barked and evergreen trees;
- large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover; and

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NSW Rural Fire Service
Locked Bag 17
GRANVILLE NSW 2142

Street address
NSW Rural Fire Service
4 Murray Rose Ave
SYDNEY OLYMPIC PARK NSW 2127

T (02) 8741 5555
F (02) 8741 5550
www.rfs.nsw.gov.au

- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed

Condition 2

At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, the site must be maintained as an inner protection area (IPA) as follows:

- North for a distance of 14 metres;
- West for a distance of 21 metres;
- Southwest for a distance of 21 metres; and,
- South for a distance of 14 metres.

When establishing and maintaining an IPA the following requirements apply in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m;
- preference should be given to smooth barked and evergreen trees;
- large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover; and
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed

Where the required APZs extend beyond the proposed 15m wide road reserve and into the proposed residential allotments, a suitably worded instrument(s) created pursuant to section 88 of the *Conveyancing Act 1919* must be placed on the proposed lots which requires the provision remainder of the above asset protection zones (APZ) and prohibits the construction of buildings other than class 10b structures within the APZ. The name of authority empowered to release, vary or modify the instrument shall be Lithgow City Council.

Access – Public Roads
Intent of measures: to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

Condition 3

Access roads must comply with the following general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:

- subdivisions of three or more allotments have more than one access in and out of the development;
- traffic management devices are constructed to not prohibit access by emergency services vehicles;
- maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient;
- all roads are through roads;
- dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum 12 metres outer radius turning circle or a turning are coming with Appendix 3 A3.3, and are clearly sign posted as a dead end;
- where kerb and guttering is provided on perimeter roads, roll top kerbing should be used to the hazard side of the road;

- where access/egress can only be achieved through forest, woodland and heath vegetation, secondary access shall be provided to an alternate point on the existing public road system;
- one way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression;
- the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/causeways are to clearly indicate load rating;
- hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;
- hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - *Fire hydrant installations System design, installation and commissioning*; and
- there is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.

Condition 4

Perimeter roads must comply with the general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:

- are two-way sealed roads;
- minimum 8m carriageway width kerb to kerb;
- parking is provided outside of the carriageway width;
- hydrants are located clear of parking areas;
- are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
- curves of roads have a minimum inner radius of 6m;
- the maximum grade road is 15 degrees and average grade of not more than 10 degrees;
- the road crossfall does not exceed 3 degrees; and
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

Condition 5

Non-perimeter roads must comply with the general requirements of Table 5.3b of *Planning for Bush Fire Protection 2019* and the following:

- minimum 5.5m carriageway width kerb to kerb;
- parking is provided outside of the carriageway width;
- hydrants are located clear of parking areas;
- roads are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
- curves of roads have a minimum inner radius of 6m;
- the road crossfall does not exceed 3 degrees; and
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

Water and Utility Services

Intent of measures: to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

Condition 6

The provision of water, electricity and gas must comply the following in accordance with Table 5.3c of *Planning for Bush Fire Protection 2019*:

- reticulated water is to be provided to the development where available;

- fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419.1:2005;
- hydrants are and not located within any road carriageway;
- reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads;
- fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005;
- all above-ground water service pipes are metal, including and up to any taps;
- where practicable, electrical transmission lines are underground;
- where overhead, electrical transmission lines are proposed as follows:
  - lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
  - no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 *Guideline for Managing Vegetation Near Power Lines*.
- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - *The storage and handling of LP Gas*, the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets.

General Advice – Consent Authority to Note
The classification of the vegetation as remnant has not been applied to the development in this instance as insufficient information has been provided which demonstrates that the width of the vegetation will remain below 50 metres for the life of the development. As such, larger APZs to the west and southwest have been applied to the development.

For any queries regarding this correspondence, please contact Emma Jensen on 1300 NSW RFS.

Yours sincerely,

Kalpana Varghese
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