8.2.4 Biodiversity areas, waterways and wetlands overlay code

8.2.4.1 Application

This code applies to assessable development:-

(a) subject to the Biodiversity areas, waterways and wetlands overlay shown on the overlay maps contained within **Schedule 2 (Mapping)** or on premises otherwise determined to contain ecologically important areas; and

(b) identified as requiring assessment against the Biodiversity areas, waterways and wetlands overlay code by the tables of assessment in **Part 5 (Tables of assessment)**.

Editor's note—amongst other things, the Biodiversity areas, waterways and wetlands overlay mapping in **Schedule 2 (Mapping)** identifies premises subject to a property map of assessable vegetation (PMAV). PMAV areas are shown for information purposes only and do not trigger development to be assessable against this code.

Editor's note—for development requiring assessment against this overlay code, the **Planning scheme policy for information that the Council may require** provides guidance for achieving certain outcomes of this code, including preparation of an ecological assessment report and a koala impact assessment report.

8.2.4.2 Purpose and overall outcomes

(1) The purpose of the Biodiversity areas, waterways and wetlands overlay code is to ensure that:-

(a) ecologically important areas are protected;

(b) ecological connectivity is maintained or improved, habitat extent is maintained or enhanced and degraded areas are rehabilitated; and

(c) wetlands and waterways are protected, maintained, rehabilitated and enhanced.

(2) The purpose of the code will be achieved through the following overall outcomes:-

(a) development conserves and enhances the Fraser Coast's biodiversity values and associated ecosystem services;

(b) development protects and establishes appropriate buffers to native vegetation and significant fauna habitat;

(c) development protects known populations and supporting habitat of:-

(i) endangered, vulnerable and near threatened flora and fauna species, as listed in the (State) *Nature Conservation Act 1992*, *Nature Conservation (Wildlife) Regulation 2006; and*
(ii) threatened species and ecological communities as listed in the (Commonwealth) *Environment Protection and Biodiversity Conservation Act 1999*;

(d) development avoids or minimises adverse impacts on koalas and koala habitat, including movement corridors;

(e) development protects environmental values and achieves the prescribed water quality objectives for waterways and wetlands in accordance with the *Environmental Protection Policy (Water) 2009*;

(f) development protects and enhances the ecological values and processes, physical extent and buffering of waterways and wetlands.

8.2.4.3 Assessment benchmarks

Table 8.2.4.3.1 Assessment benchmarks for assessable development – General requirements for matters of environmental significance

Performance outcomes		Acceptable outcomes	
Protection of matters of environmental significance			
PO1	Development avoids significant adverse impacts on matters of environmental significance.	**AO1.1**	Development is located outside of areas containing matters of environmental significance and will not result in any significant adverse impacts on the relevant environmental values. **OR** The development site does not contain any matters of environmental significance. **OR** Development is located, designed and operated to mitigate significant adverse impacts on the relevant environmental values. Editor's note—to demonstrate compliance with acceptable outcome AO1.1 above, an assessment report certified by an appropriately qualified consultant may be required to confirm:- (a) that the proposed development will not result in any significant adverse impacts on relevant environmental values; (b) that the development site does not contain any matters of environmental significance; and/or (c) how the proposed development will mitigate adverse impacts, including impacts on water quality, hydrology and biological processes.
		AO1.2	For any significant residual adverse impacts, an environmental offset is provided in a manner consistent with current environmental offsets legislation, where applicable.
Impact on habitat of threatened species			
PO2	Development protects the habitat of endangered, vulnerable and near threatened (EVNT) species and local species of significance.	**AO2.1**	Development incorporates siting and design measures to protect and retain identified ecological values and underlying ecosystem processes within or adjacent to the development site.
		AO2.2	Other forms of potential human disturbance to these areas, such as presence of vehicles, pedestrian use, increased exposure to domestic animals, noise and lighting impacts, are avoided or adverse impacts sufficiently mitigated to retain critical life stage ecological processes (such as feeding, breeding or roosting). Note—development applications must identify any EVNT species or their habitats that may be affected by the proposal. In particular, applications are to identify and describe how the development avoids adverse impacts on ecological processes within or adjacent to the development area. EVNT species are declared under the *Nature Conservation Act 1992*.

Performance outcomes		Acceptable outcomes	
Strategic rehabilitation areas (ecological corridors)			
PO3	Development within strategic rehabilitation areas (ecological corridors) ensures that:- (a) biodiversity values are protected; (b) ecological connectivity is maintained or improved; (c) habitat extent and condition is maintained or enhanced; (d) degraded areas are rehabilitated to their natural state.	**AO3.1** **AO3.2**	Development within a strategic rehabilitation area (ecological corridor) provides for the retention, regeneration and rehabilitation of native vegetation in such a way as to:- (a) ensure protection of areas of vegetation that are wildlife refuges; (b) maintain vegetation that are in patches of greatest size and smallest possible edge-to-area ratio; (c) maximise the linkages between vegetation located on the subject site; (d) maximise linkages between vegetation located on adjacent properties within the biodiversity network; (e) allow the dispersal or movement through habitat of native wildlife; (f) protect riparian vegetation in and adjacent to watercourses. Development within a strategic rehabilitation area (ecological corridor) protects native fauna feeding, nesting, breeding and roosting sites and provides for native fauna movements within and through the biodiversity corridor area with measures appropriate for ensuring the viability of biodiversity corridors.
Non-native pest species			
PO4	Development avoids the introduction of non-native pest species (plant or animal), that pose a risk to the ecological integrity of areas of environmental significance.	**AO4.1** **AO4.2**	Development avoids the introduction of non-native pest species. The threat of existing pest species is controlled by adopting pest management practices that provide for long-term ecological integrity.

Table 8.2.4.3.2 Assessment benchmarks for assessable development – Koala habitat areas and Koala conservation

Performance outcomes		Acceptable outcomes	
Development in areas of koala habitat value			
PO1	Development on land containing or adjoining koala habitat (as shown on the Biodiversity areas, waterways and wetlands overlay maps or otherwise identified as koala habitat):- (a) minimises the impact of development activities and human settlement on areas of koala habitat value; (b) maintains and, where possible, enhances opportunities for effective and safe koala movement; and (c) mitigates the risk of harm to koalas. Editor's note— the **Planning scheme policy for information that Council may require** provides guidance for achieving this performance outcome.	**AO1.1**	The road and lot layout is designed so that:- (a) koala movement corridors and concentrations of vegetation of koala habitat value are included in public open space with a minimum dimension of 100m; and (b) public open space is located to provide connections to koala movement corridors outside the development site; and (c) a combination of public open space and widened road reserves are used to maximise the retention of koala movement corridors and provide multiple connections between concentrations of vegetation of high koala habitat value; and (d) carriageway pavement widths and road geometry is designed to provide a low traffic speed environment; and (e) allotments intended for residential or other development are concentrated in parts of the site (in descending order of

Part 8

Performance outcomes		Acceptable outcomes	
			preference):- (i) that are already cleared; or (ii) that do not contain vegetation of koala habitat value; or (iii) where the density of vegetation of koala habitat value is lowest; and (f) koala movement corridors are not crossed by roads; and (g) through-traffic with a destination outside the development is not accommodated.
		AO1.2	All individual trees of species known to provide koala habitat identified to be retained have appropriate protective barriers installed and maintained around their critical root zones for the duration of:- (a) operational work for subdivision of land; and (b) building and operational work for building construction.
		AO1.3	No operational work or building work is undertaken within the critical root zone of trees identified in accordance with acceptable outcome AO1.2.
		AO1.4	Operational work for the installation of services uses shared trenching, off-sets of service alignments, tunnel boring, root barriers and other techniques to minimise impact on other vegetation of koala habitat value.
		AO1.5	A building envelope is identified on the proposal plan, pegged on the ground and marked on the survey plan for all proposed lots and located at a distance that is greater than the height of those trees identified in accordance with acceptable outcome AO1.2.
		AO1.6	Houses, driveways, vehicle parking and accommodation, storage sheds, swimming pools, tennis courts and other domestic outbuildings are not located outside building envelopes identified in accordance with acceptable outcome AO1.5.
		AO1.7	Where not in a sewered area:- (a) an appropriate area for the on-site treatment and disposal of effluent clear of the critical root zone of trees identified in accordance with acceptable outcome AO1.2 is identified on the proposal plan, pegged on the ground and marked on the survey plan for all proposed lots; (b) operational work and plumbing work for the treatment and disposal of effluent does not occur outside this area.
		AO1.8	Fencing for private and public premises maintains the vision and movement of koalas by utilising one or more of the

Performance outcomes		Acceptable outcomes	
			following fencing types:- (a) post and wire; (b) post and rail; (c) wire mesh; or (d) vegetated hedges. Barbed wire fencing is not used.
		AO1.9	Public open space and road reserves are planted with local indigenous species including koala food trees located to reinforce existing or establish new koala habitat or movement corridors.
		AO1.10	Where koala movement corridors are crossed by roads, the design of the crossing point includes three or more of the following elements:- (a) narrowing of the carriageway; (b) speed control devices; (c) signage; (d) carriageway surface texture change; (e) carriageway surface colour change; (f) road bridge; or (g) wildlife underpass.
		AO1.11	Signage is provided at the estate entry and where roads cross koala movement corridors to:- (a) advise of the presence of koalas; (b) recommend safe driving speed; (c) provide wildlife injury service contact information.
		AO1.12	Dog-proof fencing is installed on the boundary of a building envelope identified in accordance with acceptable outcome AO1.5.
		AO1.13	Other than for a dwelling house, landscaping of sites comprises predominantly local indigenous species including koala food trees.

Table 8.2.4.3.3 Assessment benchmarks for assessable development – Wetland buffers

Performance outcomes		Acceptable outcomes	
PO1	Adequate buffers to wetlands are provided and maintained to assist in the maintenance of water quality, existing hydrological characteristics, ecological functioning and visual amenity values.	**AO1.1**	A buffer is provided and maintained surrounding the wetland 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. **OR** An alternative buffer is provided and maintained, the width of which is supported by an evaluation of the environmental values, functioning and threats to the wetland. Note—the *Queensland Wetland Buffer Planning Guideline* (2011) should be referred to when planning detailed buffer design to position

Performance outcomes		Acceptable outcomes	
			development, determine any alternative buffer widths, and establish operating measures that avoid adverse impacts on a wetland.
		AO1.2	Development involving vegetation clearing or high impact earthworks does not occur within a wetland buffer. Editor's note—high impact earthworks has the meaning given in the Regulation.

Table 8.2.4.3.4 Assessment benchmarks for assessable development – Waterways

Performance outcomes		Acceptable outcomes	
Buffering and protection of waterways			
PO1	Development:- (a) retains, enhances and maintains the environmental values and functioning of waterways; (b) provides and maintains adequate vegetated buffers and setbacks to waterways.	**AO1.1**	In an urban area, development is setback a minimum of 50m from a waterway on or adjacent to the site. Editor's note—'urban area' has the meaning given in the Regulation. Note—subject to demonstrating compliance with performance outcome PO1, the Council may consider a lesser setback to a waterway in an urban area, having regard to the ecological value of the waterway and the nature of the proposed development. **OR** Outside of an urban area, development is setback a minimum of 100m from a waterway on or adjacent to the site.
		AO1.2	Development does not involve the removal of native vegetation from a waterway or waterway buffer.
		AO1.3	Cleared, degraded or disturbed waterways and waterway buffer areas within the site are rehabilitated along their full length in accordance with a detailed rehabilitation plan, approved by the Council. Note—the rehabilitation plan should include:- (a) appropriate rehabilitation and restoration methods for bed/banks and in-stream and waterway vegetation for waterways; (b) management measures of weed species; (c) consideration of fauna habitat (including relevant international agreements such as CAMBA, JAMBA and Ramsar); (d) provision of buffers in the form of riparian vegetation and separation by way of distance between the development and the vegetated buffers; (e) proposed planting regimes (utilising species appropriate to the area); (f) proposed measures for the protection of vegetation and habitat whilst rehabilitation works are being undertaken.
		AO1.4	Site layout does not impact upon the natural drainage systems associated with the primary waterway.
		AO1.5	Development is undertaken in accordance with an approved environmental

Performance outcomes		Acceptable outcomes	
			management plan that protects the waterway.
Bank stability, channel integrity and in-stream habitat			
PO2	Bank stability, channel integrity and in-stream habitat is protected from degradation and maintained or improved at a standard commensurate with pre-development environmental conditions.	**AO2**	No direct interference or modification of waterway channels, banks or riparian and in-stream habitat occurs.
Hydrologic regime			
PO3	Development ensures that the natural surface water and groundwater hydrologic regimes of waterways and associated buffers are maintained to the greatest extent possible.	**AO3**	Existing natural flows of surface and groundwater are not altered through channelization, redirection of interruption of flows.
Public access and edge effects			
PO4	Development on land adjacent to a waterway maintains an appropriate extent of public access to waterways and minimises edge effects.	**AO4**	Development adjacent to a waterway provides that:- (a) no new lots directly back onto the riparian area; (b) any new roads are located between the waterway buffer and the proposed development areas.

Table 8.2.4.3.5 Assessment benchmarks for assessable development – Management of vegetation clearing works and disposal

Performance outcomes		Acceptable outcomes	
Management of vegetation clearing works			
PO1	Vegetation is protected to ensure that:- (a) ecological processes, biodiversity and the habitat values of native flora and fauna are protected and enhanced; (b) ecosystems are protected from weed invasion and edge effects; (c) the functioning and connectivity of biodiversity corridors and fauna movement networks is maintained; (d) the ecological health and integrity of riparian corridors, waterways and wetlands are maintained; (e) soil resources are protected against the loss of chemical and physical fertility through processes such as erosion, mass movement, salinity and water logging; (f) trees with nesting hollows are protected.	**AO1**	Vegetation clearing, other than exempt vegetation clearing[4], does not occur. **OR** Where any permanent, irreversible loss of identified ecological values occurs due to vegetation clearing, other than exempt vegetation clearing, rehabilitation is undertaken in accordance with the **Planning scheme policy for environmental and vegetation offsets**. Note—in assessing and deciding a development application for vegetation clearing, matters that will be taken into account by Council will include but not necessarily be limited to:- (a) any current development approval attached to the land which may include conditions or measures relating to vegetation retention or protection; (b) whether the vegetation is specifically protected by a vegetation protection order, registrable covenant, easement or similar legally binding mechanism that seeks to protect the values and functions of recognised significant vegetation; (c) whether the vegetation is identified or referred to in State or Federal legislation; (d) whether the vegetation is located on a prominent hillside, slope or ridgeline; (e) whether vegetation clearing may cause or contribute to erosion or slippage;

[4] Editor's note—the term 'exempt vegetation clearing' is defined in **Schedule 1 (Definitions)**.

Performance outcomes		Acceptable outcomes	
			(f) whether the vegetation is or forms part of a riparian area or other habitat network and is valuable to the functioning of that network; (g) whether the vegetation is or is capable of forming or contributing to a buffer between different land uses; (h) whether the vegetation is or is capable of forming or contributing to a visual buffer, agricultural buffer or a buffer against pollution, light spillage or noise; (i) whether the vegetation contributes to visual amenity, landscape quality or cultural heritage significance; and (j) the likely effectiveness of any proposed rehabilitation measures, having regard to the **Planning scheme policy for environmental and vegetation offsets**.
PO2	Vegetation clearing works are conducted in a manner that:- (a) protects natural landforms, including steep land, waterways, gullies and wetlands; and (b) prevents soil degradation and controls erosion, slippage and sedimentation	**AO2**	No acceptable outcome provided. Editor's note—Section **9.4.7 (Works, services and infrastructure code)** sets out requirements for sediment and erosion control.
PO3	Vegetation clearing works are conducted in a manner that:- (a) protects the aesthetic and ecological values or retained vegetation; and (b) minimises impact on fauna.	**AO3.1** **AO3.2** **AO3.3**	The health and stability of retained vegetation is maintained or enhanced during vegetation clearing works by:- (a) clearly marking vegetation to be retained with temporary fencing and flagging tape; (b) preventing any filling, excavation, stockpiling, storage or chemicals, fuels or machinery within the fenced protection area; and (c) removing all declared noxious weeds and environmental weeds from the site. All vegetation clearing works carried out in the vicinity of retained vegetation is undertaken in accordance with *AS4970 Protection of Trees on Development Sites* and *AS4687 Temporary Fencing and Hoarding*. Where construction activities will result in adverse impacts upon fauna and/or the clearing and/or the removal of fauna habitat all work is to be carried out under the supervision of a registered fauna spotter and catcher.
PO4	Vegetation clearing is undertaken in a manner that minimises environmental harm and environmental nuisance to surrounding areas as a result of air or noise emissions.	**AO4.1** **AO4.2** **AO4.3**	No dust emissions extend beyond the boundaries of the site. No other air emissions, including odours, are detectable at the boundary of the site. Noise generating equipment is shielded or acoustically treated in a manner that ensures the equipment does not create environmental nuisance.
Vegetation disposal			
PO5	Vegetation cleared from a site is disposed of in a manner that:- (a) maximises reuse and	**AO5**	Where vegetation is cleared, vegetation waste is appropriately disposed of (not burned) in the following order of

Performance outcomes		Acceptable outcomes	
	recycling; and (b) minimises impacts on public health and safety.		preference:- (a) milling for commercial timber products, landscaping or firewood; (b) on-site chipping or mulching unless it causes spreading of non-indigenous species; and (c) transportation off-site and disposal in an approved green waste disposal facility.

Part 8