State Planning Policy – state interest guidance material

Biodiversity

July 2017

Queensland Government

The State of Queensland, July 2017. First published by the Department of Infrastructure, Local Government and Planning, 1 William Street, Brisbane Qld 4000, Australia.

An electronic copy of this report is available on the Department of State Development, Manufacturing, Infrastructure and Planning website at **https://planning.dilgp.qld.gov.au/.**

Contents

Using this state interest guidance material

The Queensland Government established the State Planning Policy (SPP) to define the matters of state interest in land-use planning and development. State interests in the SPP consist of a state interest statement, state interest policies and, where applicable, assessment benchmarks.

This guidance material has been prepared to support the implementation of the SPP and the interpretation of the *Biodiversity* state interest. Although the SPP broadly applies to a range of activities undertaken by state and local governments, the guidance material is particularly focused on assisting local governments when making or amending a local planning instrument and when applying the assessment benchmarks (to the extent relevant).

The SPP does not prioritise one state interest over another, providing flexibility for decision-makers to respond to specific regional and local circumstances. This allows for the state interests to be considered in their entirety rather than as individual or separate priorities. State interests are to be considered in the context of the guiding principles in the SPP which promote an *outcome focused*, *integrated*, *efficient*, *positive* and *accountable* planning system.

The SPP guidance material is intended to be read in conjunction with the SPP and the relevant state interest. The SPP guidance material is not statutory in its effect and does not contain any new policy. It is not mandatory for local governments to use the guidance material but it is provided to assist with the interpretation and application of the state interest policies and the assessment benchmarks contained in the SPP.

The SPP guidance material is structured as follows:

Part 1: Understanding the state interest – This section briefly explains why a particular matter is a matter of state interest, describes the purpose of the relevant state interest statement and defines the core concepts associated with the state interest.

Part 2: Integrating the state interest policies – This section provides background and further explanation for each of the state interest policies defined in the SPP. It also provides examples and options regarding how to appropriately integrate each state interest policy into a local planning instrument.

Part 3: Mapping – This section identifies and explains the mapping layers contained in the SPP Interactive Mapping System (IMS) relevant to a particular state interest. It also clarifies how a local government can locally refine state mapping in certain instances and outlines where online mapping for the state interest can be accessed (if relevant).

Part 4: Applying assessment benchmarks – In accordance with the Planning Regulation, an assessment manager or referral agency must have regard to the SPP when assessing a development application. For some state interests, there are also specific assessment benchmarks that must be used by a local government for development assessment. This section outlines the development applications to which the assessment benchmarks apply and how a development application may demonstrate compliance with these benchmarks, to the extent that these are relevant. The assessment benchmarks contained in the SPP will apply to assessable development in addition to any assessment benchmarks contained in a local planning instrument, to the extent of any inconsistency.

Part 5: Example planning scheme provisions – This section provides example planning scheme provisions that a local government may choose to adopt, or to adapt, when making or amending a local planning instrument. It is important to note that the example planning scheme provisions provided may only be in relation to a particular aspect of a state interest, rather than addressing all of the particular state interest policy requirements.

Part 6: Supporting information – This section provides a list of technical resources that a local government may wish to refer to when considering making or amending a planning scheme. This section also provides a glossary of terms and acronyms used throughout the SPP guidance material.

Where text in this guidance material is in a coloured text box, it is an excerpt from the SPP and is either the state interest statement, state interest policy or the assessment benchmarks applicable to the *Biodiversity* state interest.

Any queries related to the SPP guidance material or the SPP should be sent to SPP@dilgp.qld.gov.au.

Part 1: Understanding the state interest

State interest statement

Matters of environmental significance are valued and protected, and the health and resilience of biodiversity is maintained or enhanced to support ecological processes.

Queensland has rich biodiversity and many unique ecosystems. Our diverse landscapes and extensive range of native wildlife contribute greatly to the state's economic security and support a lifestyle that attracts people and businesses to Queensland.

Queensland is home to 72 per cent of Australia's native bird species, 85 per cent of its mammal species, just over half of its native reptile and frog species and more than 12,000 species of plants. Five of Australia's 16 natural world heritage sites are also located wholly or partly in Queensland and include the Wet Tropics, the Great Barrier Reef and Fraser Island.

The *Biodiversity* state interest seeks to maintain or enhance the health and resilience of Queensland's rich biodiversity by ensuring planning and development decisions protect matters of environmental significance (MES). This is to be achieved by identifying and protecting MES in the planning framework (e.g. local planning instruments, regional planning, and designating premises for infrastructure).

Core concepts

Biodiversity refers to many concepts and terms that have scientific and legal definitions established by federal and state legislation. Part 6: *Supporting Information* provides more detail.

Biodiversity

Biodiversity is the variety of all living things and is usually explored at three levels:

- Genetic diversity – the variety of genetic information contained in individual plants, animals and micro-organisms.
- Species diversity – the variety of species.
- Ecosystem diversity (terrestrial, marine and freshwater) – the variety of habitats, ecological communities and ecological processes.

Biodiversity protection

Protection of matters of environmental significance in the context of the SPP involves avoiding adverse impacts and, where this cannot be reasonably achieved, minimising adverse impacts.

Locating development in areas away from, or clear of matters of environmental significance is the preferred approach. Strategies include zoning land for conservation purposes, or allocating future urban development in locations where there are no matters of environmental significance.

It is recognised that avoiding adverse impacts cannot always be achieved - for example, where an existing development commitment exists. Where adverse impacts cannot be avoided, the extent of the impacts should be minimised. Useful strategies in these

circumstances include minimising vegetation and connectivity loss, limiting development activities during breeding periods or reducing on-site construction and operational impacts such as noise, lighting and hours of operation.

Biodiversity maintenance and enhancement

Biodiversity can be maintained through planning and development decisions that support the continued functioning of the environmental value (an individual species or an entire ecosystem) within its natural limit of variability, even after development has occurred. Examples include, limiting disturbance to water and food sources, or allowing for the continued movement of species through an area.

Biodiversity can be enhanced through supporting opportunities for existing habitats and ecosystems to thrive long-term and expand through rehabilitation, restoration or revegetation efforts (both natural and supported processes).

Useful strategies include:

- rehabilitating degraded biodiversity areas through active weed management or revegetation efforts
- revegetating cleared or degraded areas that are in proximity to, or connect, areas of biodiversity to improve habitat and extent, or reconnect isolated habitats
- linking to financial offset arrangements to provide funding of native revegetation programs.

Biodiversity health

Biodiversity and ecosystem health refers to its condition, integrity and productivity, (ability to perform its ecological processes). It can be degraded by threats including:

- invasion of pests and weed species, which outcompete or predate on native species
- development activities that fragment intact areas leading to loss of genetic diversity and greater edge-effects from adjoining land uses
- poor fire regime management, particularly impacts on vulnerable species
- poor water quality management, destroying the aquatic ecosystem and dependent fauna.

Degraded or poor biodiversity values may only be temporary, and rehabilitation efforts can help to restore the overall productivity of degraded ecosystems.

Ecological processes

Ecological processes relate to the structural components of an ecosystem (e.g. vegetation, water, soil, atmosphere and biota) and how they interact with each other, within ecosystems and across ecosystems.

Ecological processes include the following:

- hydrological processes
- soil development
- nutrient cycling
- chemical processes including storage of nutrients
- decomposition and cycling of organic matter
- pollination and seed production
- seed dispersal
- predator–prey relationships
- germination and recruitment of species
- the carbon cycle and stability of atmospheric carbon

- habitats for flora and fauna (such as logs, rocks, debris, leaf litter, nectar, hollow-bearing trees, food and shelter).

Ecosystem resilience

Resilience refers to the capacity of an ecosystem to adapt to changes and disturbances yet retain its basic functions and structures. A resilient ecosystem can adapt to shocks and surprises, and rebuild itself when damaged.

The resilience of ecosystems can be reduced or lost by a range of factors, including:

- changes to the aquatic environment and water flows
- pollution
- unsustainable use and management of natural resources
- climate change
- changing fire regimes
- habitat loss, degradation and fragmentation
- invasive species.

Ecological connectivity

Ecological connectivity refers to connections across the landscape that link up areas of habitat facilitating the safe movement of wildlife or genetic flows across the landscape and can include:

- large areas of bushland habitat
- linear ecological corridors that range in size from smaller corridors connecting relatively close areas of habitat to landscape corridors connecting more distant areas
- small patches of vegetation that provide habitat and serve as ‘stepping stones’ to aid the movement of native species between larger habitat areas.

Matters of environmental significance (MES)

MES is used to group and identify the natural areas or values of state interest in land-use planning and development. MES includes biodiversity that is considered to be of environmental importance:

- either nationally or internationally is termed a ‘matter of national environmental significance’ (MNES)
- at a state level is termed a ‘matter of state environmental significance’ (MSES)
- at a local level is termed a ‘matter of local environmental significance’ (MLES).

Matters of national environmental significance (MNES)

MNES contains natural values and features that are protected under the authority of the Commonwealth’s *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Those relevant to the *Biodiversity* state interest are:

- World Heritage properties
- National Heritage places
- wetlands of international importance
- listed threatened species and ecological communities
- migratory species protected under international agreements
- Commonwealth marine areas
- Great Barrier Reef Marine Park.

Certain MNES have geographically defined boundaries that enable these matters to be more easily considered when planning for the future.

Matters of state environmental significance

These include a range of environmental areas and values and are defined in Part G of the SPP and spatially represented on the SPP IMS where possible.

Matters protected under various pieces of state legislation may include:

- protected area estates like national parks
- marine national parks
- fish-habitat areas
- essential habitat for threatened species
- important regional ecosystems
- high conservation value wetlands.

MSES are protected under different environmental legislation administered by different state government agencies, such as the *Vegetation Management Act 1999*, *Nature Conservation Act 1992* and *Fisheries Act 1994*, whose provisions often interact.
For example, koala habitat is considered MSES that is protected under multiple state Acts and, in South East Queensland (SEQ) where koala populations are most at-risk, the Planning Regulation 2017. Koala habitat outside SEQ is also protected under the EPBC Act (see MNES).

Matters of local environmental significance (MLES)

These matters represent natural values and/or areas identified by a local government in a local planning scheme. The SPP supports a local government's ability to identify MLES or ground-truth matters of environmental significance. For example, a regional plan may identify natural values or areas for investigation and refinement by local government for protection as MLES.

Local matters play an important role in supporting the protection of MNES, MSES as well as broader biodiversity values.

MLES cannot be the same, or substantially the same as MSES or MNES but may overlap spatially in certain circumstances (see Environmental Offsets Regulation 2014 for further details) – for example, habitat for wildlife species that are not listed as 'vulnerable', 'endangered' or 'special least concern' under the *Nature Conservation Act 1992* or the EPBC Act that is important locally (e.g. squirrel gliders).

The protection of MLES can be supported through environmental management activities and acquisition programs.

Environmental offsets

The *Environmental Offsets Act 2014* establishes the framework supporting the provision of environmental offsets for certain prescribed activities and matters. If a development approval requires an environmental offset for an adverse impact on MSES or MLES, the delivery of the environmental offset must be consistent with the environmental offsets framework. This includes setting a consistent offset ratio, maintaining a register and ensuring compliance with offset requirements.

A local government may only require an environmental offset for MSES where allowed for under the Environmental Offsets Regulation 2014. Currently the only MSES for which a local government offset can be required is non-juvenile koala habitat trees as defined in Schedule 24 of the Planning Regulation 2017.

Part 2: Integrating the state interest policies

When making or amending a local planning instrument, each local government is required to consider all state interests in the SPP and appropriately integrate those state interests applicable to their local area. Each state interest is comprised of a number of policies. The *Biodiversity* state interest has five policies.

Appropriately integrating the *Biodiversity* state interest requires all five state interest policies to be considered by a local government, but it does not necessarily mean a local government must address all five state interest policies when making or amending a local planning instrument. For example, if a local government needs to balance competing state interests in a local planning instrument, it may not be possible to address all five policies for the *Biodiversity* state interest.

This balancing of state interests may mean that the planning scheme needs to prioritise one state interest or policy over another. This balancing and its outcome is considered as part of the state interest review. Ministerial approval for the scheme means the approach taken by the local government in balancing the state interest and polices is endorsed by the state.

State interest policy (1)

Development is located in areas to avoid significant impacts on matters of national environmental significance and considers the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*.

How to appropriately integrate the policy

1.1 Include provisions in the strategic framework that recognise and consider MNES and the requirements of the EPBC Act. For example:

- Identify the extent of MNES in a strategic framework map (where MNES values are able to be spatially identified). The Commonwealth Protected Matters Search Tool can assist.
- Avoid locating development or future urban growth areas within MNES.
- Include references to relevant international conservation agreements and species conservation plans such as the Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) and bilateral agreements (such as bilateral agreements between Australia and other nations to protect migratory birds).

1.2 Consider the compatibility of development with the protection of MNES when determining zoning and overlay spatial extents.

1.3 Avoid zoning and overlay provisions that support development outcomes likely to have a significant impact on a MNES. The MNES – Significant impact guidelines supporting the EPBC Act can assist in determining what is a significant impact.

1.4 Consider including MNES in a conservation or environmental management zone or within an environmental overlay where this measure most effectively reduces impacts on values. Where MNES values are able to be spatially identified, mapping should differentiate between the three different levels of matters of environmental significance (MNES, MSES and MLES).

1.5 Include provisions in a planning scheme that seek to minimise or mitigate as much as possible impacts on areas of MNES where impacts are unavoidable. Useful strategies include planning provisions which manage:

- The location of buildings or activities on the site.
- The timing of the use or its component activities.
- The design of any buildings, or other structures or infrastructure.

State interest policy (2)

Matters of state environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided they are minimised.

How to appropriately integrate the policy

2.1 Identify and protect MSES in the strategic framework through; for example,

- Identifying the extent of MSES in a strategic framework map (where the MNES values can be represented spatially).
- Avoiding locating new urban development within areas of MSES.
- Avoiding development on land that contains substantial areas of MSES.
- Including strategic outcomes that:
  - ensure development occurs in areas where adverse impacts on MSES are avoided and, in cases where impacts cannot be reasonably avoided, they are minimised
  - require MSES and its ecological processes to be maintained or enhanced.

2.2 Include land containing large and intact areas of MSES in a zone that best protects its environmental values, such as: This includes Material Change of Use, Reconfiguration of a Lot and Operational works, including for vegetation clearing.

Use zones that are most effective at protecting MSES, including:

- Environmental category zones (environmental management and conservation zone, conservation zone, environmental management zone) are the preferred zoning for MSES, including on protected areas.
- Limited development zone (where appropriate).
- Rural zone.

2.3 Consider an appropriate category of assessment for development that has the potential to have an adverse impact on MSES that allows these impacts to be avoided and minimised.

2.4 Consider the specific MSES values to be protected and the potential impact on these values from adjoining land uses when zoning land – for example, where protected MSES is likely to be adversely impacted by adjoining land.

2.5 Consider avoiding or minimizing adverse impacts on the MSES through structure/master planning or a similar comprehensive planning process for significant development areas with existing development commitments.

2.6 Consider identifying MSES through a planning scheme overlay, such as an environmental overlay, regardless of whether it is located in an urban or non-urban area. For clarity and certainty, overlay mapping should differentiate between MSES and the other levels of MES - MNES and MLES.

Note: MSES mapping on the SPP Interactive Mapping System (IMS) is indicative and may not reflect the full extent of MSES values as defined in the SPP. In certain circumstances, the local government may wish to locally refine the mapping. To maintain consistency, the MSES methodology is to be used when refining MSES at the local level. Where a local government refines MSES by using better resolution mapping of boundaries, the revised mapping should be provided to the Queensland Herbarium.

2.7 Include provisions in the purpose statement, performance and acceptable outcomes of relevant codes so that development:

- avoids adverse impacts on MSES; or
- minimises adverse impacts where it is demonstrated they cannot be reasonably avoided; or
- requires an offset for a significant residual impact on MSES that remains following minimisation where permitted by the *Environmental Offsets Act 2014*.

2.8 Consider including provisions in relevant codes that support a site-based ecological survey of MSES to confirm the presence and extent of values present. A planning scheme policy can provide direction on the requirements of a site-based ecological survey and on to how to demonstrate that adverse impacts on MSES cannot be avoided (see Appendix 1: *Ecological value assessment methods* for further advice).

2.9 Subject development that has the potential to have an adverse impact on MSES to a level of assessment that allows these impacts to be adequately assessed in the relevant zone and/or overlay.

State interest policy (3)

Matters of local environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.

How to appropriately integrate the policy

3.1 Identify and protect local natural values or areas as MLES, through strategic framework maps, zoning and as part of the environmental overlay map. Identification of MLES can be informed by:

- local scientific studies, environmental strategies or resulting from community engagement
- further investigating and refining values or areas identified in a regional plan as important at a regional scale to protect biodiversity as MLES – for example, regional biodiversity values and regional biodiversity corridors identified in the ShapingSEQ (South East Queensland Regional Plan 2017)
- identifying areas that support the protection and provide linkages between significant areas of MSES or MNES

- identifying environmental values that form part of the state vegetation management framework but are not identified as MSES such as Least Concern remnant regional ecosystems and regrowth vegetation mapped under the *Vegetation Management Act 1999*.

3.2 Consider provisions in the purpose statement, performance and overall outcomes of relevant codes so that development:

- avoids adverse impacts on MLES; or
- minimises adverse impacts where it is demonstrated that they cannot be reasonably avoided; or
- requires an offset for a significant residual impact on MLES that remains following minimisation where permitted by the *Environmental Offsets Act 2014*.

3.3. Consider including assessment benchmarks for MLES offset requirements in the planning scheme. This could be supported by guidance and advice about satisfying environmental offset criteria in a planning scheme policy, including the maximum ratios for financial or land-based delivery of offsets.

3.4 Include a description of the individual values that comprise MLES in the local planning scheme.

State interest policy (4)

Ecological processes and connectivity is maintained or enhanced by avoiding fragmentation of matters of environmental significance.

How to appropriately integrate the policy

4.1 Consider including strategic outcomes in the strategic framework that:

- seek to maintain and enhance the ecological processes of MES
- avoid fragmenting the connectivity of MES
- enhance connectivity through rehabilitation works and/or the delivery of environmental offsets to support existing or proposed ecological corridors.

4.2 Show ecological connectivity/corridors, comprising of MNES, MSES and MLES, in a strategic framework map that:

- identifies ecological connectivity/corridors where urban development and rural residential development need to avoid fragmentation.
- clusters urban development where appropriate to minimise disturbance of ecological connectivity.

4.3 Consider including ecological connectivity/corridors in an environmental zone category (environmental management and conservation zone, conservation zone or environmental management zone).

4.4 Consider identifying ecological connectivity/corridors through a planning scheme overlay, such as an environmental overlay, clearly differentiating any ecological corridors from other overlay features such as MNES, MSES and MLES.

4.5 When identifying ecological corridors, consider matters such as:

- 'least concern' regional ecosystems and 'regrowth' connecting vegetation

- riparian vegetation along waterways
- areas that are currently cleared or degraded but which have potential to be rehabilitated to provide vital links between matters of environmental significance
- vegetation patches that support ecological connectivity by providing 'stepping stones' and provide habitat
- environmental acquisition or offset acquisition strategies
- regional biodiversity values and corridors identified in a regional plan (to be refined by local government as ecological corridors and protection as MLES).

4.6 Consider an appropriate category of assessment for development that has the potential to have an adverse impact on ecological connectivity that allows these impacts to be avoided and minimised.

4.7 Consider provisions in relevant zone and overlay codes for development to be designed, planned and operated to promote connectivity between habitats to the extent that migration or normal movement of native species between habitats or normal gene flow between populations is not inhibited.

4.8 Locate and design infrastructure, particularly linear infrastructure, to avoid severing ecological connectivity. Where impacts on ecological connectivity cannot be avoided, include measures for fauna movement wherever practicable (over/underpasses, fauna fencing) that are designed and operated to ensure native wildlife can continue to move through the landscape freely and safely.

State interest policy (5)

Viable koala populations in South East Queensland are protected by conserving and enhancing koala habitat extent and condition.

How to appropriately integrate the policy

5.1 Include a strategic framework map of koala habitat to be protected and enhanced. Consider using MSES in the SPP IMS and undertaking local refinement.

5.2 Include strategic outcomes for the protection and enhancement of koala habitat to support viable koala populations in SEQ.

5.3 Include planning provisions to ensure that land for new development or future urban development avoids areas of koala habitat.

5.4 Include areas of koala habitat to be protected or enhanced in an environmental category zone (i.e. environmental management and conservation zone, conservation zone or environmental management zone). Consider including areas required to connect koala habitat.

5.5 Include a planning scheme a planning scheme overlay, such as an environmental overlay, of mapped koala habitat.

5.6 Consider appropriate categories of assessment which allow impacts to be assessed, avoided and managed where development has the potential to have an adverse impact on koala habitat.

5.7 Minimise impacts on koalas and their habitat where development is proposed to be located in areas that contain koala habitat by:

- incorporating koala-sensitive design principles into the planning and design of development (see Part F: Supporting Information)
- designing development provisions to maximise the retention of koala habitat trees.
- considering the preparation of a survey by a suitably qualified professional to assist in the identification of koala habitat trees.

5.8 Consider scheme provisions and planning scheme policies that mitigate threats to koalas at the construction stage of development by:

- undertaking the removal of any non-juvenile koala habitat trees sequentially under the guidance of a koala spotter.
- facilitating the movement and dispersal of koalas from the development site to adjacent habitat.
- incorporating measures into construction practices that minimise the risk of death or injury to koalas.

Part 3: Mapping

To support the SPP, wherever possible and to the extent relevant, matters of state interest are spatially represented as layers included in the SPP IMS. The mapping is necessary to help local government, the community and industry understand and interpret where and how state interest policies and assessment benchmarks included in the SPP apply.

Several mapping layers contained in the SPP IMS are prepared by entities other than the Department of Infrastructure, Local Government and Planning and may serve an additional purpose outside the Queensland planning system. Where relevant, the SPP IMS represents the single point of truth for the spatial representation of the state interests expressed in the SPP.

Appendix 1 of the SPP identifies three categories of mapping layers provided or referred to in the SPP IMS that are intended to be used in one of the following ways:

Category 1 – State mapping layers that must be appropriately integrated in a local planning instrument in a way that achieves the relevant state interest policy.

Category 2 – State mapping layers that must be appropriately integrated, and can be locally refined by a local government in a local planning instrument in a way that achieves the relevant state interest policy.

Category 3 – State mapping layers that are provided for local government information purposes only.

The SPP IMS is located at: https://planning.dilgp.qld.gov.au/maps. Any queries related to the SPP mapping should be sent to mappingenquiries@dilgp.qld.gov.au.

This section provides clarity regarding the mapping layers on the SPP IMS relevant to the *Biodiversity* state interest.

Mapping layers

Matters of state environmental significance	
Purpose	For the identification of MSES to assist in integrating the *Biodiversity* state interest.
Mapping category	Category 1 • MSES – Protected areas. • MSES – Marine park. • MSES – Declared fish habitat area. • MSES – Strategic environmental areas (designated precinct). • MSES – High ecological significance wetlands. • MSES – Legally secured offset area.
	Category 2 • MSES – Wildlife habitat. • MSES – High ecological value waters (wetland and watercourse) • MSES – Regulated vegetation. • MSES – Regulated vegetation (intersecting a watercourse).

Data custodian	Department of Environment and Heritage Protection
Head of power	• MSES – Protected Areas – *Nature Conservation Act 1992.* • MSES – Marine Parks – *Marine Parks Act 2004.* • MSES – Declared fish habitat areas – *Fisheries Act 1994.* • MSES – Strategic environmental areas (designated precinct) – *Regional Planning Interests Act 2014.* • MSES – High ecological significance wetlands – *Environmental Protection Act 1994.* • MSES – Legally secured offset area – *Environmental Offsets Act 2014.* • MSES – Wildlife habitat – *Nature Conservation Act 1992.* • MSES – High ecological value waters (wetland and watercourse) – *Environmental Protection Act 1994.* • MSES – Regulated vegetation – *Vegetation Management Act 1999*. • MSES – Regulated vegetation (intersecting a watercourse) – *Vegetation Management Act 1999*. For a full description of the above, refer to definition of MSES in the SPP (Part F).
Methodology	For further information about MSES mapping methodology and data for the individual layers of MSES, refer to 'Method for mapping Matters of state environmental significance for the – State Planning Policy 2017 and Environmental Offset Regulation 2014' produced by EHP at: https://www.ehp.qld.gov.au/management/planning-guidelines/pdf/mses-methodology.pdf The mapping data for the individual layers of MSES can also be downloaded from the Queensland Spatial Catalogue at: http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

Regional biodiversity values and Regional biodiversity corridors	
Purpose	For the identification of MLES to assist in integrating the *Biodiversity* state interest.
Mapping category	Category 3
Data custodian	Department of State Development, Manufacturing, Infrastructure and Planning
Head of power	South East Queensland Regional Plan 2017
Methodology	DEHP will publish a methodology for the identification of Regional biodiversity values and Regional biodiversity corridors on the DEHP website. https://www.qld.gov.au/environment/plants-animals/biodiversity/assessing

Matters of local environmental significance (MLES)

While there are no layers in the SPP IMS displaying MLES, there are state government spatial data resources available for local governments that can be used to inform the identification of MLES. The information layers discussed above (regional biodiversity values and regional biodiversity corridors) is one example.

The Queensland Globe is an interactive online tool that provides mapping for specific themes or 'globes' that may be useful when developing a local planning instrument, for example:

- Vegetation Management Globe includes spatial data and supporting maps for vegetation regulated under the Vegetation Management framework
- Biota and Environment Globe includes spatial data on Biodiversity planning assessments and regional ecosystem mapping.

The Queensland Globe is located at: www.business.qld.gov.au/running-business/support-assistance/mapping-data-imagery/maps/queensland-globe

The mapping data for the individual layers and other environmental values can also be downloaded from the Queensland Spatial Catalogue at: http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

For additional resources for developing MLES mapping, see Part G: Supporting information.

Part 4: Applying assessment benchmarks

The SPP does not contain any specific assessment benchmarks for the *Biodiversity* state interest.

However, where the planning scheme has not appropriately integrated the state interest, for the purposes of development assessment, the assessment manager must have regard to the SPP (including the *Biodiversity* state interest statement and policies) in accordance with the Planning Regulation 2017. The SPP applies as a matter to have regard to where the assessment manager considers these matters are relevant to the proposed development and only to the extent of any inconsistency with the planning scheme.

Part 5: Example planning scheme provisions

Example planning scheme provisions for the *Biodiversity* state interest are provided below, which a local government may choose to adopt or otherwise adapt these when making or amending a planning scheme.

The example planning scheme provisions should not be seen as the only way to appropriately reflect the state interest. It is not intended that a local government would use these example provisions verbatim.

Where a local government seeks to adopt the example planning scheme provisions, variations will be required to reflect the local circumstances, opportunities and aspirations of each local government area.

Strategic outcomes

The principles for strategic framework components involving biodiversity are:

- Identify, protect and manage matters of environmental significance.
- Maintain and/or restore ecological connectivity.
- Avoid locating development within areas containing matters of state environmental significance.
- Minimise impacts on matters of environmental significance where avoidance cannot be reasonably achieved.
- Encourage development to consolidate within existing urban areas.
- Support the protection and enhancement of viable koala habitat and management or design measures that reduce threats to koalas.
- Maintain and/or restore areas between urban development and sensitive areas or other areas of high sensitivity to avoid off-site impacts.

Example Strategic outcome provisions

- Protect, manage and enhance the condition, extent, diversity and connectivity of the region's natural environment to maintain the ecological processes necessary to support biodiversity resilience and adaption.
- Matters of environmental significance are protected by locating development in areas that avoid adverse impacts. Where development cannot reasonably avoid adverse impacts, the impacts are minimised through planning, design, construction and operational measures that minimise or prevent the loss or degradation of these values.
- The extent, connectivity and condition of areas containing viable koala habitat is maintained or enhanced and supported by conservation or management strategies that reduce threats to koalas.
- Habitat and corridors that are suitable for rehabilitation or land that is identified for a future ecological corridor may be designated for receiving environmental offsets/revegetation.

Example code: Biodiversity overlay code

Application

This code applies to development:

- within the biodiversity overlay (amend to reflect the relevant zone/overlay) and
- identified as requiring assessment against the biodiversity overlay code (amend to reflect the relevant zone/overlay) by the tables of assessment.

Purpose

The purpose of the biodiversity code is to ensure that:

- matters of environmental significance are protected from the direct and indirect impacts of development
- ecological processes and connectivity is maintained or enhanced by avoiding fragmentation of matters of environmental significance
- development avoids or is designed to minimise adverse impacts on matters of environmental significance
- development maintains and enhances ecological connectivity to support the health and resilience of biodiversity
- development avoids off-site impacts on adjacent matters of environmental significance
- development supports viable koala populations by protecting and enhancing koala habitat and providing for the safe movement of koalas.

Table 1: Assessment benchmarks for assessable development

Performance outcomes	Acceptable outcomes
Protection of matters of biodiversity significance	
PO1 Development protects matters of environmental significance.	**AO1.1** Development is located in areas that avoid adverse impacts on matters of environmental significance. **OR** **AO1.2** A report certified by an appropriately qualified person demonstrates to the satisfaction of the assessment manager, that the development site does not contain any matters of environmental significance. **OR** **AO1.3** Where it is demonstrated that adverse impacts on matters of environmental significance cannot be avoided, development is located, designed and operated to minimise adverse impacts. **Note:** A report certified by an appropriately qualified person may be required to demonstrate to the satisfaction of the assessment manager that the proposed development cannot be located in areas that avoid adverse impacts on matters of environmental significance.

Management of impacts on matters of environmental significance	
PO2 Development is designed and constructed to minimise adverse impacts on matters of environmental significance.	**AO2.1** The design and layout of development minimises adverse impacts on matters of environmental significance by: • focusing development in existing cleared areas and minimising the development footprint • aligning new property boundaries to maintain ecologically important areas • ensuring that alterations to natural landforms, hydrology and drainage patterns on the development site do not negatively affect matters of environmental significance • maximising the ecological connectivity between environmental areas by retaining continuous vegetated corridors • ensuring that wildlife habitat is protected in its environmental context • minimising fragmentation of matters of environmental significance through the co-location of infrastructure networks. **Note:** A report certified by an appropriately qualified person may be required to demonstrate to the satisfaction of the assessment manager that the proposed development is designed and constructed to minimise impacts on matters of environmental significance to the greatest extent possible.
PO3 Development is designed to buffer and minimise edge effects and other impacts on matters of environmental significance.	**AO3.1** Development minimises the edge to area ratio of environmental areas to be retained. **AND** **AO3.2** A buffer for an area of environmental significance has a minimum width of: • 200 metres where the area is located outside an urban area; or • 50 metres where the area is located within an urban area. **OR** **AO3.3** A buffer for an area of environmental significance is applied and maintained and the width of the buffer is supported by an evaluation of the environmental values, including the function and threats to the matters of environmental significance.

PO4 Native vegetation clearing is undertaken in a manner which does not increase the risk of injury or death to native wildlife.	**AO4.1** Native vegetation clearing is undertaken as sequential clearing under the guidance of a wildlife spotter. **AND** **AO4.2** Vegetated links are maintained to allow wildlife to move out of the site. **Note**: A wildlife spotter is a person with demonstrated experience in locating wildlife in native habitat or conducting fauna surveys.
Ecological connectivity and habitat enhancement	
PO5 Development protects and enhances ecological connectivity.	**AO5.1** Development retains native vegetation of sufficient size to maintain ecological connectivity. **OR** **AO5.2** Development retains ecological corridors of sufficient size to facilitate feeding, nesting, breeding and the movement of wildlife between environmental areas. **Note**: A report certified by an appropriately qualified person may be required to demonstrate to the satisfaction of the assessment manager that the proposed development retains or provides an ecological corridor of sufficient size.
PO6 Development supports the safe movement of wildlife through ecological corridors.	**AO6.1** Development facilitates the safe movement of wildlife within ecological corridors through the provision of wildlife movement infrastructure and supporting fauna exclusion fencing. **Note**: A report by an appropriately qualified person may be required to demonstrate to the satisfaction of the assessment manager that proposed wildlife movement infrastructure will safely and effectively facilitate the movement of the range of local wildlife expected to use the infrastructure.

PO7 Development enhances habitat extent and condition.	**AO7.1** Development revegetates cleared areas and/or rehabilitates degraded areas within retained environmental areas. **AND** **AO7.2** Buffer areas provided between environmental areas and development are revegetated where not required for bushfire hazard mitigation purposes. **AND** **AO7.3** Landscape planting utilises locally endemic species of native vegetation. **AND** **AO7.4** Enhancement planting uses native vegetation that is endemic to the area and replicates the pre-clearing remnant vegetation composition and structure, including understorey vegetation.
Koala habitat protection and enhancement	
PO8 Development protects and enhances koala habitat.	**AO8.1** Development is located to avoid the clearing of koala habitat and koala movement linkages, and provides opportunities to enhance koala habitat through planting of koala-habitat trees. **OR** **AO8.2** Development is located to minimise the clearing of koala habitat and maximise the retention of koala-habitat trees. **AND** **AO8.3** Development enhances koala habitat by ensuring revegetation activities, landscaping and open-space areas use koala-habitat trees.

PO9 Development supports the safe movement of koalas.	**AO9.1** Development is designed to maximise connectivity between retained koala habitat, including individual koala-habitat trees. **AND** **AO9.2** Fencing and other barriers are designed to facilitate koala movement except where koala-exclusion fencing is required to safeguard koalas from accessing unsafe environments (roads and areas containing domestic or working dogs) and/or directs koalas to safe crossing points across road networks. **AND** **AO9.3** Development for a road is designed to avoid fragmenting koala habitat or corridors. **OR** **AO9.4** Development facilitates the safe movement of koalas through the provision of purpose built koala movement infrastructure where koala habitat or corridors are fragmented or severed by a road. **Note:** A report by an appropriately qualified person may be required to demonstrate to the satisfaction of the assessment manager that proposed koala movement infrastructure will safely and effectively facilitate the movement of koalas.
PO10 Development is constructed in a manner that minimises the risk to koalas.	**AO10.1** Any clearing of koala-habitat trees is undertaken as sequential clearing and under the guidance of koala spotter. **AND** **AO10.2** Any koala-habitat trees in which a koala is present is not cleared and vegetated links are maintained to allow the koala to move out of the site. **Note**: A koala spotter is a person with demonstrated experience in locating koalas in native habitat or conducting fauna surveys.
Environmental offsets	
PO11 An environmental offset is provided to compensate the loss of environmental values following implementation of measures to avoid and minimise the loss.	**AO11.1** Development provides an environmental offset in accordance with the relevant offset planning scheme code or planning scheme policy. **Note**: An environmental offset code or policy needs to be consistent the *Environmental Offsets Act 2014*.

Part 6: Supporting information

Biodiversity

Australia's Biodiversity Conservation Strategy can be viewed at:
www.environment.gov.au/biodiversity/conservation/strategy

CSIRO has general information about Australia's biodiversity at:
www.csiro.au/en/Research/Environment/Biodiversity

Buffer guidelines

Queensland Wetlands Buffer Guideline is available on Department of Environment and Heritage website at:
https://wetlandinfo.ehp.qld.gov.au/wetlands/resources/publications/reports.html

The native vegetation clearing code of the State Development Assessment Provisions contains setback buffer distances for wetlands and watercourses at:
https://dilgpprd.blob.core.windows.net/general/Statecode16Nativevegetationclearing%E2%80%93responsetemplate.docx

Ecological value assessment method

Brisbane City Council Ecological Assessment Guidelines: www.brisbane.qld.gov.au

Environmental offsets

The *Environmental Offsets Act 2014*, associated regulations and Environmental Offsets Policy 2014 are available at:
www.qld.gov.au/environment/pollution/management/offsets/

For further information regarding environmental offsets and the planning framework, the SPP, local government offset requirements and koala protection, refer to the factsheets on DILGP's website:
www.dilgp.qld.gov.au/resources-ilgp/fact-sheet-guidelines/environmental-offsets-and-the-planning-framework-fact-sheets-and-guidelines.html

Environmental Reports Online

Environmental Reports Online is a service where specific information on the environmental values of MSES, regional ecosystems, terrestrial biodiversity and aquatic conservation on a property can be requested at:
https://environment.ehp.qld.gov.au/report-request/environment/

Koalas

Koala-sensitive Design Guideline: A guide to koala-sensitive design measures for planning and development activities (Department of Environment and Heritage Protection). Available via the Queensland Government library catalogue:
www.qld.gov.au/environment/library/

Matters of National Environmental Significance

The Commonwealth Protected Matters Search Tool is available at:
www.environment.gov.au/epbc/pmst/

This tool generates a map and report that will help determine whether these or other matters protected by the *Environmental Protection and Biodiversity Conservation Act 1999* are likely to occur in a local government area, region or on a particular site. Any information provided through this facility is indicative only, and local knowledge and information should also be sought where possible.

Commonwealth Significant Impact Guidelines 1.1 – Matters of National Environmental Significance are available at:
www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance

Provides significant impact guidelines for certain nationally threatened species (including suggested buffer distances)

Other environmental values mapping

Where possible, the protection of the broader suite of environmental values (including through MLES) will contribute to maintaining healthy and resilient ecosystems and ensure sustainable, long-term conservation of biodiversity. Other environmental values include:

- Least concern regional ecosystems (*Vegetation Management Act 1999*).
- Regional ecosystems that are regrowth vegetation (*Vegetation Management Act 1999*).
- Habitat for near threatened and least concern species (*Nature Conservation Act 1992*).
- Corridor and rehabilitation areas.
- Strategic rehabilitation areas (regional plans).
- Landscape-scale conservation corridors outside urban areas (Biodiversity Planning Assessment).

For GIS and spatial mapping data for some of the above values, search for key words on the Queensland Spatial Catalogue at:

http://qldspatial.information.qld.gov.au/catalogue

For general mapping information, use the Queensland globe information available from:

http://qldglobe.information.qld.gov.au

Pest and invasive species management

Pest-management planning is undertaken in consultation with key partners and coordinated at various levels, based on:

- state agency pest-management plans
- regional pest-management plans
- local government area pest-management plans.

For further information about weed and pest animal management, refer to the links below:

- Australian Government publications and resources:

  www.environment.gov.au/biodiversity/invasive/weeds/publications/
- Australian pest animal strategy:

  www.environment.gov.au/biodiversity/invasive-species/publications/australian-pest-animal-strategy
- Queensland Weed and Pest Animal Strategy, 2016-2020:

  https://publications.qld.gov.au/dataset/weed-and-pest-animal-strategy
- Further guidance on feral animal control can also be obtained from the Wetland Rehabilitation Guidelines for the Great Barrier Reef Catchment, developed by the Queensland Wetlands Program and available at:

  https://wetlandinfo.ehp.qld.gov.au/resources/static/pdf/resources/reports/qw-rehab-guidlines-jan09.pdf

- Specific guidance on pest management planning can be obtained from the Department of Agriculture and Fisheries. www.daf.qld.gov.au/plants/weeds-pest-animals-ants/pest-management-planning

Species Information

Tools to assist in understanding species include *Wildlife profiles for Queensland fauna*, which can be accessed at: http://wildlife.org.au/category/information-gallery/species-profiles/

Profiles include threats to the species and may help determine whether development will have an adverse impact on MSES.

The DEHP website also has general information for species included in species profiles at www.ehp.qld.gov.au/wildlife/animals-az/index.html

Wetland interactive maps contain species list information for a particular area (not just wetland species) accessed at: https://wetlandinfo.ehp.qld.gov.au/wetlands/

Wildlife corridor guideline

For additional information on design and implementation of corridors refer to the 'National Wildlife Corridors Plan: A framework for landscape-scale conservation 2012' at: www.environment.gov.au/node/16547

Ecological value assessment methods

The following identifies information sources and methods that can be used to define specific ecological values (and condition or threats) of an area containing MSES and the corresponding ecological requirements for development assessment.

Element: Plant communities and their condition		
Description	**Assessment Requirement***	**Potential data sources**
• Remnant (Categories A & B) and regrowth (Category C) vegetation communities, as defined under the *Vegetation Management Act 1999* • Threatened or near threatened wildlife prescribed under the *Nature Conservation Act 1992* (NCA).	Describe and accurately map core and associated plant species and communities (including details such as age, structure, floristics, condition and regional ecosystem status) within the site and on adjacent lands. Identify evidence of edge effects and other disturbances and their causes and intensity. Identify spatial and temporal ecological processes operating on or adjacent to the site. Describe the flora-habitat significance of the subject site or its sub-components within a state and regional context according to, but not limited by, the following criteria: • size and condition • quality (naturalness) • uniqueness • diversity • conservation status • representativeness • viability or connectivity with other wetland, riparian or waterway features. Prepare a scaled map of plant communities and significant species, including other important habitat or site features: • contours • location of wetlands (existing, natural or constructed wetlands), associated waterway corridors and remnant native vegetation • existing buildings and infrastructure (e.g. transport and service corridors, water impoundment structures) • land classification, conservation protection status and value of any protected vegetation.	• Wildnet online • Queensland Herbarium Database (HERBRECS) • Local government data bases and mapping • Local government nature conservation strategies • Records outlined in species recovery plans, conservation plans, Protected Estate Management Plans and other published and unpublished reports • Conservation agreements • Regional Ecosystem mapping • Other existing vegetation and wetland mapping (see WetlandInfo online at https://wetlandinfo.ehp.qld.gov.au).

Element: Wildlife		
Description	**Assessment Requirement***	**Potential data sources**
Conservation significance of species: • threatened, near threatened or	Identify core and associated fauna species present or likely to be present within a site and on adjacent lands throughout any given year. This will require a comprehensive survey of all vegetation communities, eco-tones and other ecological features across	• Wildnet online • Museum records • Birds Australia database • Data collected by naturalist groups

least concern fauna species as listed under the NCA • priority species defined under Biodiversity Assessment Mapping Methodology (BAMM) • other locally important species as defined under local government biodiversity codes • feral/introduced species.	the site and adjacent lands, in addition to searches of available literature and fauna databases. Identify any evidence of edge effects and other disturbances and their causes and levels. Identify spatial and temporal ecological processes operating on or adjacent to the site. Describe the fauna habitat significance of the subject site or its sub-components within a local, metropolitan and regional context, according to, but not limited by, the following criteria: 1. quality (naturalness) 2. uniqueness 3. habitat diversity variation 4. conservation status 5. representativeness 6. viability or connectivity. The BAMM has been prepared to provide a consistent approach for assessing matters of environmental significance at the landscape scale in Queensland. DEHP uses this method to generate biodiversity planning assessments (BPAs) for bioregions in eastern Queensland, which is under most development pressure. The BAMM is continually being refined. Prepare an appropriately scaled map for the fauna species or communities identified in the report, identifying key habitat features or evidence of fauna species, for example: 1. trees supporting scratch marks and hollows 2. location identification of scats 3. tracks and other traces 4. fruit and seed falls 5. fauna trails 6. fallen logs 7. termite mounds 8. ground diggings 9. rock outcrops 10. nests in banks 11. roost/nest/den trees. Identified as significant in the BPA should also be accurately mapped (refer to C below).	• Local government databases and mapping • Local government nature conservation strategies • Records outlined in species recovery plans and species conservation plans • Protected estate management plans, conservation plans and agreements • Essential habitat mapping • Conservation agreements • Vegetation assessments (habitat suitability assessments) • Other published records.

Element: Landscape corridors and other wetland conservation values		
Description	**Assessment Requirement***	**Potential data sources**
Wildlife corridors of regional and state significance as defined under BPA	Identify ecological corridors as defined under BPA and assessments undertaken in components (A) and (B) above.	• List of Ramsar wetlands • Directory of Important • Wetlands in Australia • BAMM • Aquatic BAMM (AquaBAMM)

Contours and topography Other defined conservation values.	Describe the location, configuration and composition of any ecological corridor which includes all or part of the subject site. Include: • the extent and description of core wetland habitat types, including wetland buffers (the SPP applies a default buffer of 50 metres in urban areas and 200 metres outside an urban area), habitat corridors, cluster and fringing vegetation • significance for environmental flows and flood/storm water control • role in habitat/hydrological connectivity and food web support • identification of fauna species that the corridor is likely to support • extent of existing disturbed or cleared areas • location and nature of proposed services, infrastructure and associated earthworks within and adjacent to the wetland • demonstrated use of construction/ operational design measures that optimise the retention, viability and connectivity of wetland habitat within the local catchment. Identify any other defined conservation values of the site and adjacent areas. Specifically, map and describe the location of any nearby Ramsar sites, wetlands identified in the Directory of Important Wetlands in Australia, national parks and other conservation reserves, and other conservation zones identified in the relevant local government codes.	• Local naturalists and researchers • Universities and research institutions • Local government conservation strategies • Local government data bases and mapping • Natural resource assessment and/or planning studies • Protected estate management plans, conservation plans and agreements • Queensland Wetlands Program WetlandInfo website • Existing reports and publications • Expert opinion.

Element: Important sites for key lifecycle functions for threatened and locally significant species, and their sensitivity to disturbance		
Description	**Assessment Requirement***	**Potential data sources**
• Identify the values of the site for breeding, nesting, roosting, feeding of threatened and locally significant species and • Susceptibility of fauna species to disturbance.	Based on components A, B and C, identify the known or likely significance of the site for key lifecycle functions of species of conservation significance. These functions include breeding, nesting, roosting and feeding.	• Directory of Important • Wetlands in Australia • Fauna conservation and recovery plans • Draft Biodiversity Strategy for Queensland • Local government data bases and mapping • Other existing reports and publications • Expert opinion.

Element: Important sites for key lifecycle functions for threatened and locally significant species, and their sensitivity to disturbance		
Description	**Assessment Requirement***	**Potential data sources**
• Identify the values of the site for breeding, nesting, roosting, feeding of threatened and locally significant species and • Susceptibility of fauna species to disturbance.	Based on components A, B and C, identify the known or likely significance of the site for key lifecycle functions of species of conservation significance. These functions include breeding, nesting, roosting and feeding.	• Directory of Important • Wetlands in Australia • Fauna conservation and recovery plans • Draft Biodiversity Strategy for Queensland • Local government data bases and mapping • Other existing reports and publications • Expert opinion.

Element: Wetland condition and threats		
Description	**Assessment Requirement***	**Potential data sources**
• Wetland environmental values (Environmental Protection Regulation 2008) • Health and biodiversity of the wetland's ecosystems • The wetland's natural state and biological integrity • Presence of distinct or unique features, plants or animals and their habitats, including threatened wildlife, near-threatened wildlife and rare wildlife under the NCA • The wetland's natural hydrological cycle • Connectivity and biological integrity • Natural interaction of the wetland with other	Based on components A–D above, document existing condition of habitats and key threats to species. Consider the following: • identify existing and proposed adjacent land uses, including connecting ecological corridors and buffers • describe wetland hydrology hydraulics (water flow and depth) • identify whether water quality guideline values (i.e. environmental values and water quality objectives) are being exceeded (including total suspended solids, nitrogen, phosphorous, gross pollutant loads), in accordance with the Environmental Protection (Water) Policy 2000 and the Queensland Water Quality Guidelines 2009. Refer also to Queensland Water Quality Guidelines on the DEHP website for how to assess water quality status www.ehp.qld.gov.au • identify the diversity of native wetland flora and fauna, including threatened species • document and where relevant, map the extent of weed invasion, known or likely key areas and concentration of pest animal species. Reference should be made to species listed under the *Land Protection (Pest and Stock Route Management) Act 2002*, and (for declared noxious fish) the *Fisheries Act 1994* and amendments.	• Watershed water quality data • Aquatic macro invertebrate monitoring data and condition ratings (DEHP) • Local government weed survey data and pest management strategies • Local government water quality objectives and water quality guidelines • Queensland Parks and Wildlife pest management strategies • DEHP Urban Stormwater Quality Planning Guideline 2009 • Water resource allocation plans • Water resource operation plans • Other existing reports and publications • ANZECC guidelines • Healthy Waterways WSUD technical and conceptual guidelines (Technical Design, and Concept Guidelines, Standard drawings, MUSIC Modelling Guidelines • and Deemed to Comply Solutions [stormwater and associated vegetative systems]) • Department of Agriculture and Fisheries fish species surveys.

ecosystems, including other wetlands.		

Source: Adapted from Brisbane City Council Ecological Assessment Guidelines (www.brisbane.qld.gov.au)

State Planning Policy
PO Box 15009
City East Qld 4002
tel 13QGOV (13 74 68)
email SPP@dilgp.qld.gov.au

https://planning.dilgp.qld.gov.au/