

Guideline: State Development Assessment Provisions

State Code 9: Great Barrier Reef
wetland protection areas

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Version 2.00

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Version	Effective date	Description of changes
1.00	03/07/2018	
2.00	01/03/2019	Departmental names are update, Policy Register number and format added. Description of Category C vegetation updated to reflect VMA changes.

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1.0 Purpose

This document provides guidance regarding State code 9: Great Barrier Reef wetland protection areas of the State Development Assessment Provisions (SDAP 2.0) (<https://planning.dsdmip.qld.gov.au/planning/better-development/the-development-assessment-process/the-states-role/state-development-assessment-provisions>).

State code 9 forms the basis of state assessment of high impact earthworks in wetland protection areas in certain catchments of the Great Barrier Reef (GBR).

Wetlands in GBR catchments filter run-off containing pollutants, such as nutrients, pesticides and sediments, helping to improve the quality of water entering the reef lagoon. High impact earthworks can be located in urban areas or on farms in rural areas and have a significant adverse effect on the ecosystem services provided by these wetlands. Ensuring high impact earthworks meet the performance outcomes of State code 9 contributes maintaining ecosystem functions, an objective of the Wetlands in the Great Barrier Reef Catchments Management Strategy 2016–21 (<https://wetlandinfo.des.qld.gov.au/wetlands/management/policy-legislation/gbr.html>).

This guideline is not a statutory document. The use of this guideline does not guarantee compliance with all planning and environmental requirements for development in a wetland protection area. This document should be interpreted as advice that only applies to a development application for high impact earthworks in a GBR wetland protection area under the Planning Regulation 2017.

2.0 Scope

2.1 Defined Great Barrier Reef catchment area

State code 9 only applies to GBR wetland protection areas indicated on the Map of Referrable Wetlands, as indicated on Map 1 below.

2.2 Mapped wetlands and wetland protection areas

State code 9 applies to development involving high impact earthworks which is triggered for assessment if it is located within wetland protection areas mapped on the [Map of Referrable Wetlands](https://dams.dsdip.esriaustraliaonline.com.au/damappingsystem/) (<https://dams.dsdip.esriaustraliaonline.com.au/damappingsystem/>, SARA DA Mapping, Wetland Protection Area). A property specific map can be generated at <https://environment.des.qld.gov.au/ecosystems/wetlands/referable-wetlands-form.php> to determine if the location contains a wetland protection area.

2.3 High impact earthworks

Assessment under State code 9 is triggered by development involving high impact earthworks within a wetland protection area, by Schedule 10 of the Planning Regulation 2017.

High impact earthworks are defined in Schedule 24 of the Planning Regulation 2017 as operational work that involves changing the form of land or placing a structure on land, in a way that diverts water to or from a wetland.

Examples of some activities that may involve high impact earthworks include (but are not limited to):

- filling or levelling of land, including raising the level of land by the placing of fill material.
- excavation of land, including excavation to create a canal, channel or water storage.
- construction of a new drain.
- overland flow storage and sediment erosion ponds.
- construction of a levee, farm dam, weir or other barrier across a waterway.
- construction of a road, culvert or causeway.

The high impact earthwork definition contains several exemptions to the requirement to obtain a development permit. The exemptions are listed in full in Schedule 24, with the most significant exemptions being:

- excavating or filling not more than 100m³ of material or 1000m³ of material if over 200m from a wetland
- works necessary to maintain infrastructure such as desilting an existing drain.
- excavating to establish underground infrastructure, other than infrastructure for drainage or stormwater flows, if the excavated land is to be restored, as far as practicable, to its original contours after the infrastructure is established.
- works carried out to restore or conserve the ecological processes or hydrological functions of a wetland protection area.
- maintaining government supported transport infrastructure.



2.4 Agricultural activities

High impact earthworks requiring assessment under State Code 9 can be located either in urban areas or on farms in rural areas. The majority of development applications are for agricultural activities which included high impact earthworks. Agricultural activities which commonly trigger assessment under State Code 9 include the construction of farm dams, levee banks, bund walls, diversions and overflow storage, sediment erosion ponds and off stream storages.

The following agricultural activities do not trigger assessment under State code 9:

- Current cropping and grazing activities
- Maintaining and desilting existing drains
- Constructing and maintaining fences
- Establishing and maintaining firebreaks where exempt under the Vegetation Management Act 1999
- Laser levelling where not significant enough to be high impact earthworks.

2.5 Amending the Map of Referrable Wetlands

2.5.1 Generally

The Map of Referable Wetlands maps both wetlands and their wetland protection areas in certain GBR catchments.

Whilst all efforts have been made to ensure the Map of Referable Wetlands is accurate, minor, site specific amendments to the map can be requested in accordance with s144D of the Environmental Protection Regulation 2008 (EP Regulation). A request to amend the Map of Referable Wetlands will be supported by an assessment which demonstrates either that the wetlands are not accurately mapped, that the wetlands are absent all together, or that they are not of high ecological significance. An amendment to the map can change the level of assessment for a site by exempting the development from being triggered for assessment by the State.

Requests to amend the Map of Referrable Wetlands can:

- remove a wetland or wetland protection area, or
- change the boundary of a wetland or a wetland protection area.

Possible scenarios warranting a change of mapping can include:

- The Map of Referrable Wetlands identifies an artificial waterbody as a wetland
- The Map of Referrable Wetlands inaccurately indicates the extent of the wetland
- The wetland does not have high environmental significance (for instance, a wetland is found to have a long history (12 years or more) of salinity or major hydrological modification)
- The wetland protection area might be suitable for amendment as there is a clear hydrological divide (such as a ridge) reducing its extent.

2.5.2 Process

Ensure that any request to amend the Map of Referrable Wetlands is discussed at the pre application meeting. Because the extent of the wetland protection area impacts on the level of assessment, changing or removing the wetland protection area from mapping could have the effect of exempting the proposal from development assessment altogether.

Key steps in the map amendment process are as follows:

- Request a [property specific wetlands map](#)
- Undertake an analysis based on initial DES advice, which may require confirmation of terrain with a high resolution digital elevation model, a site visit, current and historical photographs, a technical report address in the attributes of the area in question based on the Wetland Definition and Delineation Guideline (<https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/buffer-guide/qld-wetland-definition-and-delineation-guideline-part-a.pdf>)
- Submit a map amendment proposal to DES for assessment in accordance with s144D of the EP Regulation. Ensure that the proposed amendment is in the form a polygon shapefile compatible with DES's GIS system.
- DES decides the map amendment and either a letter of amendment or refusal is sent to the applicant.
- Where approved, DES amends the Map of Referrable Wetlands in due course and adds the decision to a publicly available register of map charges. (www.des.qld.gov.au/ecosystems/wetlands/wetlands-map-amendments).
- For further information on the wetland mapping amendment process, please contact planning.support@des.qld.gov.au or phone 13 QGOV (13 74 68).

2.6 Certain Infrastructure is accepted development

If the proposal in the Wetland Protection Area is for electricity operating works or government supported transport infrastructure refer to refer to Schedule 14 'Requirements for high impact earthworks in a wetland protection area' in the Planning Regulation 2017.

3.0 Recommended actions prior to lodging a development application

- Manage your property to incorporate wetland management and rehabilitation informed by the DES Guideline, 'Wetland Rehabilitation Guidelines for the Great Barrier Reef catchment'. (<https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/qw-rehab-guidelines-jan09.pdf>)
- Research background information available at <https://wetlandinfo.des.qld.gov.au/wetlands/resources/>.
- Conduct a desktop analysis to determine if the site is within a wetland protection area, meets the material threshold and therefore is referable. Use the DES Environmental Reports Online tool (<https://apps.des.qld.gov.au/report-request/environment/>) to request a report for Matters of State Environmental Significance (MSES).
- Look for opportunities in the development proposal to protect or rehabilitate on site wetlands.
- Check the SARA mapping layer to identify any wetland protection area on the site; where present, request a [property specific wetland protection area map](#) to accompany the application.
- Conduct a field inspection of the wetland to confirm that its location and extent on the mapping is correct.
- If an inaccuracy in mapping is found, decide whether to request an amendment to the wetland mapping or to continue to propose development within the wetland protection area.
- Resolve how the wetland and its buffer will be maintained following construction, giving consideration to ongoing management actions and options for securing the site over the long-term such as easements, covenants and transferring ownership to local government.
- If considering a reduced buffer or wetland area, appoint appropriately qualified professional to prepare appropriate background studies and to undertake the design process.
- Consider organising a SARA pre-application meeting, particularly if considering amendment of the Map of Referable Wetlands, a reduction of the buffer area or abatement of significant residual impact by using an environmental offset.
- If proposing to amend the wetland mapping, prepare supporting material as discussed in Section 2.3.
- Prepare an ecological values assessment, informed by material at the wetlandinfo website. <https://wetlandinfo.des.qld.gov.au/wetlands/resources/>
- After doing the above, lodge the development application with SARA.

4.0 Information requirements

If proposing development within a wetland or wetland protection area, provide the following in addition to the details required by Form 1 on the DSDMIP website:

- Plans prepared by a qualified professional showing the extent of the wetland, extent of proposed works, any existing man made infrastructure, drainage lines, spot heights and contours
- If proposing a reduced buffer or wetland area, an ecological values assessment demonstrating compliance with the [Queensland Wetland Buffer Guideline](#) (<https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/buffer-guide/wetland-buffer-guideline-14-04-13.pdf>).
- A site-based management plan which can contain all of the following:
 - hydrological assessment (including surface and groundwater impacts)
 - stormwater management plan
 - construction phase erosion and sediment control plan
 - pest management action plan
 - management plan addressing hydrology, vegetation, pest and fauna disturbances and risk management (e.g. including details of water sensitive urban design measures).

5.0 Addressing SDAP State code 9: GBR wetland protection areas

Performance Outcomes 1 (PO1)

PO1 Development is not carried out in a wetland in a wetland protection area.	No acceptable outcome is prescribed.
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PO1 Context

The wetlands included in the Map of Referrable Wetlands have been assessed as containing high ecological values by a bioregional aquatic conservation assessment (<https://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca/>).

Given the ecological value of these wetlands, high impact earthworks (including utilities and stormwater management devices) will not be approved in mapped wetlands.

PO1 Development considerations

Professionally prepared site plans will demonstrate how the proposed development is located outside of the mapped wetlands, using appropriate surveying methods. Site plans should refer to survey details contained on the property specific site map available from the DES website discussed in Section 2.2 above.

Performance Outcome 2 (PO2)

<p>PO2 Development provides an adequate buffer surrounding a wetland to:</p> <ol style="list-style-type: none">1. maintain and protect wetland environmental values; and2. avoid adverse impacts on native vegetation within the wetland and the buffer.	<p>AO2.1 A buffer between a wetland and development is provided and has a minimum width of:</p> <ol style="list-style-type: none">1. 200 metres, where the wetland is located outside a prescribed urban area; or2. 50 metres, where the wetland is located within a prescribed urban area.
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PO2 Context

In addition to keeping the wetland development-free as required by PO1, a development-free buffer is also required to maintain the wetland's ecosystem functions and environmental values.

A buffer is distinct from a wetland protection area.

Within a wetland protection area, a buffer is intended to be maintained in a natural state or returned to a natural state to allow for the normal water flows, seasonal variability, habitat and flood mitigation functions of the wetland to remain unaffected by development. The extent of a buffer within the wetland protection area is described nominally in AO2.1.

Alternatively, PO2 can be achieved by designing a reduced buffer distance to accommodate both a development proposal and wetland values to suit the specific site circumstances in accordance with the Queensland Wetland Buffer Planning Guideline (<https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/buffer-guide/wetland-buffer-guideline-14-04-13.pdf>).

PO2 Development considerations

If a reduced buffer width is proposed, supporting information must be submitted which demonstrates how the methodology for alternative buffer distances has been applied and demonstrating that wetland's environmental values are maintained and protected. This should be in accordance with the Queensland Wetland Buffer Planning Guideline.

Professionally prepared site plans will indicate where proposed development is located in relation to the buffer (whether it be the buffer area described in AO2 or an alternative, reduced buffer proposed as part of the application). Site plans should refer to survey details contained on the property specific site map available from the DES website.

Give particular consideration to the tenure arrangements for the wetland and its buffer area which deliver the best long term maintenance and protection of the wetlands' ecological values. After construction, ongoing wetland maintenance arrangements can be implemented by:

- excluding development from the buffer and requiring retention or improvement of suitable buffer vegetation as a condition of approval
- adding or attaching wetland and buffer maintenance actions to a property's Plan of Management
- preparing a covenant or easement over the wetland and its buffer in the interest of the relevant local authority with their agreement
- dedicating the wetland and its buffer to the relevant local authority with their agreement.

Note that the state generally does not enter into tenure arrangements with landholders to protect long term wetland values as a condition of development approval.

Whilst development is intended to be located outside the buffer, it is possible for low-impact elements of the development proposal to be located within the buffer if they are shown to avoid impacting on ecological processes and wetland water quality through measures such as:

- firebreaks and fauna friendly fencing;
- underground utilities; and
- nature based or low key recreation facilities (such as walkways, bikeways and bird hides).

Performance Outcome 3 (PO3)

PO3 Development enhances or avoids adverse impacts on the existing surface and groundwater hydrology in a wetland protection area, and, where adverse impacts cannot be reasonably avoided, impacts are mitigated.	No acceptable outcome is prescribed.
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PO3 Context

This PO applies to the entire wetland protection area as mapped by the Map of Referrable Wetlands, not just the buffer area.

Surface water

The surface hydrology of a wetland is the fundamental aspect of wetland function. Existing surface water hydrology means all the natural formation of the land (the wetlands but also surrounding overland flows, creeks and channels) that allows for surface water to flow in and out of the wetland.

With unnaturally high or inadequate volumes of water, the natural ecological function of a wetland will be altered or lost. Existing flow rates mean the natural variability of a wetland's surface water flows. This means the flow must be the same quantity during dry, peak rainfall and normal periods throughout the year as it would be in its natural state.

Groundwater

Groundwater is usually the 'unseen' powerhouse behind the wetland's ongoing presence and function. Existing groundwater hydrology means all the natural parts of the landscape that contain or assist in the movement of groundwater into, through and out of the wetland.

The groundwater regime of a wetland is also important to consider in the context of wetland hydrology. The groundwater regime is especially critical for those wetlands that are dependent on groundwater, such as dune lakes and swamps, and springs. In this context, it is important to protect the groundwater recharge processes (natural processes that allow infiltration of rainwater into the groundwater table) and discharge processes associated with a wetland.

Development can pose a threat to the water quantity and quality of ground water systems. The interception of groundwater tables will have an effect on wetland water levels, water quality and the hydrostatic pressure of a groundwater-dependent wetland. Hydrostatic pressure of a groundwater-dependent wetland is the pressure of groundwater at a given depth due to the weight of the wetland surface water above it.

PO3 Development considerations

If development is proposed within a wetland protection area an appropriately qualified professional should prepare a surface and groundwater hydrological assessment to address PO3.

Surface water

The surface water component of the hydrological assessment will demonstrate that the extent of the change to the existing surface water hydrological regime is minimised to protect the wetland values and functioning.

The change is minimised if, at least:

3. there is no change to the reference high-flow duration frequency curve, the low-flow duration frequency curve, the low-spells frequency curve, and the mean annual flow to and from the wetland; and
4. stream flows into the wetland comply with the environmental flow objectives stated in any relevant water resource plan under the Water Act 2000, in particular referencing relevant environmental flow objectives (EFOs); and
5. increased volume or velocity of stormwater flow is managed prior to its discharge into the buffer or wetland.

In defining and preparing a low-flow and high-flow duration frequency curve analysis the applicant should either:

- adopt default reference duration assessment criteria and justify the applicability of the criteria to the wetland under consideration; or
- develop more site-specific hydrological reference values based on appropriate technical justification.

An example methodology to undertake flow duration frequency curve analysis and flow spells frequency analysis can be found in the Urban Stormwater – Queensland Best Practice Environmental Management Guidelines 2009 – technical note: Derivation of Design Objectives. (<https://www.des.qld.gov.au/water/policy/pdf/urban-stormwater-guidelines.pdf>)

For further guidance regarding rehabilitation of wetlands, refer to the Wetland Rehabilitation Guidelines for the Great Barrier Reef Catchment (2008) (<https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/qw-rehab-guidlines-jan09.pdf>).

Groundwater

The groundwater component of the hydrological assessment can address PO4 by demonstrating how the proposed works maintains the water table and hydrostatic pressure in the wetland protection area at their natural state, or if mitigation is required, achieves both of the following:

6. saline water does not enter freshwater aquifers in the wetland protection area;
7. the water table and hydrostatic pressure in the wetland protection area is not lowered or raised outside the bounds of variability existing immediately before the operational work starts.

In addition to hydrological information required in Section 4.0, specific information required to address ground water impacts includes:

Characterisation of current groundwater hydrological conditions, including:

- groundwater flow paths
- groundwater levels, taking into account any seasonal, annual and inter-annual variability
- groundwater flows and surface wetland hydrology interaction
- the influence of groundwater levels on wetting and drying cycles
- characterisation of wetland groundwater hydrogeology under proposed changes in accordance with the above process.

Best practice guidelines to consult and adopt include:

- The National Water Quality Management Strategy – Guidelines for Protection of Groundwater in Australia (1995) (<http://waterquality.gov.au/SiteCollectionDocuments/guidelines-groundwater-quality-protection.pdf>)
- The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) (<http://waterquality.gov.au/anz-guidelines>)

Performance Outcomes 4, 5 and 6 (PO4, PO5 and PO6)

PO4 Development avoids adverse impacts to the water quality of the wetland in the wetland protection area and in the wetland buffer, and where adverse impacts cannot be reasonably avoided, impacts are mitigated.	No acceptable outcome is prescribed.
PO5 Development does not use the wetland in the wetland protection area for stormwater treatment.	No acceptable outcome is prescribed.
PO6 Development avoids land degradation in the wetland protection area and, where land degradation cannot be reasonably avoided, it is mitigated.	No acceptable outcome is prescribed.

PO4, PO5 and PO6 Context

The protection of the water quality of a wetland is important as it ensures the ongoing health of the wetland itself, as well as ecosystems that rely on the wetland.

PO4 Development considerations

Generally development within the wetland protection area can achieve this PO by:

- designing stormwater networks which avoids direct discharge to the wetland;
- adequately treating stormwater discharge which ultimately drains to the wetland;
- locating any stormwater treatment systems or devices outside the wetland; and
- locating any stormwater treatment systems or devices within the buffer where there is no detrimental impact on the buffers ability to protect wetland values (i.e. not disturbing existing vegetation, not being located in areas subject to seasonal inundation).

In urban areas, prepare a site based stormwater management plan in accordance with Section 2.3 of the Queensland Urban Drainage Manual (<https://www.ipweaq.com/qudm>).

In rural areas, prepare a stormwater management plan which achieves best practice stormwater management described in Wetland Management Handbook: Farm Management Systems (FMS) Guidelines for Managing Wetlands in Intensive Agriculture. (https://wetlandinfo.des.qld.gov.au/resources/static/pdf/resources/reports/fms/fms_025_handbook_web.pdf).

In both rural and urban areas, an Erosion and Sediment Control Plan (ESCP) will be required to demonstrate that the construction phase will be in compliance with the Earthworks - AS3798 (Guidelines on Earthworks) and Erosion & Sediment Control – Best Practice documents as specified by the International Erosion Control Association (Australasia).

When preparing management plans, note that 'adverse impact' will be measured against pre-development water quality conditions. Catchment specific Environmental Values (EVs) and Water Quality Objectives (WQOs) have been prepared for most Queensland water catchments (refer to Schedule 1 in Environmental Planning Policy (Water)). The [Queensland Water Quality Guidelines 2009](#) provides EVs and WQOs for waters where no catchment-specific values have been established.

PO5 Development considerations

Avoiding the use of wetlands for stormwater treatment is essential. All development proposals will be designed to avoid the direct discharge of stormwater into a wetland or the location of any stormwater treatment devices or features in the wetland.

PO6 Development considerations

Land degradation in wetland protection areas can cause significant detrimental impacts on wetlands and is costly to make right once it has occurred.

State code 9 lists in its Glossary of Terms a number of land degradation processes.

Some processes listed in the definition (soil erosion and stream bank instability) relate directly to water quality and should be addressed as part of the stormwater management plan and erosion and sediment control plan.

Other processes listed in the definition (rising water tables and the expression of salinity) are best addressed as part of the hydrological assessment responding to PO3.

Performance Outcomes 7 (PO7)

<p>PO7 Development outside the wetland and its buffer:</p> <ol style="list-style-type: none">8. avoids adverse impacts on matters of state environmental significance and areas of Category C and Category R regulated vegetation; or9. minimises and mitigates adverse impacts on matters of state environmental significance and areas of Category C and Category R regulated vegetation where avoidance is not reasonably possible.	<p>No acceptable outcome is prescribed.</p>
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PO7: Context

PO7 is intended to avoid any detrimental impacts on Category C and Category R regulated vegetation.

Category C vegetation is regrowth vegetation classified as 'endangered', 'of concern' or 'least concern' regional ecosystems that has not been cleared for at least 15 years (i.e. not remnant vegetation) and is located on freehold land, indigenous land, or State leasehold land granted for agricultural or grazing purposes.

Category R vegetation is any native woody vegetation located within 50m of a watercourse within the Burdekin, Mackay, Whitsundays or Wet Tropics Great Barrier Reef catchments.

PO7: Development considerations

Environmental offsets cannot be required for mitigating impacts on Category C and R vegetation. Instead, development will focus on avoiding impacts, and where avoidance is not feasible – minimising impacts on these regional ecosystems.

Information requirements for PO7 are similar to PO9 with one significant difference - offset requirements do not apply to Category C and R vegetation.

When preparing an ecological assessment, differentiate discussion of Category C and R vegetation from other vegetation categories to assist assessment.

Performance Outcomes 8 (PO8)

<p>PO8 Development:</p> <p>10. protects wetland fauna from any impacts associated with noise, light or visual disturbance;</p> <p>11. protects the movement of wetland fauna within and through a wetland protection area; and</p> <p>12. does not introduce pest plants, pest animals or exotic species into a wetland and its buffer.</p>	<p>No acceptable outcome is prescribed.</p>
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PO8 Context

Where a wetland is habitat to fauna that are sensitive to disturbance, development is to avoid any measurable adverse impact on fauna from disturbance, disruption of connectivity or introduction of pests.

PO8 Development considerations

In addition to the standards specified in Appendix A of the State Planning Policy Guideline – Biodiversity, consider the following matters regarding fauna protection:

Noise, light or visual disturbance

Where fauna is sensitive to noise, light or visual disturbance, design solutions achieving PO8 (1) can include:

- full fauna friendly fencing and screening the development site to prevent visual impacts of workers and machinery on wetland fauna, such as roosting birds
- having a pre-set works schedule that excludes critical lifecycle periods (e.g. key nesting and breeding periods for wetland fauna)
- implementing special noise reduction measures, such as erecting purpose-built acoustic barriers and vegetated buffer zones using suitable endemic plant species.

Corridors

Where a wetland is identified as playing a significant role in the movement of fauna (for instance the wetland is within a corridor mapped in a regional plan, planning scheme or other existing ecological reports), design solutions achieving PO8 (2) can include:

- retention of larger areas of buffer around a wetland
- fauna friendly fencing
- fish passage measures.

Pests

The presence of pests in wetlands can be an indicator of an imbalance in wetland health. Where pests are found to be present in a wetland protection area, measures which can achieve PO8 (3) include:

- mechanically or manually removing pest species
- using locally occurring native species for any revegetation works
- using supplier-certified pest-free nursery stock from local provenance, where possible
- constructing exclusion fencing in appropriate locations to manage the threat of pest species (including stock) to the wetland, which does not impede movement of wetland fauna
- preparing and implementing a pest management plan.

Performance Outcome 9 (PO9)

<p>PO9 Development outside a wetland:</p> <ol style="list-style-type: none">1. avoids impacts on matters of state environmental significance, or2. minimises and mitigates impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible, and3. provides an offset if, after demonstrating all reasonable avoidance minimisation and mitigation measures are undertaken, the development still results in a significant residual impact on a matter of state environmental significance. <p><i>Editor's note: Guidance for determining if the development will have a significant residual impact on the matter of state environmental significance is provided in the Significant Residual Impact Guideline, Department of State Development, Infrastructure and Planning, 2014. Where the significant residual impact is considered an acceptable impact on the matter of state environmental significance and an offset is considered appropriate, the offset should be delivered in accordance with the Environmental offsets framework, Department of Environment and Heritage Protection, 2016.</i></p>	<p>No acceptable outcome is prescribed.</p>
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PO9: Context

PO9 applies to MSES outside of Wetlands on the Map of Referrable Wetlands, as development in wetlands is to be avoided in line with PO1.

Outside wetlands, MSES is protected by the 'avoid, minimise, offset' framework.

If development within MSES has demonstrated that it cannot avoid adverse impacts, then it should be demonstrated how impacts are minimised. Once feasible actions to avoid and minimise impacts have been taken, residual impacts are to be offset.

This PO emphasises the avoidance of detrimental impacts on MSES; it should not be assumed that offsets will be automatically supported.

If offsetting is being considered, a pre-application meeting with SARA is recommended to determine whether offsetting is a feasible option.

PO9: Development considerations

Proposals will need to include scaled plans clearly identifying the extent of on-site MSES and the location of proposed development.

To determine the extent of MSES on site, refer to:

- the SPP Interactive Mapping System on the DSDMIP website; or
- [Environmental Reports Online](https://environment.des.qld.gov.au/ecosystems/wetlands/referable-wetlands-form.php) and complete the online form to receive a site specific report at no cost, (<https://environment.des.qld.gov.au/ecosystems/wetlands/referable-wetlands-form.php>).

Note that mapping and reports downloaded from the above sites are of high accuracy but property-scale field surveys undertaken by suitably qualified professionals are highly recommended to determine the actual extent of the mapped or reported values.

MSES mapping does not map the extent of marine plants and fish passage waterways. Specific survey and mapping is recommended to confirm the extent of these elements where they occur on-site.

Submission of an ecological assessment prepared to the standards specified in Appendix A of the State Planning

Policy Guideline – Biodiversity is required if:

- Detailed site survey confirms the development site is at a location where the extent or description on-site MSES differs from the current MSES mapping.
- Details site survey reveals that the site is located in areas with marine plants or traversed by waterways allowing fish passage (for mapping methodology refer to Guide for the determination of waterways using the spatial data layer Queensland waterways for waterway barrier works, 2013 (https://www.daf.qld.gov.au/__data/assets/pdf_file/0007/75886/spatial-data-layer-user-guide-jan-13.pdf)).
- Development is located within MSES on-site or adjoins MSES (on or off the site) and may impact on MSES.

Development which does not demonstrate reasonable proposed action to avoid or minimise impacts on MSES may not be approved.

To assist assessment of PO9 of development within MSES, it is recommended that ecological assessments are structured to address the 'avoid and minimise' framework, in particular, how the development proposal minimises impact on MSES through location and design measures.

If there is an impact on MSES, submit a report which determines whether there is a significant residual impact (SRI) in accordance with the DSDMIP Significant Residual Impact Guideline.

SARA will advise in writing whether SRI on MSES are acceptable and, if so, will also advise the applicant to prepare an Offset Delivery Plan in accordance with the 'environmental offset framework' in the Queensland Government website and refer to Queensland Environmental Offsets Policy – General Guide, September 2015.