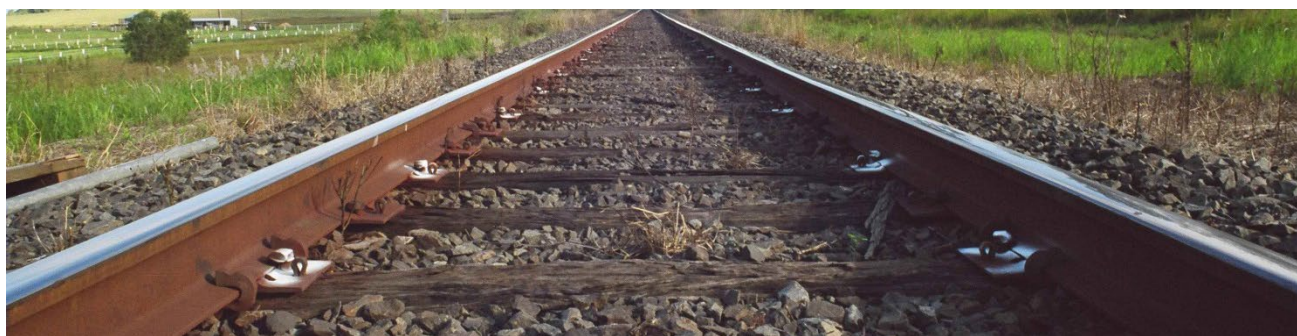


8.2.9 Regional Infrastructure Overlay Code



8.2.9.1 Application

This code applies to development:

- (1) within the Regional Infrastructure Overlay as identified on the overlay maps contained in **Schedule 2 Mapping**; and
- (2) identified as requiring assessment against the Regional Infrastructure Overlay Code by the tables of assessment in **Part 5 Tables of Assessment**.

8.2.9.2 Purpose and Overall Outcomes

- (1) The purpose of the Regional Infrastructure Overlay Code is to ensure that development is compatible with, and does not adversely affect the viability, operation and maintenance of the following existing and planned Regional Infrastructure:
 - (a) Bulk Water Supply Infrastructure;
 - (b) Wastewater Treatment Plants;
 - (c) *Major electricity infrastructure*;
 - (d) Future Roads; and
 - (e) Rail Network.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development located on land identified on the **Regional Infrastructure Overlay Map - Water and Wastewater Infrastructure OM-09-A** and **Regional Infrastructure Overlay Map - Electricity, Roads and Rail Infrastructure OM-09-B** is located, designed, constructed and operated to:
 - (i) avoid compromising the efficiency, integrity, operation and maintenance of existing and planned Regional Infrastructure;
 - (ii) protect the amenity, health and safety of people and property; and
 - (iii) identify, protect and manage key infrastructure sites and corridors.

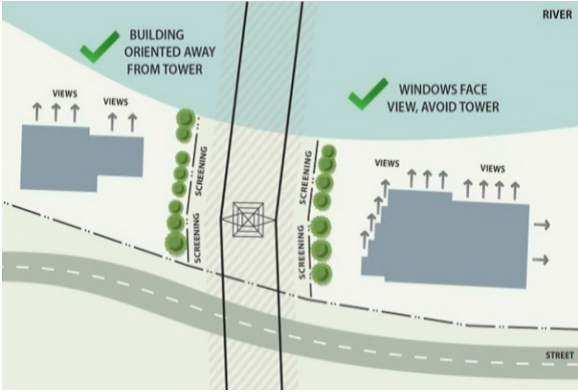
Editor's note - Bulk Water Supply Infrastructure is defined within the State Planning Policy. The following Bulk Water Supply Infrastructure is the infrastructure applicable in the Scenic Rim Planning Scheme area;

- pump station facilities and reservoir facilities;
- water treatment plants and water quality facilities;
- pipelines and channels; and
- bulk water storage infrastructure.

Editor's note - Road Investigation Corridors are for the preservation of road corridors which may be required at some stage in the future to support road network efficiency. The identification of these corridors does not commit the local government nor State government to deliver the roads within a specific timeframe. They do not represent State Government planned or funded infrastructure projects.

8.2.9.3 Assessment Benchmarks

Table 8.2.9.3.1 — Regional Infrastructure Overlay Code - for Accepted and Assessable Development

Performance Outcomes	Acceptable Outcomes
Major Electricity Infrastructure	
<p>PO1 Development in a <i>Major electricity infrastructure</i> Buffer Area does not increase: (1) risk to community health or safety; or (2) risk to the operation and reliability of <i>Major electricity infrastructure</i>.</p> <p><i>Editor's note - Applicants should contact the relevant electrical provider for further information regarding setbacks for buildings and structures in and near an easement.</i></p>	<p>AO1.1 Development being a <i>sensitive land use</i> (excluding class 10 buildings) maintains the following separation distances: (1) 20m either side of the centre line for 110kV Transmission Lines; (2) 10m either side of the centre line for 33kV Transmission Lines; or (3) 10m from the shared boundary of an Electricity Substation property.</p>
	<p>AO1.2 Development is not located within a transmission line easement.</p>
	<p>AO1.3 Development other than a <i>sensitive land use</i> maintains a setback of at least 10m from any lot containing an Electricity Substation.</p>
<p>PO2 Residential buildings, other than where they are separated from the infrastructure by a road, are oriented to avoid direct overlooking of <i>Major electricity infrastructure</i>.</p>	<p>AO2.1 Windows and balconies of residential buildings do not face easements and infrastructure sites.</p> <p><i>Editor's note - the figure below provides an illustration of buildings oriented away from infrastructure</i></p> 
	<p>AO2.2 Views from residential buildings to infrastructure are screened by devices attached to the building.</p>
	<p>AO3.1 A minimum 3m wide densely planted landscaping buffer is provided along the boundary adjoining <i>Major electricity infrastructure</i> (excluding Electricity Substation), including provision for advanced trees and shrubs that will grow to a minimum height of 10m.</p> <p><i>Editor's Note - Applicants may find guidance in Powerlink's "Screening your home from powerlines - a guide to planting trees and shrubs outside of easements to screen powerlines".</i></p>
<p>PO3 Landscaping is provided within sites adjoining <i>Major electricity infrastructure</i> which substantively assists in screening and softening of the <i>Major electricity infrastructure</i>.</p>	

Performance Outcomes	Acceptable Outcomes
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PO4
Development is located and designed to maintain access to *Major electricity infrastructure*.

AO3.2
A minimum 2m wide densely planted landscaping buffer is provided along the boundary adjoining an Electricity Substation, including provision for advanced trees and shrubs that will grow to a height which blocks direct views from habitable rooms to an Electricity Substation.

Editor's note - The figures below provide an example but are not drawn to scale. Applicants may find guidance in Powerlink's "Screening your home from powerlines—a guide to planting trees and shrubs outside of easements to screen powerlines". Applicants should also note that vegetation will need to maintain statutory clearances (for further guidance, refer to Ergon's Standard for Vegetation Management and Standard for Vegetation Clearance Profile)

AO4
Development does not limit or interfere with access on existing or proposed *Major electricity infrastructure* easements with:

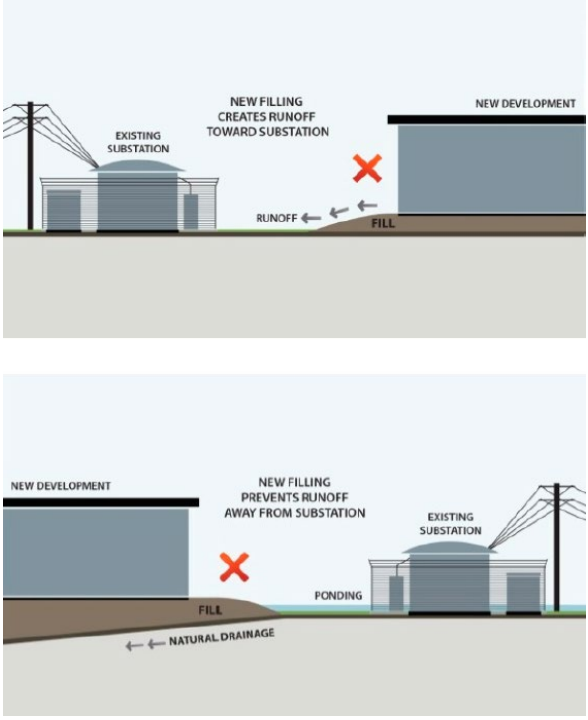
- (1) landscaping;
- (2) fencing;
- (3) storage of equipment or materials;
- (4) construction of buildings; or

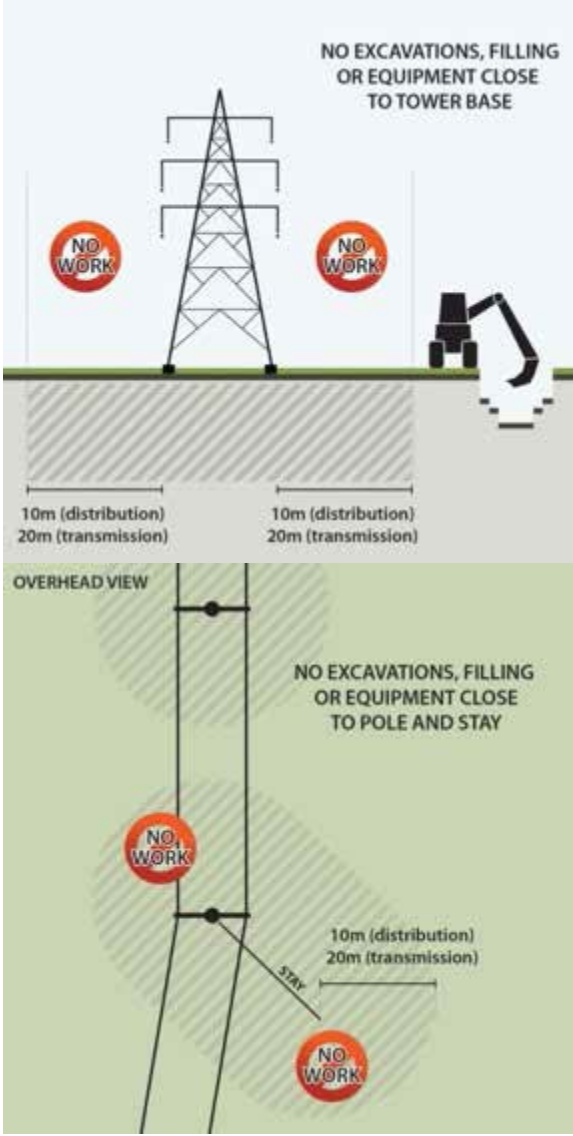
Performance Outcomes	Acceptable Outcomes
	(5) earthworks which alter levels along the boundaries of or within easements by more than 100mm; and (6) earthworks which cause a worsening of inundation or retention of water.
Wastewater Treatment Plants and Bulk Water Supply Infrastructure	
<p>PO5 Development in a Bulk Water Supply Buffer Area or Wastewater Treatment Plant Buffer Area:</p> <p>(1) does not increase risk to community health or safety;</p> <p>(2) does not increase risk to the operation and reliability of Bulk Water Supply Infrastructure and Wastewater Treatment Plants; and</p> <p>(3) is separated from Bulk Water Supply Infrastructure to protect the integrity and safety of the infrastructure.</p>	<p>AO5.1 Development being a <i>sensitive land use</i> is not located or intensified within a Bulk Water Supply Buffer Area.</p> <p>AO5.2 Development, other than a <i>sensitive land use</i>, does not occur within:</p> <p>(1) 20m of Pipelines and Channels; and</p> <p>(2) 50m of a:</p> <p style="margin-left: 40px;">(a) Pump Station Facility;</p> <p style="margin-left: 40px;">(b) Bulk Water Storage Infrastructure; or</p> <p style="margin-left: 40px;">(c) Bulk Water Facility.</p> <p>AO5.3 Development including a <i>major hazard facility</i>, <i>Extractive industry</i> or any use involving explosive blasting does not occur within:</p> <p>(1) 50m of a Pipelines and Channels; and</p> <p>(2) 100m of a:</p> <p style="margin-left: 40px;">(a) Pump Station Facility;</p> <p style="margin-left: 40px;">(b) Bulk Water Storage Infrastructure; or</p> <p style="margin-left: 40px;">(c) Bulk Water Facility.</p> <p>AO5.4 Development is not located or intensified within a Wastewater Treatment Plant Buffer Area.</p>
Future Roads and Rail Network	
<p>PO6 Road Investigation Corridors and the Rail Network are:</p> <p>(1) protected from development to facilitate the ongoing operation and maintenance of existing major road and rail infrastructure;</p> <p>(2) protected from development that may adversely affect the safety and efficiency of the infrastructure, corridors and networks; and</p> <p>(3) protected from development to facilitate the construction and operation of future major road and rail infrastructure.</p>	<p>AO6 No buildings or permanent structures (excluding fencing) are located or constructed within:</p> <p>(1) a Road Investigation Corridor; or</p> <p>(2) a Rail Buffer Area.</p>
<p>PO7 <i>Sensitive land uses</i> are not significantly impacted by environmental emissions generated by (existing or future) major road or rail infrastructure.</p> <p><i>Editor's note - Environmental emissions include noise, air, vibration and light emissions.</i></p>	<p>AO7 <i>Sensitive land uses</i> are not located within a Rail Buffer Area or Road Investigation Corridor.</p>
<p>PO8 Ensure development does not undermine the structural integrity of the Existing Rail Network.</p>	<p>AO8 Development (excluding fences) is set back at least 25m from any boundary or easement of an Existing Rail Network.</p>

Performance Outcomes	Acceptable Outcomes
<p>PO9 Development involving the handling, use or storage of hazardous and dangerous goods is not located adjacent to:</p> <p>(1) Road Investigation Corridor; or (2) Existing Rail Network; or (3) Future rail network.</p>	<p>AO9 Development involving the handling, use or storage of hazardous and dangerous goods is located at least 100m from a:</p> <p>(1) Road Investigation Corridor; or (2) Existing Rail Network; or (3) Future Rail Network.</p>

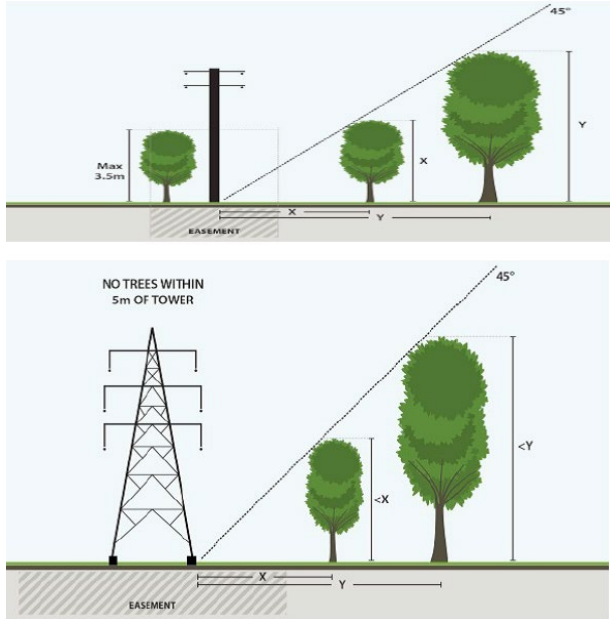
Table 8.2.9.3.2 — Regional Infrastructure Overlay Code - for Assessable Development

Performance Outcomes	Acceptable Outcomes
Major Electricity Infrastructure	
<p>PO1 <i>Major electricity infrastructure</i> on private land is protected by an easement in favour of the service provider.</p>	<p>AO1 No Acceptable Outcome is prescribed.</p>
<p>PO2 Development does not compromise or adversely impact upon the efficiency and integrity of <i>Major electricity infrastructure</i> networks.</p>	<p>AO2 No Acceptable Outcome is prescribed.</p>
<p>PO3 Earthworks do not restrict access to <i>Major electricity infrastructure</i>.</p>	<p>AO3 For Operational Works only Earthworks: (1) do not alter levels along the boundaries of or within existing or proposed <i>Major electricity infrastructure</i> easements by more than 100mm; and (2) do not cause the worsening of inundation to <i>Major electricity infrastructure</i>.</p>
<p>PO4 There is no worsening of flooding, drainage or erosion conditions affecting the <i>Major electricity infrastructure</i>. <i>Editor's note - The figures below illustrate the concept.</i></p>	<p>AO4 No Acceptable Outcome is prescribed.</p>

Performance Outcomes	Acceptable Outcomes
	
<p>PO5 Development maintains a safe clearance from all powerlines.</p>	<p>AO5 For Operational Works only Development maintains the clearances required under Schedules 4 and 5 of the Electrical Safety Regulations 2013.</p>
<p>PO6 Any earthworks are undertaken in a way which:</p> <ol style="list-style-type: none"> (1) ensures stability of the land on or adjoining <i>Major electricity infrastructure</i>; (2) does not otherwise impact on the safety and reliability of the <i>Major electricity infrastructure</i>; and (3) does not restrict the placement or use of the <i>Major electricity infrastructure</i> provider's equipment. 	<p>AO6.1 For Operational Works only No earthworks are undertaken:</p> <ol style="list-style-type: none"> (1) within 20m either side of the centre line of 110kV Transmission Line; or (2) within 10m either side of the centre line of 33kV Transmission Line; or. (3) 10m from the shared boundary of an Electricity Substation property. <p><i>Editor's note - The figures below illustrate the concept.</i></p>

Performance Outcomes	Acceptable Outcomes
	 <p>AO6.2 For Operational Works only No earthworks are undertaken, or other loading or displacement of earth caused, within the easement of an underground power line.</p>
<p>P07 Other services and infrastructure works (which may include stormwater, sewerage or water) do not impact on the safety and reliability of <i>Major electricity infrastructure</i>.</p>	<p>AO7.1 For Operational Works only Underground services are not located within:</p> <ol style="list-style-type: none"> (1) 20m of a tower, pole or stay for a 110kV Transmission Line; (2) 10m of a tower, pole or stay for a 33kV Transmission Line; (3) a vacant <i>Major electricity infrastructure</i> easement; or (4) 10m of an Electricity Substation property boundary.

Performance Outcomes	Acceptable Outcomes
	<p>AO7.2 For Operational Works only No valve pits occur within: (1) 60m of a tower, pole or stay for a 110kV Transmission Line; or (2) 10m of a tower, pole or stay for a 33kV Transmission Line.</p>
	<p>AO7.3 For Operational Works only Underground services traversing an easement, cross at angles between 60 and 90 degrees to the overhead or underground lines.</p>
	<p>AO7.4 For Operational Works only Trenches for services are backfilled to be compacted in 150 mm layers to at least 95% modified dry density compaction ratio.</p>
	<p>AO7.5 For Operational Works only Trenches under construction are not left open overnight.</p>
<p>PO8 Vegetation does not pose a risk to the safety or reliability of <i>Major electricity infrastructure</i>.</p>	<p>AO8.1 For Operational Works only Where vegetation is planted near or under an overhead power line (whether located in an easement or otherwise) it must be planted: (1) at least 5m either side of the area directly below the conductors where not within the area of influence of a power line; and (2) where within 20m of a power line structure, pole or stay, has a mature height of not more than 3.5m.</p>
	<p>AO8.2 For Operational Works only Vegetation planted within an underground powerline easement has a mature root system less than 150 mm in depth and is not located within 1 metre of the area directly above the powerline.</p>
	<p>AO8.3 For Operational Works only Vegetation adjoining easements complies with the clearance dimensions illustrated in the figures below.</p>

Performance Outcomes	Acceptable Outcomes
	 <p>AO8.4 For Operational Works only Planting complies with (as relevant to the infrastructure concerned) either: (1) Energex's <i>Safe Tree</i> Guidelines; (2) Ergon's <i>Plant Smart</i> brochures; or (3) Powerlink's <i>Screening Your Home from Powerlines</i> information sheet</p>
<p>PO9 Lot reconfiguration integrates <i>Major electricity infrastructure</i> within the overall neighbourhood layout. In particular, the neighbourhood design: (1) ensures land of sufficient size and suitability is located to accommodate the existing and future major infrastructure network; (2) minimises the likely visual prominence of major infrastructure; and (3) provides for an interface or relationship with surrounding land uses that minimises the potential for nuisance (including noise and odour), health and safety concerns.</p>	<p>AO9 For Reconfiguring a Lot only No Acceptable Outcome is prescribed.</p>
<p>PO10 Reconfiguration does not intensify development within an easement for <i>Major electricity infrastructure</i> in a way that would impede access to the infrastructure by a responsible entity.</p>	<p>AO10 For Reconfiguring a Lot only The number of lots within an easement is not increased. <i>Editor's note - The images below provide examples of subdivision design near an easement.</i></p>

Performance Outcomes	Acceptable Outcomes
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PO11
Where the reconfiguration involves a *Major electricity infrastructure* corridor, the corridor is incorporated within a useable public open space network wherever possible.

PO12
Where *Major electricity infrastructure* is located within public open space, the dimensions and characteristics of the open space area are sufficient to accommodate the electricity easement on site, in combination with compatible recreational facilities and landscaping, which ensure:
(1) it has an open and expansive character, with landscaping design which assists in breaking up the linear and vertical dominance of the infrastructure;





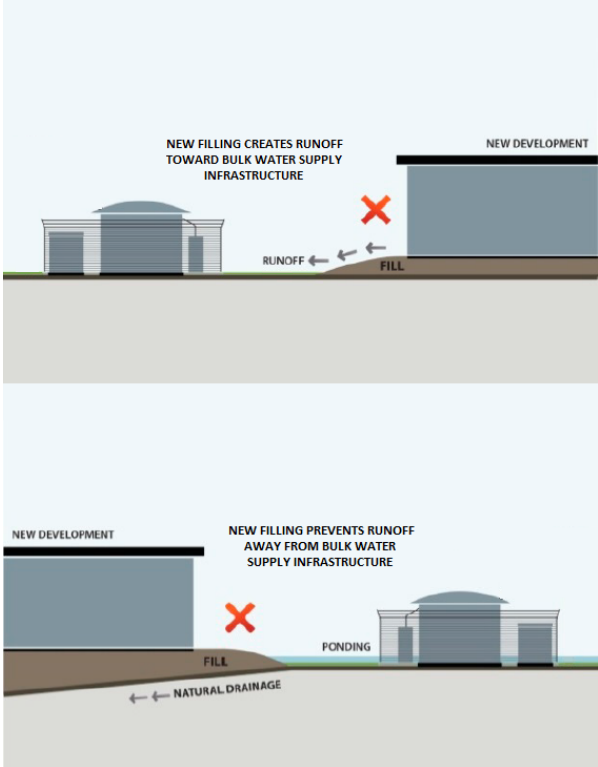
AO11
For Reconfiguring a Lot only
No Acceptable Outcome is prescribed.

AO12
For Reconfiguring a Lot only
No Acceptable Outcome is prescribed.

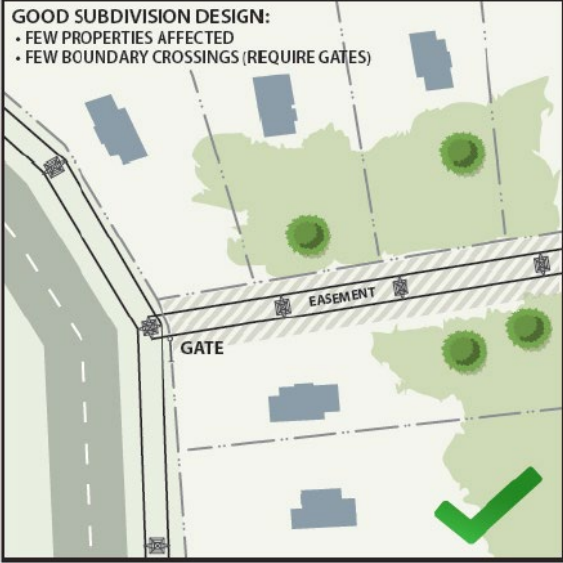

Editor's note - The figures below provide examples of a well-integrated transmission corridor.

Editor's note - The figures below provide examples of a well-integrated transmission corridor.

Performance Outcomes	Acceptable Outcomes
<p>(2) landscaping is located outside the easement area and substantively screens and softens the appearance of poles, towers or other structures;</p> <p>(3) recreational facilities and landscaping are compatible with the electricity infrastructure, having regard to safety, height, the conductivity of materials and access to the electricity infrastructure by the electricity provider; and</p> <p>(4) the design is such that the function of the open space for recreation purposes is maintained.</p>	 
Wastewater Treatment Plants and Bulk Water Supply Infrastructure	
<p>PO13 Development in a Bulk Water Supply Buffer Area or Wastewater Treatment Plant Buffer Area:</p> <p>(1) does not increase risk to community health or safety;</p> <p>(2) does not increase risk to the operation and reliability of Bulk Water Supply Infrastructure and Wastewater Treatment Plants; and</p> <p>(3) is separated from Bulk Water Supply Infrastructure to protect the integrity and safety of the infrastructure.</p>	<p>AO13 For Reconfiguring a Lot only Reconfiguring a lot within a Bulk Water Supply Buffer Area or Wastewater Treatment Plant Buffer Area:</p> <p>(1) does not result in the creation of additional lots used or capable of being used for sensitive land uses; and</p> <p>(2) where realigning boundaries, does not worsen the existing situation with respect to the distance between sensitive land uses and the Bulk Water Supply Infrastructure and Wastewater Treatment Plant.</p>
<p>PO14 Development:</p> <p>(1) is screened from Bulk Water Supply Infrastructure and Wastewater Treatment Plant; and</p> <p>(2) ensures that the location and type of planting does not have an adverse effect on Bulk Water Supply Infrastructure or Wastewater Treatment Plant infrastructure (including any associated buildings)</p>	<p>AO14.1 A minimum 3m wide <i>screen landscaping</i> buffer is provided between development and the Bulk Water Supply Infrastructure or Wastewater Treatment Plant.</p> <p>AO14.2 Planting is not undertaken within an easement.</p> <p>AO14.3 Plant species will not damage Bulk Water Supply Infrastructure or Wastewater Treatment Plant infrastructure (including any associated buildings).</p>

Performance Outcomes	Acceptable Outcomes
<p>PO15 Bulk Water Supply Infrastructure and Wastewater Treatment Plant infrastructure on private land is protected by an easement in favour of the service provider.</p>	<p>AO15 Existing Bulk Water Supply Infrastructure and Wastewater Treatment Plant easements are maintained and where none currently exist, new easements are created which are sufficient for the provider's requirements.</p>
<p>PO16 Development is located and designed to maintain access to Bulk Water Supply Infrastructure and Wastewater Treatment Plant infrastructure.</p>	<p>AO16 Development does not limit access to Bulk Water Supply Infrastructure or Wastewater Treatment Plant infrastructure with:</p> <ol style="list-style-type: none"> (1) landscaping along boundaries of, or traversing existing or proposed infrastructure easements; (2) fences constructed along the boundaries of, or traversing existing or proposed infrastructure easements; (3) storage of equipment or materials within or along the boundaries of existing or proposed infrastructure easements; (4) construction of buildings within or along the boundaries of existing or proposed infrastructure easements; or (5) earthworks which alter levels along the boundaries of or within easements by more than 100mm and do not cause any worsening of inundation to existing infrastructure.
<p>PO17 There is no worsening of flooding, drainage or erosion conditions affecting the Bulk Water Supply Infrastructure or Wastewater Treatment Plants. <i>Editor's note - The figures below illustrate the concept.</i></p>  <p>The diagrams illustrate two scenarios of runoff from new development. The top diagram shows a cross-section where 'NEW FILLING' is placed between 'NEW DEVELOPMENT' and 'BULK WATER SUPPLY INFRASTRUCTURE'. This causes 'RUNOFF' to flow towards the infrastructure, which is marked with a red 'X' indicating it is an unacceptable outcome. The bottom diagram shows a cross-section where 'NEW FILLING' is placed between 'NEW DEVELOPMENT' and 'BULK WATER SUPPLY INFRASTRUCTURE', but the runoff is blocked, causing 'PONDING' to occur near the infrastructure. This is also marked with a red 'X' as unacceptable. 'NATURAL DRAINAGE' is shown as a dashed line with arrows pointing away from the infrastructure.</p>	<p>AO17 For Operational Works only No acceptable outcome is nominated.</p>

Performance Outcomes	Acceptable Outcomes
<p>PO18 Any earthworks undertaken adjoining Bulk Water Supply Infrastructure or Wastewater Treatment Plant ensures no adverse impacts the infrastructure.</p>	<p>AO18.1 For Operational Works only Excavation and filling activities are undertaken in a manner to minimise erosion and sediment movement.</p> <p>AO18.2 For Operational Works only There is no worsening of flooding drainage or erosion conditions affecting the Bulk Water Supply Infrastructure or Wastewater Treatment Plant.</p> <p>AO18.3 For Operational Works only No permanent barrier is to be constructed that: (1) limits access to Bulk Water Supply Infrastructure or Wastewater Treatment Plant; or (2) prevents legal access from a public place for the purpose of maintenance.</p>
<p>PO19 Lot reconfiguration integrates Bulk Water Supply Infrastructure or Wastewater Treatment Plant within the overall neighbourhood layout. In particular, the neighbourhood design: (1) ensures land of sufficient size and suitability is located to accommodate the existing and future major infrastructure network; (2) minimises the likely visual prominence of major infrastructure; and (3) provides for an interface or relationship with surrounding land uses that minimises the potential for nuisance (including noise and odour), health and safety concerns.</p>	<p>AO19 For Reconfiguring a Lot only No Acceptable Outcome is prescribed.</p>
<p>PO20 Reconfiguration does not intensify development within an easement for Bulk Water Supply Infrastructure or Wastewater Treatment Plant in a way that would impede access to the infrastructure by a responsible entity.</p>	<p>AO20 For Reconfiguring a Lot only The number of lots within an easement is not increased. <i>Editor's note: - The images below provide examples of subdivision design near an easement.</i></p>

Performance Outcomes	Acceptable Outcomes
	<div data-bbox="836 275 1401 835"> <p>GOOD SUBDIVISION DESIGN:</p> <ul style="list-style-type: none"> • FEW PROPERTIES AFFECTED • FEW BOUNDARY CROSSINGS (REQUIRE GATES)  </div> <div data-bbox="836 869 1401 1435"> <p>POOR SUBDIVISION DESIGN:</p> <ul style="list-style-type: none"> • MANY PROPERTIES AFFECTED • MANY BOUNDARY CROSSINGS AND GATES  </div>
<p>PO21 Where the reconfiguration involves additional lots encroaching Bulk Water Supply Infrastructure or Wastewater Treatment Plant, development ensures there are no adverse impacts on the infrastructure.</p>	<p>AO21.1 For Reconfiguring a Lot only Development: (1) does not limit access to Bulk Water Supply Infrastructure or Wastewater Treatment Plant infrastructure; and (2) maintains legal access from a public place for the purpose of maintenance.</p> <p>AO21.2 For Reconfiguring a Lot only Stormwater management does not cause an adverse impact on drinking water quality.</p>
Future Roads and Rail Network	
<p>PO22 Road Investigation Corridors and the Rail Network are:</p>	<p>AO22.1 For Reconfiguring a Lot only No additional lots are created within a Rail Buffer Area.</p>

Performance Outcomes	Acceptable Outcomes
<p>(1) protected from development to facilitate the ongoing operation and maintenance of existing major road and rail infrastructure;</p> <p>(2) protected from development that may adversely affect the safety and efficiency of the infrastructure, corridors and networks; and</p> <p>(3) protected from development to facilitate the construction and operation of future major road and rail infrastructure.</p>	<p>AO22.2 No buildings or permanent structures (excluding fencing) are located or constructed within: (1) a Road Investigation Corridor; or (2) a Rail Buffer Area.</p> <p>AO22.3 For Reconfiguring a Lot only Where a site contains a Road Investigation Corridor, the subdivision layout dedicates a road corridor wide enough to facilitate a sub-arterial or arterial road along the corridor.</p> <p>AO22.4 For Reconfiguring a Lot only Where involving realigning boundaries, development does not result in additional lots within a Rail Buffer Area.</p>
<p>PO23 Development in a Rail Buffer Area does not increase risk to: (1) community health or safety; and (2) the operation and maintenance of the existing or future rail network.</p>	<p>AO23.1 No Acceptable Outcome is prescribed.</p>