DEVELOPMENT ASSESSMENT REPORT – DA182/19 – PROPOSED SUBDIVISION - 1 LOT INTO 19, 1043 PIPERS FLAT ROAD, PIPERS FLAT NSW 2847

1. PROPOSAL

Council is in receipt of a Development Application DA182/19 for a subdivision of 1 lot into 19 lots, on land known as 1043 Pipers Flat Road, Pipers Flat.

The proposal is to development 19 residential allotments with 1 new public road from Range Road.

The property contains an area of 56.04ha with all proposed lots to be equal or greater than 2 hectares. There is currently no dwellings on the property with it being used for agricultural purposes. A small farm shed exists on the property and is proposed to be demolished as part of the application.

The development is proposed to be undertaken in 2 stages, that being:

- Stage 1 – creation of Lots 1 to 5. Access to these lots are proposed to be accessed from John Mackey Drive,
- Stage 2 – creation of Lots 6 to 19 and construction of the new road. All access driveways to these lots will be from the new road.

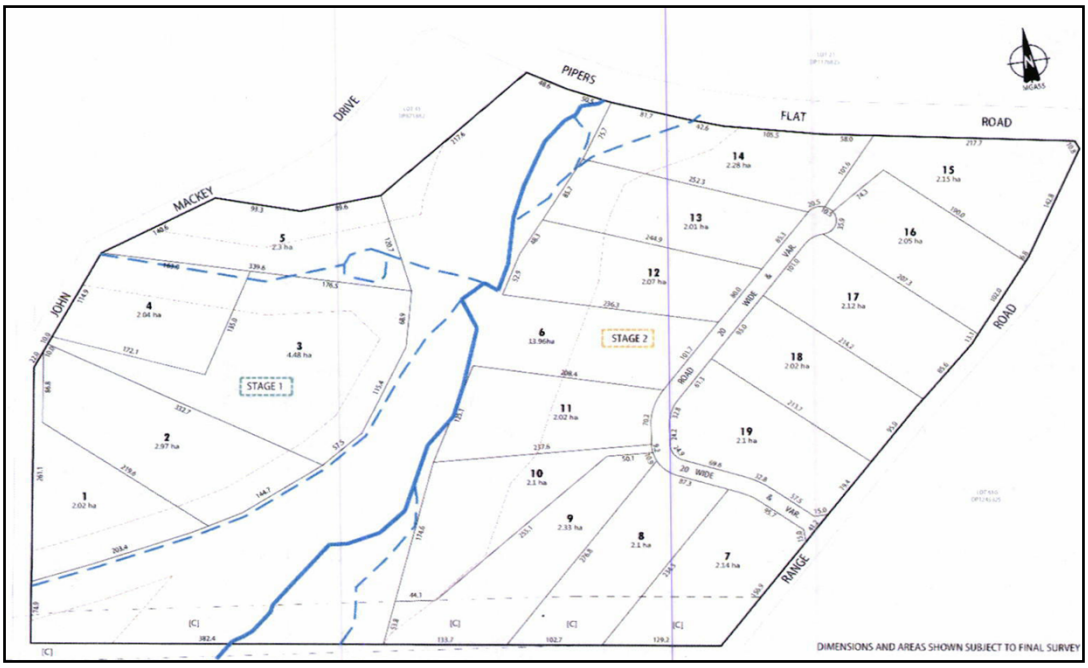
Proposed Lot 6 is to contain area of 13.96 hectares. This Lot is also to contain Pipers Flat Creek through the middle of the allotment.

The design of the subdivision has been created to minimise impacts to the Creek.

The property site on the southern side of a ridgeline with water draining to Pipers Flat Creek that runs in a northerly direction through the site. The property contains farm dams, that are proposed to be filled in, minimal vegetation and connects to Pipers Flat Road, Range Road and John Mackey Drive.

The property is shown in the photo below:

The subdivision layout is shown on the plan below:



Past Applications
057/10DA – 2 Lot Subdivision- created Lots 20 and 21.

2. SUMMARY

To assess and recommend determination of DA182/19. Recommendation will be for approval subject to conditions.

3. LOCATION OF THE PROPOSAL

Legal Description:	Lot 20 DP 1176825
Property Address:	1043 Pipers Flat Road PIPERS FLAT NSW 2847

4. ZONING: The land is zoned R5 Large Lot Residential in accordance with Council's current planning instrument, being Lithgow Local Environmental Plan (LEP) 2014.

5. PERMISSIBILITY: The development being a 'subdivision' is considered permissible under Lithgow Local Environmental Plan 2014, subject to development consent as per Clause 4.1 below.

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 allotment size shown on the Lot Size Map is 2ha. The proposal is for a 19 lot subdivision with all lots over 2ha.

The development is permissible in the zone and complies with Clause 4.1 above.

5.1 POLICY IMPLICATIONS (OTHER THAN DCP's)

Policy 1.2 Acquisition and Disposal of Assets
This Policy needs to be considered when Council is considering the acquisition and/or development of assets. This Development Application proposes to construct stormwater infrastructure and a new road. The drainage reserves and the new road network will be dedicated to Council as an asset as part of the Subdivision Certificate release process.

The developer will be required to construct the assets to Council's specifications prior to a maintenance period and subsequent dedication if the development is approved.

Policy 7.1 Filling and Levelling of Land
Unless otherwise provided by an Environmental Planning Instrument or Development Control Plan, a development application be required in the following circumstances:
1. Where land is subject to inundation by floodwaters, or
2. Where excavation or the depth of fill exceeds 900mm.
Separate development applications are not required where the cut and/or fill is identified in a development application for a structure on the land.

The development requires earthworks for the proposed road and drainage. The development therefore complies with Council's Policy.

Policy 7.2 Subdivision – Release Of Subdivision Plans
The proposed development, being for a subdivision, will require compliance with this policy as part of the Subdivision Certificate release.

Policy 7.5 Notification Of Development Applications
Council Policy 7.5 is applicable to all land within the Lithgow Local Government Area (LGA). The development is not classified as being exempt under Council's Notification Policy. Therefore the following clause applies:

3.2 NOTIFICATION PERIOD
The minimum notification period is in accordance with this Policy is 14 days.
The notification period commences on the date shown on the notification letter. Submissions will be received at any time within the notification period up to and including the last day as detailed in the notice given.

The proposal was notified to surrounding landowners and placed on display for a period of 14 days.

Policy 7.7 Calling In Of Development Applications By Councillors
This Application has not been called in; however, as the Planning Agreement is to be reported to Council and as the proposal includes the dedication of infrastructure (new road and stormwater), the full application is reported to Council for determination.

Policy 7.10 Voluntary Planning Agreements

A Voluntary Planning Agreement (VPA) has been negotiated with the developer in accordance with Section 7.4 of the *Environmental Planning & Assessment Act 1979* in relation to this proposal. The plan has been created as per the Policy and will be advertised appropriately for compliance.

The developer has agreed to make a contribution of $3,300.00 per lot (total of $62,700.00; Stage 1= $16,500.00 and Stage 2= $46,200.00) for public facilities and essential infrastructure around the area.

5.2 FINANCIAL IMPLICATIONS (eg Section 94)

Planning Agreements
As per the above paragraph.

A condition would be placed on the consent relating to the date of endorsement.

5.3 LEGAL IMPLICATIONS

Contaminated Land Management Act 1997 No 140
The land is not contaminated land as defined under this Act.

Conveyancing Act 1919
There are no existing covenant relating to the property.

A Positive Covenant is to be implemented for services around the subdivision and the use of coal burning appliances to be prohibited with Council having the right to vary, modify or release the restrictions.

The proposed development will have the following condition of consent imposed in accordance with the Act as proposed by Council:

- *No coal burning appliances are to be installed on the residential allotments. A restrictive covenant shall be placed on each lot created through an 88(b) Instrument of the Conveyancing Act 1919 with Council having the right to vary, modify or release this restriction.*

Crown Lands Act 1989 No 6
An unformed Crown Road adjoins the property to the eastern boundary. The development is proposed to be wholly confined within the property boundaries and is not expected to impact the Crown Road. The development was referred to the Crown Lands Department (Roads) for comment. These comments are found later in this report.

Biodiversity Conservation Act 2016
Section 7.2 of the *Biodiversity Conservation Act 2016* (BC Act) prescribes the circumstances in which the Biodiversity Offset Scheme (BOS) is required to be applied to development.

> ***Biodiversity Conservation Act 2016***
> ***7.2 Development or activity "likely to significantly affect threatened species"***
> *(1) For the purposes of this Part, development or an activity is likely to significantly affect threatened species if:*
> *(a) it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or*
> *(b) the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or*

(c) it is carried out in a declared area of outstanding biodiversity value.

There is no proposed clearing of native vegetation and habitats would not be impacted upon due to the size of the allotments and surrounding landuses being for residential purposes. The applicant advised that the development will disturb approximately 0.75ha of grassed paddock for the construction of the road and associated drainage/ No native trees are proposed to be removed as part of the road construction.

The development requires less than 0.5ha off clearing and this therefore meets the Biodiversity Offset Scheme thresholds, as set by the *Biodiversity Conservation Regulation 2017* (BC Reg 2017) which states:

7.2 Clearing of area of land that exceeds threshold

(1) Clearing of native vegetation is declared by this clause to exceed the biodiversity offsets scheme threshold if the area proposed to be cleared is the area set out in Column 2 of the Table to this clause opposite the minimum lot size applicable to the land to be cleared in Column 1 of that Table.

Column 1	*Column 2*
Minimum lot size of land	*Area of clearing*
Less than 1 hectare	*0.25 hectare or more*
Less than 40 hectares but not less than 1 hectare	***0.5 hectare or more***
Less than 1,000 hectares but not less than 40 hectares	*1 hectare or more*
1,000 hectares or more	*2 hectares or more*

The biodiversity map also does not indicate any biodiversity located on the property.

Biosecurity Act 2015

This Act applies when rural land is being developed, therefore to ensure compliance with this Act the following condition of consent will be imposed:

- *Prior to the issue of the Subdivision Certificate, Council is to be provided with a report from Upper Macquarie County Council indicating:*
  - *Noxious plants are under adequate management; or*
  - *Noxious plant management has been undertaken and adequate control measures are in place; or*
  - *Noxious plants are not a concern for the property.*

Roads Act 1993

The proposed road with this subdivision is to be dedicated to Council under this Act. Council will become the controlling authority for the road once construction works are satisfactory and the subdivision certificate release. The proposal will meet the requirements of the Act subject to conditions of consent.

An unformed Crown Road adjoins the property to the south. The development will be wholly confined within the boundaries of the property with the exception of the new road opening onto Range Road and the drainage flowing into Pipers Flat Road Reserve to the North. The development was referred to the Crown Lands Department for comment. These comments are found later in this report.

Section 138 of the Roads Act 1993 states:

138 Works and structures

(1) A person must not:

(a) erect a structure or carry out a work in, on or over a public road, or
(b) dig up or disturb the surface of a public road, or
(c) remove or interfere with a structure, work or tree on a public road, or
(d) pump water into a public road from any land adjoining the road, or
(e) connect a road (whether public or private) to a classified road.

The development does not involve work on Pipers Flat Road (owned by the Roads and Maritime Services (RMS) and managed by Council) as the new road will be from Range Road. The development also does not defined as being traffic generated development under the State Environmental Planning Policy (infrastructure) (SEPP). Therefore the development is not defined as being integrated development. However; the development proposes the drainage to flow into the Pipers Flat Road Reserve. Therefore the development was referred to the Transport for NSW for comment. These comments are found later in this report.

Rural Fires Act 1997
The development is integrated under this act (via Section 4.46 of the EP & A Act 1979). Accordingly the approval of the Rural Fire Service is required prior to Council being in a position to determine the application. Recommendations from the Rural Fire Service have been obtained and it is considered that subject to conditions of consent the development will comply with the provisions of this Act.

Water Management Act 2000
The following will need to be addressed if a controlled activity approval is required from the Natural Resource Access Regulators as per the below:

> **91 Activity approvals**
> (1) There are two kinds of activity approvals, namely, controlled activity approvals and aquifer interference approvals.
>
> (2) A controlled activity approval confers a right on its holder to carry out a specified controlled activity at a specified location in, on or under waterfront land.
>
> (3) An aquifer interference approval confers a right on its holder to carry out one or more specified aquifer interference activities at a specified location, or in a specified area, in the course of carrying out specified activities.

Pipers Flat Creek runs through the property; however no activities will be occurring within 30m from the watercourse. Therefore no controlled activity approval or referral to the Natural Resource Access Regulators is required.

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

Lithgow Local Environmental Plan 2014

LEP 2014 – Compliance Check		
Clause		**Compliance**
Land Use table	R5 Large Lot Residential	Yes
4.1	Minimum subdivision lot size	Yes
7.1	Earthworks	Yes
7.3	Stormwater management	Yes
7.4	Terrestrial biodiversity	Yes
7.5	Groundwater vulnerability	Yes
7.7	Sensitive lands	Yes

Comment: The proposed subdivision of land is consistent with the zone objectives. The objectives of the zone are:

1 Objectives of the R5 Zone

• To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality.
• To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future.
• To ensure that development in the area does not unreasonably increase the demand for public services or public facilities.
• To minimise conflict between land uses within this zone and land uses within adjoining zones.
• To limit development to areas in reasonable proximity to the settled town centres of Lithgow, Wallerawang and Portland to strengthen settlement hierarchy.
• To maintain or improve the water quality of receiving water catchments.

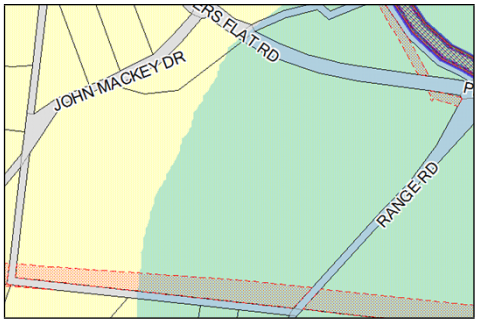
The proposed subdivision would allow lots to be developed for future residential purposes. The development is surrounded by rural residential uses. The development is not expected to impact facilities or services in the area. Water quality would be maintained and not be impacted upon. The development was referred to WaterNSW whose comments are found later in this report.

The minimum allotment size shown on the Lot Size Map is 2ha. The proposal is for a 19 lot subdivision with all of the proposed lots to be 2ha or more. The development therefore complies with Clause 4.1.

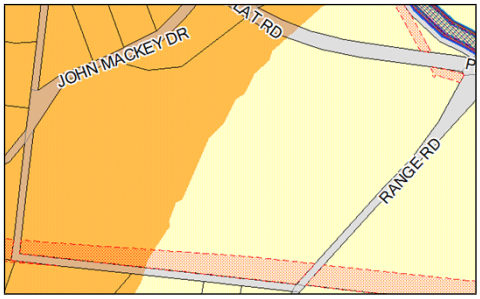
The proposed development will include earthworks for services and road construction. The road network and stormwater infrastructure proposed has been designed to allow for the diversion of stormwater to be captured within bio-retention swales within the proposed road reserve and transferred to Pipers Flat Road Reserve to flow into the Creek. Overland flow is also proposed for future dwellings. There will be conditions of consent imposed to ensure dust, noise and erosion is minimised during works and in perpetuity as a result of earthworks. The development has been assessed by appropriate authorities in relation to potential impacts from earthworks on water courses and found to be satisfactory subject to conditions of consent.

The property is identified as containing Biodiversity. The proposed subdivision is not expected to have any adverse impact on ecological value or significant flora and fauna on the property as no building structures are proposed at this stage. The road and layout has been designed to work with the existing vegetation to ensure that the road formation does not require the removal of any significant trees with future building envelopes within cleared areas. Biodiversity is shown on the map below:

The property is subject to groundwater vulnerability. The development is designed and will be managed to avoid any significant adverse environmental impact. The development is not expected to have contamination impacts as the use of the land will remain. A NorBE assessment was undertaken for the development and was found to be satisfied. The NorBE assessment is found later in this report. The groundwater vulnerability is shown on the map below:



The property is identified as being sensitive land. The location of the development has a slight slope that with majority being less than 25%. A small area has a slope greater than 20%. This area is located to the rear of lots 1, 2, 3, 5 and 6. Each lot has adequate areas outside of the steep areas that are suitable for future dwellings and associated wastewater management. The land is not subject to high erosion potential, salinity, impeded drainage or expected to be subject to regular or permanent inundation. The development is designed, sited and will be managed to avoid significant adverse environmental impact. The sensitive land map is shown below:



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

State Environmental Planning Policy 44 – Koala Habitat Protection

SEPP 44 is applicable to site given that it exceeds 1ha in size and is located within the Lithgow Local Government Area to which the SEPP applies. Part 2 of the SEPP requires Council to consider whether the land the subject of the application retains potential and subsequently core koala habitat.

Many of the trees listed within Schedule 2 of the SEPP are common within the Lithgow Local Government area, however core koala habitat within this area is rare, with only 12 koala sightings ever reported on private land within the LGA.

Comment: Given that no trees are to be removed as part of the development, and the section of the subject site relevant to the application is devoid of native vegetation it is considered unnecessary to proceed further with SEPP 44 assessment.

State Environmental Planning Policy No 55—Remediation of Land

SEPP 55 – Compliance Check		
	Clause	**Compliance**
7	Contamination and remediation to be considered in determining development application	Yes
17	Guidelines and notices: all remediation work	Yes

Comment: Cattle Yards are located in the north western section of the lot and were constructed of steel with concrete located under the crush. The sample collected from the cattle yards contained levels of zinc above the adopted ecological investigation level. The result is not expected to be significant as vegetation was present on non-stock traffic areas. Bare patches were identified during the time of sampling in locations with high stock traffic areas.

A disused sheep dip exists upon proposed Lot 13. A site assessment and remediation report was submitted with the development application. Sampling found levels of zinc above residential thresholds in the immediate vicinity of the sheep dip. All other potential sources of contamination were below residential thresholds. The statement of environmental effects states that a remediation action plan will be prepared as part of stage 2 of the development with a validation report completed to confirm effective clean-up of the sheep dip. It is recommended that the most effective remediation method is excavation of the sheep dip and surrounding soil and disposal to landfill.

A shearing shed (farm shed) is located in the northern section of the property and is no longer in use. The structure is in a dilapidated condition and is proposed to be demolished as part of this application. The structure consists of corrugated iron and untreated hardwood. The iron would be collected and taken to a scrap metal yard for recycling. The hardwood would be collected and sorted for either reuse or firewood. The timber is proposed to be stored at the applicants property address.

Conditions would be placed on the consent to ensure that the demolition works are appropriately undertaken and remediated.

State Environmental Planning Policy (Infrastructure) 2007

SEPP (Infrastructure) 2007 – Compliance Check		
Clause		**Compliance**
Division 5 Electricity transmission or distribution		
Subdivision 2 Development likely to affect an electricity transmission or distribution network		
45	Determination of development applications—other development	Yes
Division 15 Railways		
Subdivision 2 Development in rail corridors		
87	Impact of rail noise or vibration on non-rail development	Yes
Division 17 Roads and traffic		
Subdivision 2 Development in or adjacent to road corridors and road reservations		
101	Development with frontage to classified road	Yes
Schedule 3	Traffic generating development to be referred to the RTA	No

Comment: The development was assessed against the above SEPP and is considered to comply. The assessment includes:

Clause 45 Determination of development applications—other development

(1) This clause applies to a development application (or an application for modification of a consent) for development comprising or involving any of the following:

(a) the penetration of ground within 2m of an underground electricity power line or an electricity distribution pole or within 10m of any part of an electricity tower,

(b) development carried out:

(i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or

(ii) immediately adjacent to an electricity substation, or

(iii) within 5m of an exposed overhead electricity power line,

There are two transmission easements located on the property, one in the north eastern corner and the other along southern boundary. The proposed new road and dwelling envelopes are not within these easement areas and due to the size of the proposed lots would not impact the transmission lines. Electrical works would be required to be undertaken as part of the development for future dwellings. Therefore the development was referred to Endeavour Energy for comment. These comments are found later in this report.

87 Impact of rail noise or vibration on non-rail development

(1) This clause applies to development for any of the following purposes that is on land in or adjacent to a rail corridor and that the consent authority considers is likely to be adversely affected by rail noise or vibration—

(a) residential accommodation,

(b) a place of public worship,

(c) a hospital,

(d) an educational establishment or centre-based child care facility.

(3) If the development is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded—

(a) in any bedroom in the residential accommodation—35 dB(A) at any time between 10.00 pm and 7.00 am,

(b) anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time

The rail corridor is located adjacent to the property on Pipers Flat Road. Although the development would not impact the rail corridor due to the property being located over 100m, the development is for future residential purposes that could have potential to be impacted by noise and vibration.

As no dwellings are proposed as part of this application, it is unknown as to the type of construction of the dwellings or the exact location on the proposed lots. There are some existing dwellings in other properties along Pipers Flat Road that are within proximity to the rail line as such it is considered that with appropriate landscaping and construction material for future dwellings, noise and vibration from the rail line would be within the LAeq levels.

The development was referred to John Holland Rail for comment. These comments are found later in this report.

101 Development with frontage to classified road

(1) The objectives of this clause are—

(a) to ensure that new development does not compromise the effective and ongoing operation and function of classified roads, and

(b) to prevent or reduce the potential impact of traffic noise and vehicle emission on development adjacent to classified roads.

(2) The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that—

(a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and

(b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of—

(i) the design of the vehicular access to the land, or

(ii) the emission of smoke or dust from the development, or

(iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and

(c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road

It is not expected that the development would impact traffic on Pipers Flat Road as the new road is proposed to get access from Range Road and access to stage 1 via John Grant Road. The new road access from Range Road was assessed by Council's Engineers and is considered to be safe for the development. The intersection at Pipers Flat Road and Range Road is considered to be safe for the additional traffic load. The intersection contains an existing turning lane and is not required to be upgraded. The applicants propose to upgrade the new intersection to Council's Engineering standards. The development is for 19 residential allotments, with the nature and volume of the traffic to be spread out throughout the day.

As no dwellings are proposed as part of this application, it is unknown as to the type of construction of the dwellings or the exact location on the proposed lots. There are some existing dwellings in other properties along Pipers Flat Road that are within proximity to Pipers Flat Road as such it is considered that with appropriate landscaping and construction material for future dwellings, noise and vibration from the traffic would be within the LAeq levels.

The development was referred to the Roads and Maritime Services. These comments are found later in this report.

State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

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

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

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 (NorBE) on water quality provided appropriate conditions are included in any development consent and are subsequently implemented. These conditions are found later in this report.

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

Nil.

5.3.3 Any Development Control Plan

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

Rural Residential Development Control Plan No. 4

Rural Residential DCP – Compliance Check	
Section	**Compliance**
Aims	Yes
Domestic Water Tanks	NA
Waste Water	NA
Pollution Control	NA
Roads	Yes
Building Setbacks	NA
Services	Yes
Rural Landscape	Yes

Comment: The development is considered to comply with Council's Rural Residential Development Control Plan as:

Water tanks are required for future dwellings on the property and for fire fighting purposes.

A geotechnical report has been submitted with the application and details that each lot has the potential to contain its own effluent disposal system as per any future dwelling.

Power is available to the property from an overhead power line in Range Road and Pipers Flat Road. The power would be required to be extended to the rest of the proposed lots within the subdivision.

A telephone service would also be able to be connected to the proposed subdivision lots.

The following condition would be included on the consent:

The applicant shall consult with an Authorised Telecommunications and Electricity Authorities for the provision of telephone and electricity, gas services to each allotment. Confirmation of connection to each allotment and a plan is to be lodged with Lithgow City Council prior to the release of the 'Subdivision Certificate' for each stage.

Due to the size of the proposed allotments being above 2ha any future dwelling on the proposed lots would have suitable setbacks from roads and adjoining property boundaries.

The development is considered to comply with Council's Rural Residential Development Control Plan.

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 as per Section 7.4 Planning Agreements of the *Environmental Planning & Assessment Act 1979* in relation to this proposal.

See previous commentary under **Policy 7.10** above.

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

There are no demolition works, rebuilding or extension of the building is proposed as part of this application.

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

Adjoining Landuse: The surrounding area is generally for rural residential with the proposal to be consistent with the surrounding land uses. The proposal will not cause any land use conflicts and the development is permissible within the zone.

The proposed development is not expected to impact adjoining properties in relation to future dwellings to have overshadowing or impact on privacy, due to the proposed allotment sizes being above 2 hectares.

Services: The site is serviced by electricity and telecommunications. These services will be extended to each lot as part of the development.

The following condition would be included on the consent:

The applicant shall consult with an Authorised Telecommunications and Electricity Authorities for the provision of underground telephone and electricity services to each

allotment. Confirmation of connection to each allotment and a plan is to be lodged with Lithgow City Council prior to the release of a final 'Subdivision Certificate'.

The southern boundary of the site is traversed by a high voltage transmission line. An easement covers the line and the surrounding ground to a distance of 30m from the centreline of the towers. The lot layout has been designed around the easements with fencing being the only structures within the easement area.

The development was referred to Endeavour Energy and Transgrid as part of the assessment process. Endeavour Energy and Transgrid comments are found later in this report.

A geotechnical report has been submitted with the application and details that each lot has the potential to contain its own effluent disposal system as per any future dwelling.

Water tanks would also be required for future dwellings.

Drainage is proposed to contain table drains and grassed swales to convey water through the development to a discharge point. The drainage is proposed to be located along the new road reserve and is designed to fall towards the existing creeks with the provision for both piped flow for lower design storms and overland flow for less frequent storm events.

Context and Setting: The proposed development will be located within an established rural residential area and will have no major impact on the context and setting of the area. The size of the proposed allotments would be similar to surrounding lots.

Future dwellings would be required to be constructed to suit the surrounding streetscape.

Access/traffic: The development involves the construction of one new road as per Stage 2. The road construction is expected to be of a typical rural road being an 8m formation with 7m seal.

The development will create one new intersection with Range Road. The development proposes to widen the south bound lane to allow for passing vehicles.

Lots 1 to 4 is proposed to access directly from John Mackey Drive. Lot 5 will gain access from an existing and formed right of carriageway over Lot 41 DP 871882 (Council owned land). Lots 6 to 19 is proposed to gain access from the new proposed road from Range Road.

It is not expected that the development would impact traffic on Pipers Flat Road as the new road is proposed to get access from Range Road and access to stage 1 via John Grant Road. The new road access from Range Road was assessed by Council's Engineers and is considered to be safe for the development. The intersection at Pipers Flat Road and Range Road is considered to be safe for the additional traffic load. The intersection contains an existing turning lane and is not required to be upgraded. The applicants propose to upgrade the new intersection to Council's Engineering standards. The development is for 19 residential allotments, with the nature and volume of the traffic to be spread out throughout the day.

Traffic and access is considered suitable for the development. Council's Engineering comments and conditions are found later in this report.

Heritage: The property is not heritage listed or adjoins heritage listed items.

Flora and Fauna: There is no proposed clearing of native vegetation and habitats would not be impacted upon due to the size of the allotments and surrounding landuses being for residential purposes. The applicant advised that the development will disturb approximately 0.75ha of grassed paddock for the construction of the road and associated drainage/ No native trees are proposed to be removed as part of the

There are no known threatened species or critical habitat on the property that would have an impact on the location of the proposed building envelopes.

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

Soils: The proposed development will have no significant impact on soils.

Cattle Yards are located in the north western section of the lot and were constructed of steel with concrete located under the crush. The sample collected from the cattle yards contained levels of zinc above the adopted ecological investigation level. The result is not expected to be significant as vegetation was present on non-stock traffic areas. Bare patches were identified during the time of sampling in locations with high stock traffic areas.

A disused sheep dip exists upon proposed Lot 13. A site assessment and remediation report was submitted with the development application. Sampling found levels of zinc above residential thresholds in the immediate vicinity of the sheep dip. All other potential sources of contamination were below residential thresholds. The statement of environmental effects states that a remediation action plan will be prepared as part of stage 2 of the development with a validation report completed to confirm effective clean-up of the sheep dip. It is recommended that the most effective remediation method is excavation of the sheep dip and surrounding soil and disposal to landfill.

A shearing shed is located in the northern section of the property and is no longer in use. The structure is in a dilapidated condition and is proposed to be demolished as part of this application. The structure consists of corrugated iron and untreated hardwood. The iron would be collected and taken to a scrap metal yard for recycling. The hardwood would be collected and sorted for either reuse or firewood. The timber is proposed to be stored at the applicants property address.

Conditions would be placed on the consent to ensure that the demolition works are appropriately undertaken and remediated.

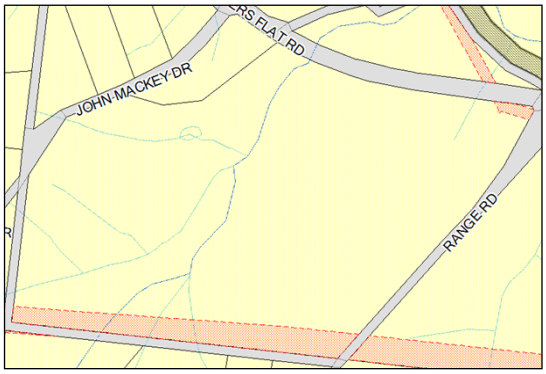
The proposed development will include earthworks for services and road construction. The road network and stormwater infrastructure proposed has been designed to allow for the diversion of stormwater to be captured within bio-retention swales within the proposed road reserve and transferred to Pipers Flat Road Reserve to flow into the Creek. Overland flow is also proposed for future dwellings. There will be conditions of consent imposed to ensure dust, noise and erosion is minimised during works and in perpetuity

as a result of earthworks. The development has been assessed by appropriate authorities in relation to potential impacts from earthworks on water courses and found to be satisfactory subject to conditions of consent.

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

The site contains a mixture of 1st, 2nd and 3rd order streams under the Strahler stream classification system. The Natural Resource Access Regulators requirement is 30m either side for 3rd order streams (Pipers Flat Creek) for developments. The watercourse and riparian zone will not be impacted by the development.

The water courses are shown on the map below:



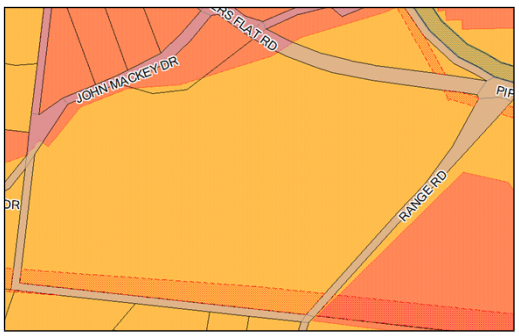
Air and Microclimate: There will be no significant impact on air or microclimate. However, a condition of consent will be imposed requiring that dust suppression be used during construction works to minimise impacts on the surrounding area.

Natural Hazards: The property is located within the bushfire prone area. A bushfire report was submitted with the application and identified the property to contain numerous vegetation types such as grassland, woodland and forest. The BAL level also ranges between BAL 12.5 to BAL 29.

The report states that access will be suitable for the development and that each future dwelling will be required to additional water tanks for fire-fighting purposes.

The development was referred to the Rural Fire Service (RFS) for comment. These comments are found later in this report.

Council's bushfire map is shown below:



Although the property is not identified as being flood prone under Council's LEP 2014, the property contains Pipers Flat Creek. No new assesses are proposed to be within 100m from the creek and the topography of the land slope towards the creek. Therefore there is adequate space on the proposed lots for future dwellings to be at a higher elevation to the creek and to have reasonable setbacks to prevent flooding impacts.

Noise and Vibration: The development has a frontage to Pipers Flat Road that is the main thorough fair road between Wallerawang and Portland. The Railway line also lies adjacent to the property on Pipers Flat Road.

The development has been designed to minimise future dwellings from being within proximity to Pipers Flat Road. Only two proposed lots would directly adjoin the Road. Given the size of the allotments being above 2ha each, future dwellings would be located over 100m from the rail line, and the frequency of the trains being approximately 2 per day, it is expected that noise and vibration would have minimal impact to the proposed subdivision.

To decrease noise, vibration and visual impacts from Pipers Flat Road it is also expected that future dwellings would provide screening to private areas of the dwelling or along boundaries.

Waste: The existing farm shed on proposed Lot 13 is proposed to be demolished as part of this development. The structure consists of corrugated iron and untreated hardwood. The iron would be collected and taken to a scrap metal yard for recycling. The hardwood would be collected and sorted for either reuse or firewood.

Other Land Resources: The development will not impact on the value of the land in terms of agricultural potential or mining as it is zoned for rural residential use and adjacent to an established rural residential area. The land is not suitable for mining or forestry developments and is close to existing residential areas.

5.3.7 The Suitability of the site for the development

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

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

The proposal was sent to Water NSW, NSW Rural Fire Service, FishRiver, Transport for NSW, Endeavour Energy, Transgrid, Crown Land, John Holland Rail, Council's Engineering Officer for commenting with recommendations detailed below. The proposal was also sent to surrounding landowners and placed on public display in Council's Administration Building for a period of 14 days with 2 submissions received and that are summarised below.

WATER NSW

Reference is made to Council's correspondence received 16 October 2019 requesting the concurrence of Water NSW under *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* for a proposal for a 19-lot subdivision.

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

Water NSW considered the following documents in its assessment of the application:

- Statement of Environmental Effects (undated) including a Concept Lot Layout Plan (dated 22 August 2019), a Stormwater Management Report (dated 23 September 2019), a Concept Water Quality Treatments (dated 25 October 2019) incorporating a MUSIC stormwater quality model all prepared by CEH Survey Pty Ltd, and
- Investigation and Assessment for On-Site Effluent Management Report prepared by Blue Mountains Geological and Environmental Services Pty Ltd (dated September 2019).

It is noted that the subdivision is proposed to be staged as follows:

- Stage-1 comprising proposed Lots 1 to 5, and
- Stage-2 consisting of proposed Lots 6 to 19 and construction of a subdivision road.

Water NSW's site inspection identified that intermittent watercourses, tributaries of Pipers Flat Creek, run through the western part of the property (proposed Lots 1 to 5) as well as along the proposed eastern Lots 10, 12 to 14 as shown dotted lines on the Waterways and Septic Buffer Plan prepared by CEH Survey Pty Ltd (dated 22 August 2019). The Investigation and Assessment for On-Site Effluent Management Report and associated Figure 1 has adopted 40 metre buffer to waterways shown as dotted lines on the Waterways and Septic Buffer Plan, which is inconsistent with Water NSW's current recommended practices. Therefore, effluent management areas on these lots need to be revised to reflect appropriate buffer distance to the watercourses to minimise impacts on water quality. This matter has been addressed in conditions below.

Based on the site inspection and the information provided, Water NSW considers that the proposed development is likely to achieve a neutral or beneficial effect (NorBE) on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

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

General

1. The lot layout, works and staging shall be as specified in the Statement of Environmental Effects (undated) and shown on the Concept Lot Layout Plan (Dwg No. 5446_Lots, Issue 1, dated 22-08-2019) both prepared by CEH Survey Pty Ltd. No revisions to lot layout, works or staging of the subdivision that will have any 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.

Wastewater Management

2. Prior to issuance of a Subdivision Certificate for each stage of the subdivision, "Effluent Management Envelopes" of 300 square metres on proposed Lots 1 to 5, 10 must be

delineated on the Plan of Subdivision as indicated in Figure 1 of the Investigation and Assessment for On-Site Effluent Management Report prepared by Blue Mountains Geological and Environmental Services Pty Ltd (dated September 2019). Effluent management envelopes must have at least 100 metre buffer to all waterways shown on Waterways and Septic Buffer Map Plan (Dwg No. 5446_Lots, Issue 1, dated 22-08-19) prepared by CEH Survey Pty Ltd including:

- a watercourse located along the southern boundary of proposed Lot 5 and along northern boundaries of proposed Lots 3 and 4,
- a watercourse located along the south-eastern boundary of proposed Lots 1 to 3, and
- a watercourse located along the western side of proposed Lot 10.

3. There shall be a restriction on the land under Section 88E of the *Conveyancing Act 1919*, the prescribed authority being Water NSW, placed over proposed Lots 1 to 5, 10 requiring that:

- all wastewater generated on the lot must be disposed of within the "Effluent Management Envelope", and
- small-foot print effluent management system (i.e. absorption trench or absorption bed) to be used for effluent management.

Reason for the above Conditions - To ensure that an appropriate on-site wastewater management system can be sited on each lot given the soil constraints to have a sustainable neutral or beneficial effect on water quality over the longer term.

Subdivision Road

4. The subdivision road shall be paved and otherwise constructed to Council's engineering standards.

5. Stormwater management measures for the subdivision road as specified in Section 4, Appendix 1 and 2 of the Stormwater Management Report (dated 23 September 2019) and shown on the Concept Water Quality Treatments (Dwg No. 5446_C_Rd, Issue 2, Rev. A, dated 25-10-19) both prepared by CEH Survey Pty Ltd shall be implemented in Stage 2 of the subdivision. The subdivision road shall:

- have appropriately spaced cross drains, level spreaders, sills, and mitre drains that divert water onto a stable surface capable of accepting concentrated water flow and provide for efficient sediment trapping and energy dissipation
- ensure all swales, batters and verges are vegetated and stabilised with bitumen and jute matting or equivalent as soon as possible after construction
- ensure all drainage works associated with the proposed subdivision road are wholly included in the road reserve and suitably defined easements
- have bioretention systems that also:
  - be designed consistent with Adoption Guidelines for Stormwater Biofiltration Systems Version 2 (Payne *et al*, 2015, Melbourne, CRC for Water Sensitive Cities)
  - 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 Pipers Flat Creek via a channel and armoured discharge point such that discharge does not cause erosion
  - have appropriate easement for overflow channel through proposed Lot 14
  - be accessible from the subdivision road by machinery to facilitate cleaning, monitoring and maintenance of the structures

- 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.

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

7. 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 Stage 2 of the subdivision that all stormwater management structures have been installed as per these conditions of consent and are in a functional state.

8. An Operational Environmental Management Plan shall be prepared in consultation with Water NSW and Council by a person with knowledge and experience in the preparation of such plans. The Plan shall be prepared prior to the issuance of a Subdivision Certificate for Stage 2 of the subdivision. The Plan shall be provided to Council when the management and maintenance of the roadside swales, bioretention systems and other stormwater structures are handed over to Council. The Plan shall:

- include details on the location, description and function of stormwater management structures such as pits, pipes, swales, bioretention systems, and any other stormwater structures and drainage works
- outline 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
- identify the individuals or positions responsible for inspection and maintenance activities, before and after handing over to Council, including a reporting protocol and hierarchy
- outline procedures for managing water quality emergencies including the identification of the authorities, including Water NSW, and
- include checklists for recording inspections and maintenance activities.

9. All stormwater treatment devices shall be monitored, maintained and managed as per the Operational Environmental Management Plan.

Reason for the above Conditions - To ensure the subdivision road and associated drainage works and water quality control measures are appropriately managed and maintained to ensure an overall and sustainable neutral or beneficial impact on water quality over the longer term.

Pipers Flat Creek Crossing

10. There shall be only a single crossing across Pipers Flat Creek in proposed Lot 6 to provide access to the western part of the lot. The crossing shall be completed prior to the issuance of a Subdivision Certificate for Stage 1 of the subdivision. The crossing shall:

- be properly engineered pipe or box culverts consistent with the Unsealed Roads Manual: guidelines to good practice (ARRB Transport Research Ltd 3rd edition 2009)
- be sealed for appropriate distance either side of the waterway crossing, and

- also be consistent with any requirements for Controlled Activities Approval under the *Water Management Act 2000* issued by the Natural Resources Access Regulator (NRAR).

Reason for the above Condition - To ensure all intra-lot access and associated management measures have a minimal impact on water quality that can be maintained over the longer term.

Protection and Rehabilitation of Pipers Flat Creek

11. Pipers Flat Creek in proposed Lot 6 shall have a new stock proof fence installed at 30 metres from the edge of the creek on both sides, to allow stock passage and grazing as appropriate, between the new fence line and Lot 6 boundary prior to issuance of a Subdivision Certificate for Stage 1 of the subdivision. All significant tributaries of the Pipers Flat Creek, specially near proposed Lots 9, 10, 13 and 14, shall be included in the fenced-off riparian areas.

12. Eroded areas near the existing unformed crossing of the Pipers Flat Creek (near Piper Flat Road) and upstream near proposed Lots 1 and Lot 6 shall be rehabilitated and revegetated with locally native vegetation. The plants shall be tube stock and shall be staked and protected to ensure a higher survival potential. If 6 months after planting less than 50 percent of plantings have become established, a further round of planting shall be implemented. The works shall be to satisfaction to Council and Water NSW prior to an issuance of a Subdivision Certificate for Stage 1 of the subdivision.

13. There shall be a restriction on land under Section 88E of the *Conveyancing Act 1919* for proposed Lot 6 in relation to the fenced-off riparian areas around Pipers Flat Creek, the prescribed authority being the Water NSW, requiring that:

- the fences be retained and maintained
- the vegetation in these fenced-off rehabilitation areas be retained and weeds kept under control, and
- livestock be prevented from grazing in the fenced-off areas or having direct access to the creek, although water for livestock may be provided by pumps, pipes and troughs subject to any requirements of the Natural Resources Access Regulator (NRAR) under the *Water Management Act (2000).*

Reason for the above Conditions – To ensure that appropriate measures are taken to offset the water quality impact of the increased intensity of the proposed development to have a sustainable neutral or beneficial effect on water quality over the longer term.

Construction Activities

14. A Soil and Water Management Plan shall be prepared for all works required as part of Stage 2 of the subdivision 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)
- be prepared prior to Council issue a Construction Certificate, and be to the satisfaction of Council and
- include controls to prevent sediment or polluted water leaving the construction site or entering any natural drainage lines or stormwater drain.

15. The Soil and Water Management Plan shall be implemented, and effective erosion and sediment controls shall be installed prior to any construction activity. The controls

shall be regularly maintained and retained until works have been completed and groundcover established.

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

RURAL FIRE SERVICE (RFS)
Reference is made to Council's correspondence dated 21/10/2019 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
The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

1. At the issue of a subdivision certificate, all residential lots must be managed as an inner protection area (IPA). The IPA must comprise:
● Minimal fine fuel at ground level;
● Grass mowed or grazed;
● Trees and shrubs retained as clumps or islands and do not take up more than 20% of the area;
● Trees and shrubs located far enough from buildings so that they will not ignite the building;
● Garden beds with flammable shrubs not located under trees or within 10 metres of any windows or doors;
● Minimal plant species that keep dead material or drop large quantities of ground fuel;
● Tree canopy cover not more than 15%;
● Tree canopies not located within 2 metres of the building;
● Trees separated by 2-5 metres and do not provide a continuous canopy from the hazard to the building; and,
● Lower limbs of trees removed up to a height of 2 metres above the ground.

Access – Public Roads
The intent of measures is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

2. Public road access shall comply with the following requirements of section 4.1.3 (1) of 'Planning for Bush Fire Protection 2006':
● Road(s) shall be two wheel drive, all weather roads.
● Urban perimeter roads are two way, with a carriageway 8 metres minimum kerb to kerb.
● The perimeter road is linked to the internal road system at an interval of no greater than 500 metres.

● Traffic management devices are constructed to facilitate unobstructed access by emergency services vehicles.
● Public roads have a cross fall not exceeding 3 degrees.
● All roads should be through roads. Dead end roads are not recommended, but if unavoidable, dead end roads are not more than 200 metres in length, incorporate a 12 metre outer radius turning circle, are clearly signposted as dead end and direct traffic away from the hazard.
● Non perimeter road widths comply with Table 4.1 in 'Planning for Bush Fire Protection 2006'.
● Curves of roads (other than perimeter roads) are a minimum inner radius of 6 metres
● The minimum distance between inner and outer curves is 6 metres.
● 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.
● There is a minimum vertical clearance to a height of 4 metres above the road at all times.
● The capacity of road surfaces and bridges is sufficient to carry fully loaded fire fighting vehicles (approximately 15 tonnes for areas with reticulated water, 28 tonnes or 9 tonnes per axle for all other areas). Bridges clearly indicate load rating.
● Public roads greater than 6.5 metres wide locate hydrants outside of parking reserves to ensure accessibility to reticulated water supply for fire suppression.
● Public roads between 6.5 metres and 8 metres wide are 'No Parking' on one side with services (hydrants) located on this side to ensure accessibility to reticulated water for fire suppression.
● Public roads 5.5 to 6.5 metres wide (kerb to kerb) provide parking within parking bays located outside the kerb to kerb space and located services outside of the parking bays to ensure accessibility to reticulated water for fire suppression.
● One way only public access roads are no less than 4 metres wide (kerb to kerb) and provide parking within parking bays located outside the kerb to kerb space. Services are located outside of the parking bays to ensure accessibility to reticulated water for fire suppression.
● Parking bays are a minimum of 2.6 metres wide from kerb to edge of road pavement. No services are located within the parking bays.
● Public roads directly interfacing the bush fire hazard provide roll top kerbing to the hazard side of the road.

Water and Utility Services

The intent of measures is 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. To achieve this, the following conditions shall apply:

3. The provision of water, electricity and gas must comply with the following:
● Electrical transmission lines should be located underground where possible.
● Overhead electricity lines must have short pole spacing (i.e. 30 metres) except where crossing gullies, gorges or riparian areas. No tree may be closer to an electricity line than the distance set out in in ISSC3 Guideline for Managing Vegetation Near Power Lines.

• Gas must be installed and maintained as set out in the relevant standard and all pipes external to the building must be metal including and up to any taps/outlets/fittings. Polymer-sheathed flexible gas supply lines must not be used.

FISHRIVER
Water NSW Fish River does not object on this DA, Water NSW Fish River finds connecting to main water supply from the property is not viable due to impracticality of extension of pipeline and maintenance.

Therefore, the property should be supplied by rainwater tanks.

TRANSPORT FOR NSW
The development was referred to Transport for NSW for advice given that Pipers Flat Road is a regional road. Transport for NSW recommended that the intersections for Range Road/Pipers Flat Road and John Mackey Drive be constructed to the Austroads standards.

Council's Development Engineer has reviewed the Austroads Road standards and advise that these road standards already exists at both intersections. Therefore, the intersections are considered adequate for the development and not required to be upgraded.

CROWN LAND
The Department of Planning, Industry and Environment – Crown Land (the department), as adjoining landowner has reviewed the development application in accordance with the principles of Crown land management (s.1.4 *Crown Lands Management Act 2016*), and offers no objections to the proposed development as no impact to Crown land has been identified.

Should the development be modified in any manner that impacts the adjoining Crown land, e.g. by amendment to the development proposal or draft conditions of consent, the department requests an opportunity to further review the application prior to determination.

ENDEAVOUR ENERGY
Reference is made to Council's email of 10 October 2019 from NSW Planning, Industry & Environment regarding NSW Government concurrence and referral request CNR-2036 for development application DA182/19 at 1043 PIPERS FLAT ROAD PORTLAND 2847 (Lot 20 DP 1176825) for '1 Lot into 19 Subdivision'.

As shown in Endeavour Energy's site plan there is:
• An easement to the north eastern corner of the site benefitting Endeavour Energy for 11,000 volt/11 kilovolt (kV) high voltage and 66,000 volt/66 kV high voltage overhead power lines which continue across both Pipers Flat Road and Range Road.

• An easement adjoining the south eastern side of the site over Lot 41 DP 871882 which currently has no 'inservice' electricity infrastructure.

• 11 kV high voltage overhead power lines to parts of the John Mackey Drive road verge/roadway including pole mounted substation no. 18822.

• No existing low voltage overhead service conductor or customer connection point to the site.

Subject to the foregoing and the following recommendations and comments Endeavour Energy has no objection to the Development Application:

Easement
The electrical easement needs to be shown on the Deposited Plan for the subdivision and the easement registered on the title to proposed Lot 15 with the requirements of NSW Land Registry Services.

Network Capacity/Connection
In due course the applicant, for the future proposed development of the site will need to submit an application for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Depending on the outcome of the assessment, any required padmount substation will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefiting and gifted to Endeavour Energy.

Bushfire
The network required to service the proposed development must be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection/infrastructure for a bushfire prone site.

Earthing
The construction of any building or structure (including fencing, signage, flag poles etc.) that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with AS/NZS 3000:2007 'Electrical installations' to ensure that there is adequate connection to the earth. Inadequate connection to the earth places persons and the electricity network at risk.

Easement Management/Network Access
The following is a summary of the usual/main terms of Endeavour Energy's electrical easements requiring that the land owner:

- Not install or permit to be installed any services or structures within the easement site.
- Not alter the surface level of the easement site.
- Not do or permit to be done anything that restricts access to the easement site without the prior written permission of Endeavour Energy and in accordance with such conditions as Endeavour Energy may reasonably impose.

Endeavour Energy's preference is for no activities or encroachments to occur within its easement areas. If any proposed works or activities (other than those approved/ certified by Endeavour Energy's Network Connections Branch as part of an enquiry/ application for load) will encroach/affect Endeavour Energy's easements, contact must first be made with the Endeavour Energy's Easements Officer.

It is imperative that the access to the existing electrical infrastructure adjacent and on the site is maintained at all times. To ensure that supply electricity is available to the community, access to the electrical assets may be required at any time.

Vegetation Management

The planting of large trees in the vicinity of electricity infrastructure is not supported by Endeavour Energy. Suitable planting needs to be undertaken in proximity of electricity infrastructure. Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant.

Noise
Where development is proposed in the vicinity of electricity infrastructure, Endeavour Energy is not responsible for any acoustic/noise amelioration measures for such noise that may impact on the nearby proposed development.

Dial before You Dig
Before commencing any underground activity the applicant is required to obtain advice from the ***Dial before You Dig*** **1100** service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.

Public Safety
Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. Endeavour Energy's public safety training resources, which were developed to help general public/workers to understand why you may be at risk and what you can do to work safely is available via Endeavour Energy's website via the following link:

http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures

Emergency Contact
In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours/7 days.

TRANSGRID
After reviewing the Proposal, TransGrid has no objections to the Proposal as it does not impact on TransGrid's infrastructure.

JOHN HOLLAND RAIL
It is the noted that the DA seeks approval for subdivision of 19 residential lots (Proposal) on Lot 20 DP 1176825 (Land) which is in close proximity to the rail corridor of the operational Wallerawang to Baal Bone Junction line forming part of the CRN.

Please note that this letter is prepared and provided on the basis of the following authority:
•*State Environmental Planning Policy (SEPP) (Infrastructure) 2007* (the ISEPP); and
•*Development Near Rail Corridors and Busy Roads – Interim Guideline (2008)* (the Guideline) http://www.rms.nsw.gov.au/documents/projects/guideto-infrastructure-development-near-rail-corridors-busy-roads.pdf

RailCorp and JHR request that should the DA be approved, Council must take into considerations comments and impose conditions outlined below:

Proposed Conditions of Consent
Please note: RailCrop is the rail authority for this section of railway line, however, JHR are responsible for the operation of the infrastructure and will take responsible for the review and approval of the following Conditions.

1. Noise, vibration & air quality
The Guideline provides that for development that is in or adjacent to a rail corridor the consent authority must be satisfied that the development would not be adversely affected by rail noise, vibration or air quality due to the volume of traffic the rail line carries. As the Land is in close proximity to the rail corridor of the CRN which is currently in operation, Council is requested to advise the applicant that the Proposal will not be adversely affected by rail noise, vibration and air quality.

Recommended Condition
Council is requested to impose a condition that the applicant agrees to an easement for noise, vibration to burden on the subdivided lots and to benefit RailCorp as the rail corridor is currently in operation in accordance with terms and conditions stipulated in a draft Section 88B Instrument.

Applicants Response:
The suggested conditions to place restrictions on the titles to the new lots is considered to be excessive and unwarranted with regard to the development proposal. The closest potential building envelope which satisfies setbacks for bushfire asset protection on Lot 15 is over 140m from the rail line and the furthest potential envelope on Lot 1 is 1.2km away. The rail line does not carry a high volume of traffic and the development is not considered to be adversely impacted by normal rail activities. In addition, no potential building envelopes front the rail corridor or are in direct line of sight of a train approaching from either direction, so any potential finishings or lighting would not impact the rail corridor.

Council Officer's Comment:
Council Officer's agree with the applicant that this proposed condition is unreasonable given the distance from the rail corridor, and the frequent usage of the rail line. Therefore, Council concurs that the condition is not warranted for the DA.

2. Lighting, External finishes and design
The Guideline provides information regarding lighting and external finishes of buildings which may have potential impacts on the rail corridor of the CRN.
Recommended Condition
Council is requested that red and green lights will not be used in all signs, lighting building colour schemes on any part of a building which may face the rail corridor.

3. Access to the Land
It is noted that Lots 1 to 4 will access directly from John Mackie Drive and Lot 5 will gain access from an existing and formed right of carriage way over Lot 41 DP 871882. Furthermore, Lots 6 to 19 will all gain access from the new internal road with no direct access to either Range Road or Pipers Flat Road.

As such, it appears that the Proposal does not impact on the rail corridor including level crossings in close proximity to the Land. However, Council is requested to ensure that

access to the rail corridor is strictly prohibited at any time unless otherwise approved in writing by RailCorp.

COUNCIL'S ENGINEERING OFFICER
Reference is made to the Development Application in regard to Council's Planner's referral dated 12 February 2020.

It is suggested that the following conditions be placed on any Development Consent:

1. A Construction Certificate must be obtained prior to the commencement of any Civil Works.

2. Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that engineering plans are generally consistent with the stamped approved concept plans prepared by (CEH Survey), reference number (5446), revision (3), dated (06/02/2020), and that all subdivision works have been designed in accordance with the development consent, Council's "Guidelines for Civil Engineering Design and Construction for Development", Austroads Guidelines and best engineering practice.

3. Prior to the issue of any Construction Certificate, a concept Road Safety Audit (RSA) for proposed roadworks in Range Road shall 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 be provided to Council for further review. A traffic signage & linemarking plan shall be provided.

4. All engineering works are to be 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.

5. 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

6. The Construction Certificate must be supported by engineering plans, calculations, specifications and any certification relied upon.

Note: Council's Development Engineering Department can provide this service. Contact Lithgow City Council's Engineering Department on (02) 6354 9999 to obtain a formal fee proposal prior to lodgement and visit Lithgow Council's website for more information.

7. Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the proposed road have been designed in accordance with Lithgow City Council's Guidelines for Civil Engineering Design and Construction for Development for

Developments and the following criteria: 20m wide road reserve, 9.6m sealed carriageway width plus 2m wide shoulder (1m sealed) on both sides, ESA: 5×10^4

8. A copy of the pavement design prepared and certified by a suitably qualified geotechnical engineer must accompany the application for Construction.

9. The applicant shall grant an easement to Lithgow City Council for drainage and overland flow purposes on the location shown on the plan accompanying this consent, and on the basis that no claim for compensation will be made, and that the applicant will meet all associated survey and legal costs. Prior to the issue of a Subdivision Certificate the easement shall be created on the plan of subdivision.

10. 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 construction certificate.

11. Traffic signs, traffic signals, pavement markings, guide posts, delineators, safety barriers and the like, whether permanent or temporary, are to be designed and installed at 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 construction 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.

12. A fully certified traffic control plan and road works signage will be required where machinery may obstruct traffic on any Public Road whilst construction work is being undertaken. A traffic control plan and certification of fully qualified contractors/persons will be required 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 such time the developer complies with suitable traffic management procedures.

13. A maintenance bond of 5% of final construction costs shall be paid to Council upon final inspection and approval of all civil works. 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.

14. 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.

1. <u>Compaction Testing:</u>
   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.

2. 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.

(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.

3. 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.

15. All road and drainage 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;
- Subgrade preparation, before placing pavement;
- 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.

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

17. A "Work-As-Executed" (WAE) plan is required 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.

18. All Engineering Drawings submitted to Council for approval are to have a title block showing the following:

- Applicant's Name,
- Consultant's Name, Address, Phone No. and Contact Name,
- Drawing Number, Sheet Number and Amendment Number,
- Schedule showing Date and Nature of Amendments,
- Site Address, including Lot and Deposited Plan (DP) Number,
- Council's File Reference,
- Stage Number,
- Drawing Title,
- Scale with Scale Bar, and

- Signature of Authorised Person.

19. Construction noise shall be in accordance with the 'Noise Control Guidelines for Construction Noise Standards'. Hours of operation shall be permitted between 7am and 6pm Monday to Friday and 8am and 1pm Saturdays. No heavy machinery work or usage shall be permitted on Sundays or Public Holidays.

20. The applicant shall submit a soil erosion and sedimentation control plan with the engineering design for Council approval. 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.

21. Prior to and during the commencement of works the applicant shall erect soil erosion and sedimentation controls for the following purposes:

- control of soil erosion and sedimentation movement during the bulk earthworks stage
- control of run off and diversion of the sedimentation trap prior to the development of land
- method of stabilising the land from erosion and sediment movement after the completion of works and prior to the development of the land

22. The applicant is to comply with all reasonable requests from Council with regard to any complaints received during construction works.

23. The applicant shall consult with an Authorised Telecommunications, Electricity and Gas Authorities for the provision of underground telephone, electricity, and gas services to each allotment. Notification of Arrangement for provision to each allotment shall be lodged with Council prior to the issue of a Subdivision Certificate.

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

25. The following conditions apply to Stormwater Drainage design and construction:

a) Stormwater Drainage plans shall submitted to Council as part of the construction 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.

PUBLIC SUBMISSIONS

During the notification period 2 submissions were received with the following concerns raised:

1. Consideration should be given to the speed limit from the intersection of Range Road to the Portland Golf Course along Pipers Flat Road. It is recommended that the speed limit is reduced from 100km's/h to 70km's/h for safety reasons.

2. The plan of subdivision does not show the Crown Road that adjoins the property to the south. The Crown land is gazetted as a future road access and contains numerous trees that forms a buffer between the properties. The Crown land also serves as a wild life corridor with the trees being a roosting facility for birds.

   Concerns are raised to the clearing of the Crown Land and requests that the property be fenced along the boundary.

Applicants Response:

1. Speed limits are governed by Transport for NSW. It is suggested that the commenter contact Transport for NSW with their concerns. The development does not show any frontage to Pipers Flat Road and as such is not affected by the speed limit on this road.

2. The Crown Road which adjoins the subject land is not part of the development application. Any concerns regarding the management of Crown Lands should be directed to Crown Lands NSW.

Council Officer's Response:

1. The application was referred to Transport for NSW who advised that the two intersections of Pipers Flat Road, Range Road and John Mackey Drive is at a satisfactory level for the proposed development. Transport for NSW comments and conditions and found earlier in this report.

   The development proposes no direct access's from Pipers Flat Road. The development is also within proximity to the Portland Village where the speed limit changes to 50km/hr. As majority of the lots (14 lots) receive access via a new proposed road off Range Road-approximately 200m from Pipers Flat Road, the development is unlikely to affect the speed limit on Pipers Flat Road.

2. The plans were amended through the assessment process to show the location of the Crown Land. The development would not impact the Crown Land or any clearing within the corridor. The development was referred to the Crown Lands Department as an adjoining landowner who reinitiated this response.

5.3.9 The public interest

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

Road Extension: The development requires an addition to a road that will service 15 lots within the subdivision. As a result, this road extension will be dedicated to Council. Therefore, Council is required to be satisfied that this road 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.

6. DISCUSSION AND CONCLUSIONS

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

7. ATTACHMENTS

Schedule A- Conditions of consent.

8. RECOMMENDATION

THAT development application DA182/19 is approved subject to conditions set out in Schedule A.

Report prepared by:	Director Environmental Development and Environment:
Signed:……	Signed:……
Dated:…….	Dated:……

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

- To ensure compliance with the terms of the relevant Planning Instruments
- To ensure no injury is caused to the existing and likely future amenity of the neighbourhood
- Due to the circumstances of the case and the public interest.
- To ensure that adequate road and drainage works are provided.
- To ensure that satisfactory arrangements are made to satisfy the increased demand for public recreation facilities.
- To ensure access, parking and loading arrangements will be made to satisfy the demands created by the development.
- To ensure the structural integrity of the development.
- To ensure the protection of the health and safety of the occupants of the development.

- To protect the environment.
- To prevent, minimise, and/or offset adverse environmental impacts.
- To ensure lots are adequately serviced.
- To ensure there is no unacceptable impact on the water quality.
- To ensure compliance with the requirements of the Rural Fire Services.
- To ensure adequate soil conservation and protect against movement of soil and sediments.

Schedule A

Conditions of Consent (Consent Authority)

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

ADMINISTRATIVE CONDITIONS	
1.	That the development be carried out in accordance with the application, Statement of Environmental Effects, accompanying information, plans listed in the approval and any further information provided during the process unless otherwise amended by the following conditions.
2.	That a Subdivision Certificate Application for each stage of the development, release fee, Registered Surveyors Plans (original & 11 copies) along with associated 88B instrument if applicable, be submitted to Council for finalisation following the compliance with all conditions of this consent. The development is proposed to be undertaken in 2 stages, that being: • Stage 1 – creation of Lots 1 to 5. Access to these lots are proposed to be accessed from John Mackey Drive, • Stage 2 – creation of Lots 6 to 19 and construction of the new road. All access driveways to these lots will be from the new road.
3.	Prior to the issue of the Subdivision Certificate for each stage and in connection with a development, the developer (whether or not a constitutional corporation) is to provide evidence satisfactory to the Certifying Authority that arrangements have been made for: (i) the installation of fibre-ready facilities to all individual lots and/or premises in a real estate development project so as to enable fibre to be readily connected to any premises that is being or may be constructed on those lots. Demonstrate that the carrier has confirmed in writing that they are satisfied that the fibre ready facilities are fit for purpose. and (ii) the provision of fixed-line telecommunications infrastructure in the fibre-ready facilities to all individual lots and/or premises in a real estate development project demonstrated through an agreement with a carrier. Note: real estate development project has the meanings given in section 372Q of the Telecommunications Act.
4.	No coal burning appliances are to be installed on the residential allotments. A restrictive covenant shall be placed on each lot created through an 88(b) Instrument of the Conveyancing Act 1919 with Council having the right to vary, modify or release this restriction.
5.	Excavation work is to be wholly confined within the property boundary.
6.	Prior to release of the Subdivision Plan for Stage 2, the applicant shall submit options for road names to Council for consideration and approval in accordance with guidelines for the naming of roads (Geographical Names Board of NSW).
7.	The Council's Environment and Development Department should be contacted to arrange the appropriate address numbers to be allocated to the subdivision.
JOHN HOLLAND RAIL	
8.	Red and green lights are prohibited to be used in all signs and lighting building colour schemes that are on any part of a building which may face the rail corridor.

9.	Access to the rail corridor is strictly prohibited at any time unless otherwise approved in writing by RailCorp.

RURAL FIRE SERVICE (RFS) REQUIREMENTS

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

10.	At the issue of a subdivision certificate, all residential lots must be managed as an inner protection area (IPA). The IPA must comprise: ● Minimal fine fuel at ground level; ● Grass mowed or grazed; ● Trees and shrubs retained as clumps or islands and do not take up more than 20% of the area; ● Trees and shrubs located far enough from buildings so that they will not ignite the building; ● Garden beds with flammable shrubs not located under trees or within 10 metres of any windows or doors; ● Minimal plant species that keep dead material or drop large quantities of ground fuel; ● Tree canopy cover not more than 15%; ● Tree canopies not located within 2 metres of the building; ● Trees separated by 2-5 metres and do not provide a continuous canopy from the hazard to the building; and, ● Lower limbs of trees removed up to a height of 2 metres above the ground.

Access – Public Roads

The intent of measures is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

11.	Public road access shall comply with the following requirements of section 4.1.3 (1) of 'Planning for Bush Fire Protection 2006': ● Road(s) shall be two wheel drive, all weather roads. ● Urban perimeter roads are two way, with a carriageway 8 metres minimum kerb to kerb. ● The perimeter road is linked to the internal road system at an interval of no greater than 500 metres. ● Traffic management devices are constructed to facilitate unobstructed access by emergency services vehicles. ● Public roads have a cross fall not exceeding 3 degrees. ● All roads should be through roads. Dead end roads are not recommended, but if unavoidable, dead end roads are not more than 200 metres in length, incorporate a 12 metre outer radius turning circle, are clearly signposted as dead end and direct traffic away from the hazard. ● Non perimeter road widths comply with Table 4.1 in 'Planning for Bush Fire Protection 2006'. ● Curves of roads (other than perimeter roads) are a minimum inner radius of 6 metres ● The minimum distance between inner and outer curves is 6 metres. ● 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. ● There is a minimum vertical clearance to a height of 4 metres above the road at all times. ● The capacity of road surfaces and bridges is sufficient to carry fully loaded fire fighting vehicles (approximately 15 tonnes for areas with reticulated water, 28 tonnes or 9 tonnes per axle for all other areas). Bridges clearly indicate load rating.

	● Public roads greater than 6.5 metres wide locate hydrants outside of parking reserves to ensure accessibility to reticulated water supply for fire suppression. ● Public roads between 6.5 metres and 8 metres wide are 'No Parking' on one side with services (hydrants) located on this side to ensure accessibility to reticulated water for fire suppression. ● Public roads 5.5 to 6.5 metres wide (kerb to kerb) provide parking within parking bays located outside the kerb to kerb space and located services outside of the parking bays to ensure accessibility to reticulated water for fire suppression. ● One way only public access roads are no less than 4 metres wide (kerb to kerb) and provide parking within parking bays located outside the kerb to kerb space. Services are located outside of the parking bays to ensure accessibility to reticulated water for fire suppression. ● Parking bays are a minimum of 2.6 metres wide from kerb to edge of road pavement. No services are located within the parking bays. ● Public roads directly interfacing the bush fire hazard provide roll top kerbing to the hazard side of the road.
Water and Utility Services ***The intent of measures is 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. To achieve this, the following conditions shall apply:***	
12.	The provision of water, electricity and gas must comply with the following: ● Electrical transmission lines should be located underground where possible. ● Overhead electricity lines must have short pole spacing (i.e. 30 metres) except where crossing gullies, gorges or riparian areas. No tree may be closer to an electricity line than the distance set out in in ISSC3 Guideline for Managing Vegetation Near Power Lines. ● Gas must be installed and maintained as set out in the relevant standard and all pipes external to the building must be metal including and up to any taps/outlets/fittings. Polymer-sheathed flexible gas supply lines must not be used.
PRIOR TO ISSUE OF SUBDIVISION	
Voluntary Planning Agreement (VPA)	
13.	That the Voluntary Planning Agreement (VPA) be endorsed by all parties as proposed by the applicant on 17/04/2020 prior to the Subdivision Certificate release of Stage 1. Additionally, the contribution agreed to within the VPA is to be paid at a rate of $3,300.00 per lot (total of $62,700.00; Stage 1= $16,500.00 and Stage 2= $46,200.00) for community facilities and infrastructure prior to the Subdivision Certificate release of each stage.
Site Remediation – Sheep Dip and surrounds	
14.	A Remediation Plan is to be submitted to Council in accordance with the *State Environmental Planning Policy No. 55 Remediation of Land* prior to the issue of the Subdivision Certificate for stage 2 of the development.
15.	That in accordance with *State Environmental Planning Policy No. 55 Remediation of Land* that the remediation work must be undertaken in accordance with: a. The contaminated land planning guidelines, and b. The guidelines (if any) in force under the *Contaminated Land Management Act 1997*, and c. The Remediation Action Plan.
16.	Remediation work is to be carried out by a suitably qualified & experienced contractor under the guidance of a contaminated land consultant and/or a site auditor to oversee the remediation.

17.	Adjoining property owners must be notified in writing of the commencement date of the remediation activities at least 7 days prior to works being undertaken.
18.	A sign identifying the contact details of the remediation contractor must be displayed at the site for the duration of the remediation activities. The sign must identify phone numbers for best contact personal.
19.	While remediation activated are being undertaken the contractor must maintain a written record of any complaints received in relation to the conduct of the remediation. The written record must include complainants name, address, time, date of complaint and actioned taken to address the complaint. The record may be requested by Council during the conduct of the remediation. Any complaint received during remediation activities is to be notified to Council no later than 2 business days following the complaint.
20.	Remediation activities must not cause any environmental harm outside of the area nominated for remediation within the site. The remediation area is to be contained by a suitable barrier or fencing to prevent unauthorised access. Erosion and sedimentation controls must be in place to prevent any soil leaving the remediation site. Runoff from areas of the contaminated soil must not be permitted to leave the site.
21.	Remediation activities must be managed to ensure that dust, odour, gases or fumes are not emitted beyond the boundary of the remediation site. Appropriate monitoring equipment may be used to demonstrate compliance.
22.	All waste must be classified in accordance with the Protection of the Environment (Waste Regulation 2014 and related guidelines and then transported to an appropriately licenced waste facility for its classification.
23.	All waste transported from the site is to be adequately covered in a suitable vehicle(s) and no tracking of soils onto public roads.
24.	A notice of completion of remediation work is to be provided to Council within 30 days after completion of the work in accordance with Clause 18 of the *State Environmental Planning Policy No. 55 Remediation of Land*. This should also include a validation report to confirm the site remediation works were undertaken accordingly and the site is suitable for residential development. This should be in the form of a Site Audit Statement prepared in accordance with the regulations and guidelines which outlines that the land is suitable for the proposed development as residential land use, to Council. This condition is to be met prior to the issue of the Subdivision Certificate for Stage 2.
25.	Any recommendations identified in the validation report shall be binding to the development. This includes any potential ongoing site management plan to be formulated in conjunction with Council.
26.	If a Site Management Plan is required as part of recommendations from the validation report, a covenant is to be imposed under Section 88B & E of the *Conveyancing Act 1919* or section 29(3) of the *Contaminated Land Management Act 1997* on the land. This covenant is to require compliance with the Site Management Plan. Council is to be listed as the authority to enable a variation or modification to such covenant. This condition is to be met prior to Subdivision Certificate Stage 2 release.
Utilities	
27.	The applicant shall consult with authorised electricity authorities for the provision of electricity to each allotment. Confirmation of connection to each allotment, a 'Notification of Arrangement', or

	similar (i.e. commercial agreement), shall be lodged with Council prior to the issue of a Subdivision Certificate for each stage of the development.
Environmental Protection	
28.	Prior to the issue of the Subdivision Certificate for each stage of the development, Council is to be provided with a report from Upper Macquarie County Council indicating: • Noxious plants are under adequate management; or • Noxious plant management has been undertaken and adequate control measures are in place; or • Noxious plants are not a concern for the property.
Dust	
29.	Measures shall be implemented to minimise wind erosion and dust nuisance in accordance with the requirements of the manual – "Soils and Construction" (2004) (Bluebook). All roads and construction areas shall be treated/regularly watered to the satisfaction of the principal certifying authority.
30.	The applicant shall ensure that during construction works all measures are taken to eliminate/suppress any dust nuisance emanating from the site. This includes an onsite sprinkler and or water truck being on the property at all times during construction works. Trucks are to be covered with a tarp or other material that would prevent dust emissions when leaving the property.
Engineering Requirements	
31.	A Civil Works Plan must be obtained prior to the commencement of any Civil Works.
32.	Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that engineering plans are generally consistent with the stamped approved concept plans prepared by (CEH Survey), reference number (5446), revision (3), dated (06/02/2020), and that all subdivision works have been designed in accordance with the development consent, Council's "Guidelines for Civil Engineering Design and Construction for Development", Austroads Guidelines and best engineering practice.
33.	Prior to the issue of any Construction Certificate, a concept Road Safety Audit (RSA) for proposed roadworks in Range Road shall 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 be provided to Council for further review. A traffic signage & linemarking plan shall be provided.
34.	All engineering works are to be 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.
35.	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

36.	The Construction Certificate must be supported by engineering plans, calculations, specifications and any certification relied upon. Note: Council's Development Engineering Department can provide this service. Contact Lithgow City Council's Engineering Department on (02) 6354 9999 to obtain a formal fee proposal prior to lodgment and visit Lithgow Council's website for more information.
37.	Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the proposed road have been designed in accordance with Lithgow City Council's Guidelines for Civil Engineering Design and Construction for Development for Developments.
38.	A copy of the pavement design prepared and certified by a suitably qualified geotechnical engineer must accompany the application for Construction.
39.	The applicant shall grant an easement to Lithgow City Council for drainage and overland flow purposes on the location shown on the plan accompanying this consent, and on the basis that no claim for compensation will be made, and that the applicant will meet all associated survey and legal costs. Prior to the issue of a Subdivision Certificate the easement shall be created on the plan of subdivision.
40.	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 construction certificate.
41.	Traffic signs, traffic signals, pavement markings, guide posts, delineators, safety barriers and the like, whether permanent or temporary, are to be designed and installed at 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 construction 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.
42.	A fully certified traffic control plan and road works signage will be required where machinery may obstruct traffic on any Public Road whilst construction work is being undertaken. A traffic control plan and certification of fully qualified contractors/persons will be required 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 such time the developer complies with suitable traffic management procedures.
43.	A maintenance bond of 5% of final construction costs shall be paid to Council upon final inspection and approval of all civil works. 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.
44.	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:

1. a roller having a load intensity of seven (7) tonnes per metre width of roller

(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.
45.	All road and drainage 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; • Subgrade preparation, before placing pavement; • Completion of each pavement layer ready for testing; • Road pavement surfacing; • Completion of works.
46.	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.
47.	Works as Executed (WAE) Plans detailing all services and infrastructure are to be prepared by a registered surveyor or professional engineer, and submitted to Council. The WAE plans shall be lodged prior to the release of the linen plan. The applicant is required to submit three complete sets of hard copy plans (one A1-sized, two A3-sized) and one set of electronic plans in AUTOCAD format.
48.	A "Work-As-Executed" (WAE) plan is required 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
49.	All Engineering Drawings submitted to Council for approval are to have a title block showing the following: • Applicant's Name, • Consultant's Name, Address, Phone No. and Contact Name, • Drawing Number, Sheet Number and Amendment Number, • Schedule showing Date and Nature of Amendments, • Site Address, including Lot and Deposited Plan (DP) Number, • Council's File Reference, • Stage Number, • Drawing Title, • Scale with Scale Bar, and • Signature of Authorised Person.

50.	Construction noise shall be in accordance with the 'Noise Control Guidelines for Construction Noise Standards'. Hours of operation shall be permitted between 7am and 6pm Monday to Friday and 8am and 1pm Saturdays. No heavy machinery work or usage shall be permitted on Sundays or Public Holidays.
51.	The applicant shall submit a soil erosion and sedimentation control plan with the engineering design for Council approval. 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.
52.	Prior to and during the commencement of works the applicant shall erect soil erosion and sedimentation controls for the following purposes: • control of soil erosion and sedimentation movement during the bulk earthworks stage • control of run off and diversion of the sedimentation trap prior to the development of land • method of stabilising the land from erosion and sediment movement after the completion of works and prior to the development of the land
53.	The applicant is to comply with all reasonable requests from Council with regard to any complaints received during construction works.
54.	All stormwater drainage is the responsibility of the applicant and shall be satisfactorily disposed of into Council's existing stormwater infrastructure.
55.	The following conditions apply to Stormwater Drainage design and construction: a) Stormwater Drainage plans shall submitted to Council as part of the construction 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.
56.	Prior to the commencement of any works on site, the applicant shall advise Council of any damage to property controlled by Council which adjoins the site including kerbs, gutters, footpaths, walkways, reserves and the like. Failure to identify existing damage will result in all damage detected after completion of the building work being repaired at the applicant's expense.

57.	A site investigation is to be performed which is to include logging of test holes to a depth not less than one metre below design subgrade levels (unless rock is encountered). Soil tests shall be taken at the design depth and samples taken for CBR testing in accordance with Australian Standard 1289. The design California Bearing Ratio (CBR) shall be selected following a careful assessment of the materials encountered in the site investigation and the variability of subgrade moisture and density conditions likely in service. The design CBR value should assume poor drainage and shall be determined from soaked CBR. A copy of the site investigation, including test results, is to be included with the Engineering Drawings. Where the design subgrade CBR is below 3, the subgrade shall be chemically stabilised to a minimum depth of 150mm, and the pavement design based on a CBR of 3.
58.	All batters must not exceed a maximum gradient of 1:5.
WATERNSW REQUIREMENTS ***General***	
59.	The lot layout, works and staging shall be as specified in the Statement of Environmental Effects (undated) and shown on the Concept Lot Layout Plan (Dwg No. 5446_Lots, Issue 1, dated 22-08-2019) both prepared by CEH Survey Pty Ltd. No revisions to lot layout, works or staging of the subdivision that will have any 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.	
Wastewater Management	
60.	Prior to issuance of a Subdivision Certificate for each stage of the subdivision, "Effluent Management Envelopes" of 300 square metres on proposed Lots 1 to 5, 10 must be delineated on the Plan of Subdivision as indicated in Figure 1 of the Investigation and Assessment for On-Site Effluent Management Report prepared by Blue Mountains Geological and Environmental Services Pty Ltd (dated September 2019). Effluent management envelopes must have at least 100 metre buffer to all waterways shown on Waterways and Septic Buffer Map Plan (Dwg No. 5446_Lots, Issue 1, dated 22-08-19) prepared by CEH Survey Pty Ltd including: • a watercourse located along the southern boundary of proposed Lot 5 and along northern boundaries of proposed Lots 3 and 4, • a watercourse located along the south-eastern boundary of proposed Lots 1 to 3, and • a watercourse located along the western side of proposed Lot 10.
61.	There shall be a restriction on the land under Section 88E of the *Conveyancing Act 1919*, the prescribed authority being Water NSW, placed over proposed Lots 1 to 5, 10 requiring that: • all wastewater generated on the lot must be disposed of within the "Effluent Management Envelope", and • small-foot print effluent management system (i.e. absorption trench or absorption bed) to be used for effluent management.
Reason for the above Conditions - To ensure that an appropriate on-site wastewater management system can be sited on each lot given the soil constraints to have a sustainable neutral or beneficial effect on water quality over the longer term.	
Subdivision Road	
62.	The subdivision road shall be paved and otherwise constructed to Council's engineering standards.

63.	Stormwater management measures for the subdivision road as specified in Section 4, Appendix 1 and 2 of the Stormwater Management Report (dated 23 September 2019) and shown on the Concept Water Quality Treatments (Dwg No. 5446_C_Rd, Issue 2, Rev. A, dated 25-10-19) both prepared by CEH Survey Pty Ltd shall be implemented in Stage 2 of the subdivision. The subdivision road shall: • have appropriately spaced cross drains, level spreaders, sills, and mitre drains that divert water onto a stable surface capable of accepting concentrated water flow and provide for efficient sediment trapping and energy dissipation, • ensure all swales, batters and verges are vegetated and stabilised with bitumen and jute matting or equivalent as soon as possible after construction, • ensure all drainage works associated with the proposed subdivision road are wholly included in the road reserve and suitably defined easements, • have bioretention systems that also: o be designed consistent with Adoption Guidelines for Stormwater Biofiltration Systems Version 2 (Payne *et al*, 2015, Melbourne, CRC for Water Sensitive Cities), o 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), o direct all discharge and overflow to Pipers Flat Creek via a channel and armoured discharge point such that discharge does not cause erosion, o have appropriate easement for overflow channel through proposed Lot 14, o be accessible from the subdivision road by machinery to facilitate cleaning, monitoring and maintenance of the structures, o 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 o be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised.
64.	No changes to stormwater treatment and management that will have any impact on water quality, shall be permitted without the agreement of Water NSW.
65.	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 Stage 2 of the subdivision that all stormwater management structures have been installed as per these conditions of consent and are in a functional state.
66.	An Operational Environmental Management Plan shall be prepared in consultation with Water NSW and Council by a person with knowledge and experience in the preparation of such plans. The Plan shall be prepared prior to the issuance of a Subdivision Certificate for Stage 2 of the subdivision. The Plan shall be provided to Council when the management and maintenance of the roadside swales, bioretention systems and other stormwater structures are handed over to Council. The Plan shall: • include details on the location, description and function of stormwater management structures such as pits, pipes, swales, bioretention systems, and any other stormwater structures and drainage works, • outline 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, • identify the individuals or positions responsible for inspection and maintenance activities, before and after handing over to Council, including a reporting protocol and hierarchy

	• outline procedures for managing water quality emergencies including the identification of the authorities, including Water NSW, and • include checklists for recording inspections and maintenance activities.
67.	All stormwater treatment devices shall be monitored, maintained and managed as per the Operational Environmental Management Plan.
Reason for the above Conditions - To ensure the subdivision road and associated drainage works and water quality control measures are appropriately managed and maintained to ensure an overall and sustainable neutral or beneficial impact on water quality over the longer term.	
Pipers Flat Creek Crossing	
68.	There shall be only a single crossing across Pipers Flat Creek in proposed Lot 6 to provide access to the western part of the lot. The crossing shall: • be properly engineered pipe or box culverts consistent with the Unsealed Roads Manual: guidelines to good practice (ARRB Transport Research Ltd 3rd edition 2009), • be sealed for appropriate distance either side of the waterway crossing, and • Also be consistent with any requirements for Controlled Activities Approval under the *Water Management Act 2000* issued by the Natural Resources Access Regulator (NRAR).
Reason for the above Condition - To ensure all intra-lot access and associated management measures have a minimal impact on water quality that can be maintained over the longer term.	
Protection and Rehabilitation of Pipers Flat Creek	
69.	Pipers Flat Creek in proposed Lot 6 shall have a new stock proof fence installed at 30 metres from the edge of the creek on both sides, to allow stock passage and grazing as appropriate, between the new fence line and Lot 6 boundary prior to issuance of a Subdivision Certificate for Stage 1 of the subdivision. All significant tributaries of the Pipers Flat Creek, specially near proposed Lots 9, 10, 13 and 14, shall be included in the fenced-off riparian areas.
70.	Eroded areas near the existing unformed crossing of the Pipers Flat Creek (near Piper Flat Road) and upstream near proposed Lots 1 and Lot 6 shall be rehabilitated and revegetated with locally native vegetation. The plants shall be tube stock and shall be staked and protected to ensure a higher survival potential. If 6 months after planting less than 50 percent of plantings have become established, a further round of planting shall be implemented. The works shall be to satisfaction to Council and Water NSW prior to an issuance of a Subdivision Certificate for Stage 1 of the subdivision.
71.	There shall be a restriction on land under Section 88E of the *Conveyancing Act 1919* for proposed Lot 6 in relation to the fenced-off riparian areas around Pipers Flat Creek, the prescribed authority being the Water NSW, requiring that: • the fences be retained and maintained • the vegetation in these fenced-off rehabilitation areas be retained and weeds kept under control, and • livestock be prevented from grazing in the fenced-off areas or having direct access to the creek, although water for livestock may be provided by pumps, pipes and troughs subject to any requirements of the Natural Resources Access Regulator (NRAR) under the *Water Management Act (2000).*
Reason for the above Conditions – To ensure that appropriate measures are taken to offset the water quality impact of the increased intensity of the proposed development to have a sustainable neutral or beneficial effect on water quality over the longer term.	

Construction Activities	
72.	A Soil and Water Management Plan shall be prepared for all works required as part of Stage 2 of the subdivision 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), • be prepared prior to Council issue a Construction Certificate, and be to the satisfaction of Council and • include controls to prevent sediment or polluted water leaving the construction site or entering any natural drainage lines or stormwater drain.
73.	The Soil and Water Management Plan shall be implemented, and effective erosion and sediment controls shall be installed prior to any construction activity. The controls shall be regularly maintained and retained until works have been completed and groundcover established. *Reason for the above Condition – To manage adverse environmental and water quality impacts during the construction phase of the development to minimise the risk of erosion, sedimentation and pollution within or from the site during this phase.*
ENDEAVOUR ENERGY REQUIREMENTS	
Easement	
74.	The electrical easement needs to be shown on the Deposited Plan for the subdivision and the easement registered on the title to proposed Lot 15 with the requirements of NSW Land Registry Services.
Network Capacity/Connection	
75.	In due course the applicant, for the future proposed development of the site will need to submit an application for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Depending on the outcome of the assessment, any required padmount substation will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefiting and gifted to Endeavour Energy.
Bushfire	
76.	The network required to service the proposed development must be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection/infrastructure for a bushfire prone site.
Earthing	
77.	The construction of any building or structure (including fencing, signage, flag poles etc.) that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with AS/NZS 3000:2007 'Electrical installations' to ensure that there is adequate connection to the earth. Inadequate connection to the earth places persons and the electricity network at risk.
Easement Management/Network Access	
78.	The following is a summary of the usual/main terms of Endeavour Energy's electrical easements requiring that the land owner: ○ Not install or permit to be installed any services or structures within the easement site.

	○ Not alter the surface level of the easement site. ○ Not do or permit to be done anything that restricts access to the easement site without the prior written permission of Endeavour Energy and in accordance with such conditions as Endeavour Energy may reasonably impose. Endeavour Energy's preference is for no activities or encroachments to occur within its easement areas. If any proposed works or activities (other than those approved/ certified by Endeavour Energy's Network Connections Branch as part of an enquiry/ application for load) will encroach/affect Endeavour Energy's easements, contact must first be made with the Endeavour Energy's Easements Officer. It is imperative that the access to the existing electrical infrastructure adjacent and on the site is maintained at all times. To ensure that supply electricity is available to the community, access to the electrical assets may be required at any time.
Vegetation Management	
79.	The planting of large trees in the vicinity of electricity infrastructure is not supported by Endeavour Energy. Suitable planting needs to be undertaken in proximity of electricity infrastructure. Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant.
Noise	
80.	Where development is proposed in the vicinity of electricity infrastructure, Endeavour Energy is not responsible for any acoustic/noise amelioration measures for such noise that may impact on the nearby proposed development.
Dial before You Dig	
81.	Before commencing any underground activity the applicant is required to obtain advice from the ***Dial before You Dig* 1100** service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.
Public Safety	
82.	Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. Endeavour Energy's public safety training resources, which were developed to help general public/workers to understand why you may be at risk and what you can do to work safely is available via Endeavour Energy's website via the following link: http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures
Emergency Contact	
83.	In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours/7 days.
ADVISORY NOTES	

Catchment Management Authority Clearing Approvals	
AN1.	That any proposed clearing of native vegetation may require approval from the Catchment Management Authority-Local Land Services. Prior to the removal of any native vegetation it is suggested that you contact the Catchment management Authority for advice.
Threatened Species	
AN2.	No Threatened Species or Endangered Ecological Community listed under the Environmental Protection and Biodiversity Conservation Act 1999, the Biodiversity Conservation Act 2016 and the Biodiversity Conservation Regulation 2017 or the associated Regulations are to be cleared as result of this Approval. This includes for fencing or accessways.