

Module 18. State transport infrastructure protection

18.1 Filling, excavation and structures state code

18.1.1 Purpose

The purpose of the code is to protect the safety, structural integrity and operation of state transport corridors, future state transport corridors and state transport infrastructure.

Editor’s note: Guidance for achieving the performance outcomes and acceptable outcomes for this state code is available in the *State Development Assessment Provisions Supporting Information – Filling and Excavation*, Department of Transport and Main Roads, 2014.

18.1.2 Criteria for assessment

Development mentioned in column 1 below must be assessed against the assessment criteria in the table mentioned in column 2.

Column 1	Column 2
All development	Table 18.1.1

Table 18.1.1: All development

Performance outcomes	Acceptable outcomes
<p>PO1 Buildings, structures, services and utilities do not adversely impact on the safety or operation of:</p> <ol style="list-style-type: none"> (1) <u>state transport corridors</u>, (2) <u>future state transport corridors</u>, (3) <u>state transport infrastructure</u>. <p>Editor’s note: For a <u>railway</u>, <i>Section 2.3 – Structures, setbacks, utilities and maintenance</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO1.1 Buildings, structures, services and utilities are not located in a <u>railway</u>, <u>future railway land</u> or <u>public passenger transport corridor</u>.</p> <p>AND</p> <p>AO1.2 Buildings and structures are set back horizontally a minimum of three metres from <u>overhead line equipment</u>.</p> <p>AND</p> <p>AO1.3 Construction activities do not encroach into a <u>railway</u> or <u>public passenger transport corridor</u>.</p> <p>AND</p> <p>AO1.4 The lowest part of development in or over a <u>railway</u> or <u>future railway land</u> is to be a minimum of:</p> <ol style="list-style-type: none"> (1) 7.9 metres above the railway track where the proposed development extends along the <u>railway</u> for a distance of less than 40 metres, or (2) 9.0 metres above the railway track where the development extends along the <u>railway</u> for a distance of between 40 and 80 metres. <p>AND</p> <p>AO1.5 Existing authorised access points and access routes to <u>state transport corridors</u> for maintenance and emergency works are maintained, allowing for uninterrupted access at all times.</p> <p>AND</p> <p>AO1.6 Pipe work, services and utilities can be maintained without requiring access to the <u>state transport corridor</u>.</p> <p>AND</p> <p>AO1.7 Pipe work, services and utilities:</p> <ol style="list-style-type: none"> (1) are not attached to <u>rail transport infrastructure</u> or <u>other rail infrastructure</u>, and (2) do not penetrate through the side of any proposed building element or structure where built to boundary in, over or abutting a <u>railway</u>. <p>AND</p>

Performance outcomes	Acceptable outcomes
	<p>AO1.8 Buildings and structures are set back a minimum of three metres from a <u>railway bridge</u>.</p> <p>AND</p> <p>AO1.9 Development below or abutting a <u>railway bridge</u> is to be clear of permanent structures or any other activity that may impede emergency access or works and maintenance of <u>rail transport infrastructure</u>.</p> <p>Editor's note: Temporary activities below or abutting a <u>railway bridge</u> could include, for example, car parking or outdoor storage.</p> <p>AND</p> <p>AO1.10 Development above a <u>railway</u> is designed to facilitate ventilation as follows:</p> <ol style="list-style-type: none"> (1) for development extending above a <u>railway</u> for a distance of less than 80 metres, gaps are provided to ensure natural ventilation, or (2) for development extending above a <u>railway</u> for a distance of more than 80 metres, ventilation shafts are provided. <p>Editor's note: For development extending above a <u>railway</u> for a distance of more than 80 metres, it is recommended that modelling of smoke dispersion should be undertaken by a RPEQ to predict the spread of combustion products and inform the ventilation design. <i>Section 5.1 – Development over a railway</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome.</p>
<p>PO2 Development prevents unauthorised access to:</p> <ol style="list-style-type: none"> (1) <u>state transport corridors</u>, (2) <u>future state transport corridors</u>, (3) <u>state transport infrastructure</u>, <p>by people, vehicles and projectiles.</p> <p>Editor's note: For a <u>railway</u>, <i>Section 2.4 – Preventing unauthorised access</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO2.1 Fencing is provided along the property boundary with the <u>railway</u>.</p> <p>Editor's note: Where fencing is provided it is to be in accordance with the railway manager's standards.</p> <p>AND</p> <p>AO2.2 <u>Accommodation activities</u> with a <u>publicly accessible area</u> located within 10 metres from the boundary of a <u>railway</u> or 20 metres from the centreline of the nearest <u>railway</u> track (whichever is the shorter distance), include throw protection screens for the <u>publicly accessible area</u> as follows:</p> <ol style="list-style-type: none"> (1) openings of no greater than 25 mm x 25mm (2) height of 2.4 metres vertically above the highest toe hold if see-through, or 2 metres if non see-through. <p>Editor's note: Expanded metal is considered see-through.</p> <p>AND</p> <p>AO2.3 Development in or over a <u>railway</u> or <u>future railway land</u> includes throw protection screens.</p> <p>Editor's note: Throw protection screens in a <u>railway</u> or <u>future railway land</u> designed in accordance with the relevant provisions of the <i>Civil Engineering Technical Requirement CIVIL-SR-005 Design of buildings over or near railways</i>, Queensland Rail, 2011, and the <i>Civil Engineering Technical Requirement CIVIL-SR-008 Protection screens</i>, Queensland Rail, 2011, comply with this acceptable outcome.</p> <p>AND</p> <p>AO2.4 Road barriers are installed along any proposed roads abutting a <u>railway</u>.</p> <p>Editor's note: Road barriers designed in accordance with Queensland Rail <i>Civil Engineering Technical Requirement CIVIL-SR-007 Design and selection criteria for road/rail interface barriers</i> comply with this acceptable outcome.</p> <p>AND</p> <p>AO2.5 Proposed vehicle manoeuvring areas, driveways, loading areas or carparks abutting a <u>railway</u> include rail interface barriers.</p> <p>Editor's note: A Registered Professional Engineer of Queensland (RPEQ) certified barrier design complies with this acceptable outcome.</p>

Performance outcomes	Acceptable outcomes
<p>PO3 Buildings and structures in, over or below a <u>railway</u> or <u>future railway land</u> are able to sustain impacts to their structural integrity in the event of an impact from a derailed train.</p>	<p>AO3.1 Buildings and structures, including piers or supporting elements, located in, over or below a <u>railway</u> or <u>future railway land</u> are designed and constructed in accordance with <i>AS5100 Bridge design</i>, <i>AS 1170 Structural design actions</i> and <i>Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to railways</i>, Queensland Rail, 2011.</p>
<p>PO4 Buildings and structures in, over, below or within 50 metres of a <u>state-controlled transport tunnel</u> or a <u>future state-controlled transport tunnel</u> have no adverse impact on the structural integrity of the <u>state-controlled transport tunnel</u>.</p> <p>Editor's note: For a <u>railway</u>, <i>Section 2.5 – Tunnels</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO4.1 Development in, over, below or within 50 metres of a <u>state-controlled transport tunnel</u> or <u>future state-controlled transport tunnel</u> ensures that the tunnel is:</p> <ol style="list-style-type: none"> (1) not vertically overloaded or affected by the addition or removal of <u>lateral loading</u> (2) not adversely affected as a result of directly or indirectly disturbing groundwater or soil. <p>Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a RPEQ certified geotechnical investigation, earthworks drawings and supporting technical details, and structural engineering drawings and supporting technical details be prepared and submitted with the application.</p>
<p>PO5 Development involving <u>dangerous goods</u> adjacent to a <u>railway</u> or <u>future railway land</u> does not adversely impact on the safety of a <u>railway</u>.</p> <p>Editor's note: <i>Section 2.6 – Dangerous goods and fire safety</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO5.1 Development involving <u>dangerous goods</u>, other than hazardous chemicals below the threshold quantities listed in table 5.2 of the <i>State planning policy guideline: State interest – emissions and hazardous activities, Guidance on development involving hazardous chemicals</i>, Department of State Development, Infrastructure and Planning, 2013, ensures that impacts on a <u>railway</u> from a fire, explosion, spill, gas emission or <u>dangerous goods</u> incident can be appropriately mitigated.</p> <p>Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a risk assessment be undertaken in accordance with <i>Attachment 1: Risk assessment guide</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015.</p>
<p>PO6 Any part of the development located within 25 metres of a <u>state-controlled road</u> or <u>future state-controlled road</u> minimises the potential to distract drivers and cause a safety hazard.</p>	<p>AO6.1 Advertising devices proposed to be located within 25 metres of a <u>state-controlled road</u> or <u>future state-controlled road</u> are designed to meet the relevant standards for advertising outside the boundaries of, but visible from, a <u>state-controlled road</u>, outlined within the <i>Roadside advertising guide</i>, Department of Transport and Main Roads, 2013.</p>
<p>PO7 Filling, excavation and construction does not adversely impact on or compromise the safety or operation of:</p> <ol style="list-style-type: none"> (1) <u>state transport corridors</u>, (2) <u>future state transport corridors</u>, (3) <u>state transport infrastructure</u>. <p>Editor's note: For a <u>railway</u>, <i>Section 2.7 – Filling, excavation and ground disturbance</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO7.1 Filling and excavation does not undermine, cause subsidence of, or groundwater seepage onto a <u>state transport corridor</u> or <u>future state transport corridor</u>.</p> <p>Editor's note: To demonstrate compliance with this acceptable outcome for a <u>state-controlled road</u>, it is recommended that a filling and excavation report assessing the proposed filling and excavation be prepared in accordance with the requirements of the <i>Road planning and design manual</i>, Department of Transport and Main Roads, 2013.</p> <p>Editor's note: To demonstrate compliance with this acceptable outcome for a <u>state transport corridor</u>, excluding a <u>state-controlled road</u>, it is recommended that the following be submitted with the application:</p> <ol style="list-style-type: none"> (1) a RPEQ certified geotechnical investigation (2) RPEQ certified earthworks drawings and supporting technical details (3) RPEQ certified structural engineering drawings and supporting technical details. <p>Editor's note: If a development involves filling and excavation within a <u>state-controlled road</u>, an approval issued by the Department of Transport and Main Roads under section 33 of the <i>Transport Infrastructure Act 1994</i> may be required.</p> <p>AND</p> <p>AO7.2 Development involving excavation, boring, piling or blasting does not result in vibration impacts during construction or blasting which would compromise the safety and operational integrity of a <u>state transport corridor</u>.</p>

Performance outcomes	Acceptable outcomes
	<p>Editor's note: To demonstrate compliance with this acceptable outcome it is recommended that an RPEQ certified geotechnical report be prepared and submitted with the application.</p> <p>AND</p> <p>AO7.3 Development does not store fill, spoil or any other material in a <u>railway</u>.</p>
<p>PO8 Filling and excavation does not interfere with or impact on existing or future planned services or public utilities on a <u>state-controlled road</u>.</p>	<p>AO8.1 Any alternative service and public utility alignment must satisfy the standards and design specifications of the service or public utility provider, and any costs of relocation are borne by the developer.</p> <p>Editor's note: An approval issued by the Department of Transport and Main Roads under section 33 of the <i>Transport Infrastructure Act 1994</i> may be required.</p>
<p>PO9 Retaining or reinforced soil structures required to contain fill and excavation:</p> <ol style="list-style-type: none"> (1) do not encroach on a <u>state transport corridor</u>, (2) are capable of being constructed and maintained without adversely impacting a <u>state transport corridor</u>, (3) do not adversely impact on a <u>state transport corridor</u> through the addition or removal of <u>lateral loads</u> or <u>surcharge loads</u>, (4) are constructed of durable materials which maximise the life of the structure. <p>Editor's note: For a <u>railway</u>, <i>Section 2.7 – Filling, excavation and ground disturbance</i> of the <i>Guide to Development in a Transport Environment: Rail</i>, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.</p>	<p>AO9.1 Retaining or reinforced soil structures (including footings, rock anchors and soil nails) are not located in a <u>state transport corridor</u> or <u>future state transport corridor</u>.</p> <p>AND</p> <p>AO9.2 Retaining or reinforced soil structures in excess of an overall height of one metre abutting a <u>state transport corridor</u> are to be designed and certified by a structural RPEQ.</p> <p>Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that the following be submitted with the application:</p> <ol style="list-style-type: none"> (1) a RPEQ certified geotechnical investigation (2) RPEQ certified earthworks drawings and supporting technical details (3) RPEQ certified structural engineering drawings and supporting technical details. <p>AND</p> <p>AO9.3 Retaining or reinforced soil structures that are set back less than 750 millimetres from a common boundary with a <u>state-controlled road</u> are certified by a structural RPEQ and designed to achieve a low maintenance external finish.</p> <p>AND</p> <p>AO9.4 Retaining or reinforced soil structures adjacent to a <u>state-controlled road</u>, and in excess of an overall height of two metres, incorporate design treatments (such as terracing or planting) to reduce the overall height impact.</p> <p>AND</p> <p>AO9.5 Construction materials of all retaining or reinforced soil structures have a design life exceeding 40 years, and comply with the specifications approved by a RPEQ.</p> <p>AND</p> <p>AO9.6 Temporary structures and batters do not encroach into a <u>railway</u>.</p> <p>AND</p> <p>AO9.7 <u>Surcharge loading</u> from vehicles or the stockpiling of materials or soil on retaining or reinforced soil structures adjacent to a <u>state transport corridor</u> or <u>future state transport corridor</u> meet the requirements of <i>AS5100.2 Bridge design—Design loads</i> or a minimum of 10 kPa (whichever is greater).</p> <p>AND</p> <p>AO9.8 Excavation or any other works do not remove the <u>lateral load</u> of retaining structures associated with, or adjacent to, a <u>state transport corridor</u>.</p> <p>Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a RPEQ certified geotechnical and structural assessment be prepared and submitted with the application.</p>

Performance outcomes	Acceptable outcomes
PO10 Filling and excavation does not cause siltation and erosion run-off from the property, or wind blown dust nuisance onto a <u>state-controlled road</u> .	AO10.1 Compaction of fill is carried out in accordance with the requirements of <i>AS 1289.0 2000 – Methods of testing soils for engineering purposes</i> .
PO11 Where the quantity of fill or excavated spoil material being imported or exported for a development exceeds 10 000 tonnes, and haulage will be on a <u>state-controlled road</u> , any impact on the infrastructure is identified and mitigation measures implemented.	AO11.1 The impacts on the <u>state-controlled road</u> network are identified, and measures are implemented to avoid, reduce or compensate the effects on the asset life of the <u>state-controlled road</u> . Editor’s note: It is recommended that a pavement impact assessment report be prepared to address this acceptable outcome. Guidance for preparing a pavement impact assessment is set out in <i>Guidelines for assessment of road impacts of development (GARID)</i> , Department of Main Roads, 2006.
PO12 Filling and excavation associated with providing a driveway crossover to a <u>state-controlled road</u> does not compromise the operation or capacity of existing drainage infrastructure.	AO12.1 Filling and excavation associated with the design of driveway crossovers complies with the relevant Institute of Public Works Engineering Australia Queensland (IPWEAQ) standards. Editor’s note: The construction of any crossover requires the applicant to obtain a permit to work in the <u>state-controlled road</u> corridor under section 33 of the <i>Transport Infrastructure Act 1994</i> and a section 62 approval under the <i>Transport Infrastructure Act 1994</i> for the siting of the access and associated works.
PO13 Fill material does not cause contamination from the development site onto a <u>state-controlled road</u> .	AO13.1 Fill material is free of contaminants including acid sulphate content, and achieves compliance with <i>AS 1289.0 – Methods of testing soils for engineering purposes</i> and <i>AS 4133.0-2005 – Methods of testing rocks for engineering purposes</i> .
PO14 Vibration generated through fill compaction does not result in damage or nuisance to a <u>state-controlled road</u> .	AO14.1 Fill compaction does not result in any vibrations beyond the site boundary, and is in accordance with <i>AS 2436–2010 – Guide to noise and vibration control on construction, demolition and maintenance sites</i> .

18.2 Stormwater and drainage impacts on state transport infrastructure state code

18.2.1 Purpose

The purpose of the code is to ensure that stormwater events, including peak discharges, flood levels, frequency/duration of flooding, flow velocities, water quality, ponding, sedimentation and scour effects associated with development are minimised and managed to avoid creating any adverse impacts on a state transport corridor.

This will be achieved through:

- (1) ensuring the protection of the infrastructure assets from damage, any reduction in asset life or increased maintenance costs (whole of life cycle costs)
- (2) a no worsening of impacts or actionable nuisance on state transport infrastructure and state transport corridors
- (3) maintaining the efficiency of the stormwater infrastructure in state transport corridors to manage water quality and natural overland flows
- (4) ensuring stormwater discharge only occurs at a lawful point of discharge.

Editor’s note: Guidance for achieving the performance outcomes and acceptable outcomes for this state code is available in the *State Development Assessment Provisions Supporting Information – Stormwater and Drainage*, Department of Transport and Main Roads, 2014.

18.2.2 Criteria for assessment

Development mentioned in column 1 below must be assessed against the assessment criteria in the table mentioned in column 2.

Column 1	Column 2
All development	Table 18.2.1

Table 18.2.1: All development

Performance outcomes	Acceptable outcomes
Stormwater and drainage management	
<p>PO1 Stormwater management for the development must ensure there is no worsening of, and no actionable nuisance in relation to peak discharges, flood levels, frequency or duration of flooding, flow velocities, water quality, ponding, sedimentation and scour effects on an existing or future <u>state transport corridor</u> for all flood and stormwater events that exist prior to development, and up to a 1 per cent <u>annual exceedance probability</u>.</p>	<p>AO1.1 The development does not result in stormwater or drainage impacts or actionable nuisance within an existing or future <u>state transport corridor</u>. Editor's note: It is recommended that basic stormwater information is to be prepared to demonstrate compliance with AO1.1.</p> <p>OR</p> <p>AO1.2 A stormwater management statement certified by an RPEQ demonstrates that the development will achieve a no worsening impact or actionable nuisance on an existing or future <u>state transport corridor</u>.</p> <p>OR</p> <p>AO1.3 A stormwater management plan certified by an RPEQ demonstrates that the development will achieve a no worsening impact or actionable nuisance on an existing or future <u>state transport corridor</u>.</p> <p>OR</p> <p>AO1.4 For development on premises within 25 metres of a <u>railway</u>, a stormwater management plan certified by an RPEQ demonstrates that:</p> <ol style="list-style-type: none"> (1) the development will achieve a no worsening impact or actionable nuisance on the <u>railway</u> (2) the development does not cause stormwater, roofwater, ponding, floodwater or any other drainage to be directed to, increased or concentrated on the <u>railway</u> (3) the development does not impede any drainage, stormwater or floodwater flows from the <u>railway</u> (4) stormwater or floodwater flows have been designed to: <ol style="list-style-type: none"> (a) maintain the structural integrity of the <u>rail transport infrastructure</u> (b) avoid scour or deposition (5) additional <u>railway</u> formation drainage necessitated by the development is located within the premises where the development is carried out (6) retaining structures for excavations abutting the <u>railway corridor</u> provide for drainage.
Lawful point of discharge	
<p>PO2 Stormwater run-off and drainage are directed to a <u>lawful point of discharge</u> to avoid adverse impacts on a future or existing <u>state transport corridor</u>.</p>	<p>AO2.1 Where stormwater run-off is discharged to a <u>state transport corridor</u>, the discharge is to a <u>lawful point of discharge</u> in accordance with section 3.4 of <i>Queensland urban drainage manual</i>, Department of Energy and Water Supply, 2013.</p> <p>OR</p> <p>AO2.2 For development on premises within 25 metres of a <u>railway</u>, approval from the relevant <u>railway manager</u> for the <u>railway</u>, as defined in the <i>Transport Infrastructure Act 1994</i>, schedule 6 has been gained to <u>verify the lawful point of discharge</u> for stormwater onto the <u>railway</u>.</p> <p>AND</p> <p>AO2.3 Development does not cause a net increase in or concentration of stormwater or floodwater flows discharging onto the <u>state transport corridor</u> during construction or thereafter.</p> <p>AND</p> <p>AO2.4 Development does not create any additional points of discharge or changes to the condition of an existing <u>lawful point of discharge</u> to the <u>state transport corridor</u>.</p>
Sediment and erosion management	
<p>PO3 Run-off from <u>upstream development</u> is managed to ensure that sedimentation and erosion do not cause siltation of stormwater infrastructure in the <u>state</u></p>	<p>AO3.1 Development with a high risk of erosion incorporates erosion and sediment control measures.</p> <p>Editor's note: For a <u>state-controlled road</u> where a development has a high risk of erosion, an erosion and sedimentation control plan should be provided to support a stormwater</p>

Performance outcomes	Acceptable outcomes
transport corridor.	management statement or stormwater management plan. Section 1 of the <i>Stormwater guideline for environmentally relevant activities</i> , Department of Environment and Heritage Protection, 2014, defines development considered to have a high risk of erosion.

18.3 Reference documents

Department of Environment and Heritage 2014 [Stormwater guideline for environmentally relevant activities](#)

Department of Transport and Main Roads 2015 [Guide to Development in a Transport Environment: Rail](#)

Department of Energy and Water Supply 2013 [Queensland urban drainage manual](#)

[Institute of Public Works Engineering Australasia \(Queensland\) \(IPWEAQ\) standards](#)

Standards Australia 2000 [AS1289.0-2000 – Methods of testing soils for engineering purposes](#)

Standards Australia 2010 [AS2436-2010 – Guide to noise and vibration control on construction, demolition and maintenance sites](#)

Standards Australia 2005 [AS4133.0-2005 – Methods of testing rocks for engineering purposes](#)

Department of Main Roads 2006 [Guidelines for assessment of road impacts of development \(GARID\)](#)

Department of State Development, Infrastructure and Planning 2013 [State planning policy guideline: State interest – emissions and hazardous activities; Guidance on development involving hazardous chemicals](#)

Department of Transport and Main Roads 2014 [State development assessment provisions supporting information – filling and excavation](#)

Department of Transport and Main Roads 2013 [State development assessment provisions supporting information – stormwater and drainage](#)

Department of Transport and Main Roads 2015 [Road drainage manual](#)

Department of Transport and Main Roads 2013 [Road planning and design manual \(2nd edition\)](#)

Department of Transport and Main Roads 2013 [Roadside advertising guide](#)

Department of Transport and Main Roads 2013 [Road landscape manual](#)

Queensland Rail 2011 [Civil Engineering Technical Requirement CIVIL-SR-005 Design of buildings over or near railways](#)

Queensland Rail 2011 [Civil Engineering Technical Requirement CIVIL-SR-007 Design and selection criteria for road/rail interference barriers](#)

Queensland Rail 2011 [Civil Engineering Technical Requirement CIVIL-SR-008 Protection screens](#)

Queensland Rail 2011 [Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to railways](#)

18.4 Glossary of terms

ADG Code see the *Work Health and Safety Act* 2011, schedule 1.

Editor's note: ADG Code means the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council, as in force from time to time.

Annual exceedance probability (AEP) means the probability of exceedance of a given discharge within a period of one year.

Editor's note: AEP is generally expressed as 1 in Y [years]. The terminology of AEP is generally used where the data and procedures are based on annual series analysis.

DA mapping system means the mapping system containing the Geographic Information System mapping layers kept, prepared or sourced by the state that relate to development assessment and matters of interest to the state in assessing development applications.

Editor's note: the DA mapping system is available at [DA mapping system](#).

Dangerous goods see the *Work Health and Safety Act 2011*, schedule 1.

Editor's note: Dangerous goods means—

- (1) asbestos; or
- (2) anything defined under the ADG Code as—
 - (i) dangerous goods; or
 - (ii) goods too dangerous to be transported.

Future public passenger transport corridor see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: Future public passenger transport corridor means land identified in a guideline made under the *Transport Planning and Coordination Act 1994*, section 8E for any of the following—

- (1) busway transport infrastructure;
- (2) busway transport infrastructure works;
- (3) light rail transport infrastructure;
- (4) light rail transport infrastructure works;
- (5) rail transport infrastructure;
- (6) railway works.

Future railway land see the *Transport Infrastructure Act 1994*, section 242.

Editor's note: What is future railway land—

- (1) Land becomes future railway land when the chief executive, by written notice to the relevant local government and in the gazette, indicates that the land is intended to be used for a railway.
- (2) Future railway land ceases to be future railway land when it is subleased to a railway manager under section 240(4) [of the *Transport Infrastructure Act 1994*].
- (3) If the chief executive decides that future railway land is no longer to be used for a railway, the chief executive must give written notice of that fact to the relevant local government and in the gazette.

Future state-controlled road see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: Future state-controlled road means a road or land that the chief executive administering the Transport Infrastructure Act has, by written notice given to a local government and published in the gazette, indicated is intended to become a state-controlled road under that Act, section 42.

Editor's note: See DA mapping system—SARA Layers

Future state-controlled transport tunnel see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: Future state-controlled transport tunnel means a tunnel that forms part of—

- (1) future state-controlled road, or
- (2) future railway land, or
- (3) a future public passenger transport corridor.

Future state transport corridor means any of the following:

- (1) a future state-controlled road
- (2) future railway land
- (3) a future public passenger transport corridor
- (4) a future state-controlled transport tunnel
- (5) a future active transport corridor.

Lateral load means (horizontal) pressure or force. Lateral load can result from any horizontal pressure load on a retaining structure, for example, earth pressure or surcharge load.

Lawful point of discharge means a point of discharge designated and controlled by DTMR, or at which discharge rights have been granted by registered easement in favour of DTMR.

Other rail infrastructure see the *Transport Infrastructure Act 1994*, schedule 6.

Editor's note: Other rail infrastructure means –

- (1) freight centres or depots; or
- (2) maintenance depots; or
- (3) office buildings or housing; or
- (4) rolling stock or other vehicles that operate on a railway; or
- (5) workshops; or
- (6) any railway track, works or other thing that is part of anything mentioned in paragraphs (a) to (e).

Overhead line equipment means overhead lines, cabling and associated structures used to provide power to electric trains.

Publicly accessible area means a common area accessible by any resident or visitor to the development, including any recreation area, roof deck, open space, lobby, garage, car park, internal or external stairs, landings, ramps or other means of access between levels.

Editor's note: A private balcony is not a publicly accessible area.

Public passenger transport corridor see the Sustainable Planning Regulation 2009. Means land:

- (1) on which any of the following transport infrastructure is situated, if the infrastructure is, or is to be, used for providing public passenger services—
 - (a) busway transport infrastructure
 - (b) light rail transport infrastructure
 - (c) rail transport infrastructure, or
- (2) on which the following works are being done, if the works relate to transport infrastructure to which (1) applies—
 - (a) busway transport infrastructure works
 - (b) light rail transport infrastructure works
 - (c) railway works, or
- (3) on which other services are provided for the maintenance or operation of transport infrastructure mentioned in (1).

Rail transport infrastructure see the *Transport Infrastructure Act 1994*, schedule 6.

Editor's note: Rail transport infrastructure means facilities necessary for operating a railway, including –

- (1) railway track and works built for the railway, including for example –
 - (a) cuttings
 - (b) drainage works
 - (c) excavations
 - (d) land fill
 - (e) track support earthworks
- (2) any of the following things that are associated with the railway's operation—
 - (a) bridges
 - (b) communication systems
 - (c) machinery and other equipment
 - (d) marshalling yards
 - (e) noticeboards, notice markers and signs
 - (f) overhead electrical power supply systems
 - (g) over-track structures
 - (h) platforms
 - (i) power and communication cables
 - (j) service roads
 - (k) signalling facilities and equipment
 - (l) stations
 - (m) survey stations, pegs and marks
 - (n) train operation control facilities
 - (o) tunnels
 - (p) under-track structures
- (3) vehicle parking and set down facilities for intending passengers for a railway that are controlled or owned by a railway manager or the chief executive
- (4) pedestrian facilities, including footpath paving, for the railway that are controlled or owned by a railway manager or the chief executive,

(5) but does not include other rail infrastructure.

Railway see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: Railway means land on which railway transport infrastructure or other rail infrastructure is situated.

Editor's note: Railway does not include a light rail or light rail transport infrastructure.

Editor's note: See DA mapping system–SARA Layers

Railway bridge means a structure which crosses a watercourse, land, road or other obstacle, on which rail transport infrastructure or other rail infrastructure is located.

State-controlled road see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: State-controlled road means:

- (1) a state-controlled road within the meaning of the *Transport Infrastructure Act 1994*, schedule 6, or
- (2) State toll road corridor land.

Editor's note: See DA mapping system–SARA Layers

State-controlled transport tunnel see the Sustainable Planning Regulation 2009, schedule 26.

Editor's note: State-controlled transport tunnel means:

- (1) a tunnel that forms part of a–
 - (a) state-controlled road, or
 - (b) railway, or
 - (c) public passenger transport corridor, or
- (2) a railway tunnel easement.

Editor's note: See DA mapping system–SARA Layers

State transport corridor means any of the following terms (defined under the *Transport Infrastructure Act 1994*, *Transport Planning and Coordination Act 1994* and Sustainable Planning Regulation 2009):

- (1) a state-controlled road
- (2) a railway
- (3) a public passenger transport corridor
- (4) a state-controlled transport tunnel
- (5) an active transport corridor.

State transport infrastructure means any of the following terms (defined under the *Transport Infrastructure Act 1994*, the *Transport Planning and Coordination Act 1994* and the Sustainable Planning Regulation 2009):

- (1) state-controlled road
- (2) busway transport infrastructure
- (3) light rail transport infrastructure
- (4) rail transport infrastructure
- (5) other rail infrastructure
- (6) active transport infrastructure.

Surcharge load means (vertical) applied pressure behind a retaining structure. Surcharge load can result from (but not limited to) the following sources: construction traffic and material loads (for example, stockpiling), railway loads, and road traffic loads arising from construction works.

Upstream development means development located in the opposite direction of water flow from a state transport corridor, nearer to the source of the flow.

18.5 Abbreviations

AEP — Annual exceedance probability

DTMR — Department of Transport and Main Roads

RPEQ — Registered Professional Engineer of Queensland