Preface

Using this state interest guideline

The Queensland Government established the State Planning Policy (SPP) to define the specific matters of state interest in land use planning and development. To support the implementation of the SPP, each state interest in the SPP is supported by a state interest guideline such as this one.

This state interest guideline must be read in conjunction with the SPP.

The SPP does not prioritise one state interest over another and thus provides flexibility for local governments to respond to specific regional and local contexts. This allows for the state interests to be considered as an entirety rather than as individual competing or conflicting priorities.

The SPP guiding principles carry equal weight with the state interests and must be considered by local government as part of the integration of state interests as an entirety rather than as individual policies. This supports decision making which integrates and balances the economic, environmental and social needs of current and future generations, promotes innovative approaches to design and development where consistent with the strategic intent of a planning scheme and enables flexible and performance-based decisions as part of the assessment process.

Where text in this guideline is in a coloured text box, it is an excerpt from the SPP and is the state’s policy about a matter of state interest.

In relation to making or amending a planning scheme, the SPP quoted text defines what a local government should do in preparing or amending a planning scheme (ie. the state prefers this policy but will consider alternative approaches based on specific local context or issues).

Where interim development assessment requirements apply for a state interest (because the relevant planning scheme has not yet integrated the state interest or an amendment to the SPP has occurred subsequent to the scheme), the SPP quoted text defines requirements that must be applied in the assessment of applicable development applications.

Content within this state interest guideline that is not an excerpt from the SPP provides further context and explains how the SPP policies can be applied. It does not introduce or define any new policies which do not exist in the SPP itself. The use of such guidance material is optional—it does not form a statutory component of the SPP and hence is not a mandatory requirement of the state.
Contents

PART A  Background and core concepts ............................................. 4
PART B  Integrating the state interest into planning schemes ............. 7
PART C  Application of the interim development assessment provisions .. 14
PART D  Model code provisions ....................................................... 16
PART E  Supporting information ...................................................... 20

Appendix 1: Ecological value assessment methods ............................ 22
PART A: Background and core concepts

State interest—biodiversity

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

Background

Queensland has a stunning wealth of biodiversity and many unique ecosystems which underpin our economy and our quality of life. Our diverse landscapes and extensive range of native wildlife contributes significantly to the state’s economic security and supports a lifestyle that attracts people and businesses to Queensland communities.

Queensland is home to 72 per cent of Australia’s native bird species, 85 per cent of its mammals, just over half of its native reptiles and frogs and more than 12 000 species of plants. Five of Australia’s 15 natural world heritage sites are also located wholly or partly in Queensland and include the Wet Tropics, the Great Barrier Reef and Fraser Island.

Queensland’s biodiversity that is considered to be of environmental importance at a state level is termed a ‘matter of state environmental significance’ (MSES). Queensland’s biodiversity that has been recognised or considered as important either nationally or internationally is termed to be a matter of national environmental significance (MNES).

Core concepts

The State Planning Policy (SPP) terminology should be used to provide consistency across the planning framework unless local government can demonstrate a specific reason for not doing so.

The SPP focuses on matters of environmental significance to provide a mechanism for local government to use in making or amending local planning instruments.

Biodiversity refers to many concepts, paradigms and terms which have both scientific and legal definitions established by Federal and State legislation. Australia’s Biodiversity Conservation Strategy 2010—2030 (www.environment.gov.au/node/14488) provides a good introduction to the background and concepts important in the national efforts to conserve biodiversity—and to the terms used below.

Biodiversity

Biodiversity, or biological diversity, is the variety of all forms of life. There are three levels of biodiversity:

- genetic diversity—the variety of genetic information contained in individual plants, animals and microorganisms;
- species diversity—the variety of species; and
- ecosystem diversity (terrestrial, marine and freshwater)—the variety of habitats, ecological communities and ecological processes.

Ecosystem resilience

The management of biodiversity impacts on the ability of the environment to remain resilient to threats and change. This may be viewed at many scales—from the level of whole ecosystems down to that of individual species. 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 variability;
- changing fire regimes;
- habitat loss, degradation and fragmentation; and
- invasive species.

The main focus of the biodiversity component of the SPP is on ‘regional ecosystems’ and species listed as ‘endangered’ or ‘vulnerable’ as indicators for the resilience of biodiversity in general.

Ecological integrity

Ecological integrity is about the ecological patterns, processes and structural attributes responsible for how species-rich an ecosystem is and how well it functions. This can take account of the structure, composition and function of an ecosystem and whether these are within the bounds of its natural or historic range of variation.
Ecological connectivity
Ecological connectivity refers to a physical landscape connection, such as a corridor of vegetation connecting two protected areas. These corridors have a significant role in achieving connectivity across the landscape, for example by providing for the safe movement of animals between existing bush remnants and protected areas. Connectivity thresholds are recognised for some individual species, such as the distance a possum will move over open ground. Providing physical connectivity also encompasses feeding, breeding, social and genetic aspects associated with a species.

Matters of national environmental significance
Matters of national environmental significance (MNES) are required to be considered in the application of the SPP. These contain natural values and features protected under the authority of the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) and include:

- world heritage properties;
- national heritage properties;
- wetlands of international importance;
- listed threatened species and communities;
- listed migratory species;
- commonwealth marine areas; and
- the 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.

An example of an MNES is the koala as it is listed as a vulnerable species under the EPBC Act (C’wlth) and applicants need to refer to the Commonwealth koala referral guidelines when considering a development project.

Matters of state environmental significance
Matters of state environmental significance (MSES) for the planning framework are defined in Part G: Glossary under the SPP and spatially represented on the SPP Interactive Mapping System. These values are defined, where possible, and protected under Queensland legislation. The SPP employs a ‘maintain and enhance’ approach to managing MSES values.

This approach does not render environmental values not defined as MSES as unimportant. A local government could determine environmental values that are significant for their area (and are not a matter already defined by the state or Commonwealth) to be matters of local environmental significance (MLES).

For further information on the mapping methodology supporting MSES, refer to the Method for mapping—matters of state environmental significance in land use planning and development assessment which is available on the Department of Environment and Heritage Protection’s (EHP) website at https://www.ehp.qld.gov.au/management/planning-guidelines/pdf/epp-ep-mses-land-use-planning.pdf

Koalas
The SPP and the South East Queensland Koala Conservation State Planning Regulatory Provisions (SEQ Koala SPRP) inform land use planning and regulate the assessment of certain development applications by local governments. At a state level, koala habitat is protected through the SPP as essential habitat. The SEQ Koala SPRP applies only to certain defined areas in SEQ where koala populations are most ‘at-risk’. Koala habitat outside SEQ is also protected under the EPBC Act.

Matters of local environmental significance
Matters of local environmental significance (MLES) are valuable biodiversity that could be determined by local government to be significant at a local level. The SPP does not affect a local government’s ability to identify MLES or ground-truth matters of environmental significance. MLES may overlap MSES in geographical location but must not include a matter that is already defined as MSES or MNES. An example may be known habitat for wildlife species (squirrel gliders for example) that is not listed as vulnerable, endangered or special least concern under the Nature Conservation Act (1992) or the EPBC Act (C’wlth).
Environmental Offsets

The Environmental Offsets Act 2014 (EOA) guides offset provisions and establishes Queensland’s Environmental Offsets Policy 2014 as the policy that the state and local government will have regard to when considering a proposed offset delivery approach or development condition.

If an activity is required to provide an environmental offset for a significant residual impact on MSES or MLES, the delivery of the environmental offset must be consistent with the EOA, EOP and associated regulations.

A local government may only require environmental offsets for a MSES where that matter is prescribed under the Environmental Offsets Regulation 2014 as being a matter for which local government may require an offset. Currently the only prescribed matter for local government offsets are non-juvenile koala habitat trees under the SEQ Koala SPRP.

REFER TO: PART E: Supporting information
A number of fact sheets are available to provide more information on environmental offsets in the context of the planning framework
PART B: Integrating the state interest into planning schemes

Policy 1

For national environmental significance:

How to appropriately integrate the policy

1.1 Strategic outcomes and specific outcomes in the Strategic framework must recognise and consider matters of MNES and the requirements of the EPBC Act (C’wlth).

This may be achieved through:

• aligning the strategic framework with MNES in the local government area;
• considering the compatibility of proposed and existing development and urban growth areas with known MNES values;
• referencing any relevant international conservation agreements and species conservation plans.

1.2 Local governments should consider identifying the location and extent of known MNES areas and species to minimise the potential conflict between MNES values and development.

The compatibility of existing and new urban growth areas with known MNES values should be considered when determining zoning and overlay provisions. These areas should avoid locations where impacts on MNES would be significant.

1.3 MNES values and MSES values often coincide and provisions that address MSES may also address MNES. However, it is not appropriate that zone, overlay or use codes require that development identify or address how MNES values may be protected. This role is managed by the Commonwealth Government.

Development that is likely to have a significant impact on a MNES will need to be referred to the Commonwealth for assessment under the EPBC Act (C’wlth).

1. The Environmental Protection and Biodiversity Conservation Act 1999 applies to matters of national environmental significance. Where there is a ‘significant impact’ on a matter of national environmental significance, approval may be required from the relevant federal government Minister.
How to appropriately integrate the policy

2.1 The strategic framework should include strategic outcomes and specific outcomes that seek to identify and protect MSES within the local government area.

Strategic framework mapping of MSES can assist in understanding the spatial representation of the overall policy direction contained within the strategic framework.

2.2 Local government may establish suitable zones with boundaries that reflect significant areas of MSES and address proposed intensification of land use that may have significant impacts on MSES.

An overlay provides the strongest and clearest mechanism to manage MSES. An overlay map should consider state mapping of MSES to produce an assessment trigger for development provisions.

It should be noted that:

- MSES mapping is indicative and can be ground-truthed and hence amended by local government planning schemes;
- local government may refine MSES by using better resolution mapping of boundaries; and
- local government could refer out to the SPP Interactive Mapping System for MSES as the overlay map (this is a valid option for local governments with limited resources).

The MSES mapping methodology should be referred to when refining state mapping at the local scale. Fine tuning must be scientific, robust, well-documented and legally defensible if it is to be used in a local planning instrument.

If no data is shown for a site this does not mean there are no values present. Future site based survey or finer scale local data may identify that important state environmental values are present.

2.3 Development should not proceed in areas mapped as MSES until a site investigation establishes what values are present on site. Where MSES values are confirmed as present on site, the SPP requires that development maintains or enhances these values through minimising potential impacts on these values. Where development does occur and environmental offsets are required for MSES, they will be administered in accordance with the EOA.

By incorporating MSES into the purpose, performance outcomes and acceptable outcomes in the relevant local planning instrument code, development provisions should achieve a line-of-sight with the identified strategic outcomes of the strategic framework.
Policy 3

For state environmental significance:
Locating development in areas that avoids significant adverse impacts on matters of state environmental significance.

Examples of significant adverse impacts on MSES include:

- ecological processes being impacted to the extent that there is a resultant decline or loss of ecosystem condition or function in the area;
- permanent or long-term reduction in species abundance or biodiversity, which would require intensive or long-term intervention to be rehabilitated;
- habitat degradation to the extent that it loses its function or capacity; and
- reduction in the abundance or richness of, or available habitat for, threatened or migratory species at a locality.

How to appropriately integrate the policy

3.1 The strategic framework should consider strategic outcomes and specific outcomes that prioritises future development being directed into areas where significant adverse impacts on MSES are avoided in the first instance.

Strategic framework mapping of MSES can assist understanding the spatial representation of the policy direction by distinguishing between future development areas and known areas of MSES.

3.2 Significant adverse impacts on MSES can be minimised (mitigated) through the use of zones and overlays. Appropriate zoning and overlay mapping provides the clearest indication of intent for a particular location.

3.3 Development that has a significant adverse impact on MSES should be made an assessable development in the planning scheme.

Development should be considered at its broadest possible scope, which includes the stages and components of development, related activities and related infrastructure. Code outcomes should consider impacts on MSES and solutions in relation to:

- site selection and the location of buildings or activities on the selected site;
- the timing of the development or its component activities; and
- the design of any buildings, other structures or infrastructure.

Applicants should be encouraged to consider how the proposed development may avoid or reduce the likelihood of a significant adverse impact on MSES. For example, an applicant should determine the extent of the MSES and the level of impact resulting from the development so that appropriate mitigation measures can be provided as required, from construction phase through to development completion.
Policy 4

For state environmental significance:
Facilitating the protection and enhancement of matters of state environmental significance.

How to appropriately integrate the policy

4.1 The strategic framework should include strategic outcomes and specific outcomes that protect and enhance MSES.

4.2 MSES can be protected by establishing zones and overlays that reflect the relevant MSES. Zone and overlay boundaries should consider the known areas of MSES and provide an appropriate level of assessment for development.

A combination of zones and overlays may be used to provide for compatible or low-impact uses in areas of MSES while maintaining a primary purpose of protecting the environmental values in these areas.

This can also be achieved through avoiding significant intensification of large areas at the landscape level within or adjacent to and impacting on areas of MSES.

4.3 Planning mechanisms should protect and enhance MSES that may be present or adjacent to the site. Measures may include:

- fauna friendly fencing;
- wildlife under/overpasses;
- retention of habitat trees;
- use of nest boxes and other supporting measures;
- appropriate buffers and setbacks; and
- appropriate levels of access, lighting and noise.
Policy 5

For state environmental significance:
Maintaining or enhancing ecological connectivity.

How to appropriately integrate the policy

5.1 The strategic framework should identify that ecological connectivity be maintained or enhanced.

Strategic outcomes should address the protection of ecological corridors as a result of development. Where the strategic framework identifies new growth areas, outcomes should include a statement that seeks to avoid the isolation of MSES values by interrupting ecological corridors.

5.2 MSES interactive mapping does not include ecological connectivity corridors. However, where appropriate within the local government area, these may be indicated as part of an overlay.

For example, identifying areas of local government-owned public land with biodiversity values and designating the land for conservation purposes can enhance ecological connectivity.

5.3 Development should ensure that the connectivity between habitats is not affected to the extent that migration or normal movement of significant species between habitats or normal gene flow between populations is inhibited. Maintaining vegetation in patches of the greatest possible size and with the minimal edge-to-area ratio can help to achieve this.

Locating and designing public access and infrastructure to avoid disturbance of ecological values in areas containing MSES and the clustering of urban development lots to maximise the ecological connectivity of native vegetation can also assist in this regard.
Policy 6

For state environmental significance:
Facilitating a net gain in koala bushland habitat in the SEQ region.

How to appropriately integrate the policy

6.1 The strategic framework should identify that threats to koala habitat from development will be minimised and that viable koala habitat is actively regenerated to assist in achieving a net gain in koala habitat.

The local government may choose to provide indicative koala bushland habitat in the strategic framework mapping.

6.2 Significant areas of koala bushland habitat should be identified within an appropriate zone or overlay that minimises the impacts of new development on koalas and promotes the long-term viability of koala populations. Habitat significance may be determined by considering how to maintain the viability of koala populations in the local government area.

6.3 Development provisions should minimise the loss of non-juvenile koala habitat trees. The preparation of a survey by a suitably qualified professional may assist in the identification of koala habitat trees.

Threats to koalas, as a result of construction or ongoing heavy-vehicle or machinery activities, should be minimised through requirements limiting operational activity and restricting the clearing of native vegetation.

In addition, threats to koalas as a result of development can be mitigated by enabling the movement and dispersal of koalas across the development site to adjacent areas.
Policy 7

For local environmental significance:

Considering the protection of matters of local environmental significance, which may involve provisions for environmental offsets, provided those provisions are consistent with the Environmental Offsets Act 2014.

How to appropriately integrate the policy

7.1 A local government may identify in the strategic framework values that have local biodiversity significance as MLES. This may involve local scientific studies that assess the condition and extent of MLES. These values cannot be the same, or substantially the same as MSES or MNES.

7.2 MLES can be included in the environmental significance overlay as separate, clearly identified areas, along with associated codes to direct relevant local planning outcomes. The methodology for mapping of MLES should be scientific, robust, well-documented and legally defensible.

When considering the mapping of MLES areas:

- protect conservation areas that provide linkages between significant areas of MLES and MSES or MNES; and
- include policies in a local planning scheme to protect MLES.

Where local government expands on mapping for a value defined as MSES, beyond those indicatively identified in current MSES mapping on the SPP Interactive Mapping System, these values remain MSES and cannot be expressed as MLES.

7.3 The purpose, performance outcomes and acceptable outcomes in planning scheme codes—zone, neighbourhood plan, overlay, or use—should provide a line-of-sight to MLES outcomes included in the strategic framework.

7.4 Any environmental offset requirement in relation to MLES should be clearly outlined as assessment criteria in the relevant code within the planning scheme. Local government may provide guidance and advice about satisfying environmental offset criteria in a planning scheme policy. Where an environmental offset is required for MLES, this must be consistent with the EOA.

It should be noted that local government may only impose an environmental offset condition for a matter of local environmental significance or another prescribed environmental matter that is further prescribed by regulation as relevant for s 15(4) of the Environmental Offset Act 2014.

Local government cannot condition for an environmental offset if the Commonwealth or state impose a condition (or choose not to impose a condition) over an area for the same, or substantially the same, prescribed activity and prescribed environmental matter.
PART C: Application of the interim development assessment provisions

Local government development assessment

Development assessment requirement 1

The development application is to be assessed against the following requirements:
Development:
(1) enhances matters of state environmental significance where possible.

How a development application may demonstrate compliance with the assessment requirement
Development may incorporate the following measures (or similar) to assist in enhancing MSES to achieve the assessment criteria:

- providing for native flora and fauna by the retention of habitat trees and the use of nest boxes;
- maintaining vegetation in patches of greatest possible size and reducing edge-to-area ratio;
- providing for wildlife refugia through appropriate buffers, levels of access, lighting and noise mitigation impacts;
- maximising ecological connectivity;
- protecting riparian vegetation and watercourses or creeks;
- allowing for the movement of native wildlife through measures such as fauna-friendly fencing or wildlife under/overpasses; and
- implementing effective measures to anticipate and prevent the entry or spread of pest plants and animals.

Development assessment requirement 2

The development application is to be assessed against the following requirements:
Development:
(2) identifies any potential significant adverse environmental impacts on matters of state environmental significance.

How a development application may demonstrate compliance with the assessment requirement
Development should consider all adverse impacts on MSES that could reasonably be predicted to occur from all phases of the development. These can be indirect or off-site and may include downstream or downwind, upstream or facilitated or cumulative impacts, such as impacts on wetlands or ocean reefs from sediment, fertilisers or chemicals which are washed or discharged into river systems.

How a development application may demonstrate compliance with the assessment requirement
This may be demonstrated through studies or surveys, indicating to a high degree of certainty about the avoidance of impacts or the extent to which impacts will be mitigated.
To determine whether development is likely to have a significant impact on MSES, it is necessary to take into account the nature and magnitude of potential impacts and how these can be avoided or mitigated. Matters to be considered may include:

- the sensitivity of the environment which will be impacted;
- the cumulative impacts of a development;
- the timing, duration and frequency of the action and its impacts;
- all on-site and off-site impacts;
- all direct and indirect impacts;
- the total impact which can be attributed to the action over the entire geographic area affected, and over time;
- existing levels of impact from other sources; and
- the degree of confidence with which the impacts of the action are known and understood.

It should not be concluded that a significant adverse impact on MSES is not likely to occur because of management or mitigation measures, unless the effectiveness of those measures is well-established and guaranteed to occur.

**How a development application may demonstrate compliance with the assessment requirement**

A certified report by an appropriately qualified person should demonstrate how the proposed development mitigates significant adverse environmental impacts on those areas. The report may choose to consider incorporating measures that avoid or mitigate the disruption of threatened wildlife and their habitat. These may include:

- setting back buildings and structures to avoid shading and minimise fire break requirements;
- maximising ecological connectivity;
- minimising edge effects by retaining native vegetation in areas large enough to maintain ecological values, functions and processes;
- sequencing vegetation clearing to provide opportunities for fauna to vacate affected land;
- utilising locally sourced plants in rehabilitating or landscaping;
- avoiding alterations to natural landforms, hydrology and drainage patterns;
- implementing effective measures to anticipate and prevent the entry or spread of pest plants and animals; and
- co-locating essential community infrastructure in existing cleared areas where possible.

**Development assessment requirement 3**

The development application is to be assessed against the following requirements:

**Development:**

(3) manages the significant adverse environmental impacts on matters of state environmental significance by protecting the matters of state environmental significance from, or otherwise mitigating, those impacts.

Development that may have impacts on MSES should determine the extent of the MSES and the level of impact so that appropriate mitigation measures or environmental offsets can be included where relevant through the State Assessment and Referral Agency (SARA).
PART D: Model code provisions

Example model code provisions for the biodiversity guidance material have been prepared below that may be adapted by a local government when making or amending a planning scheme. Where a local government seeks to adopt model code provisions, it should ensure the provision’s suitability to local circumstances prior to adoption. It is not intended that a local government would use all of these model provisions verbatim, as local context and tailoring is an essential part of adopting the SPP.

1. Strategic framework

The following content provides example provisions that assist a local government in integrating the SPP policies.

Strategic framework

Principles for strategic framework components involving biodiversity:

- development maintains matters of state environmental significance,
- development considers ecological impacts early in the development process,
- development avoids locating within areas containing matters of state environmental significance,
- development identifies existing biodiversity areas within the site including ecological corridors for rehabilitation and protection,
- development is encouraged to consolidate within existing urban areas,
- development maintains and/or restores buffers around sensitive areas or other areas of high sensitivity to avoid off-site impacts,
- development maintains and/or restores ecological corridors, and
- significant adverse impacts on matters of environmental significance are avoided or mitigated and significant residual impacts are offset as appropriate.

Strategic outcomes

- Protect, manage and enhance the condition, extent, diversity and connectivity of the region’s natural environment and maintain the ecological integrity and processes necessary to improve biodiversity resilience and adaption.
- Matters of state environmental significance are maintained and development in, or adjacent to, areas of environmental value and are planned, designed, constructed and operated to minimise or prevent the loss or degradation of these values.

Elements

- Biodiversity, Natural Environment or Conservation (or similar).

Specific outcomes

- Development is located to avoid significant adverse impacts on areas containing matters of state environmental significance.
- The extent, connectivity and condition of areas containing matters of state environmental significance is maintained or enhanced.

Land use strategies

Where appropriate, areas of state environmental significance should be zoned as either environmental conservation or as open space (with inclusion of overall outcomes that support biodiversity conservation). Where alternative zones are used, areas of environmental significance can be protected by applying overlay mapping.

Habitat suitable for rehabilitation may be designated for receiving offsets/revegetation, where appropriate.
2. Model biodiversity overlay code provisions

An example development assessment code for the biodiversity overlay has been prepared below that may be adapted by a local government when making or amending a planning scheme.

Purpose of the code

The purpose of the biodiversity/conservation code is to ensure that matters of state environmental significance are identified and protected.

Overall outcomes

The purpose of the code will be achieved through the following overall outcomes:

- development protects matters of state environmental significance to maintain ecological integrity;
- development manages impacts on matters of state environmental significance to avoid impacts on environmental values; and
- development enhances the health and resilience of ecological systems and supports ecological connectivity.

Table 1. Biodiversity overlay code

<table>
<thead>
<tr>
<th>Performance outcomes</th>
<th>Acceptable outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection of matters of environmental significance</strong></td>
<td></td>
</tr>
<tr>
<td>P01 Development protects matters of environmental significance.</td>
<td><strong>A01.1</strong> Development avoids significant adverse impact on the relevant environmental values.</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td><strong>A01.2</strong> A report certified by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, that the development site does not contain any matters of state environmental significance.</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td><strong>A01.3</strong> Development is located, designed and operated to mitigate significant adverse impacts on the relevant environmental values. For example, a report certified by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, how the proposed development mitigates impacts, including on water quality, hydrology and biological processes.</td>
</tr>
<tr>
<td></td>
<td>AND</td>
</tr>
<tr>
<td></td>
<td><strong>A01.4</strong> For significant residual impacts, an environmental offset is provided in accordance with the <em>Environmental Offsets Act 2014</em> where applicable for matters of local environmental significance.</td>
</tr>
<tr>
<td>Performance outcomes</td>
<td>Acceptable outcomes</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Management of impacts on matters of environmental significance</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PO2</strong> Development is designed and constructed to avoid significant adverse impacts on matters of environmental significance.</td>
<td><strong>AO2.1</strong> The design and layout of development minimises significant adverse impacts on matters of environmental significance by:</td>
</tr>
<tr>
<td>(a) focusing development in cleared areas to protect existing habitat;</td>
<td>(a) focusing development in cleared areas to protect existing habitat;</td>
</tr>
<tr>
<td>(b) utilising urban design to consolidate density and preserve existing habitat and native vegetation;</td>
<td>(b) utilising urban design to consolidate density and preserve existing habitat and native vegetation;</td>
</tr>
<tr>
<td>(c) aligning new property boundaries to maintain ecologically important areas;</td>
<td>(c) aligning new property boundaries to maintain ecologically important areas;</td>
</tr>
<tr>
<td>(d) ensuring that alterations to natural landforms, hydrology and drainage patterns on the development site do not negatively affect ecologically important areas;</td>
<td>(d) ensuring that alterations to natural landforms, hydrology and drainage patterns on the development site do not negatively affect ecologically important areas;</td>
</tr>
<tr>
<td>(e) ensuring that significant fauna habitat are protected in their environmental context; and</td>
<td>(e) ensuring that significant fauna habitat are protected in their environmental context; and</td>
</tr>
<tr>
<td>(f) incorporating measures that allow for the safe movement of fauna through the site.</td>
<td>(f) incorporating measures that allow for the safe movement of fauna through the site.</td>
</tr>
<tr>
<td><strong>PO3</strong> An adequate buffer to areas of state environmental significance is provided and maintained.</td>
<td><strong>AO3.1</strong> A buffer for an area of state environmental significance (wetland protection area) has a minimum width of:</td>
</tr>
<tr>
<td>(a) 200 metres where the area is located outside an urban area; or</td>
<td>(a) 200 metres where the area is located outside an urban area; or</td>
</tr>
<tr>
<td>(b) 50 metres where the area is located within an urban area.</td>
<td>(b) 50 metres where the area is located within an urban area.</td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td><strong>AO3.2</strong> A buffer for an area of state environmental significance is applied and maintained, the width of which is supported by an evaluation of the environmental values, including the function and threats to matters of environmental significance.</td>
<td></td>
</tr>
<tr>
<td><strong>PO4</strong> Development avoids the introduction of non-native pest species (plant or animal), that pose a risk to ecological integrity.</td>
<td><strong>AO4.1</strong> Development avoids the introduction of non-native pest species.</td>
</tr>
<tr>
<td>AND</td>
<td>AND</td>
</tr>
<tr>
<td><strong>AO4.2</strong> The threat of existing pest species is controlled by adopting pest management practices that provide for long-term ecological integrity.</td>
<td><strong>AO4.2</strong> The threat of existing pest species is controlled by adopting pest management practices that provide for long-term ecological integrity.</td>
</tr>
</tbody>
</table>
## Performance outcomes

### Ecological connectivity

**P05** Development protects and enhances ecological connectivity and/or habitat extent.

<table>
<thead>
<tr>
<th>Acceptable outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A05.1</strong> Development retains native vegetation in areas large enough to maintain ecological values, functions and processes.</td>
</tr>
<tr>
<td><strong>AND</strong></td>
</tr>
<tr>
<td><strong>A05.2</strong> Development within an ecological corridor rehabilitates native vegetation.</td>
</tr>
<tr>
<td><strong>AND</strong></td>
</tr>
<tr>
<td><strong>A05.3</strong> Development within a conservation corridor mitigates adverse impacts on native fauna feeding, nesting, breeding and roosting sites and native fauna movements.</td>
</tr>
</tbody>
</table>

**P06** Development minimises disturbance to matters of state environmental significance (including existing ecological corridors).

<table>
<thead>
<tr>
<th>Acceptable outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A06.1</strong> Development avoids shading of vegetation by setting back buildings by a distance equivalent to the height of the native vegetation.</td>
</tr>
<tr>
<td><strong>AND</strong></td>
</tr>
<tr>
<td><strong>A06.2</strong> Development does not encroach within 20 metres of existing riparian vegetation and watercourses.</td>
</tr>
</tbody>
</table>
1. References, industry guidelines and technical resources

**MNES mapping and significant impact guidelines**

  This search tool can be used to generate a map and report that will assist in determining whether MNES or other matters protected by the EPBC Act are likely to occur in a particular local government area, region or on a particular site.

  Actions that have, or are likely to have, a significant impact on MNES require approval from the relevant federal government minister. A significant impact is defined as ‘an impact which is important, notable, or of consequence, having regard to its context or intensity’.


**MSES mapping**
- MSES mapping will be part of the Environmental Values Database maintained by the EHP.

- For the purposes of the SPP, MSES mapping is also available on the Department of Infrastructure, Local Government and Planning’s (DILGP) website in an interactive format through the SPP Interactive Mapping System. http://www.dilgp.qld.gov.au/planning/state-planning-instruments/spp-interactive-mapping-system.html

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


**Local government mapping**
The SPP state interest—biodiversity policies do not affect a local government’s ability to ground-truth state-based mapping and/or use its own mapping when making or amending a planning scheme.

A local government has the flexibility to identify MLES in its planning scheme area. The state does not mandate the methodology for determining MLES; however the EO regulation does specify that MLES cannot be MNES or MSES.

**Environmental offsets**

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

**Other environmental values mapping**
- To provide an ecological context for planning and development decision-making that may impact on MNES and MSES, other environmental values have also been mapped. MNES or MSES are generally not located in isolation to each other or other ecological values—there is a significant degree of geographic overlap. Where possible, the protection of the broader suite of environmental values will contribute to maintaining healthy and resilient ecosystems and ensure sustainable, long-term conservation of biodiversity. Other environmental values include:
  - of concern regional ecosystems in urban areas (VMA),
  - least concern regional ecosystems (VMA),
  - habitat for near threatened and least concern species (NCA),
  - corridor and rehabilitation areas,
– strategic rehabilitation areas (regional plans), and
– landscape-scale conservation corridors outside urban areas (Biodiversity Planning Assessment).

**Wildlife corridor guidelines**

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

**Buffer guidelines**


**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; and
- local government area pest management plans.

Specific guidance on pest management planning can be obtained from Department of Agriculture and Fisheries.

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


Further guidance on feral animal control can also be obtained from the Wetland Rehabilitation Guidelines for the Great Barrier Reef Catchment. These guidelines were developed by the Queensland Wetlands Program, and are available from WetlandInfo wetlandinfo.ehp.qld.gov.au/resources/static/pdf/resources/reports/qw-rehab-guidlines-jan09.pdf.

**Other information**

Other tools that may assist local governments to identify matters of environmental significance include wildlife profiles for Queensland fauna can be accessed at www.wildlife.org.au/wildlife/index.html.

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

The EHP 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) wetlandinfo.ehp.qld.gov.au/wetlands/

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

Appendix 1: Ecological value assessment methods, 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.
APPENDIX 1: Ecological value assessment methods

The table below 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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Assessment requirement*</th>
<th>Potential data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Plant communities and their condition</td>
<td>• Remnant (Category A &amp; B) and regrowth (Category C) vegetation communities, as defined under the <em>Vegetation Management Act 1999</em>; and • Threatened or near threatened wildlife prescribed under the <em>Nature Conservation Act 1992</em> (NCA).</td>
<td>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; and • 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); and • land classification, conservation protection status and value of any protected vegetation.</td>
<td>• Wildnet online; • Queensland Herbarium HERBRECS records; • 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; and • Other existing vegetation and wetland mapping (see WetlandInfo).</td>
</tr>
</tbody>
</table>
### Element | Description | Assessment requirement* | Potential data sources
--- | --- | --- | ---
(B) Wildlife | Conservation significance of species: • threatened, near threatened or 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; and • feral/introduced species. | 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 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 and variation;
4. conservation status;
5. representativeness; and
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. EHP 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 and 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; or
11. roost/nest/den trees. Areas identified as significant in the BPA should also be accurately mapped (refer to C below). | • Wildnet online; • Museum records; • Birds Australia database; • Data collected by naturalist groups; • Local government data bases 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); and • Other published and unpublished reports.
### Element Description Assessment requirement* Potential data sources

(C) Landscape corridors and other wetland conservation values
- Wildlife corridors of regional and state significance as defined under BPA;
- Contours and topography; and
- Other defined conservation values.

Identify ecological corridors as defined under BPA and assessments undertaken in components (A) and (B) above. Describe the location, configuration and composition of any ecological corridor which includes all or part of the subject site. Key elements 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; and
- 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.

- List of Ramsar wetlands;
- Directory of Important Wetlands in Australia;
- BAMM;
- Aquatic BAMM (AquaBAMM);
- 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; and
- Expert opinion.

(D) Important sites for key lifecycle functions for threatened and locally significant species, and their sensitivity to disturbance
- 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. It is acknowledged that, to a large extent, this is to be based on professional opinion; however, the proponent needs to justify any conclusions regarding significance of these life cycle functions.

- Identify any known critical periods for important life-history functions (e.g. critical breeding periods when fauna may be at most risk from visual and noise disturbances).

Identify the sensitivity of fauna or flora species to potential disturbance as it relates to the proposed works (area and intensity of use).

- 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; and
- Expert opinion.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Assessment requirement*</th>
<th>Potential data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E) Wetland condition and threats</td>
<td>• 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; and • Natural interaction of the wetland with other ecosystems, including other wetlands. Based on components A–D above, document existing condition of habitats and key threats to species. In addition to the quality/naturalness assessments described above, an assessment should consider the following: • identify existing and proposed adjacent land uses, including connecting ecological corridors and buffers; • describe wetland hydrology and 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 EHP website <a href="http://www.ehp.qld.gov.au">www.ehp.qld.gov.au</a>; • identify the diversity of native wetland flora and fauna, including threatened species; and • 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.</td>
<td>• Watershed water quality data; • Aquatic macro invertebrate monitoring data and condition ratings (EHP); • 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; • EHP 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]); and • Department of Agriculture and Fisheries fish species surveys.</td>
<td>• Watershed water quality data; • Aquatic macro invertebrate monitoring data and condition ratings (EHP); • 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; • EHP 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]); and • Department of Agriculture and Fisheries fish species surveys.</td>
</tr>
</tbody>
</table>
