

## Part 9 Development codes

### 9.1 Preliminary

- (1) Development codes are codes for assessment where identified as an applicable code in part 5.
- (2) Statewide codes are included in all Queensland planning schemes.
- (3) Use codes and other development codes are specific to each planning scheme area.
- (4) The following are the statewide codes for the planning scheme:
  - (a) Community residence code
  - (b) Forestry for wood production code
  - (c) Reconfiguring a lot (subdividing one lot into two lots) and associated operational works code.
- (5) There are no use codes for the planning scheme.
- (6) The following are the other development codes for the planning scheme:
  - (a) Infrastructure and works code
  - (b) Reconfiguring a lot code
  - (c) Water quality and acid sulfate soils code.

### 9.2 Statewide codes

#### 9.2.1 Community residence code

- (1) The purpose of the community residence code is for assessing a material change of use for a community residence.

**Table 9.2.1.1 – Community residence for self-assessable development only**

Acceptable outcomes (AO)	
AO1	The maximum number of residents is seven.
AO2	One support worker is permitted to reside on the premises at any time.
AO3	The maximum number of support workers attending any daytime activity shall not exceed seven people over a 24 hour period.
AO4	Resident and visitor parking is provided on site for a minimum of two vehicles. One vehicle space must be dedicated for parking for support services.

#### 9.2.2 Forestry for wood production code

##### 9.2.2.1 Application

This code applies to assessing a material change of use for development involving cropping (where involving forestry for wood production) in the rural zone.

### 9.2.2.2 Purpose

- (1) The purpose of the code is to ensure forestry for wood production is assessed with equal regard to other forms of cropping, to guarantee long-term harvest and minimise impacts.
- (2) The purpose of the code will be achieved through the following overall outcomes:
  - (a) ensuring cropping for forestry for wood production is appropriately located and setback from areas of environmental interest and existing infrastructure
  - (b) minimising the impacts on adjoining land uses
  - (c) minimising the risk of fire
  - (d) ensuring the long-term security of harvest for forestry for wood production
  - (e) ensuring there is equal regard for the forestry for wood production form of cropping compared to other forms of cropping.

### 9.2.2.3 Criteria for assessment

#### Part A—Criteria for development requiring compliance assessment

**Table 9.2.2.1—Development requiring compliance assessment**

<b>Compliance outcomes (CO)</b>	
<b>Setbacks</b>	
<b>CO1</b>	The establishment of the forest for wood production is setback from existing infrastructure and areas of environmental interest in accordance with table 9.2.2.2—Forestry for wood production setback distances.
<b>CO2</b>	No cultivation and planting for wood production is to occur in the setback areas identified in table 9.2.2.2. Road and track establishment and maintenance can occur.
<b>CO3</b>	Self-propagated seedlings (wildlings) generated from the forest for wood production are eradicated from the setback areas identified in table 9.2.2.2.
<b>Impacts on soil structure, fertility and stability</b>	
<b>CO4</b>	The establishment and maintenance (including associated tracks and roads) of the forest for wood production utilises one or more of the following methods: <ul style="list-style-type: none"> <li>• mechanical strip cultivation on the contour, spot cultivation or manual cultivation is used for establishment on slopes greater than 10 per cent and less than 25 per cent</li> <li>• either spot cultivation or manual cultivation is used for establishment on slopes equal to or greater than 25 per cent</li> <li>• tracks and roads are established away from natural drainage features and areas that are subject to erosion and landslips.</li> </ul>
<b>CO5</b>	Any part of a track or road established and maintained as part of the forest for wood production is appropriately drained and adopts the following measures: <ul style="list-style-type: none"> <li>• establish and maintain a stable surface or</li> <li>• drain the track or road with crossfall drainage (preferably with a slope greater than 4 per cent) or by shaping the track or road to a crown so that water drains to both of its sides or</li> <li>• establish and maintain drainage structures to convey water away from the track or road formation (for example, crossdrains, mitre drains, turnouts and diversion drains or relief culverts).</li> </ul>
<b>CO6</b>	Drainage water from tracks and roads established and maintained as part of the forest for wood production is directed away from exposed soils, unstable areas, and towards undisturbed ground and areas with stable surfaces.

Compliance outcomes (CO)	
Fire risk	
<b>CO7</b>	Firebreaks are established and maintained: <ul style="list-style-type: none"> <li>• between the forest for wood production, adjoining premises and existing infrastructure</li> <li>• at a minimum width from the base of the outside trees in accordance with table 9.2.2.3—Forestry for wood production firebreak distances</li> <li>• that are free of flammable material that is greater than one metre high.</li> </ul>
<b>CO8</b>	Fire access tracks and roads are established and maintained to: <ul style="list-style-type: none"> <li>• a minimum width of 4 metres</li> <li>• ensure that no part of a plantation is more than 250 metres from a fire access track or road.</li> </ul>

**Table 9.2.2.2—Forestry for wood production setback distances**

Aspect	Distance (measured from the base of the tree)
<b>Areas of environmental interest</b>	
Top of a defining bank of streams (gully, creek or river) that are represented on the 1:100 000 topographic map series in accordance with the stream order classification system	Stream order 1 to 2: 5 metres or Stream order 3 to 5: 10 metres or Stream order 6: 20 metres
State-owned protected areas and forest reserves under the <i>Nature Conservation Act 1992</i>	10 metres
Protected vegetation under the Vegetation Management Act 1999	10 metres
<b>Infrastructure</b>	
Dwellings	100 metres or such distance that ensures the dwelling is consistent with the requirements of AS3959-2009 and the Building Code of Australia
Machinery sheds	25 metres or 1.5 times the maximum anticipated height of the tree at harvest, whichever is the greater
Transmission lines and above-ground pipelines (excluding infrastructure servicing only the farm) not subject to an easement	25 metres or 1.5 times the maximum anticipated height of the tree at harvest, whichever is the greater

**Table 9.2.2.3—Forestry for wood production firebreak distances**

Firebreaks	
Activity	Distance
Forestry for wood production activities less than 40 hectares	7 metres
<i>Forestry for wood production of 40 hectares to 100 hectares</i>	10 metres
Forestry for wood production greater than 100 hectares	20 metres, or a 10 metre break that is free of flammable material that is greater than 1 metre high followed by a 10 metre fuel reduction area where forestry for wood production trees are pruned up to a minimum height of 5 metres, commencing once trees are greater than 10 metres in height

### 9.2.3 Reconfiguring a lot (subdividing one lot into two lots) and associated operational works code

- (1) The purpose of the reconfiguring a lot (subdividing one lot into two lots) and associated operational works code is for assessing requests for compliance assessment for development for reconfiguring a lot that requires compliance assessment as prescribed in part 5, section 5.4 under table 5.4.2—Prescribed level of assessment: reconfiguring a lot.

**Note** – Development subject to compliance assessment must be able to achieve compliance with the compliance outcomes for a compliance permit to be issued.

**Note** – If compliance with the code is not possible, the development cannot be considered for compliance assessment and a development application for assessable development must be made to the local government as outlined in Schedule 18 of the Regulation.

**Table 9.2.3.1—Reconfiguring a lot (subdividing one lot into two lots) and associated operational works requiring compliance assessment**

Compliance outcomes (CO)	
<b>Lot design</b>	
<b>CO1</b>	Each lot is to comply with the following frontage requirements: <ul style="list-style-type: none"> <li>All residential lots, other than rear lots, have a minimum road frontage of 10m.</li> </ul>
<b>CO2</b>	There are no building envelope requirements for reconfiguring a lot (subdividing one lot into two lots) and associated operational work.
<b>CO3</b>	No rear lots are created.
<b>CO4</b>	In relation to a reconfiguration in a residential zone any existing buildings and structures are setback to any new property boundary in accordance with the boundary setback requirements under the <i>Queensland Development Code</i> .
<b>CO5</b>	In relation to a reconfiguration in the residential zone, any proposed buildings and structures can comply with boundary setback requirements under the <i>Queensland Development Code</i> .
<b>CO6</b>	The reconfiguration enables proposed buildings and structures to avoid easements, such as easements for trunk sewer lines. No new lots are created where proposed buildings and structures cannot be constructed due to existing or planned underground or above ground infrastructure.
<b>CO7</b>	No new lots are created on land subject to flooding up to and including the Defined Flood Event (DFE) as identified as the flood hazard area in the maps in schedule 2, or an Annual Exceedance Probability (AEP) of 1 per cent, whichever results in the highest level above Australian Height Datum (AHD).
<b>CO8</b>	If the land is located in a Designated Bushfire Prone Area, the reconfiguration does not involve premises identified as being greater than low risk.
<b>CO9</b>	No new lots are created where the existing slope of the land is 15 per cent or greater.
<b>Infrastructure</b>	
<b>CO10</b>	For premises located in a reticulated water area, each lot is connected to the reticulated water supply system. or For premises located outside a reticulated water area, each lot is provided with an alternative potable water supply source (e.g. rainwater, bore water).

Compliance outcomes (CO)	
CO11	For premises located in a sewerage area <sup>1</sup> , each lot is connected to the sewerage service. or For premises located outside a sewerage area, each lot provides for an effluent treatment and disposal system
CO12	Each lot is connected to an electricity supply network as follows: <ul style="list-style-type: none"> <li>in accordance with service provider's requirements.</li> </ul>
CO13	Each lot is connected to a telecommunications network as follows: <ul style="list-style-type: none"> <li>in accordance with service provider's requirements.</li> </ul>
CO14	Infrastructure (water supply, sewerage, roads, stormwater quality and quantity, recreational parks, land only for community purposes) is designed and constructed to service the lots in accordance with the following: <ul style="list-style-type: none"> <li>service provider's requirements.</li> </ul>
Access	
CO15	Each lot has lawful, safe and practical access to the existing road network via: <ul style="list-style-type: none"> <li>direct road frontage.</li> </ul>
CO16	Where access to a lot is proposed via an access strip or easement, the access strip or easement has a minimum width of 4m in the township zone or 8m in the environmental management and conservation zone.
CO17	The maximum length of an access strip or easement does not exceed a maximum length of 50m.
CO18	The gradient of an access strip or easement does not exceed 10%.
CO19	A driveway crossover to each lot is designed and constructed in accordance with the following: <ul style="list-style-type: none"> <li>the FNQROC Operational Works Design Guidelines.</li> </ul>
Stormwater	
CO20	On-site erosion and the release of sediment or sediment-laden stormwater from the premises is minimised at all times including during construction and complies with table 9.4.3.3(b) and 9.4.3.3(c).
CO21	Filling or excavation on the premises does not exceed a maximum of one metre vertical change in natural ground level at any point.
CO22	Filling or excavation does not cause ponding on the premises or adjoining land in accordance with the FNQROC Operational Works Design Guidelines.

<sup>1</sup> Sewerage area is defined in the Plumbing and Drainage Act 2002 and means a service area for a sewerage service under the Water Supply (Safety and Reliability) Act 2008.

## 9.3 Use codes

There are no use codes for the planning scheme.

## 9.4 Other development codes

### 9.4.1 Infrastructure and works code

#### 9.4.1.1 Application

- (1) This code applies where identified in the assessment criteria column of table 5.6.1 in part 5 of this planning scheme.
- (2) When using this code, reference should be made to section 5.3.

### 9.4.1.2 Purpose

- (1) The purpose of the infrastructure and works code is to ensure development is provided with infrastructure and services in accordance with recognised standards.
- (2) The purpose of the code will be achieved through the following overall outcomes:
  - (a) works are carried out with an appropriate level of service and safety;
  - (b) infrastructure is provided in a cost-effective, efficient and coordinated manner; and
  - (c) works do not cause negative impacts to environmental values or people.

### 9.4.1.3 Criteria for assessment

**Table 9.4.1.3 – Assessable development**

Performance outcomes	Acceptable outcomes
<b>General</b>	
<p><b>PO1</b></p> <p>All lots are provided with access to services including:</p> <ol style="list-style-type: none"> <li>(1) waste water disposal;</li> <li>(2) water supply services;</li> <li>(3) electricity services; and</li> <li>(4) telecommunications services.</li> </ol>	<p><b>AO1.1</b></p> <p>The lot is connected to reticulated water supply, sewerage service, electricity and telecommunications.</p>
<b>Earthworks</b>	
<p><b>PO2</b></p> <p>The design and construction of site earthworks is undertaken in a safe and efficient manner while minimising impacts to adjoining properties and environmental values.</p>	<p><b>AO2.1</b></p> <p>Design of site earthworks is undertaken in accordance with:</p> <ol style="list-style-type: none"> <li>(1) FNQROC Operational Works Design Guideline D2, Site Regrading;</li> <li>(2) FNQROC Operational Works Design Guidelines D5, Stormwater Quality; and</li> <li>(3) Department of Transport &amp; Main Roads Technical Standard MRTS04, General Earthworks.</li> </ol> <p><b>AO2.2</b></p> <p>Construction of site earthworks is undertaken in accordance with:</p> <ol style="list-style-type: none"> <li>(1) FNQROC Operational Works Specification S1, Earthworks; and</li> <li>(2) Department of Transport &amp; Main Roads Standard Specification MRS04, General Earthworks.</li> </ol>
<b>Roadways, Pathways and Cycleways</b>	
<p><b>PO3</b></p> <p>New roads are designed and constructed to be able to:</p> <ol style="list-style-type: none"> <li>(1) accommodate walking, cycling and vehicle movements;</li> <li>(2) provide on street parking; and</li> <li>(3) incorporate services and drainage.</li> </ol>	<p>No acceptable solution is nominated.</p>

Performance outcomes	Acceptable outcomes
<p><b>PO4</b></p> <p>Where roadways, pathways and cycleways are to be provided, design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner.</p>	<p><b>AO4.1</b></p> <p>Design of roadways, pathways and cycleways is undertaken in accordance with:</p> <ol style="list-style-type: none"> <li>(1) FNQROC Operational Works Design Guideline D1, Road Geometry;</li> <li>(2) FNQROC Operational Works Design Guidelines D3, Road Pavements;</li> <li>(3) FNQROC Operational Works Design Guidelines D4 Stormwater Drainage</li> <li>(4) Department of Transport &amp; Main Roads Technical Standard MRTS05, Unbound Pavements;</li> <li>(5) Department of Transport &amp; Main Roads Technical Standard MRTS11, Sprayed Bituminous Surfacing; and</li> <li>(6) Department of Transport &amp; Main Roads Technical Standard MRTS22, Supply of Cover Aggregate.</li> </ol> <p><b>AO4.2</b></p> <p>Construction of roadways are undertaken in accordance with:</p> <ol style="list-style-type: none"> <li>(1) FNQROC Operational Works Specification S2, Road Pavements;</li> <li>(2) FNQROC Operational Works Specification S3, Segmental Paving;</li> <li>(3) FNQROC Operational Works Specification S4, Stormwater Drainage;</li> <li>(4) Department of Transport &amp; Main Roads Standard Specification MRS05, Unbound Pavements;</li> <li>(5) Department of Transport &amp; Main Roads Standard Specification MRS11, Sprayed Bituminous Surfacing; and</li> <li>(6) Department of Transport &amp; Main Roads Standard Specification MRS22, Supply of Cover Aggregate.</li> </ol>
<b>Traffic and Driveway Crossovers</b>	
<p><b>PO5</b></p> <p>Sites are managed during construction to minimise negative traffic impacts to existing roads.</p>	<p><b>AO5.1</b></p> <p>All site works are managed in accordance with Manual of Uniform Traffic Control Devices (MUTCD) Part 3, Works on Roads.</p>
<p><b>PO6</b></p> <p>Driveways are provided to a standard that protects community safety and the safe and efficient operation of transport networks.</p>	<p><b>AO6.1</b></p> <p>A driveway crossover to each lot is designed and constructed in accordance with the FNQROC Regional Development Manual, Standard Drawings.</p>
<b>Water Supply</b>	
<p><b>PO7</b></p> <p>Where lots are intended to be connected to a water supply, the design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.</p>	<p><b>AO7.1</b></p> <p>Design and construction of water supply systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D6, Water Reticulation.</p>

Performance outcomes	Acceptable outcomes
<b>Sewerage Infrastructure</b>	
<p><b>PO8</b></p> <p>Where lots are intended to be provided with reticulated sewerage, the design and construction is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.</p>	<p><b>A08.1</b></p> <p>Design and construction of sewerage systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D7, Sewerage System.</p>
<b>Service Conduits</b>	
<p><b>PO9</b></p> <p>The design and construction of the service conduits is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.</p>	<p><b>A09.1</b></p> <p>The design of service conduits is undertaken in accordance with FNQROC Operational Works Design Guidelines D8, Utilities.</p>

## 9.4.2 Reconfiguring a lot code

### 9.4.2.1 Application

This code applies where identified in the assessment criteria column of table 5.6.1 in part 5 of this planning scheme.

When using this code, reference should be made to section 5.3.

### 9.4.2.2 Purpose

- (1) The purpose of the reconfiguring a lot code is to provide for good subdivision design that:
  - (a) is consistent with the creation of connected, accessible, pleasant and safe communities; and
  - (b) promotes the efficient use and servicing of land.
- (2) The purpose of the code will be achieved through the following overall outcomes:
  - (a) development helps to create pleasant, safe and attractive living environments;
  - (b) the layout, size and dimensions of lots are suited to the intended use of the land including buildings, associated structures, vehicle access, parking and recreation areas;
  - (c) the design and layout of lots is responsive to the natural environment, including its topography, drainage flow paths, slope of the land, environmental and natural resource values;
  - (d) development meets the needs of the community for a range of different housing types;
  - (e) the orientation and layout of lots allows buildings to be positioned in a way that is suited to the local climate and to reduce demand for energy and water;
  - (f) public open spaces are well designed, centrally located and sufficient to meet the needs of the community;
  - (g) the street system provides for safe and convenient traffic flows and supports pedestrian and cyclist movement;
  - (h) development is logically coordinated to maximise the efficient use of transport, energy, water and sewage infrastructure.



### 9.4.2.3 Criteria for assessment

Table 9.4.2.3 (a) – Assessable development

Performance outcomes	Acceptable outcomes
<b>General</b>	
<p><b>PO1</b></p> <p>The layout of new lots:</p> <p>(1) responds to the site characteristics, including natural features, views and topography; and</p> <p>(2) minimises the need for earthworks.</p>	No acceptable solution is nominated.
<b>Accessible and Pleasant Residential Areas</b>	
<p><b>PO2</b></p> <p>The layout of new lots:</p> <p>(1) is easily accessible by people walking and cycling; and</p> <p>(2) is well connected to other facilities and township areas, including community facilities and public parks.</p>	No acceptable solution is nominated.
<p><b>PO3</b></p> <p>Street orientation, lot orientation and lot size facilitate development that conserves non-renewable energy sources and enhances climate responsiveness by:</p> <p>(1) optimising an east-west orientation for the long axis of street blocks or where north-south street orientation is unavoidable, proportioning lots to allow for appropriate building orientation; and</p> <p>(2) creating lots that are generally rectangular in shape.</p>	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
<p><b>PO4</b> Residential lots are not subjected to unreasonable nuisance noise and air quality impacts.</p>	<p><b>AO4.1</b> Residential lots are located more than:</p> <ol style="list-style-type: none"> <li>(1) 100m (straight line measurement) of existing or future air services, animal keeping, animal husbandry, cropping, emergency services, high impact industry, intensive animal industry, intensive horticulture, major electricity infrastructure, medium impact industry, major sport facility, renewable energy facility, service station, special industry, substation, telecommunications facility, transport depot and utility installation;</li> <li>(2) 1,000m (straight line measurement) of existing extractive industries involving blasting or crushing; and</li> <li>(3) 200m (straight line measurement) of existing extractive industries not involving blasting or crushing.</li> </ol>
<b>Safe Communities</b>	
<p><b>PO5</b> The design and layout of lots helps to make communities safe for residents and visitors by:</p> <ol style="list-style-type: none"> <li>(1) creating an interconnected grid street pattern;</li> <li>(2) avoiding the creation of rear lots except where necessary to gain access to traditional land by Traditional Owners;</li> <li>(3) providing public parks that are centrally located to maximise overlooking from nearby development; and</li> <li>(4) facilitating walking and cycling.</li> </ol>	<p>No acceptable solution is nominated.</p>
<b>Road Access</b>	
<p><b>PO6</b> Residential lots have road frontages that are of sufficient width to allow easy and safe access.</p>	<p><b>AO6.1</b> All lots, other than rear lots, have a minimum road frontage of 10m.</p>
<b>Lot Size and Dimensions</b>	
<p><b>PO7</b> Rear lots are established only where necessary in order to:</p> <ol style="list-style-type: none"> <li>(1) facilitate access to traditional land by Traditional Owners; or</li> <li>(2) avoid subdivision of land unsuitable for development, such as land affected by natural hazards.</li> </ol>	<p>No acceptable solution is nominated.</p>

Performance outcomes	Acceptable outcomes
<p><b>PO8</b></p> <p>Subdivision results in lots of a size, shape and orientation that allows for:</p> <ul style="list-style-type: none"> <li>(1) siting of a building required for the intended use;</li> <li>(2) front, rear and side building setbacks consistent with surrounding development;</li> <li>(3) on-site parking and private open space, including space for zarzars and outdoor kitchens for feasting, where required;</li> <li>(4) a mix of lot sizes to allow for small and large dwellings, dual occupancies and multiple dwellings; and</li> <li>(5) on-site sewage treatment where reticulated sewerage is not available.</li> </ul>	<p><b>AO8.1</b></p> <p><i>For all lots:</i></p> <p>Minimum lot size is in accordance with table 9.4.3.3 (b).</p> <p><b>AO8.2</b></p> <p><i>For rear lots:</i></p> <p>An access strip or easement is provided for access, which:</p> <ul style="list-style-type: none"> <li>(1) has a minimum width of 4m; and</li> <li>(2) has a maximum length of 40m.</li> </ul>
<b>Road Function and Layout</b>	
<p><b>PO9</b></p> <p>The road network accommodates the following primary functions:</p> <ul style="list-style-type: none"> <li>(1) access to lots;</li> <li>(2) social and activity space;</li> <li>(3) stormwater drainage paths;</li> <li>(4) utility services location; and</li> <li>(5) streetscape and landscaping.</li> </ul>	No acceptable solution is nominated.
<p><b>PO10</b></p> <p>Intersections along residential streets are spaced to create safe and convenient pedestrian movements.</p>	<p><b>AO10.1</b></p> <p>Block lengths are no greater than 100m.</p>

**Table 9.4.3.3 (b) – Minimum Lot Size**

Acceptable outcomes (AO)	
Environmental Management and Conservation Zone	10ha
Township Zone where reticulated sewerage is available.	300sqm
Township Zone where no reticulated sewerage is available.	2000sqm

### 9.4.3 Water quality and acid sulfate soils code

#### 9.4.3.1 Application

- (1) This code applies where identified in the assessment criteria column of tables 5.5.1, 5.5.2, 5.6.1 or 5.8.1, in part 5 of this planning scheme.
- (2) When using this code, reference should be made to section 5.3.

### 9.4.3.2 Purpose



- (1) The purpose of the water quality and acid sulfate soils code is to ensure that development effectively manages stormwater run-off and acid sulfate soils to protect the environmental values and quality of Torres Strait Island fresh and marine waters.
- (2) The purpose of the code will be achieved through the following overall outcomes:
  - (a) the environmental values of Torres Strait waterways, wetlands and marine areas are protected or enhanced;
  - (b) stormwater run-off does not reduce the quality of receiving waters, including waterways, wetlands and marine areas;
  - (c) stormwater is managed to ensure that the impacts of overland flow and flooding are not worsened for people or property;
  - (d) the natural flow regime, including flow paths and quantity, is maintained to the extent possible;
  - (e) potential negative impacts resulting from acid sulfate soils, erosion and sediment flow are avoided;
  - (f) stormwater, water quality and erosion control infrastructure is:
    - (i) provided in a cost effective and efficient manner; and
    - (ii) located and designed to minimise whole-of-lifecycle costs.


### 9.4.3.3 Criteria for assessment


Table 9.4.3.3 (a) – Assessable development

Performance outcomes	Acceptable outcomes
<b>Water Quality</b>	
<p><b>PO1</b></p> <p>Development contributes to the protection of environmental values of receiving waters and meets the water quality objectives nominated for the Torres Strait region during both construction and operation.</p>	<p><b>A01.1</b></p> <p><i>For development involving a site area of 2,500sqm or more, six or more residential lots, or six or more dwellings:</i></p> <p>Stormwater run-off leaving the development site complies with the stormwater quality objectives set out in table 9.4.3.3 (b) and 9.4.3.3 (c).</p>
<p><b>PO2</b></p> <p>The entry and transport of contaminants in stormwater or wastewater is avoided or minimised.</p>	<p>No acceptable outcomes are nominated.</p>

Performance outcomes	Acceptable outcomes
<p><b>PO3</b></p> <p>During construction and operation, development does not discharge wastewater into waterways unless:</p> <ol style="list-style-type: none"> <li>(1) it cannot practicably be avoided;</li> <li>(2) the wastewater discharge is minimised through re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater;</li> <li>(3) ecological processes, riparian vegetation, waterway integrity and downstream ecosystem health are maintained.</li> </ol> <p><b>Editor's Note</b> – To demonstrate achievement with this PO, a wastewater management plan (WWMP) and stormwater quality management plan (SQMP) prepared by a suitably qualified person may be required.</p>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO4</b></p> <p>Acid, iron, aluminium and other metals are not released into waterways through wastewater discharge.</p>	<p><b>AO4.1</b></p> <p>Wastewaters are managed so that:</p> <ol style="list-style-type: none"> <li>(1) the pH of any wastewater discharged is maintained between 6.5 and 8.5 to avoid mobilisation of acid, iron, aluminium and metals;</li> <li>(2) holding times of neutralised wastewaters ensures the flocculation and removal of any dissolved iron prior to release;</li> <li>(3) visible iron floc is not present in any discharge;</li> <li>(4) precipitated iron floc is contained and disposed of; and</li> <li>(5) wastewater and precipitates that cannot be contained and treated for discharge on site are removed and disposed of through trade waste and another lawful method.</li> </ol>
<b>Stormwater Drainage Design</b>	
<p><b>PO5</b></p> <p>Wherever practicable, natural drainage lines and associated natural hydraulic capacity are retained.</p>	<p><b>AO5.1</b></p> <p>All existing natural waterways and overland flow paths are retained.</p>
<p><b>PO6</b></p> <p>The stormwater drainage system maintains the pre-development velocity and quantity of run-off outside of the site and does not otherwise worsen or cause nuisance to adjacent upstream or downstream land.</p>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO7</b></p> <p>The stormwater drainage system is designed to function in the event of a minor system blockage.</p>	<p>No acceptable outcomes are nominated.</p>

Performance outcomes	Acceptable outcomes
<p><b>PO8</b> Roof and surface run-off is managed to prevent stormwater flows from entering buildings and to be directed to a lawful point of discharge.</p>	No acceptable outcomes are nominated.
<p><b>PO9</b> Where located within open space, stormwater devices or functions do not reduce the utility of that space for its intended recreational or ecological functions.</p>	No acceptable outcomes are nominated.
<p><b>PO10</b> The full extent of maintenance requirements and costs associated with devices used within the stormwater system are minimised.</p>	No acceptable outcomes are nominated.
<b>Port Services</b>	
<p><b>PO11</b> Development involving port services provides facilities for the handling and disposal of ship-sourced pollutants by:</p> <ol style="list-style-type: none"> <li>(1) providing common user facilities for the handling and disposal of ship-sourced pollutants including oil, garbage and sewage;</li> <li>(2) designing and operating the facilities to ensure the risk of spillage from operations is minimised;</li> <li>(3) storing appropriate equipment to contain and remove spillages in a convenient position near the facility that is available for immediate use; and</li> <li>(4) allowing for boats visiting the facility to make use of ship-sourced pollutants reception facilities.</li> </ol> <p> <b>Editor's Note</b> – Refer to: Australian and New Zealand Environment and Conservation Council (ANZECC), 1997, Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand.</p> <p> <b>Editor's Note</b> – Reception facilities require compliance assessment under the <i>Plumbing and Drainage Act 2002</i>. The plumbing compliance assessment process will ensure that the proposed facilities address 'peak load'.</p>	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
<b>Erosion Prevention and Sediment Control</b>	
<p><b>PO12</b> Development does not increase:</p> <ol style="list-style-type: none"> <li>(1) the concentration of total suspended solids or other contaminants in stormwater flows during site construction; and</li> <li>(2) run-off which causes erosion either on site or off site.</li> </ol> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p> <b>Editor's Note</b> – In order to demonstrate compliance with PO12-PO16, an erosion and sediment control plan prepared by a suitably qualified RPEQ (Registered Professional Engineer of Queensland), Certified Practising Soil Scientist (CPSS) or Certified Professional in Erosion and Sediment Control (CPESC) may be required. Such a plan should address the design parameters set out in table 9.4.3.3 (b) and 9.4.3.3 (c).</p> </div>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO13</b> Development avoids unnecessary disturbance to soil, waterways or drainage channels.</p>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO14</b> All soil surfaces are effectively stabilised against erosion.</p>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO15</b> The functionality of stormwater infrastructure is protected from the impacts of erosion, turbidity and sedimentation, both within and external to the development site.</p>	<p>No acceptable outcomes are nominated.</p>
<p><b>PO16</b> Areas outside the development site are not adversely impacted by erosion or sedimentation.</p>	<p>No acceptable outcomes are nominated.</p>

Performance outcomes	Acceptable outcomes
<p><b>Acid Sulfate Soils</b></p> <p><b>PO17</b> For development within an area identified as potentially affected by acid sulfate soils on the local plan maps in Schedule 2, the generation or release of acid and metal contaminants into the environment from acid sulfate soils is avoided by:</p> <ol style="list-style-type: none"> <li>(1) avoiding the disturbance of acid sulfate soils when excavating or otherwise removing soil or sediment, draining or extracting groundwater, excluding tidal water or filling land; or</li> <li>(2) where disturbance of acid sulfate soils can not be avoided, development: <ol style="list-style-type: none"> <li>(a) neutralises existing acidity and prevents the generation of acid and metal contaminants; and</li> <li>(b) prevents the release of surface or groundwater flows containing acid and metal contaminants into the environment.</li> </ol> </li> </ol> <div style="background-color: #e0e0e0; padding: 10px; margin-top: 20px;"> <p> <b>Editor's Note</b> – Where works are propose within an area identified as potentially affected by acid sulfate soils, it is likely that an onsite acid sulfate soils investigation will be required. Where acid sulfate soils can not reasonably be avoided, investigation results assist in the planning of treatment and remedial activities and must be undertaken in accordance with the Queensland Acid Sulfate Soil Technical Manual. Applicants should also refer to the Guidelines for Sampling Analysis of Lowland Acid Sulfate Soils in Queensland, Acid Sulfate Soils Laboratory Methods Guidelines or Australian Standard 4969. It is highly recommended that the applicant develop a practical Acid Sulfate Management Plan for use in monitoring and treating acid sulfate soils.</p> </div>	<p><b>AO17.1</b> Development does not involve:</p> <ol style="list-style-type: none"> <li>(1) excavating or otherwise removing 100 cubic meters or more of soil or sediment at or below 5m AHD;</li> <li>(2) permanently or temporarily extracting groundwater resulting in the aeration of of previously saturated acid sulfate soils; or</li> <li>(3) filling in excess of 500 cubic meters with an average depth of 0.5m or greater that results in: <ol style="list-style-type: none"> <li>(a) actual acid sulfate soils being moved below the water table; or</li> <li>(a) previously saturated acid sulfate soils being aerated.</li> </ol> </li> </ol>



**Table 9.4.3.3 (b) – Stormwater Management Design Objectives: Construction Phase**

Issue		Design Objective
Drainage control	Temporary drainage works	<ol style="list-style-type: none"> <li>(1) Design life and design storm for temporary drainage works:               <ol style="list-style-type: none"> <li>(a) Disturbed area open for &lt;12 months—1 in 2-year ARI event</li> <li>(b) Disturbed area open for 12–24 months—1 in 5-year ARI event</li> <li>(c) Disturbed area open for &gt; 24 months—1 in 10-year ARI event</li> </ol> </li> <li>(2) Design capacity excludes minimum 150 mm freeboard</li> <li>(3) Temporary culvert crossing—minimum 1 in 1-year ARI hydraulic capacity</li> </ol>
Erosion control	Erosion control measures	<ol style="list-style-type: none"> <li>(1) Minimise exposure of disturbed soils at any time</li> <li>(2) Divert water run-off from undisturbed areas around disturbed areas</li> <li>(3) Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil-loss rate or other acceptable methods</li> <li>(4) Implement erosion control methods corresponding to identified erosion risk rating</li> </ol>
Sediment control	Sediment control measures  Design storm for sediment control basins  Sediment basin dewatering	<ol style="list-style-type: none"> <li>(1) Determine appropriate sediment control measures using:               <ol style="list-style-type: none"> <li>(a) potential soil loss rate, or</li> <li>(b) monthly erosivity, or</li> <li>(c) average monthly rainfall</li> </ol> </li> <li>(2) Collect and drain stormwater from disturbed soils to sediment basin for design storm event:               <ol style="list-style-type: none"> <li>(a) design storm for sediment basin sizing is 80th% five-day event or similar</li> </ol> </li> <li>(3) Site discharge during sediment basin dewatering:               <ol style="list-style-type: none"> <li>(a) TSS &lt; 50 mg/L TSS, and</li> <li>(b) Turbidity not &gt;10% receiving waters turbidity, and</li> <li>(c) pH 6.5–8.5</li> </ol> </li> </ol>
Water quality	Litter and other waste, hydrocarbons and other contaminants	<ol style="list-style-type: none"> <li>(1) Avoid wind-blown litter; remove gross pollutants</li> <li>(2) Ensure there is no visible oil or grease sheen on released waters</li> <li>(3) Dispose of waste containing contaminants at authorised facilities</li> </ol>
Waterway stability and flood flow management	Changes to the natural waterway hydraulics and hydrology	<ol style="list-style-type: none"> <li>(1) For peak flow for the 1-year and 100-year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site</li> </ol>

**Table 9.4.3.3 (c) – Stormwater Management Design Objectives: Post Construction Works**

Issue	Design Objective	
Minimum reductions in mean annual load from unmitigated development (%)	Total suspended solids (TSS)	80 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total phosphorus (TP)	60 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total Nitrogen (TN)	40 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Gross pollutants > 5mm	90 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.