8 Overlays

8.1 Preliminary

(1) Overlays identify areas in the planning scheme that reflect state and local level interests and that have one or more of the following characteristics:
  (a) there is a particular sensitivity to the effects of development
  (b) there is a constraint on land use or development outcomes
  (c) there is the presence of valuable resources
  (d) there are particular opportunities for development.
(2) Overlays are mapped and included in Schedule 2.
(3) The changed category of development or assessment, if applicable, for development affected by an overlay are in Part 5.
(4) Some overlays may be included for information purposes only. This should not result in a change to the category of development or assessment or any additional assessment benchmarks.
(5) Assessment benchmarks for an overlay may be contained in one or more of the following:
  (a) a map for an overlay
  (b) a code for an overlay
  (c) a zone code
  (d) a local plan code
  (e) a development code.
(6) Where development is proposed on premises partly affected by an overlay, the assessment benchmarks for the overlay only relate to the part of the premises affected by the overlay.
(7) The overlays for the planning scheme are:
  (a) Acid sulfate soils
  (b) Airport environs
  (c) Biodiversity
  (d) Bushfire hazard
  (e) Coastal hazard
  (f) Extractive resources and minerals
  (g) Flood hazard
  (h) Hazardous activities
  (i) Heritage
  (j) Regional infrastructure
  (k) Scenic amenity
  (l) Steep land
  (m) Water resource catchment.
(8) The following overlays for the planning scheme without code(s) are:
  (a) Building height and frontages
  (b) Road hierarchy
(9) The following overlays for the planning scheme are for information purposes only:
  (a) Agricultural land classification
  (b) Historic mine sites
  (c) Mining lease
  (d) Stock routes and reserves
  (e) Transport noise corridor

8.2 Overlay codes

8.2.1 Acid sulfate soils

8.2.1.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Acid Sulfate Soils (ASS) overlay and applies to any areas identified on acid sulfate soils overlay map. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.1.2 Purpose

(1) The purpose of the acid sulfate soils overlay code is to ensure that development avoids or manages the risks and consequences associated with the disturbance of acid sulfate soils.
(2) The purpose of the acid sulfate soils overlay code will be achieved through the following overall outcome:
    (a) Development in potential acid sulfate soil areas is undertaken so that:
        (i) the disturbance of acid sulfate soils is avoided, or
        (ii) where disturbance is unavoidable, the generation or release of acid and metal contaminants from disturbed acid sulfate soils do not have adverse impacts on the natural and built environment or human health.

8.2.1.3 Assessment benchmarks

Table 8.2.1.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes
PO1 Development avoids disturbing acid sulfate soils or is managed to prevent the mobilisation and release of acid and metal contaminants. Note—The presence or absence of acid sulfate soils is required to be determined prior to the lodgement of a development application. The assessment must be undertaken in accordance with the Guidelines for Sampling and Analysis of lowland acid sulfate soils in Queensland 1998 that forms a part of the Queensland Acid Sulfate Soil Technical Manual. Note—Applicants proposing to disturb acid sulfate soils will be required to engage specialists to provide detailed investigations into the above matters and provide an Acid sulfate soil management plan in order to demonstrate compliance with this performance criterion.	**AO1.1** The disturbance of acid sulfate soils is avoided by: (a) not excavating or otherwise removing soil or sediment identified as containing acid sulfate soils (b) not permanently or temporarily extracting groundwater that results in the oxygenation of previously saturated acid sulfate soils (c) not undertaking filling that results in: (i) actual acid sulfate soils being moved below the water table (ii) previously saturated acid sulfate soils being aerated. OR The disturbance of acid sulfate soils prevents the mobilisation and release of acid and metal contaminants by: (a) neutralising existing acidity and preventing the generation of acid and metal contaminants using strategies documented in the *Queensland Acid Sulfate Soil Technical Manual*, and (b) preventing the release of surface or groundwater flows containing acid and metal contaminants into the environment, and (c) preventing the in situ oxidation of acid sulfate soils through groundwater level management, and (d) documenting management strategies

Performance outcomes	Acceptable outcomes
	and reporting requirements in an acid sulfate soils environmental management plan.
	AO1.2 Acid sulfate soils undergo appropriate treatment before disposal whether or not that disposal occurs offsite.

8.2.2 Airport environs

8.2.2.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Airport environs overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.2.2 Purpose

(1) The purpose of the Airport Environs overlay code is to:
  (a) protect the ongoing operation of Gladstone's strategic airport and aviation facilities
  (b) minimise safety risks to aircraft operations for the Gladstone Airport and aviation facilities
  (c) ensure current and future airport operations are not adversely impacted upon by inappropriate development and land uses
  (d) maintain reasonable levels of amenity for development surrounding the Gladstone Airport.

(2) The purpose of the code will be achieved through the following overall outcomes:
  (a) development protects the safety of aircraft and aviation facilities operating within an airport's operational airspace
  (b) development does not increase the risk to public safety near airport runways
  (c) development including any buildings or intrusions do not encroach above the Obstacle Limitation Surface (OLS)
  (d) development protects aviation facilities including navigation, communication and surveillance equipment and facilities from incompatible intrusions, land uses, buildings, structures and works
  (e) development does not generate air emissions, attract wildlife or generate inappropriate lighting that compromises aircraft safety
  (f) development mitigates adverse impacts of aircraft noise and is compatible with forecast levels of aircraft noise within the Australian Noise Exposure Forecast (ANEF) contours.

Note—Aviation facilities include navigation, communication, or surveillance installations provided to assist the safe and efficient movement of aircraft and may be located either on or off airport. These are included within the OLS mapping within the Transitional Surface, Approach and Departure Surfaces (for the Instrument Landing System) and the Aviation Facilities delineation.

Note—The operational airspace refers to the area which the full extent of the Airport Overlay applies, namely to the outer edge of the Outer Horizontal Obstacle Limitation Surface.

8.2.2.3 Assessment benchmarks

Table 8.2.2.3.1—Assessable development

Performance outcomes	Acceptable outcomes
Obstructions and hazards	
PO1 Development (including any associated permanent or temporary structures and landscaping) does not cause a permanent or temporary physical or transient obstruction to the safe movement of aircraft within the airport's operational airspace.	**AO1.1** Buildings, structures (both free standing and attached to buildings, including signs, masts or antennae) and vegetation at its mature height do not penetrate the Obstacle Limitation Surface (OLS) as identified on Airport Environs Overlay Map.
	AO1.2 Cranes and other construction equipment or activities do not penetrate the Obstacle Limitation Surface (OLS) as identified on Airport Environs Overlay Map.

Performance outcomes	Acceptable outcomes
	AO1.3 Transient activities associated with development such as parachuting, hot air ballooning and hang–gliding will not occur within the airport's operational airspace.
Lighting and reflective surfaces	
PO2 Development does not cause an obstruction or hazard to the safe movement of aircraft within an airport's operational airspace through the installation of external lighting that could distract or interfere with a pilot's vision, or confuse the visual identification of a runway approach or navigational lighting from the air.	**AO2.1** Within the Approach and Departure Surfaces, Transitional Surface and Inner Horizontal Surface, outdoor lighting (including street lighting and security lighting) does not involve any of the following: (a) straight parallel lines of lighting 500m to 1000m in length (b) lighting that shines, projects or reflects light above a horizontal plane (c) coloured, flashing or sodium lighting (d) flare plumes (e) buildings with reflective cladding (f) laser lights.
	AO2.2 Street Lighting and Outdoor Lighting complies with *AS4282–1997 Control of Obstructive effects of Outdoor Lighting*.
Emissions	
PO3 Development does not significantly increase air turbulence, reduce visibility or cause an obstruction or hazard to the safe movement of aircraft within an airport's Obstacle Limitation Surface (OLS) (Inner and Outer), Transitional Surface or Approach and Departure Limitation Surface as identified on Airport Environs Overlay Map through the emission of particulates, gasses or other materials.	**AO3** Development does not generate: (a) gaseous plumes with a velocity exceeding 4.3m per second (b) smoke, dust, ash or steam that will penetrate the Obstacle Limitation Surface (OLS) (Inner and Outer), Transitional Surface or Approach and Departure Limitation Surface as identified on Airport Environs Overlay Map, or (c) emissions with depleted oxygen content.
Wildlife hazards	
PO4 Development does not cause wildlife to create an obstruction or hazard to the safe movement of aircraft within an airport's operational airspace through the attracting of a significant number of wildlife, in particular birds and bats.	**AO4.1** Development located within 3km of the airport's runway as identified on Airport environs overlay map does not involve uses listed in column 1 of Table 8.2.2.3.2 which are associated with increases in wildlife strikes.
	AO4.2 Development located within 3km of the airport's runway as identified on Airport environs overlay map, involving a use listed

Performance outcomes	Acceptable outcomes
	in column 2 of Table 8.2.2.3.2 include measures to reduce the potential to attract birds and bats, including covering potential food sources and bird scarers or netting (rural activities).
	AO4.3 Development located between 3km and 8km of the airport's runway as identified on Airport Environs Overlay Map, involving a use in either column 1 or column 2 of Table 8.2.2.3.2 includes measures to reduce the potential to attract birds and bats, including covering potential food sources and bird scarers or netting (rural activities).
	AO4.4 Development located between 8km and 13km of the airport's runway as identified on Airport Environs Overlay Map involving a use in either column 1 or column 2 of Table 8.2.2.3.2 does not increase the potential to attract birds and bats.
PO5 Landscaping and drainage works (including artificial water bodies) for development within the Transitional Surface as identified on Airport Environs Overlay Map are designed and located to avoid attracting birds and bats (e.g. avoidance of fruiting and/ or flowering plant species).	No acceptable outcome is nominated.
Aviation facilities	
PO6 Development does not interfere with the function of aviation facilities or the approach and departure surfaces.	**AO6.1** Development located within the building restricted area for an aviation facility, an approach surface or a departure surface does not create: (a) permanent or temporary physical obstructions in the line of sight between antennas (b) permanent or temporary physical intrusion through an approach surface or departure surface (c) an electrical or electromagnetic field that will interfere with signals transmitted by: (i) the aviation facility; or (ii) an air service related device within the approach surface or departure surface (d) reflective surfaces that could deflect or interfere with signals transmitted by: (i) the aviation facility; or (ii) an air service related device within the approach surface or

Performance outcomes	Acceptable outcomes
	departure surface. OR **AO6.2** Development located within the building restricted area for an aviation facility, an approach surface or a departure surface is designed and constructed to mitigate the adverse impacts on the function of the aviation facility, the approach surface or the departure surface.
Airport public safety areas	
PO7 Development within the public safety areas located at the end of the airport runway avoids: (a) a significant increase in the number of people living, working or congregating in those areas, and (b) the use or storage of hazardous materials.	**AO7** Development within the public safety areas, as identified on the Airport Environs Overlay Map, does not involve: (a) residential or sensitive land uses (b) any new building or increase in GFA for any existing business, industrial, community, sport and recreation uses or other non–residential use, or (c) any uses involving the production, manufacture or bulk storage of flammable or hazardous materials or goods.
Noise	
PO8 Development is: (a) appropriately located and designed to prevent adverse impacts from aircraft noise (b) compatible with the forecast levels of the aircraft noise identified in Table 8.2.2.3.3 unless there: (i) is an overriding need in the public interest, and (ii) is not a reasonable alternative site available for the use, and (iii) are noise attenuation measures such as double glazing, mechanical ventilation and concrete masonry external walls. Note—Where the acceptable outcomes cannot be met, an appropriately qualified acoustic practitioner may be required to be	**AO8.1** Reconfiguring a lot does not occur within the Australian Noise Exposure Forecast (ANEF) 25 - 30 or 30 - 35 contour area as identified on the Airport Environs Overlay Map. **AO8.2** Within the Australian Noise Exposure Forecast (ANEF) 30 - 35 contour area, as identified on the Airport Environs Overlay Map development does not include the following uses: (a) accommodation activities (except Non–resident workforce accommodation), or (b) educational establishment, or (c) hospital, or (d) community activities, or (e) business activities (except office), or (f) recreational activities, or (g) entertainment activities.

Performance outcomes	Acceptable outcomes
engaged in order to demonstrate compliance with this performance outcome.	**AO8.3** Within the Australian Noise Exposure Forecast (ANEF) 25 - 30 contour area, as identified on the Airport Environs Overlay Map development is a minimum of 500m from the airport's runway and must achieve compliance with the indoor design level requirements of Table 8.2.2.3.3.

Table 8.2.2.3.2—Land uses associated with increases in wildlife strikes and hazards

Column 1 High risk	Column 2 Moderate risk
Rural activities: (a) cropping (turf farm) (b) cropping (fruit tree farm) (c) intensive animal industry (piggery) (d) aquaculture (fish processing/packing plant) (e) animal keeping, where involving wildlife or bird sanctuary. **Conservation**: (f) conservation estate (e.g. wetland). **Recreation activities**: (g) major sport, recreation, entertainment facility (showground, including pyrotechnic displays). **Industry activities**: (h) low–impact industry (food processing plant, stock handling and slaughtering) (i) high–impact industry (food processing plant, stock handling and slaughtering). **Utility installation**: (j) food/organic waste facility (k) putrescible waste facility (e.g. landfill, transfer station).	**Rural activities**: (a) animal husbandry (cattle/dairy farm) (b) intensive animal industry (poultry farm). **Conservation**: (c) conservation estate (all other). **Recreation activities**: (d) major sport, recreation and entertainment facility (all other, including racecourse) (e) outdoor sport and recreation (f) park (g) outdoor food and drink outlet with outdoor dining. **Utility installation**: (h) non–putrescible waste facility (e.g. landfill, transfer station) (i) Sewage/wastewater treatment facility.

Table 8.2.2.3.3—Desirable indoor design sound levels for building type and land uses

Land use	**Location within development**	**Indoor design sound level dB(A)**
Accommodation activities (dwelling houses, multiple dwellings, tourist parks) Residential care facilities	Sleeping areas	50
	Other habitable	55
	Bathrooms, toilets, laundries	60
Short–term accommodation Hotels Rooming Accommodation	Sleeping areas	55
	Social activities	70
	Service activities	75
Educational establishments Child care centres	Libraries Classrooms, study areas	50

Land use	Location within development	Indoor design sound level dB(A)
	Sleeping areas	
	Teaching area, assembly areas	55
	Workshop, gymnasia	75
Hospitals Health care services	Wards, theatres, treatment and consulting rooms	50
	Laboratories	65
	Service areas	75
Community uses	Places of worship, Court houses, libraries, galleries	50
	Theatres, cinemas, recording studios	40
Offices	Private offices, conference rooms	55
	Open offices	65
Shops		75
Showrooms		75
Industrial	Inspection, analysis, precision work	75
	Light machinery, assembly, bench work	80
	Heavy machinery, warehouse, maintenance	85

8.2.3 Biodiversity

8.2.3.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the biodiversity overlay code and applies to any of the following areas identified on the overlay maps:

(1) Matters of State Environmental Significance (MSES) overlay maps:
  (a) MSES – regulated vegetation (intersecting a watercourse)
  (b) MSES – high ecological value waters
  (c) MSES – high ecological value waters (wetland)
  (d) MSES – wild rivers (high preservation area)
  (e) MSES - 'high ecological significance' wetlands
  (f) MSES – wildlife habitat
  (g) MSES - regulated vegetation
  (h) MSES – protected area
  (i) MSES – declared fish habitat
  (j) MSES – marine park
  (k) MSES – legally secured offset area

When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.3.2 Purpose

(1) The purpose of the biodiversity overlay code is to:
  (a) Protect and enhance matters of national (MNES) and state environmental significance (MSES) and their associated ecological processes and biodiversity values.
  (b) Maintain or enhance the health and resilience of biodiversity to support ecological integrity.
  (c) Maintain or enhance ecological connectivity to preserve fauna movement, habitat values, remnant vegetation and ecological processes.
  (d) Protect and enhance water quality, ecosystem health and the natural hydrological functioning of waterways, wetlands and their riparian areas and buffers.
  (e) Protect, rehabilitate and manage coastal natural resources, biodiversity and ecosystem services values.
(2) The purpose of the code will be achieved through the following overall outcomes:
  (a) Development avoids adverse impacts on matters of state environmental significance (MSES) and matters of national environmental significance (MNES) and their associated ecological processes and biodiversity values, unless:
    (i) it is demonstrated that MNES or MSES do not exist on the site, or
    (ii) where adverse environmental impacts cannot be avoided, impacts are minimised and an environmental offset is provided for any residual adverse impacts and a net environmental benefit is achieved.
  (b) Development avoids direct and indirect impacts resulting in species or habitat loss or disturbance, soil degradation or pollution due to vegetation clearing, erosion and contamination, acidification, salinity, waste disposal or modification to natural processes.
  (c) Fragmentation of remnant vegetation, ecological corridors and existing habitat is avoided to maintain ecological function and biodiversity values and to maintain or increase the resilience of ecosystems and habitat to threatening processes, including the impacts of climate change.
  (d) A network of connecting corridors and linkages between areas supporting MNES, MSES, wetlands, waterways, remnant vegetation, habitat areas and other natural areas are maintained, created or restored, including provision for continuous links from the coast to upper catchments.
  (e) Development including infrastructure, is designed and located to maintain and enhance continuity of wildlife movement (including fish passage) and ecological processes for terrestrial and aquatic species.

(f) The hydrological regime of wetlands and waterways is protected and rehabilitated.
(g) Development avoids encroachment or expansion into sensitive terrestrial or aquatic habitats along the foreshore or riparian areas unless it is for management of public access, recreation, public use or other public benefit.
(h) Development maintains sustainable community access to beaches, waterways, national parks and other land in protected area estates.
(i) Development incorporates and maintains an appropriate buffer in accordance with minimum best practice distances so as to avoid adverse impacts.
(j) Development maintains or enhances the scenic amenity of important natural coastal landscapes, views and vistas.

8.2.3.3 Assessment benchmarks

Table 8.2.3.3.1— Accepted development subject to requirements and assessable development

Editor's note—For specified accepted development subject to requirements community infrastructure, only the Wetland Protection Area provisions of the code apply.

Performance outcomes	Acceptable outcomes
Environmental protection and buffering	
PO1 Development maintains and protects MNES (Matters of National Environmental Significance) and MSES (Matters of State Environmental Significance) by: (a) locating in areas that avoid adverse impacts on MNES and MSES, or (b) where adverse environmental impacts cannot be avoided, impacts are minimised and an environmental offset is provided for any residual adverse impacts, and (c) the underlying ecological processes and biodiversity values of MNES and MSES are maintained or enhanced. Note—For MNES, consideration must be given to the requirements of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Note—To assist in demonstrating achievement of this performance outcome, a detailed environmental and ecological assessment to confirm the extent and nature of values is required to be undertaken by applicants.	**AO1** Development locates outside of an area supporting MSES.
PO2 Development is setback from and provides an adequate vegetated buffer to significant vegetation, habitats and areas containing MSES in order to: (a) protect these areas and their values from threatening processes (b) avoid edge effects such as undesirable microclimate effects and threats from non–native or pest fauna or flora, and	**AO2** A buffer extending from the outside edge of an area of MSES is provided and has a minimum width of: (a) 200m where located outside an urban area, or (b) 50m where located within an urban area.

Performance outcomes	Acceptable outcomes
(c) maintain and enhance ecological connectivity. Note—Any setbacks or other areas required for bushfire management, safety, recreation, maintenance or any other purpose are provided in addition to a vegetated buffer provided for ecological and environmental protection purposes. Note—An alternative buffer width may be proposed where buffers for significant species and ecological communities, including areas of habitat for listed threatened and migratory species, are based on best practice and current scientific knowledge of individual species requirements and supported by an ecological assessment. Other legislation, including the Nature Conservation Act and EPBC Act may establish other requirements with which applicants must comply.	
PO3 Development within 500m of turtle nesting beaches is located, designed and operated to: (a) protect the habitat values of the rookery for turtle breeding (b) maintain a vegetated buffer adjacent to the beach (c) ensure access to the beach nesting area is managed in a way that protects a turtle nesting area, and (d) ensure lighting does not impact on the ecological and habitat values of turtle nesting areas and rookery.	**AO3.1** Development within 500m of a turtle nesting beach ensures any lighting: (a) does not spill onto beach areas (b) is on a structure no higher than 8.5m (c) is directed away from the beach, and (d) includes characteristic wavelengths that will not affect turtles. **AO3.2** Development is setback from and maintains at least a 200m wide vegetated buffer to turtle nesting beaches. The buffer is maintained in a natural state and is kept free from development.
Wetland and waterway buffers	

Performance outcomes	Acceptable outcomes
PO4 An adequate buffer to a wetland in a wetland protection area is provided and maintained to: (a) protect and enhance habitat values, connectivity and other ecological processes and values (b) protect water quality and aquatic conditions (c) maintain natural micro–climatic conditions (d) maintain natural hydrological processes (e) prevent mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding, and (f) prevent loss or modification of chemical, physical or biological properties or functions of soil. Note—Any setbacks or areas required for bushfire management, safety, recreation, maintenance or any other purpose, are provided in addition to a vegetated buffer provided for ecological purposes.	**AO4** A development free buffer surrounding a wetland in a wetland protection area is provided and has a minimum width of: (a) 200m where the wetland is located outside an urban area, or (b) 50m where the wetland is located within an urban area. Note—To avoid conflict, where a development requires multiple buffers to be established by this code to protect waterways, ecological corridors, wetlands or MSES, the greatest distances required by this code will prevail to the extent of any inconsistency.
For all assessable development	
PO5 Alterations to natural landforms, hydrology and drainage patterns do not adversely impact on areas containing MSES.	No acceptable outcome is nominated.
PO6 Development retains and enhances riparian vegetation along watercourses and drainage corridors, and vegetation along timbered ridgelines.	No acceptable outcome is nominated.
PO7 Buffering, rehabilitation or restoration, protects and enhances MSES and their underlying ecological processes, habitat and biodiversity values by: (a) using site appropriate and locally occurring native species (b) replicating as far as practicable, the species composition and structural components of healthy remnant vegetation and associated habitats, including understorey vegetation, and (c) excluding environmental weeds, declared plants and other non–native plants likely to displace native flora or fauna species or degrade habitat Note—To assist in demonstrating achievement of this performance outcome, an	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
ecological assessment and rehabilitation plan is undertaken by the applicant.	
PO8 Degraded areas supporting MSES or other environmental values important to the maintenance of underlying ecological processes required to maintain biodiversity, are rehabilitated as near as is practical to the naturally occurring state of native plant species and ecological communities.	No acceptable outcome is nominated.
PO9 Development: (a) avoids the introduction of pest species (plant or animal) that pose a risk to the ecological integrity and biodiversity values of MSES, and (b) includes appropriate pest management practices to control any existing threat of pest species in a way that provides for the long term ecological integrity of MSES.	No acceptable outcome is nominated.
Significant species, wildlife nesting and breeding areas	
PO10 Development avoids direct and indirect impacts on significant ecological communities and significant species and their habitats, including disturbance from the presence of vehicles, pedestrian use, increased exposure to domestic animals and noise and lighting impacts. Note—To assist in demonstrating achievement of this performance outcome, a detailed environmental and ecological assessment to identify any significant species or communities that may be impacted by development, is undertaken by applicants.	No acceptable outcome is nominated.
PO11 Areas of habitat that support a critical life cycle stage such as feeding, breeding or roosting or ecological function for threatened species, ecological communities or migratory species are protected and not impacted by development.	No acceptable outcome is nominated.
Ecological corridors	
PO12 Development protects ecological corridors, enhances ecological connectivity to habitats on and/or adjacent to the site. Ecological corridors and habitat linkages have dimensions and characteristics to support: (a) ecological processes and functions that	**AO12.1** Development does not occur in an ecological corridor. **AO12.2** No acceptable solution is nominated where in

Performance outcomes	Acceptable outcomes
enable the natural change in distributions of species and provide connectivity between populations of species over long periods of time (b) ecological responses to climate change (c) connectivity between large tracts and patches of remnant vegetation, habitat areas and areas supporting MNES and MSES, and (d) effective and unhindered day–to–day and seasonal movement of avian, terrestrial and aquatic fauna.	an urban residential zone or centre zone. In all other zones including the Rural Zone, Environmental Management Zone, Conservation Zone, all Industry Zones, Emerging Community Zone and Limited Development Zone: Where an ecological corridor is intended to facilitate fauna movement, access or use of an area supporting MNES or MSES, the ecological corridor is maintained and restored to achieve a minimum width of 350m consisting of: (a) a 250m wide core corridor to support avian species and most arboreal mammals, and (b) a 50m wide vegetated buffer extending from the outside edges on both sides of the core corridor.
PO13 Isolated habitat areas are linked by a continuous corridor to provide effective ecological connectivity and to create additional linkages along waterways, wetlands, drainage lines, ridgelines, coastlines and other areas where possible.	**AO13** Development provides a continuous corridor having a minimum width of 100m linking areas of protected vegetation to each other and other vegetation areas off–site.
PO14 Development facilitates the unimpeded use and movement of terrestrial and aquatic fauna accessing the site or likely to use an ecological corridor as part of their normal life cycle by: (a) ensuring that development (e.g. roads, pedestrian access, in–stream structures) during both construction and operation does not create barriers to the movement of fauna along or within ecological corridors (b) providing wildlife movement infrastructure where necessary and directing fauna to locations where wildlife movement infrastructure has been provided to enable fauna to safely negotiate a development area, and (c) separating fauna from potential hazards through the use of appropriate barriers, fencing and buffers.	No acceptable outcome is nominated.
Monitoring	
PO15 During construction and operation of development, ongoing management, monitoring and maintenance is undertaken to ensure impacts on areas supporting MNES or MSES and their underlying ecological processes and biodiversity values are	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
avoided or minimised. Note—Compliance with this requirement can be achieved by preparing a Monitoring and Remediation Plan in accordance with best practice. Where necessary, remedial action is identified and carried out on land managed by the entity carrying out the development.	
Environmental offsets	
PO16 Where it is not possible to avoid adverse impacts on MSES and development has minimised adverse impacts to the greatest extent possible, development provides an offset for any significant residual impact in accordance with the *Queensland Environmental Offset Policy 2014*.	No acceptable outcome is nominated.
Wetland protection area	
PO17 Development is not carried out in a wetland in a wetland protection area, unless there are no feasible alternatives.	**AO17.1** Development is not carried out: (a) in a wetland in a wetland protection area, or (b) within an alternative mapped boundary of a wetland in a wetland protection area, as shown in a site assessment prepared in accordance with the *Department of Environment and Heritage Protection Queensland Wetland Definition and Delineation Guidelines* (or current version). OR **AO17.2** Where AO17.1 cannot be achieved, development is to comply with PO17 – PO26. OR **AO17.3** Where AO17.1 or AO17.2 cannot be complied with, an environmental offset as described in PO27, is provided.
Wetland and waterway buffers	

Performance outcomes	Acceptable outcomes
PO18 An adequate buffer to a waterway is provided and maintained to: (a) protect and enhance habitat values, connectivity and other ecological processes and values (b) protect water quality and aquatic conditions (c) maintain natural micro–climatic conditions (d) maintain natural hydrological processes (e) prevent mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion or scalding, and (f) prevent loss or modification of chemical, physical or biological properties or functions of soil. Note—Any setbacks or areas required for bushfire management, safety, recreation, maintenance or any other purpose, are provided in addition to a vegetated buffer provided for ecological purpose	No acceptable solution is nominated where in an urban residential zone or centre zone. **AO18** In all other zones including the Rural Zone, Environmental Management Zone, Conservation Zone, all Industry Zones, Industry Investigation Zone, Emerging Community Zone and Limited Development Zone: Other than where cropping for forestry for wood production, a vegetated and development free buffer is provided and maintained extending from the high bank of the waterway or plan position of a waterway (whichever is the greater) and with a minimum width of: (a) stream order 1 or 2: 25m, or (b) stream order 3 or 4: 50m, or (c) stream order 5 and above: 100m. Note—Stream order is mapped on Fish habitat area mapping in OM.
Wetland hydrology and stormwater management	
PO19 The existing surface water hydrological regime of the wetland protection area (including the area of the wetland) is enhanced or maintained. Note—The hydrological regime of surface waters includes: • peak flows • volume of flows • duration of flows • frequency of flows • seasonality of flows • water depth (seasonal average) • wetting and drying cycle.	**AO19.1** Development must: (a) provide a net ecological benefit and improvement to the environmental values and functioning of a wetland in a wetland protection area, or (b) rehabilitate the existing hydrological regime, or restore the natural hydrological regime of a wetland in a wetland protection area. OR **AO19.2** If the development cannot enhance existing values in accordance with AO19.1, development does not change the existing surface water hydrological regime of a wetland in a wetland protection area, including through channelisation, redirection or interruption of flows. OR **AO19.3** If AO19.1 or AO19.2 cannot be complied with, the extent of any change to the existing surface water hydrological regime is minimised to ensure the wetland values and functioning are protected. The change is

Performance outcomes	Acceptable outcomes
	minimised if, at least: (a) there is no change to the reference high–flow duration and low–flow duration frequency curves, low–flow spells frequency curve and mean annual flow to, and from, the wetland (b) any relevant stream flows into the wetland comply with relevant environmental flow objectives (EFOs) of the applicable water resource plan under the *Water Act 2000* for the area for development resulting in an increase to the velocity or volume of stormwater flows into the wetland – the collection and reuse of stormwater occurs in accordance with (a) and (b).
PO20 The existing groundwater hydrological regime of the wetland protection area (including the area of the wetland) is enhanced or protected.	**AO20.1** The water table and hydrostatic pressure in the wetland protection area are returned to their natural state. OR **AO20.2** If AO20.1 cannot be complied with: (a) the water table and hydrostatic pressure within the wetland protection area is not lowered or raised outside the bounds of variability under pre–development conditions, and (b) the ingress of saline water into freshwater aquifers is prevented. Note—Groundwater modelling is recommended where groundwater hydrology for a wetland in a wetland protection area represents a significant environmental constraint for, and interference is proposed by, the proposed development.
PO21 During construction and operation of development in a wetland in a wetland protection area: (a) the wetland is not used for stormwater treatment, and (b) the buffer and water quality values of the wetland are protected from stormwater impacts.	**AO21** Development does not result in any measurable change to the quantity or quality of stormwater entering a wetland in a wetland protection area during construction and operation. Note—Measurable Change is to be determined by comparing the overall development impact with existing baseline (pre–development) conditions, and should not exceed reference environmental values or be inconsistent with water quality objectives provided under the *Environmental Protection (Water) Policy 2009*, the *Urban Stormwater Quality Planning Guidelines 2010*, or other relevant supporting technical reference documents as outlined in the

Performance outcomes	Acceptable outcomes
	guidelines.
Wetland ecological values	
PO22 Development involving the clearing of vegetation protects the biodiversity, ecological values and processes, and hydrological functioning of a wetland in a wetland protection area, including: (a) water quality values (b) aquatic habitat values (c) terrestrial habitat values (d) usage of the site by native wetland fauna species or communities.	**AO22** Vegetation clearing undertaken as a consequence of development does not occur in: (a) a wetland in a wetland protection area, or (b) a buffer area for a wetland as described in PO18.
PO23 Development avoids land degradation in a wetland protection area, including: (a) mass soil movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding (b) loss or modification of chemical, physical or biological properties or functions of soils.	**AO23.1** Development is not carried out in: (a) a wetland in a wetland protection area, or (b) a buffer area for a wetland as described in PO18. OR **AO23.2** Based on the prevailing soil and slope characteristics for the development area, all reasonable and practical measures are implemented to establish development specific engineering designs and solutions for the horizontal and vertical alignment of infrastructure, so as to avoid land degradation in a wetland protection area. AND **AO23.3** Filling and excavation operations are carried out, and an erosion and sediment control plan is prepared, and implemented, to minimise land degradation in a wetland protection area.
PO24 Development in a wetland protection area ensures that any existing ecological corridors are enhanced or protected and have dimensions and characteristics that will: (a) effectively link habitats on or adjacent to the site (b) facilitate the effective movement of terrestrial and aquatic fauna accessing or using a wetland as habitat.	**AO24.1** Development in a wetland protection area does not occur within an existing ecological corridor. OR **AO24.2** If AO24.1 cannot be complied with and an ecological corridor is required to facilitate fauna movement: (a) an alternative ecological corridor with an appropriate width is provided and maintained in accordance with the *Wetland Rehabilitation Guidelines for the Great Barrier Reef Catchment, Department of Environment and*

Performance outcomes	Acceptable outcomes
	Heritage, 2008, or (b) the design, construction and operation of development does not impede movement of fauna that may use, is likely to use or may move through a wetland in a wetland protection area as part of their normal life cycle.
PO25 Development does not result in the introduction of non–native pest plants or animals that pose an increased risk to the ecological values, integrity and processes of a wetland in a wetland protection area. In particular: (a) pest dispersal prevention measures are provided in appropriate locations to manage the threat of pest species to a wetland in a wetland protection area, and (b) any pest dispersal prevention measures do not result in a barrier or hazard to the movement of wetland fauna in the wetland protection area.	**AO25.1** Existing non–native pest plants or animals are removed or their threat is controlled by adopting pest management practices that provide for the long–term function of a wetland in a wetland protection area. AND **AO25.2** Development does not result in the introduction of any non–native or pest species in a wetland in a wetland area.
PO26 During construction and operation of development in a wetland protection area, wetland fauna are protected from impacts associated with noise, light or visual disturbance.	**AO26.1** Development in a wetland protection area does not result in noise, light or visual disturbance impacts on wetland fauna, during construction and operation. OR **AO26.2** Where AO26.1 cannot be complied with, an assessment of adverse impacts of the development in a wetland protection area on wetland fauna from the impacts of noise, light or visual disturbance is carried out by a qualified ecologist or equivalent, and recommendations for mitigation of these impacts are identified and implemented.
Environmental offsets	
PO27 For development, where it is not possible to enhance existing values or avoid adverse effects or alternatively minimise adverse effects any remaining environmental impacts are offset in accordance with the *Queensland Environmental Offset Policy 2014.*	**AO27** Where environmental offsets are required in this code, they must be provided in accordance with the *Queensland Environmental Offset Policy 2014*.
Monitoring	
PO28 Development is monitored to ensure environmental values of a wetland in a wetland protection area are maintained.	**AO28.1** A monitoring plan for development construction is prepared and implemented to monitor the effects of development on the ecological and hydrological functioning of a wetland in a wetland protection area.

Performance outcomes	Acceptable outcomes
	AND **AO28.2** Remedial action is carried out on land managed by the entity carrying out the development, where monitoring determines that compliance with the acceptable outcomes is not achieving the relevant policy outcome.

8.2.4 Bushfire hazard

8.2.4.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the bushfire hazard overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.4.2 Purpose

(1) The purpose of the bushfire hazard overlay code is to ensure that:
   (a) The risks to life, property, community, economic activity and the environment during uncontrolled bushfire events are minimised.
   (b) Development does not increase the potential for bushfire damage or risk on–site or to other property.

   Note—Relationship with the building assessment provisions. For the building assessment provisions, the bushfire prone area defined by this planning scheme under map is also designated to be the bushfire prone area for the BCA or QDC pursuant to section 12 of the *Building Regulation 2006*.

(2) The purpose of the code will be achieved through the following overall outcomes:
   (a) Development is compatible with the nature of the bushfire hazard except where there is an overriding need for the development in the public interest and no other site is suitable and reasonably available for the proposal.
   (b) Development siting, layout, design and access minimises the risks to personal safety, and damage to property, infrastructure and other assets.
   (c) Development directly, indirectly and cumulatively avoids an unacceptable increase in severity of bushfires and does not increase the potential for damage on the site or to other properties.
   (d) The potential for the release of hazardous material as a result of a bushfire event is avoided.
   (e) Evacuation and disaster management response including firefighting and access for emergency services during bushfire events is facilitated.
   (f) Community infrastructure is located and designed to function effectively at all times.

8.2.4.3 Assessment benchmarks

Table 8.2.4.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes
Site suitability	
PO1 Development maintains the safety of people and property by not exposing them to an unacceptable risk from bushfire. Note—A site specific bushfire hazard assessment may demonstrate that the site is not within a bushfire hazard area or has a low degree of bushfire risk.	No acceptable outcome is nominated.
PO2 Development does not result in a higher concentration of people living, working or congregating in a high or very high bushfire hazard area unless it can be demonstrated: (a) there is an overriding community need in the public interest, and (b) no other site is suitable and reasonably	**AO2** The following uses are not located on land within a confirmed medium, high or very high bushfire hazard area: (a) child care facility (b) community care centre (c) educational establishment (d) rooming accommodation

Performance outcomes	Acceptable outcomes
available. Note—A 'medium, high or very high bushfire risk hazard area' means land mapped on the bushfire overlay map as having medium, high or very high potential bushfire risk.	(e) hospital (f) multiple dwelling (g) non–resident workforce accommodation (h) residential care facility (i) retirement facility (j) shopping centre (k) short–term accommodation (l) tourist attraction (m) tourist park.
Water supply	
PO3 Development in areas with a reticulated water supply has adequate flow and pressure for fire–fighting purposes at all times.	**AO3** The water supply network has a minimum sustained pressure and flow of at least 10L per second at 200kPa.
PO4 Development in areas without a reticulated water supply has an appropriate dedicated water supply for fire–fighting purposes that are safely located and freely accessible for fire–fighting purposes at all times.	**AO4.1** Development involving a gross floor area greater than 50m^2 where a reticulated water supply is not available is: (a) provided with an easily accessible fire resistant on–site water storage of not less than 5,000L (e.g. concrete tank with fire brigade fittings, in–ground swimming pool, dam fed by a permanent water source) that is within 100m of each class 1, 2, 3, or 4 building, and (b) has a hard standing area allowing a heavy rigid fire appliance safe access to within 6m of the storage facility. Note—Plastic water tanks are not considered to be fire resistant unless they are submerged.
	AO4.2 The location of water supplies is readily identifiable from the street frontage with clear signage directing firefighters to its access point.
Roads, fire access trails and firebreaks	
PO5 Roads and fire access trails are designed and constructed to: (a) enable efficient access to buildings and structures for fire–fighting purposes for emergency services, and (b) swift evacuation in emergency situations.	**AO5.1** Roads and fire access trails are designed and constructed to: (a) separate the development from the hazardous vegetation (b) have a maximum gradient of 12.5% (c) a minimum cleared width of 6m and a minimum formed width of 4m (d) have adequate drainage and erosion control devices (e) provides passing and turning areas for

Performance outcomes	Acceptable outcomes
	fire– fighting appliances at intervals of not less than 200m (f) have a vehicular access at each end to roads or a bushfire trail (g) not involve any cul–de–sac (h) have gates locked with a system authorised by QFES, and (i) have suitable arrangements in place to ensure maintenance in perpetuity.
	AO5.2 Development has direct access to an evacuation route with a potential fire intensity exposure no greater than 2kw/m^2. Note—The distance from hazardous vegetation to achieve 2kw/m^2 is generally: • 58m in a very high bushfire hazard areas • 52m in a high bushfire hazard area, and • 44m in a medium bushfire hazard area.
	AO5.3 Development incorporates an area of managed vegetation that separates lot boundaries from hazardous vegetation by a distance of: (a) 20m to a high or very high bushfire risk area, or (b) 10m to a medium risk bushfire area and includes a fire access trail.
PO6 Development provides for adequate fire breaks that minimise bushfire hazard by: (a) separating hazardous vegetation from development areas, and (b) facilitating access for firefighting and emergency vehicles.	No acceptable outcome is nominated.
Hazardous materials	
PO7 The potential for the release of hazardous materials as a result of a bushfire event is avoided. Note—The term ‘hazardous material' is defined in the Glossary of the relevant *State Planning Policy*.	**AO7** Development involving the production or storage of hazardous materials in bulk: (a) is not located within a high or very high bushfire hazard area, or (b) complies with a site specific bushfire management plan.
Reconfiguration of a lot	
PO8 Additional lots avoid the risk of bushfire hazard to personal and property safety and increased risk of damage to assets. Note—A site specific bushfire hazard	**AO8** New residential lots (including rear lots) do not occur in a bushfire hazard area.

Performance outcomes	Acceptable outcomes
assessment may demonstrate that the site is not within a bushfire hazard area or has a low degree of bushfire risk.	
Community infrastructure	
PO9 Development for community infrastructure is located, designed and sited to: (a) protect the safety of people during a bushfire (b) not increase the exposure of people to the risk from a bushfire event, and (c) function effectively during and immediately after bushfire events.	No acceptable outcome is nominated.

8.2.5 Coastal hazard

8.2.5.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Coastal hazard overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

Note - The Coastal Hazard Overlay mapping utilised for this overlay code reflects the State Planning Policy mapping which was current as at October 2014. This mapping, now retained by Council, includes a 0.8m factor for potential sea level rise.

8.2.5.2 Purpose

(1) The purpose of the Coastal hazard overlay code is to:
- (a) Protect or enhance naturally occurring coastal processes while still providing opportunities for appropriate coastal–dependant development[2]
- (b) Avoid or mitigate the risks to people and property and minimise the socio–economic costs of coastal hazard impacts from permanent and temporary inundation associated with sea level rise, coastal erosion and storm tide[1] inundation.
- (c) Ensure integration of climate change factors in the assessment of coastal hazard impacts on development and to achieve an acceptable or tolerable level of risk to enhance the community's resilience to present day and future coastal hazards.
- (d) Ensure public access to and from the use of coastal and riverine foreshores is maintained or enhanced.

(2) The purpose of the code will be achieved through the following overall outcomes:
- (a) Development maintains the erosion prone area and the foreshore in a natural state allowing for natural coastal processes and fluctuations and, maintains or enhances the protective function of landforms and vegetation that can mitigate the risks of coastal hazard impacts.
- (b) Development does not occur within the mapped coastal hazard areas unless:
  - (i) the development cannot be feasibly located elsewhere and it is a coastal–dependent development and is located, designed and constructed to withstand coastal hazard impacts and allowing for a sea level rise factor of 0.80m, or
  - (ii) the development is temporary, readily relocatable or able to be abandoned development[3].
- (c) Redevelopment of an existing permanent building in the mapped coastal hazard areas only occurs where:
  - (i) coastal hazard risks can be avoided, or
  - (ii) risks can be mitigated to achieve an acceptable or tolerable[4] level of risk that maintains the safety of people from present day and future coastal hazard impacts.
- (d) Sensitive land uses[5] do not occur in the mapped coastal hazard areas or on land identified as a high or medium storm tide inundation area
- (e) Development maintains or enhances public access to the foreshore.
- (f) Development supports, and does not unduly burden, disaster management response or recovery capacity and capabilities.
- (g) Development directly, indirectly and cumulatively avoids an increase in the severity of coastal hazards and the potential for damage to the site or to other properties.
- (h) The potential for the release of hazardous materials[6] is avoided.
- (i) Community infrastructure is located and designed to function effectively during and immediately after a coastal hazard event.

[1] The term 'storm tide' is used to describe the temporary inundation of land by abnormally high ocean levels caused by cyclones and severe storms and 'AEP' means annual exceedance probability. The defined high storm tide level is 2m above the highest

astronomical tide and includes a sea level rise allowance of 0.8m. The medium storm tide level is 1m above the highest astronomical tide level.
[2]The term 'coastal-dependent development' is defined in the glossary of the relevant *State Planning Policy*.
[3] The term 'temporary, readily relocatable or able to be abandoned development' includes, but is not limited to, temporary accommodation such as tents or demountable buildings, picnic areas and associated picnic tables and barbeques, market stalls or stall venues, surf life-saving observation towers, equipment sheds, recreation reserves or walking and biking trails.
[4] The terms 'acceptable risk' and tolerable risk' are defined in the relevant *State Planning Policy Guideline - Guidance on flood, bushfire and landslide hazards*.
[5] The term 'sensitive land use' is defined in the glossary of the relevant *State Planning Policy.*
[6] The term 'hazardous material' is defined in the glossary of the relevant *State Planning Policy.*

8.2.5.3 Assessment benchmarks

Table 8.2.5.3.1— Accepted development subject to requirements

Performance outcomes	Acceptable outcomes
PO1 Building work is located and designed to protect people and property from coastal hazards and avoids the need for coastal protection works.	**AO1.1** All buildings and structures are located landward of the erosion prone area OR Where an extension or redevelopment of an existing building the extension or rebuilding is located landward of the erosion prone area or relocated as far landward as practical.
	AO1.2 The floor levels of habitable rooms have a minimum floor level at least 1000mm above the high storm tide level.
	AO1.3 Development does not involve the clearing of native coastal vegetation or coastal wetlands, particularly mangroves.

Table 8.2.5.3.2—Assessable development

Performance outcomes	**Acceptable outcomes**
Development within an erosion prone area	
PO2 Development maintains or enhances the natural processes of the erosion prone area and the protective function of coastal landforms and vegetation, particularly those features that mitigate risks from coastal hazards.	**AO2.1** Development locates landward of the erosion prone area. OR **AO2.2** Development is coastal dependant development that cannot be feasibly located elsewhere and it is designed and constructed to withstand coastal erosion impacts. OR **AO2.3** Development is temporary, readily

Performance outcomes	Acceptable outcomes
	relocatable or able to be abandoned development located as far landward or the erosion prone area as practicable.
PO3 Redevelopment of an existing permanent building in an erosion prone area does not increase the exposure of people or property to the risk of coastal hazards and only occurs where: (a) coastal hazard risks can be avoided, or (b) risks can be mitigated to achieve an acceptable or tolerable level of risk to improve resilience against future coastal hazards allowing for 0.80m sea level rise. Note—To demonstrate compliance with this performance outcome, a development application is supported by a report prepared by a Registered Professional Engineer of Queensland specialising in coastal engineering and certifying the development achieves an acceptable or tolerable level of risk from present day and future coastal hazard impacts.	No acceptable outcome is nominated
PO4 Development directly, indirectly and cumulatively avoids an unacceptable increase in the severity of coastal erosion and other coastal hazards, and does not significantly increase the potential for damage on the site or to other properties.	No acceptable outcome is nominated.
Development within a high or medium storm tide inundation area	
PO5 Development does not locate in a high or medium storm tide inundation area unless: (a) it does not result in an increase in the intensity of development on the site, or (b) it avoids any increase in risk to people or property from coastal hazard impacts, or (c) risks can be mitigated to achieve an acceptable or tolerable level of risk to personal safety and property damage, including impacts from 0.80m sea level rise. Note—The *National Construction Code, Building Regulation 2006* and the *Queensland Development Code Mandatory Part 3.5* may also establish requirements with which development will need to comply.	**AO5.1** Sensitive land uses do not locate within the high storm tide inundation area. **AO5.2** Development has direct and safe access to an evacuation route above the high storm tide inundation level. Evacuation routes do not include land in a high storm tide inundation area. **AO5.3** All habitable rooms have a floor level at least 1000mm above the high storm tide event level. OR Where involving an extension to an existing residential use that have habitable rooms below the defined storm tide event level, any extension does not exceed 25m^2 GFA.

Performance outcomes	Acceptable outcomes
	AO5.4 Floor levels of non–habitable rooms (other than Class 10 buildings) are above the medium storm tide inundation level, or allow for the flow through of coastal waters on the ground floor.
PO6 Essential services infrastructure (e.g. on–site electricity, gas, water supply, sewerage and telecommunications) maintains its function during and immediately after a defined storm tide event.	**AO6** Any components of infrastructure that are likely to fail to function or may result in contamination when inundated by coastal waters (e.g. electrical switchgear and motors, water supply pipeline air valves) are: (a) located above the defined storm tide event level, or (b) designed and constructed to prevent coastal water intrusion/infiltration.
PO7 Infrastructure and building foundations are designed and constructed to resist hydrostatic and hydrodynamic forces as a result of storm tide inundation. Note—The *National Construction Code*, *Building Regulation 2006* and the *Queensland Development Code* Mandatory Part 3.5 may also establish requirements with which development will need to comply.	No acceptable outcome is nominated.
Reconfiguring a lot in a coastal hazard area	
PO8 The siting, layout and design of lot reconfiguration avoids adverse impacts of coastal hazards and does not result in the creation of new lots within a coastal hazard area.	**AO8.1** New lots, roads and infrastructure are not located within a coastal hazard area. OR **AO8.2** For new lots partly within a coastal hazard area, a building envelope having a minimum area prescribed for that zone is provided landward of the coastal hazard area.
PO9 Reconfiguration of land that is partly or wholly within an erosion prone area surrenders the erosion prone area to the State for public purposes.	No acceptable outcome is nominated.
Public access	
PO10 Development (structures, buildings and works) maintains or enhances safe and convenient public access to and along the foreshore, except where restriction of access is for safety reasons or the development is for port infrastructure.	No acceptable outcome is nominated.
PO11	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
Public access infrastructure is designed and located to: (a) maintain or enhance natural and cultural values of the foreshore (b) avoid areas of significant aquatic or terrestrial habitat values (c) maintain the natural movement of sand and sediment (d) avoid contributing to surface or geological instability or erosion of the foreshore (e) utilise single access points wherever possible (f) direct people away from sensitive areas (g) be compatible with scenic coastal landscape values, and (h) ensure users remain on the footpath and walkways to minimise physical impacts on the local environment through appropriate signage and fencing.	
Coastal protection work	
PO12 Coastal protection works or erosion control structures are: (a) consistent with a shoreline management plan for the area, or (b) constructed only to protect coastal–dependant development or other existing permanent structures from imminent adverse coastal erosion impacts if abandonment or relocation of the structures is not feasible, and a relevant shoreline management plan has not been prepared. Note—Erosion control structures are structures designed to protect land or permanently alter sediment transport processes and include structures such as seawalls or revetments (rock walls), groynes, artificial reefs and breakwaters. Where a shoreline erosion management plan has not been prepared and coastal protection work is required to protect existing structures from coastal erosion threats, beach nourishment is favoured in preference to erosion control structures. The location and materials for beach nourishment works are to ensure the natural characteristics and landform of the beach or foreshore is maintained. Applications demonstrate the consideration of beach nourishment techniques and include a statement of why nourishment (in whole or part) has not been adopted as the preferred	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
means of managing the coastal erosion risk.	
Hazardous materials	
PO13 Public safety and the environment are not adversely affected by the impacts of coastal erosion or storm–tide inundation on hazardous materials manufactured or stored in bulk.	**AO13.1** Development does not involve the manufacture or storage of hazardous materials within an erosion prone area or high storm tide inundation area. OR **AO13.2** Within the medium storm tide inundation area, the manufacture or storage of hazardous materials takes place above the defined storm tide event level. AND **AO13.3** Structures used for the manufacture or storage of hazardous material in bulk are designed to prevent the intrusion of floodwaters. AND **AO13.4** The quantity of hazardous chemicals is less than: (a) flammable gases > 5,000L, or (b) toxic gases >500L, or (c) non–toxic, non–flammable gases including oxidising gases >10,000L, or (d) classes 3, 4, 5, 6.1, 8 and 9 of packing group I > 500 L or kg of the ADG code, or (e) classes 3, 4, 5, 6.1, 8 and 9 of packing group II > 2,500 L or kg of the ADG code, or (f) classes 3, 4, 5, 6.1, 8 and 9 of packing group III > 10,000 L or kg of the ADG code.
Community infrastructure	
PO14 Community infrastructure is able to function effectively during and immediately after a storm tide inundation event.	**AO14** Community infrastructure is located in an area that is above the storm tide event level for that activity in accordance with Table 8.2.5.3.3 —Recommended storm–tide event levels for community service infrastructure.

Table 8.2.5.3.3—Recommended storm–tide event levels for community service infrastructure

Type of community service infrastructure	Recommended storm–tide event level (RSTEL)

Type of community service infrastructure	Recommended storm–tide event level (RSTEL)
Emergency services facilities*	0.2% annual exceedance probability (AEP)
Emergency shelters	See reference **
Hospitals and associated facilities	0.2% AEP
Major switch yards and substations*	0.5% AEP
Police facilities*	0.2% AEP
Power stations	0.2% AEP
Sewerage treatment plants*	0.01% AEP
School facilities	0.55% AEP
Stores of valuable records or items of historic or cultural significance (e.g. galleries and libraries)	0.5% AEP
Water treatment plants*	0.5% AEP
(a) works of an electricity entity not otherwise listed in this table (b) communication network facilities.	No specific recommended storm–tide event level but development proponents should ensure that the infrastructure is optimally located and designed to achieve suitable levels of service, having regard to the processes and policies of the administrating government agency.

* The RSTEL applies only to electrical and other equipment that, if damaged by floodwater or debris, would prevent the infrastructure from functioning. This equipment should either be protected from damage or designed to withstand inundation. Also some police and emergency service facilities (e.g. water police and search and rescue operations) are dependent on direct water access. RSTELs do not apply to these aspects but other operational areas should be located above the RSTEL to the greatest extent possible.

** Design Guidelines for Queensland Public Cyclone Shelters is available at Department of Housing and Public Works.

8.2.6 Extractive resources and minerals

8.2.6.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the extractive resources and minerals overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.6.2 Purpose

(1) The purpose of the extractive resources and minerals overlay code is to protect extractive resources within a Key Resource Area (KRA) from development that might prevent or constrain current or future extraction of the resource.
(2) The purpose of this code will be achieved through the following overall outcomes:
    (a) Development ensures that resource/processing areas and transport routes are protected from encroaching development that is not a compatible extractive industry use of the KRA.
    (b) Development for a sensitive or incompatible use maintains an effective separation from a key resource area and does not encroach within a key resource area's separation area and its transport route separation area.
    (c) Development, other than for an extractive industry, is buffered from and is able to mitigate impacts likely to occur as a result of an extraction of resources from a key resource area.

8.2.6.3 Assessment benchmarks

Table 8.2.6.3.1—Assessable development

Performance outcomes	Acceptable outcomes
Development within a resource/processing area	
PO1 Development in the KRA resource/processing area, the KRA separation area or the KRA route separation area maintains the long–term availability and ability to extract the extractive resource.	**AO1.1** Development in a KRA resource/processing area is for an extractive industry or is directly associated with an extractive industry. OR **AO1.2** Development not associated with the KRA does not involve a sensitive land use and does not increase the number of people living and/or working in the KRA. OR **AO1.3** Where involving reconfiguring a lot, development does not result in an increase in the number of lots within the KRA. OR **AO1.4** Development is for a temporary use.
PO2 Development will not adversely affect the safe and efficient operation of vehicles transporting extractive materials.	**AO2** Development does not increase the number of properties with access points to the KRA transport route.
PO3 Development incorporates measures to mitigate the potential adverse effects from existing or future extractive industry on	**AO3.1** The numbers of people working or congregating in the separation area are not increased.

people working or congregating in the separation area.	**AO3.2** Development incorporates design, orientation and construction materials that mitigate the potential adverse effects from an existing or future extractive industry to acceptable levels by: (a) locating buildings and structures the greatest distance practicable from the resource/processing area and associated transportation route, and (b) designing buildings so the areas where people live, work and congregate (habitable rooms) are furthermost from the resource/processing area and associated transportation route, and (c) minimising openings in walls closest to these effects, and (d) providing mechanical ventilation to habitable rooms, and (e) use of appropriate construction methods and materials including insulation and glazing materials, and (f) providing private outdoor recreation space adjacent to a building façade shielded from the extractive industry or resource.

8.2.7 Flood hazard

8.2.7.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Flood hazard overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.7.2 Purpose

(1) The purpose of the Flood hazard overlay code is to ensure that development on land subject to a defined flood event (DFE) avoids or mitigates the risk of flood hazard to protect people, property, the environment and economic activity and, to ensure development does not adversely affect other properties or the hydraulic efficiency of a waterway or floodplain.
(2) The purpose of the code will be achieved through compliance with the following overall outcomes:
    (a) Development does not occur on land subject to flooding from a defined flood event unless:
        (i) it is compatible with the level of risk having regard to flow depth, flow velocity, rate of flood level rise and the duration of the inundation, or
        (ii) the impacts of flooding can be managed such that there can be no foreseeable risk to personal safety or to property.
    (b) Development does not result in an increase in the extent or severity of flood risk to the site or other land.
    (c) The flood storage or the conveyance of waterways and flood plains is not diminished.
    (d) The potential for the release of hazardous material is not increased.
    (e) Development supports, and does not unduly burden disaster management response or recovery capacity and capabilities.
    (f) Community infrastructure is located and designed to function effectively during and immediately after a flood hazard event.

Note—The term ‘defined flood event’(DFE) is the 1% annual exceedence probability (AEP) flood event identified in a flood study adopted by Council (including an allowance for climate change) or, where there is no adopted flood study, the level mapped by the Queensland Reconstruction Authority (QRA) Assessment criteria.

8.2.7.3 Assessment benchmarks

Table 8.2.7.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes
Siting of development	

Performance outcomes	Acceptable outcomes
PO1 Development: (a) does not provide unacceptable risks to people, property or the environment from flood hazard impacts or, the risks are mitigated to an acceptable or tolerable level, or (b) does not intensify an existing use in flood hazard area in order to avoid risks to people, property or the environment or the risks are mitigated to an acceptable or tolerable level. Note—The terms 'acceptable risk' and 'tolerable risk' are defined in State Planning Policy Guideline – Guidance on flood, bushfire and landslide hazards. The National Construction Code, Building Regulation 2006 and the Queensland Development Code Mandatory Part 3.5 may also establish requirements with which development will need to comply.	**AO1** Development, including intensification of an existing use, does not occur on land within a flood hazard area. OR A site specific flood hazard assessment demonstrates that risks associated with the development can be mitigated to an acceptable or tolerable level. OR If the premises is located in a Flood Hazard Investigation Area in the Flood Hazard overlay mapping, a written notice issued by Council at its sole discretion, for the purposes of this acceptable outcome, confirms that it is satisfied that the performance outcome PO1 would be achieved without the need for a site specific flood hazard assessment and/or a Registered Professional Engineer of Queensland certifying the actual level of flood risk for the site and measures required to ensure the risk associated with the development can be mitigated to an acceptable or tolerable level. Note - In exercising its discretion, Gladstone Regional Council may, without limitation, have regard to: • the location and characteristics of the site, any existing flood studies or work being carried out in the course of undertaking flood studies which may be relevant to the site • any work undertaken by or on behalf of Gladstone Regional Council in the course of locally verifying the extent of flood hazards which may be relevant to the site. Note—AS/NZ ISO 31000:2009 Risk management – Principles and guidelines provides guidance on identifying and managing risks. Table 8.2.7.3.3—Table to acceptable outcomes sets out the criteria for establishing the level of flood hazard. A Registered Professional Engineer of Queensland with expertise in undertaking risk and flood analysis is to certify the actual level of flood risk for the site and measures required to ensure the risk associated with the development can be mitigated to an acceptable or tolerable level.
PO2 Development is sited to enable safe evacuation in the event of a flood.	**AO2** Development has direct access to land above the DFE by an evacuation route that is either

Performance outcomes	Acceptable outcomes
	above the DFE or has a confirmed low or medium flood hazard rating. Evacuation routes do not include an high or extreme flood hazard area. OR If the premises is located in a Flood Hazard Investigation Area in the Flood Hazard overlay mapping, a written notice issued by Council at its sole discretion, for the purposes of this acceptable outcome, confirms that it is satisfied that the performance outcome PO1 would be achieved without the need for a site specific flood hazard assessment and/or a Registered Professional Engineer of Queensland certifying the actual level of flood risk for the site and measures required to ensure the risk associated with the development can be mitigated to an acceptable or tolerable level. Note - In exercising its discretion, Gladstone Regional Council may, without limitation, have regard to: • the location and characteristics of the siteany existing flood studies or work being carried out in the course of undertaking flood studies which may be relevant to the site • any work undertaken by or on behalf of Gladstone Regional Council in the course of locally verifying the extent of flood hazards which may be relevant to the site. Note—The criteria for a low or medium flood hazard is defined in Table 8.2.7.3.3—Table to acceptable outcomes. A Registered Professional Engineer of Queensland with expertise in undertaking flood analysis is to certify the actual level of risk for the site in accordance with those criteria.
PO3 Signage is provided within extreme, high and medium flood hazard areas to alert residents and visitors to the flood hazard.	**AO3** Signage is provided on site (regardless of whether the land is in public or private ownership) indicating: (a) the position and path of all safe evacuation routes off the site, and (b) if the site contains or is within 100m of a floodable waterway, hazard warning signage and depth indicators are also provided at key hazard points such as floodway crossings or entrances to low–lying reserves. If the premises is located in a Flood Hazard

Performance outcomes	Acceptable outcomes
	Investigation Area in the Flood Hazard overlay mapping, a written notice issued by Gladstone Regional Council at its sole discretion, may for the purposes of this acceptable outcome, exempt compliance with AO3(a). Note - In exercising its discretion, Gladstone Regional Council may, without limitation, have regard to: • the location and characteristics of the site • any existing flood studies or work being carried out in the course of undertaking flood studies which may be relevant to the site • any work undertaken by or on behalf of Gladstone Regional Council in the course of locally verifying the extent of flood hazards which may be relevant to the site.
For all assessable development	
Reconfiguring a lot	
PO4 Reconfiguring a lot other than in a residential zone allows sufficient area and access for the intended use.	**AO4.1** For new lots in the rural zone or rural residential zone, a designated building envelope, generally rectangular in shape, having a minimum area of 1,000m2 and a finished surface level of not less than 1,000mm above DFE, is provided
	AO4.2 Access from the building envelope to the evacuation route is located above 5% AEP flood immunity level and has a low or medium hazard rating as per Table 8.2.7.3.3. Notes—Table 8.2.7.3.3—Table to acceptable outcomes sets out the criteria for establishing the level of hazard. A Registered Professional Engineer of Queensland with expertise in undertaking flood analysis is to certify the actual level of risk for the site in accordance with those criteria.
PO5 Road and pathway layout ensures residents are not physically isolated from adjacent flood free urban areas and provides a safe and clear evacuation route path.	**AO5.1** New arterial roads are located above the DFE, sub–arterial and collector roads are located above the 2% AEP flood level and all other roads are above the 5% AEP flood level.

Performance outcomes	Acceptable outcomes
	AO5.2 Development does not involve cul–de–sacs or dead end streets within a flood hazard area.
	AO5.3 Each new lot has direct access to low or medium hazard evacuation routes as defined in Table 8.2.7.3.3—Table to acceptable outcomes. Note—The criteria for a low or medium flood hazard is defined in Table 8.2.7.3.3—Table to acceptable outcomes.
Building floor levels	
PO6 The floor levels of residential uses and other sensitive land uses are raised above the DFE to provide an allowance above the main flood way for hydraulic gradient, the effects of wave action, uncertainty in estimating flood water heights and unforeseen variation in local flood behaviour.	**AO6.1** Habitable rooms have a minimum floor level at least 1000mm above the DFE. OR Where involving an extension to an existing residential use that has habitable rooms below the DFE, any extension does not exceed 25m^2 GFA.
	AO6.2 Floor levels of non–habitable rooms (other than Class 10 buildings) are above the DFE, or allow for the flow through of floodwaters.
	AO6.3 Where a building has been destroyed by flood, the floor levels of the reconstructed building accord with AO7.1 and AO7.2.
	AO6.4 The filling height of building footprints does not exceed 1000mm and has batters not steeper than 1 in 6.
PO7 Non–residential development is designed and located to minimise damage to property from flooding impacts.	**AO7.1** The floor level of non–residential buildings (other than Class 10 buildings) is above the DFE or allows for the flow through of floodwaters on the ground floor.
	AO7.2 Where located less than 1000mm above the DFE materials stored on–site are those that are easily able to be moved off–site in a flood event.
Earthworks	

Performance outcomes	Acceptable outcomes
PO8 Development, including any earthworks or excavation work in excess of 50 cubic metres, must: (a) not adversely impact on or change the flood characteristics of a floodplain or waterway (b) not reduce existing flood storage and flow capacity (c) avoid any physical change to a floodplain or natural waterway (d) avoid increased scour and erosion (e) not increase the depth, velocity or direction of the flow, the rate of flood level rise or the duration of inundation on land external to the site, and (f) not substantially remove any riparian or riverine vegetation.	No acceptable outcome nominated.
Hazardous materials	
PO9 Public safety and the environment are not adversely affected by the impacts of floodwater on hazardous materials manufactured or stored in bulk.	**AO9.1** Development does not involve the manufacture or storage of hazardous materials within a flood hazard area. OR A site specific flood hazard assessment demonstrates that the site is within a low or medium hazard, the manufacture or storage of hazardous materials takes place not less than 1000mm above the DFE flood levels.
	AO9.2 Structures used for the manufacture or storage of hazardous material in bulk are designed to prevent the intrusion of floodwaters. OR **AO9.3** Within the low or medium flood hazard area, the quantity of hazardous chemicals is: (a) flammable gases less than 5,000L (b) toxic gases less than 500L (c) non–toxic, non–flammable gases including oxidising gases less than 10,000L (d) classes 3, 4, 5, 6.1, 8 and 9 of packing group I less than 500 L or kg of the ADG code (e) classes 3, 4, 5, 6.1, 8 and 9 of packing group II less than 2,500 L or kg of the ADG code, or (f) classes 3, 4, 5, 6.1, 8 and 9 of packing group III less than 10,000 L or kg of the

Performance outcomes	Acceptable outcomes
	ADG code. Notes—Table 8.2.7.3.3—Table to acceptable outcomes sets out the criteria for establishing the level of hazard. A Registered Professional Engineer of Queensland with expertise in undertaking flood analysis is to certify the actual level of risk for the site in accordance with those criteria.
Intensive animal husbandry	
PO10 The use of land for intensive animal husbandry does not establish or intensify in a flood hazard area, in order to avoid risk to the environment.	**AO10** Intensive animal husbandry, including the storage of bulk food and any associated water treatment facilities, does not occur on land below the DFE.
Community infrastructure	
PO11 Community infrastructure is able to function effectively during and immediately after flood events.	**AO11** Community infrastructure is provided at or above the recommended flood immunity level specified in Table 8.2.7.3.2—Recommended flood immunity levels for community infrastructure.
PO12 Essential services infrastructure (e.g. gas, water supply, sewerage, telecommunications, and on–site electricity,) maintains its function during and immediately after a DFE flood event.	**AO12** Any components of infrastructure that are likely to fail to function or may result in contamination when inundated by flood water (e.g. electrical switchgear and motors, water supply pipeline air valves) are: (a) located above the DFE, or (b) designed, sited and operated to prevent floodwater intrusion/infiltration.
PO13 Infrastructure is designed, sited and operated to resist hydrostatic and hydrodynamic forces as a result of inundation by a DFE.	No acceptable outcome nominated.

Table 8.2.7.3.2—Recommended flood immunity levels for community infrastructure

Type of Community infrastructure	Recommended flood immunity levels
Community and cultural facilities, including facilities where an education and care service under the Education and Care Services National Law (Queensland) is operated or a child care service under the Child Care Act 2002 is conducted, community centres, meeting halls, galleries and libraries.	1% AEP
Correctional facilities	0.2% AEP
Education establishment/child care centre	0.5% AEP
Emergency services facilities	Emergency services 0.2% AEP

	Emergency shelters 0.5% AEP Police facilities 0.5% AEP
Hospitals and associated institutions	0.2% AEP
Operating works under the Electricity Act 1994	Power stations 0.2% AEP Major switch yards 0.2% AEP Substations 0.5% AEP
Stores of valuable records or items of historic or cultural significance	0.5% AEP
Sewerage treatment plant	0.2% AEP
Water treatment plant	0.5% AEP

Table 8.2.7.3.3—Table to acceptable outcome

Criteria	**Degree of Flood Hazard**			
	Low	Medium	**High**	**Extreme**
Wading ability	If necessary children and the elderly could wade. (Generally, safe wading velocity depth product is less than 0.2.)	Fit adults can wade. (Generally, safe wading velocity depth product is less than 0.4.)	Fit adults would have difficulty wading. (Generally, where wading velocity depth product is less than 0.6.)	Wading is not an option
Vehicle navigability	Flood waters are navigable by a two wheel drive sedan (maximum flow depth on vehicle paths <0.2m)	Flood waters are navigable by a two wheel drive sedan (maximum flow depth on vehicle paths <0.25m)	Flood waters are only navigable by a four wheel drive vehicle	Vehicles are unable to pass
Evacuation distances	<200 metres	200–400 metres	400–600 metres	>600 metres
Maximum flood depths	<0.2 metres	<0.6 metres	<1.2 metres	>1.2 metres
Maximum flood velocity	< 0.4 metres per second	<0.8 metres per second	<1.5 metres per second	>1.5 metres per second
Timing Note—This category cannot be implemented until evacuation times have been established in the *Counter Disaster Plan (flooding).*	Ample for flood forecasting. Evacuation routes remain passable for twice as long as warning and evacuation time.	Evacuation routes remain trafficable for 1.5 times as long as the warning and evacuation time.	Evacuation routes remain trafficable for only up to minimum warning and evacuation time.	There is insufficient evacuation time.

Note—The evacuation times for various facilities or areas would (but not necessarily) be included in the Counter Disaster Plan (flooding). Generally safe wading conditions assume even walking surfaces with no obstructions, steps, soft underfoot, etc.

8.2.8 Hazardous activities

8.2.8.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Hazardous activities overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.8.2 Purpose

(1) The purpose of the Hazardous activities overlay code is to protect community health, safety and sensitive land uses from the impacts of former landfill sites, former mining activities and from contaminated land.
(2) The purpose of the code will be achieved through the following overall outcomes:
    (a) Sensitive land uses are protected from risks associated with disused underground mines, tunnels and shafts, landfill and refuse sites and contaminated land.

8.2.8.3 Assessment benchmarks

Table 8.2.8.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes
Development within a former mined area	
PO1 Development is not at risk of: (a) damage through subsidence, and (b) causing accidental entry into mine shafts.	**AO1.1** Buildings are not located within: (a) 100m of known areas of mining subsidence, and (b) 40m of mine shafts or entries.
	AO1.2 Shafts or tunnel entries are sealed to prevent accidental entry.
For all assessable development	
Development on former landfill and refuse sites or on contaminated land	
PO2 Development must: (a) demonstrate there is no public health or safety risk as a result for former hazardous land use activities, and (b) ensure land has been appropriately remediated to safely accommodate the proposed land use activity. Note—A validation report that demonstrates land has been appropriately remediated may be required in responding to this performance outcome. This can only be prepared and certified by suitably qualified person as defined in Part 3 of the *Environmental Protection Act 1994*.	No acceptable outcome is nominated.

8.2.9 Heritage

8.2.9.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Heritage overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.9.2 Purpose

(1) The purpose of the Heritage overlay code is to ensure:
   (a) The local heritage places throughout the Gladstone region are conserved for present and future communities.
   (b) Development is compatible with the cultural heritage significance of the local heritage place.
   (c) Any development and works undertaken is consistent with the *Australia ICOMOS Burra Charter, 2013*.

(2) The purpose of the code will be achieved through the following overall outcomes:
   (a) The cultural heritage significance of the Gladstone region's local heritage places is maintained and protected.
   (b) Local heritage places are protected from inappropriate removal and demolition unless there is no adverse impact on the heritage significance of that place or there is an unacceptable human safety risk.
   (c) Archaeological features and artefacts are identified and appropriately managed.
   (d) Development within or adjoining a local heritage place is visually subservient to the heritage place and does not impact on its cultural heritage significance.

Note—The *Heritage planning scheme policy* provides further guidance in meeting the requirements of this code. This includes preparing a:

- Statement of Impact for development and works within or adjoining a heritage place
- Heritage Management Plan for development and works within a heritage place
- Archaeological Management Plan for development and works within a heritage place where known or potential archaeological deposits exist.

Note—Council's process for adding or removing a place for the local heritage register is stated in the *Heritage planning scheme policy*.

8.2.9.3 Assessment benchmarks

Table 8.2.9.3.1—Assessable development

Performance outcomes	Acceptable outcomes
Demolition or removal if within a local heritage place	
PO1 Any demolition must: (a) not result in the loss of the cultural heritage significance of the local heritage place, or (b) demonstrate the building or structure to be demolished is not capable of structural repair and represents a safety hazard, or (c) ensure that part of the local heritage place is not of cultural heritage significance. Note—The *Heritage planning scheme policy* provides guidance on the preparation of a Heritage Impact Statement and structural condition report in responding to this performance outcome.	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
Development if within a local heritage place	
PO2 Development is compatible with the conservation and management of the cultural heritage significance of the local heritage place. Note—Development follows the principles of the *Burra Charter*. The *Heritage planning scheme policy* provides guidance on preparing a Statement of Impact, Heritage Management Plan and other information necessary to demonstrate satisfaction of this performance outcome.	No acceptable outcome is nominated.
PO3 Development does not adversely affect the heritage significance of the local heritage place and is compatible with its heritage values including: (a) maintaining views to and from the place where significant (b) consistency with the character, setbacks, setting or appearance of the place (c) minimising overshadowing on to the place (d) avoiding altering, removing or concealing significant heritage features, and (e) consistency with open space and landscaping features.	No acceptable outcome is nominated.
PO4 Any reconfiguring a lot: (a) does not diminish the cultural significance of the local heritage place including maintaining its historical context, landscape settings and consistency with the prevailing built environment (b) reflects the pattern and layout of the original subdivision in the area, and (c) does not reduce public access to the local heritage place.	No acceptable outcome is nominated.
Carrying out building work, operational work or other works within a local heritage place	
PO5 Building work incorporates design elements which are compatible with the values of the local heritage place in terms of: (a) architectural features, (b) external materials, and (c) finishes and colours.	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
PO6 Excavation or other earthworks do not create an adverse impact on archaeological and heritage values of the local heritage place. Note—The *Heritage planning scheme policy* provides guidance on responding to this performance outcome.	No acceptable outcome is nominated.
PO7 Any new fencing, landscaping, access or car parking arrangements are designed and sited in a manner that: (a) does not have a detrimental impact on the significant values or views of the place (b) enhances the overall appearance of the local heritage place, and (c) is sensitive to materials, colours, scale, placement and layout of the place.	No acceptable outcome is nominated.
Archaeology	
PO8 Development does not adversely impact on known or potential archaeological deposits. Note—The *Heritage planning scheme policy* provides guidance on the preparation of an Archaeological Management Plan that is necessary to demonstrate satisfaction of this performance outcome.	No acceptable outcome is nominated.
General	
PO9 Any changes as a result of development and associated works to a local heritage place are appropriately managed and documented.	**AO9** Development is compatible with a conservation management plan prepared in accordance with the *Burra Charter*. Note—An archival quality photographic record is made of the features of the place that are impacted because of the development.
Development if adjoining a heritage place	
PO10 Development does not adversely affect the heritage significance of the adjoining local heritage place including: (a) maintaining views to and from the heritage place where significant (b) consistency of built form, building materials, fencing and setbacks (c) minimising for overshadowing on to the heritage place, and (d) consistency with open space and landscaping features.	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
PO11 Reconfiguring a lot does not: (a) reduce public access to the adjoining local heritage place, or (b) contribute to adversely impacting on significant views to and from the local heritage place, or (c) obscure, destroy or disrupt any pattern of historic subdivision, the historical context, the landscape settings or the scale and consistency of the built environment relevant to the local heritage place.	No acceptable outcome is nominated.

8.2.10 Regional infrastructure

8.2.10.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Regional infrastructure overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.10.2 Purpose

(1) The purpose of the Regional infrastructure overlay code is to protect regionally significant infrastructure from nearby development that is sensitive to, or creates a risk for the infrastructure, and to protect nearby development from the potential impacts of the infrastructure.
(2) The purpose of the code will be achieved through the following overall outcomes:
    (a) Infrastructure requirements are integrated in master planning and subdivision of newly developing areas, including new neighbourhoods.
    (b) Effective separation and interface treatment is provided to major infrastructure sites and corridors to avoid risk to people and property and to minimise noise, odour and visual impacts.
    (c) Easy access is provided to and along major infrastructure sites and corridors.
    (d) Development does not compromise the safe and efficient operation, maintenance or expansion of major infrastructure.
    (e) Existing and planned regional infrastructure facilities and corridors are protected from encroachment by sensitive land uses or incompatible development.
    (f) Development does not create any threat to the provision of a safe and reliable supply of services to all users, and avoids any potential interference with the ongoing operation, maintenance and augmentation of the infrastructure.
    (g) Development does not increase the potential for safety concerns, nuisance and complaints and minimises the need for measures to be introduced in the operation of the infrastructure to reduce potential impacts on surrounding areas.
    (h) Development minimises overlooking of and visual exposure to the infrastructure sites and corridors.
    (i) Development over or near major electricity and bulk water supply infrastructure does not compromise or interfere with the integrity of the infrastructure.

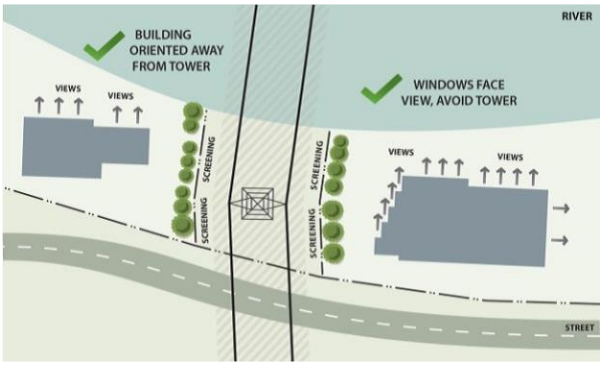
8.2.10.3 Assessment benchmarks

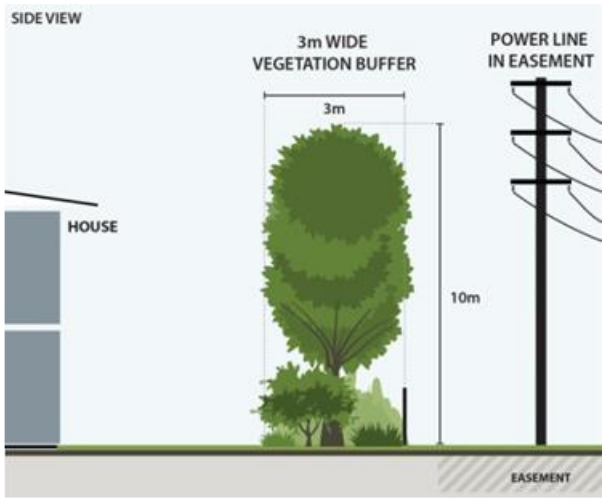
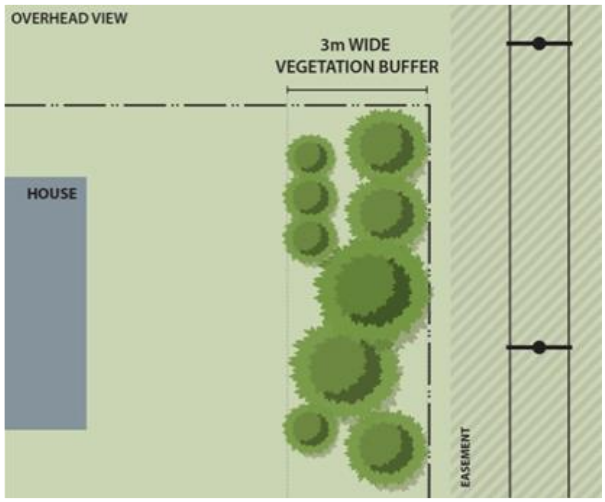
Table 8.2.10.3.1—Assessable development

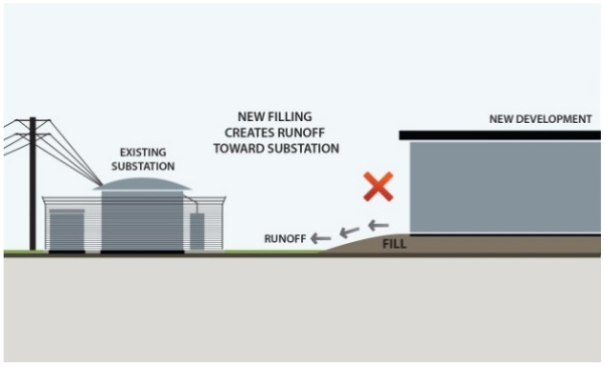
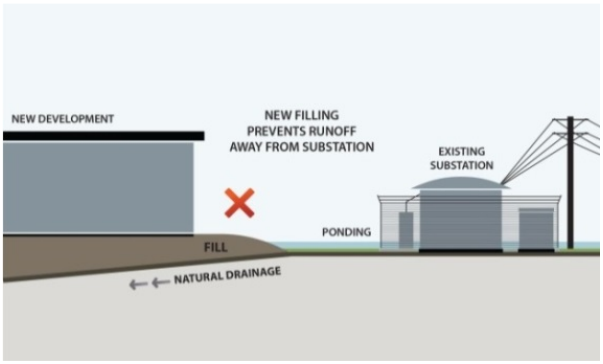
Performance outcomes	Acceptable outcomes
Reconfiguring a Lot	
PO1 Reconfiguration of lots does not compromise or adversely impact upon the efficiency and integrity of major electricity and bulk water supply infrastructure networks.	No acceptable outcome is nominated.
PO2 Lot reconfiguration integrates major infrastructure sites and corridors within the overall layout. In particular, the neighbourhood design: (a) ensures land of sufficient size and suitability is allocated to accommodate the existing and future major infrastructure network (b) as far as possible, minimises the likely visual prominence of major infrastructure, and (c) provides for an interface or relationship with surrounding uses that minimises the potential for nuisance (including noise and odour), health and safety concerns.	No acceptable outcome is nominated. Note—Applicants should consult with the electricity providers early in the master planning process to determine electricity infrastructure requirements.

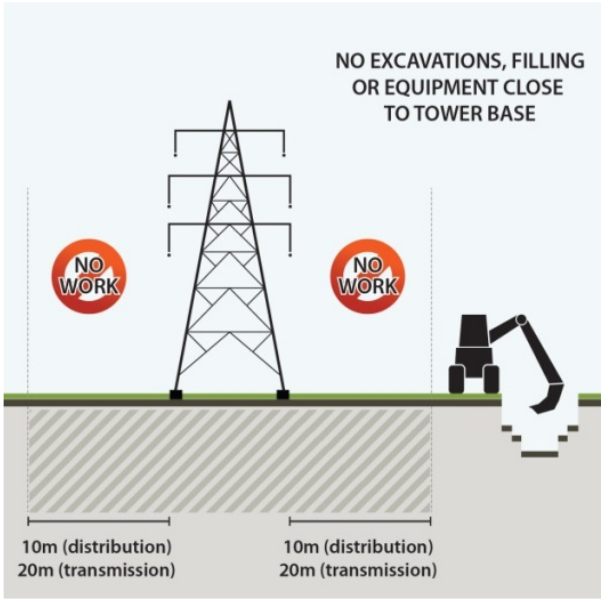
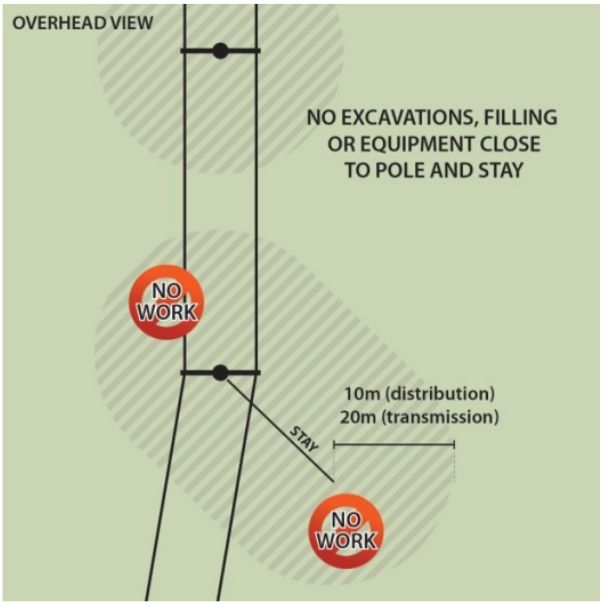
Performance outcomes	Acceptable outcomes
PO3 Landscaping is provided which substantively assists in screening and softening poles, towers or other structures and equipment associated with major infrastructure.	**AO3** A minimum 5m wide densely planted landscaped buffer is provided, including provision for advanced trees and shrubs that will grow to a minimum height of 10m. Note—Applicants may find further guidance in Powerlink's "*Screening your home from powerlines – A guide for planting trees and shrubs outside of easements to screen powerlines*".
PO4 Development within a water supply pipeline and buffer identified on the Regional infrastructure overlay map: (a) is located, designed and constructed to protect the integrity of the water supply pipeline, and (b) maintains adequate access for any required maintenance or upgrading work to the water supply pipeline.	**AO4** Buildings and structures (other than those associated with electricity infrastructure) are setback a minimum of 10m from a water supply pipeline as identified on the Regional infrastructure overlay map.
PO5 Where the reconfiguration involves a major electricity infrastructure corridor, the corridor is incorporated within a useable public open space network wherever possible.	No acceptable outcome is nominated.
PO6 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 or site, in combination with compatible recreational facilities and landscaping, so that: (a) it has an open and expansive character, with landscape design which assists in breaking up the linear and vertical dominance of the infrastructure (b) landscaping is located outside the easement area and substantively screens and softens the appearance of poles, towers or other structures, and (c) 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.	No acceptable outcome is nominated. Note—The figures below provide an example of a well–integrated transmission corridor. 

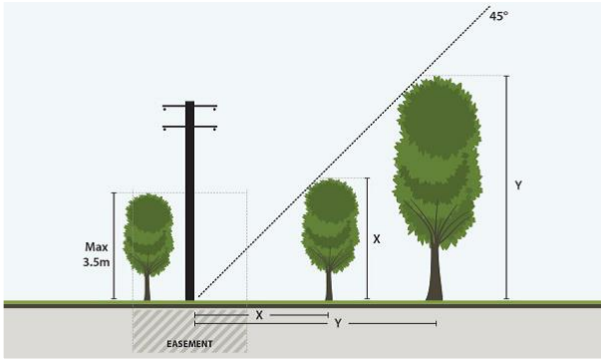
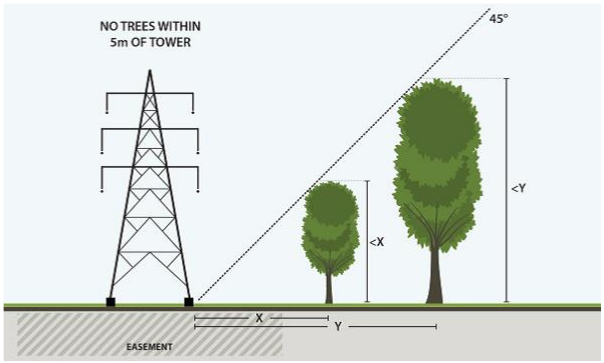
Performance outcomes	Acceptable outcomes
	
PO7 Where major electricity infrastructure is located in a road: (a) an attractive, functional and safe streetscape is achieved (b) street furniture, planting and lighting are compatible with the electricity infrastructure, having regard to safety, height, the conductivity of materials (c) the reserve has sufficient width to accommodate significant landscaping which assists in screening and softening poles, towers or other structures and equipment from nearby sensitive land uses (d) the clearances required under schedules 4 and 5 of the *Electrical Safety Regulations 2002* can be achieved, and (e) convenient access to the infrastructure by the electricity provider is maintained.	No acceptable outcome is nominated.
Material change of use	
PO8 Development does not increase risk to community health or safety, or the operation and reliability of major electricity or bulk water supply infrastructure.	No acceptable outcome is nominated.
PO9 Development involving a sensitive land use is sufficiently separated from major electricity or bulk water supply and wastewater infrastructure to minimise the likelihood of nuisance or complaint.	For electricity infrastructure. **AO9.1** Buildings (other than class 10 buildings) maintain a setback of at least: (a) 50m from a transmission (Powerlink operated) substation (b) 20m from any other substation, and (c) 20m from a transmission line easement.

Performance outcomes	Acceptable outcomes
	For water or wastewater treatment plants **AO9.2** Sensitive land uses are not established or intensified within the buffer of a water or wastewater treatment plants identified on the Regional Infrastructure Overlay Map.
PO10 Development avoids potential noise nuisance from substations.	**AO10** Noise emissions do not exceed 5db(A) above background noise level at the facia of a building measured in accordance with AS 1055.
PO11 Other than where they are separated from the infrastructure by a road, buildings are oriented to avoid direct overlooking of major electricity infrastructure or substations.	No acceptable outcome is nominated. Note—The figure below provides an illustration of buildings oriented away from infrastructure. 
PO12 Development includes sufficient space within the site to establish landscaping which substantively assists in screening and softening poles, towers or other structures and equipment associated with major electricity infrastructure and substations.	**AO12** A minimum 3m wide densely planted landscaped buffer is provided along the boundary adjoining the major electricity infrastructure, including provision for advanced trees and shrubs that will grow to a minimum height of 10m. 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 for planting trees and shrubs outside of easements to screen powerlines*". Applicants should also note that vegetation will need to maintain statutory clearances (refer Ergon's Standard for Vegetation Management and Standard for Vegetation Clearance Profile.) Applicants should also note that vegetation will need to maintain statutory clearances (refer Ergon's Standard for Vegetation Management and Standard for Vegetation Clearance Profile)

Performance outcomes	Acceptable outcomes
	 
PO13 Major electricity or bulk water supply infrastructure within private land is protected by easement in favour of the service provider.	**AO13** Existing easements are maintained and where none currently exist, new easements are created which are sufficient for the provider's requirements.
PO14 Development does not compromise or adversely impact upon the efficiency and integrity of major electricity and bulk water supply infrastructure networks.	**AO14** For bulk water infrastructure, buildings and structures (other than those associated with electricity infrastructure) are setback a minimum of 20m from a water supply pipeline. No acceptable outcome for major electricity infrastructure.
Operational works and infrastructure	
PO15 Development within a water supply infrastructure buffer is located, designed and constructed to: (a) protect the integrity of the water supply infrastructure (b) maintains adequate access for any required maintenance or upgrading work to the water supply infrastructure.	**AO15** Development does not involve works within a water supply infrastructure buffer.

Performance outcomes	Acceptable outcomes
PO16 Earthworks do not restrict access to substations or to and along major electricity infrastructure by the electricity providers, using their normal vehicles and equipment.	No acceptable outcome is nominated.
PO17 There is no worsening of flooding, drainage or erosion conditions affecting the infrastructure.	No acceptable outcome is nominated. Note—The figures below illustrate the concept.  
PO18 Development maintains the clearances required under schedules 4 and 5 of *the Electrical Safety Regulation 2013.*	No acceptable outcome is nominated.
PO19 Any earthworks are undertaken in a way which: (a) ensures stability of the land on or adjoining substations and major electricity infrastructure (b) does not otherwise impact on the safety and reliability of the electricity infrastructure, and (c) does not restrict the placement or use of the electricity provider's equipment.	**AO19.1** No earthworks are undertaken: (a) for overhead transmission infrastructure, within 20m of a transmission tower or pole (b) for overhead distribution infrastructure, within 10m of a tower, pole or stay, or (c) for substations, within 10m of a property boundary shared with the substation. Note—The figures below illustrate the concept.

Performance outcomes	Acceptable outcomes
	  **AO19.2** No earthworks are undertaken, or other loading or displacement of earth caused, within the easement of an underground power line.
PO20 Other services and infrastructure works (such as stormwater, sewerage, water and the like) do not impact on the safety and reliability of substations or major electricity infrastructure.	**AO20.1** Underground services are not located within 20m of a tower, pole, stay or substation boundary.
	AO20.2 No valve pits occur within: (a) for transmission infrastructure, 60m of a tower, pole or stay, or (b) for distribution infrastructure, 20m of a tower, pole or stay.
	AO20.3 Pipelines with cathodic protection systems, comply

Performance outcomes	Acceptable outcomes
	with part 11 of *Electrical Safety Regulation 2013*.
	AO20.4 Underground services traversing an easement, cross at right angles to the overhead or underground lines.
	AO20.5 Trenches for services are backfilled to be compacted in 150mm layers to at least 95% modified dry density compaction ratio.
	AO20.6 Trenches under construction are not left open overnight.
PO21 Vegetation does not pose a risk to the safety or reliability of electricity infrastructure.	**AO21.1** Vegetation planted within an easement of an overhead power line or, where there is no easement, the area of influence of a power line, has a mature height of no more than 3.5m.
	AO21.2 Vegetation planted within an underground power line easement does not have a mature root system in >150mm depth and is not located directly over the power line.
	AO21.3 Vegetation adjoining easements complies with the clearance dimensions illustrated in the figure below.  

Performance outcomes	Acceptable outcomes
	AO21.4 Planting complies with (as relevant to the infrastructure concerned): (a) Energex's Safe tree guidelines, or (b) Ergon's Plant Smart brochures at www.ergon.com.au, or (c) Powerlink's Screening your home from powerlines information sheet at www.powerlink.com.au

8.2.11 Scenic amenity

8.2.11.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Scenic amenity overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.11.2 Purpose

(1) The purpose of the Scenic amenity overlay code is to ensure that development in areas of high scenic amenity is sited and designed to minimise adverse impacts on those scenic amenity values.
(2) The purpose of the code will be achieved through the following overall outcomes:
    (a) Development avoids areas of high scenic amenity, or, is sited and designed to minimise the impact on the scenic qualities of the area to the maximum extent possible.
    (b) The scenic qualities of headlands, landmarks and lookouts are not diminished by inappropriate development.
    (c) Development avoids or minimises adverse impacts on the scenic amenity of important views and vistas.

Note—For the purpose of this code 'scenic amenity' is defined as 'a measure of the relative contribution of each place in the landscape to the collective appreciation of open space as viewed from places that are important to the public'.

8.2.11.3 Assessment benchmarks

Table 8.2.11.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes
Siting of development	
PO1 Any buildings or structures are sited to minimise the impact on the natural landscape and topographical features.	**AO1** Any buildings or structures are not located on ridgelines.
For all assessable development	
Siting and design of development	
PO2 Development is visually integrated with the landscape elements to maintain or enhance the landscape and scenic amenity values. Note—The scenic amenity values of and visible from the land must be assessed and confirmed in a Scenic Amenity Assessment report prepared by a suitably qualified and experienced person. The report is to address strategies and design responses in order to demonstrate compliance with this performance criterion. The *South East Queensland Regional Plan 2005–2026 Implementation Guideline No. 8: Identifying and Protecting Scenic Amenity Values* provides a process for identifying areas with high scenic amenity as well as significant and popular viewpoints.	No acceptable outcome is nominated.
PO3	No acceptable outcome is nominated.

The building design: (a) minimises visual impact and prevents buildings from dominating the natural landscape (b) is compatible with the natural characteristics of the area, and (c) avoids skyline intrusion.	
PO4 Building colours and materials blend in with the natural landscape to soften the visual impact of buildings.	**AO4.1** Buildings utilize external finishes and colours that are of a low to moderate Light Reflectance Value (50% LRV or lower).
	AO4.2 Development includes variations in wall and roof lines so as to minimise the appearance of building bulk. No external face of the building in a single continuous plane has a surface area of more than 100 square metres.
Coastal development in rural areas	
PO5 The dominance of the natural character of landscapes, views and vistas in the coastal zone in rural areas is to be maintained or enhanced when viewed from the foreshore or significant viewer locations.	**AO5.1** Development does not protrude above any horizon or ridge line when viewed from any place readily accessible to the public such as parks and public spaces.
	AO5.2. The external colours of all buildings, structures and paved areas have a subdued natural tone that complements the predominant colours of the landscape.
	AO5.3. Cut and fill for retaining walls, driveway access and landscaping areas is no greater than 1m.
	AO5.4 All external lighting is directed downwards from a low intensity source situated not more than 1,500mm above natural ground level.
PO6 Development maintains and/or enhances natural scenic amenity values through vegetated buffers between development and coastal waters.	**AO6** Trees and vegetation are used to screen buildings and infrastructure.
Visibility of development	
PO7 Development visible from identified significant viewer locations does not adversely impact upon significant views and landscape and scenic amenity values.	No acceptable outcome is nominated.
Reconfiguration of a lot	
PO8 The creation of new lots and roads are	No acceptable outcome is nominated.

designed and oriented to minimise their visual impacts to: (a) preserve natural vegetation, particularly on ridgelines; (b) minimise the cutting and filling of the natural topography; and (c) minimise the impacts of new trunk infrastructure on existing vegetation.	
Signage	
PO9 Signage does not detract from the natural landscape character of an area.	**AO9** No acceptable outcome is nominated.

8.2.12 Steep land

8.2.12.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Steep land overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.12.2 Purpose

(1) The purpose of the Steep land overlay code is to ensure:
  (a) The safety of people, property and hazardous materials are protected from landslide hazard risk.
  (b) The potential for environmental degradation is minimised.
(2) The purpose of the Steep land overlay code will be achieved through the following overall outcomes:
  (a) Development is compatible with the level of risk associated with the landslide hazard.
  (b) Development is adequately protected from landslide hazard.
  (c) Development does not increase the extent or severity of landslide hazard risk.
  (d) Development provides for a useable and accessible building envelope and safe access.
  (e) Development follows natural contours and topography in order to minimise the earthworks.
  (f) Community infrastructure is located and designed to function effectively at all times.

8.2.12.3 Assessment benchmarks

Table 8.2.12.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	**Acceptable** outcomes
General	
PO1 Development: (a) ensures people and property are protected from landslide hazard originating from inside or external to the site (b) ensures the long term stability of the land (c) ensures access is not at risk from being permanently impeded by a landslide event (d) does not increase the risk of landslide to adjoining properties, and (e) incorporates appropriate building types and structures that minimise disturbance to the land. Note—To achieve compliance with this performance outcome, a Geotechnical Report can to be prepared and certified by a RPEQ in accordance with the Landslide Risk Management – Australian Geomechanics Journal.	**AO1.1** Development is not located on that part of the land identified on the Steep land overlay. **OR** **AO1.2** Where development is located on land identified on the Steep land overlay, a site-specific geotechnical report is provided that certifies:- (a) the stability of the site, including associated buildings and infrastructure, will be maintained during both the construction and operational life of the development; (b) the site is not subject to risk of landslide activity originating from other land, including land above the site; and (c) the development will not increase the risk of landslide on other land. Note—The Geotechnical Report is to be certified by a RPEQ in accordance with the Landslide Risk Management – Australian Geomechanics Journal.
PO2 Paths, driveways and roads: (a) avoid the steepest parts of the land, and	**AO2.1** Paths, driveways and roads do not traverse land with a slope exceeding 25%.

Performance outcomes	**Acceptable** outcomes
(b) are constructed to an appropriate standard to minimise landslide impacts, and (c) follow natural contours and minimise crossing with natural drainage lines.	**AO2.2** Paths, driveways and roads are sealed with asphalt, concrete or another type of hardstand where traversing a slope greater than 10%.
PO3 Earthworks: (a) minimises disturbance to the natural contours of the site and adjoining properties, and (b) do not increase the risk of landslide inside or external to the site.	**AO3.1** Earthworks do not: (a) change the ground level more than 1m at any point (b) occur within 1.5m of any property boundary, and (c) result in retaining walls located within 3m of a property boundary, other than where retaining walls are less than 1m in height on a continuous vertical plane.
	AO3.2 Where involving the construction of the roads, 2m is the maximum cut.
If involving a dwelling house	
PO4 Development must have sufficient size to accommodate a dwelling house, outdoor recreation area and an on site wastewater treatment system.	**AO4.1** Development is in accordance with a Reconfiguring a Lot Development Permit in which there is a Plan of subdivision and associated Operational Works (Earthworks) approval. Note – the Steep Land overlay mapping represents the best mapping information available at the time. It is acknowledged subsequent Reconfiguring a Lot and associated Operational Works (Earthworks) approvals may necessitate regular amendments to update the Steep land overlay mapping. AO4.1 recognises development may proceed in accordance with these approvals should the Steep land overlay mapping be triggered in the event the overlay mapping has not been updated.
	AO4.2 Where no Reconfiguring a Lot Development Permit and associated Plan of subdivision and associated Operational Works (earthworks) approval applies to the land, development includes a building envelope that: (a) is not located on land steep than 15%, and (b) has a minimum area of 1,000m2, and (c) has a minimum dimension of 18m.
For all assessable development	
Hazardous materials	

Performance outcomes	**Acceptable** outcomes
PO5 The manufacture or storage of hazardous material in bulk: (a) is not located on land, or in the immediate surrounds of land with a risk of landslide, and (b) does not represent a risk to people and property from landslide hazard.	**AO5** The manufacture or storage of hazardous material in bulk is not located on land identified on the Steep land overlay map.
Minimisation of landslide hazard	
PO6 Development incorporates measures to minimise the landslide risk level by: (a) avoiding works on the steepest parts of the land, and (b) retaining existing vegetation.	No acceptable outcome is nominated.
PO7 Paths, driveways and roads are designed to: (a) follow natural contours and have the minimum length necessary, and (b) minimise the number of crossings of water courses and drainage lines.	No acceptable outcome is nominated.
Community infrastructure and emergency services	
PO8 Community infrastructure and emergency services are able to function effectively during and immediately after landslide events.	No acceptable outcome is nominated.

8.2.13 Water resource catchment

8.2.13.1 Application

This code applies to development where the code is identified as applicable in the table of assessment for the Water resource catchment overlay code. When using this code, reference should be made to section 5.3.2 and where applicable, section 5.3.3 located in Part 5.

8.2.13.2 Purpose

(1) The purpose of the Water resource catchment overlay code is to ensure that development does not, individually or cumulatively, adversely impact on the quality or quantity of water entering:
    (a) Lake Awoonga
    (b) Lake Awoonga's catchment area
    (c) the Agnes Water water bores buffer area
    (d) the Miriam Vale water bores buffer area, or
    (e) the Bororen water bores buffer area.
(2) The purpose of the code will be achieved through compliance with the following overall outcome:
    (a) Development, cumulatively or individually, maintains or improves water quality within the catchment and buffer areas.

8.2.13.3 Assessment benchmarks

Table 8.2.13.3.1— Accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes

Reconfiguring a lot	
PO1 Development does not cause or permit pollutants, sediments or nutrients to enter a watercourse, wetland, lake, spring or aquifer within the catchment and buffer areas.	**AO1** Development complies with the specific outcomes and measures contained in the Seqwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012.