

Guideline

Marine Management

State Code 12: Development in a declared fish habitat area

This (non-statutory) guideline clarifies the intent of the State Development Assessment Provisions (SDAP) code and provides guidance to applicants and the community on the context of SDAP Performance Outcomes (POs) for development in a declared Fish Habitat Area (FHA) and the required information to support assessment of compliance with those POs.

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State Code 12: Development within a declared fish habitat area

1.0 Purpose

This document provides guidance regarding State Code 12: Development in a declared fish habitat area (FHA) of the State Development Assessment Provisions.

As a guideline this is not a statutory document. It aims to clarify the intent of the State Development Assessment Provisions (SDAP) code and provide guidance to applicants and the community on the:

Context of the SDAP Performance Outcomes (POs) for development in a declared Fish Habitat Area (FHA), and Information that is required to support assessment of compliance with those POs.

2.0 Assessment of works in declared Fish Habitat Areas

2.1 Development approvals and resource allocation authorities

Two forms of approval are required before development works can be conducted within a declared FHA:

1. A resource allocation authority (RAA) issued under the Fisheries Act 1994, for interfering with a declared FHA, and
2. A development approval (DA) under the Planning Act 2016 for building and/or operational works.

Declared FHAs are a category VI marine protected area under the International Union for Conservation of Nature (IUCN) categorisation system, are part of Australia's Nationally Representative System of Marine Protected Areas (NRSMPA) and are a matter of state environmental significance under the State Planning Policy (SPP) and Environmental Offsets Regulation 2014. The requirement for an RAA to be held, in addition to the DA, recognises the importance of declared FHAs as a state resource managed for fisheries, community access and biodiversity purposes.

Only development for a prescribed development purpose, as defined under Section 214 of the Fisheries Regulation 2008, may be approved within a declared FHA. The primary aim of the RAA assessment is to determine if the proposed development is for one of these prescribed purposes.

RAA applications are submitted directly to the Department of Agriculture and Fisheries (DAF) for assessment and are assessed entirely in accordance with the provisions of the Fisheries Act 1994 (i.e. an RAA is not a Planning Act approval). If approved, the RAA is granted to an individual or entity and approves the location, area and purpose of the interference with the declared FHA, but does not authorise any development works to be undertaken. Approval of the development works is delivered through the DA process.

While not a requirement, it is recommended that the RAA is obtained prior to submission of the DA application, as this will significantly simplify addressing the SDAP for development in a declared FHA.

Development works within a declared FHA cannot commence until both the RAA and DA have been granted.

2.2 Accepted development within declared Fish Habitat Areas

Accepted development is defined under the *Planning Act 2016* as, development for which a development approval is not required. A range of minor, low impact development that is conducted within declared FHAs has been categorised as accepted development. This development is detailed in a document titled, *Accepted development requirements for operational work completely or partly within a declared Fish Habitat Area* available on the Department of Environment and Science (DES) web site.

This document specifies limitations (e.g. disturbance footprints) for each type of accepted development, beyond which development is no longer considered to be accepted development and must be assessed through the standard RAA and DA assessment processes.

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Accepted development is generally subject to pre works notification, with the specific requirements detailed abovementioned document.

Any development that is compliant with the accepted development requirements within declared FHAs does not require an RAA.

2.3 Declared Fish Habitat Area boundaries and exclusions

A mapping layer which presents the outer boundaries of all declared FHAs is available on the Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) DA mapping system (<https://planning.dsdmip.qld.gov.au/maps>). If review of this mapping layer indicates that the proposed development will require works within the outer boundary of a declared FHA, the official plan of the relevant declared FHA should be viewed (<https://parks.des.qld.gov.au/managing/habitat-areas/area-plans.html>) and considered in relation to sections 615 to 619 and Schedule 3 of the Fisheries Regulation 2008. These sections of the Fisheries Regulation 2008 and any notes on the face of the official plan describe areas that are excluded from the declared FHA outer boundary and therefore provide essential information to assist in clarifying if the proposed development will require interference and works within the declared FHA.

Further information regarding declared FHA boundaries is available in Section 5.2 of the DES *Operational policy for Management of declared FHAs*, available on the DES website (<https://parks.des.qld.gov.au/managing/habitat-areas/>).

3.0 Recommended actions prior to lodging a development application for development in a declared Fish Habitat Area

- Determine if the proposed development is within a declared FHA (refer to section 2.3).
- Determine if the proposed development is accepted development within a declared FHA (refer to section 2.2).

For development within a declared FHA that is not accepted development:

- Apply for and obtain an RAA for interfering with a declared FHA for the development, ensuring that the footprint of the RAA application area is sufficient to deliver the proposed development. As discussed in Section 2.1, while obtaining the RAA prior to submission of the DA application is not a requirement, it will significantly simplify addressing the DA application process.
- Organise a pre-lodgement meeting with the State Assessment and Referral Agency (SARA) to clarify DA assessment requirements under the Planning Regulation 2017. For information on how to organise a pre-lodgement meeting with SARA, please contact your local DSDMIP regional office (<http://www.dsdmip.qld.gov.au/contact-us/regional-contacts.html>).
- Prepare a comprehensive development application that includes the following:
 - A written description of the proposed development, including:
 - Details of the purpose of the proposed work (e.g. public jetty, private jetty, boat ramp, pontoon, revetment, board walk, etc.).
 - A description of the habitats within the declared fish habitat area proposed to be impacted (e.g. sand banks, mud banks, seagrass, mangroves, salt couch, rocky shore, etc.) and the nature of the impact.
 - A description of the method of works (e.g. equipment to be used).
 - A description of the past uses and/or disturbances of the development area.

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- A description of any future maintenance works required for the continued safe operation of the proposed structure or facility (e.g. trimming of regrowth of marine plants, maintenance dredging).
- Detailed design and layout plans for the proposed development that include:
 - Actual area of disturbance to declared fish habitat area in square metres. Identify proportion (m²) of permanent and/or temporary disturbance including; access paths, construction areas, moorings and dredging required to undertake the work.
 - Dimensions and GPS coordinates and datum (GDA94 preferred).
 - Easily identifiable site features (e.g. roads, road intersections, waterway names, bends in the waterway, etc.).
 - Real property boundaries adjacent to and in the vicinity of the proposed work.
 - Boundary of the declared fish habitat area.
 - Location and extent of highest astronomical tide, mean high water springs and mean low water springs levels, by reference to easily identifiable fixed points.
 - Location of all waterway features (e.g. creeks, drainage lines, lagoons, rock bars) and habitat types (e.g. seagrass, mangroves, saltmarsh, coral) within and adjacent to the development area.
 - Location and extent of any existing disturbances or structures.
- Provide justification for the development, including:
 - A description of the alternatives considered to reduce impacts on the declared fish habitat area, as applicable and with justification for the preferred option (e.g. alternative designs, locations, setbacks/buffer distances, etc.).
 - Details of on-site mitigation actions proposed to prevent the proposed work contributing to degradation of the declared fish habitat area, in and adjacent to the development area, during and after the development.
 - A description of off-site actions proposed to offset residual impacts.
- Provide a statement addressing the relevant performance outcomes detailed in the State Development Assessment Provisions (SDAP) State code 12: Development in a declared fish habitat area. Where appropriate the responses to the SDAP State Code should reference information in other sections of the development application.

4.0 Identification of which SDAP performance outcomes are applicable to a specific development

SDAP State code 12, details 41 Performance Outcomes (POs) in table 12.2.2 for development in a declared FHA. Not every PO in the table is applicable to all proposed developments. Reference should be made to table 12.2.1 within SDAP State code 12, for guidance in relation to the applicability of the POs to particular developments.

In summary, every application for development in a declared FHA must provide a statement to demonstrate compliance with PO1-PO21 and PO41, whereas PO22-40 are only relevant to specific development types.

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5.0 Addressing SDAP State Code 12 Table 12.2.2

5.1 Prescribed development purposes

Performance outcomes	Acceptable outcomes
<p>PO1 Development is only undertaken for a prescribed development purpose in a <u>declared fish habitat area, which are:</u></p> <ol style="list-style-type: none"> 1. for management A areas and management B areas: <ol style="list-style-type: none"> a. restoring the fish habitat or natural processes b. managing fisheries resources or fish habitat c. researching, including monitoring or educating d. ensuring public health or safety e. providing public infrastructure to facilitate fishing f. providing subterranean public infrastructure if the surface of the area can be restored, after the completion of the works or activity, to its condition, before the performance of the works or activity g. constructing a temporary structure h. maintaining a structure that was constructed before the area was declared to be a fish habitat area i. maintaining a structure, other than a structure mentioned in paragraph h that has been lawfully constructed 2. for management B areas only: <ol style="list-style-type: none"> a. constructing a permanent structure on tidal land or within the management area, or b. depositing material for beach replenishment in the management area. <p>Note: Prescribed development purposes is defined in section 214 of the Fisheries Regulation 2008. Additional guidance about development in a declared fish habitat area is defined provided in the policy provisions of Marine resource management: management of declared fish habitat areas, Department of Environment and Science, 2015.</p>	<p>No acceptable outcome is prescribed.</p>

PO1: Context

Assessable development within a declared FHA requires approvals under both the *Fisheries Act 1994* and the *Planning Act 2016*, before it can proceed. As detailed in Section 2.1, the Fisheries Regulation 2008 states that an RAA for development within a declared FHA may only be issued for a development purpose that is prescribed in Section 214 of the Regulation and which are replicated in this PO.

The DA for building work or operational work within a declared FHA, issued under the *Planning Act 2016*, is not legislatively limited to these prescribed development purposes. However, there would be little point in granting a DA for development that is for a purpose that is specifically prohibited from being granted an RAA. A detailed discussion of each of these prescribed development purposes is provided in Sections 6.2 to 6.11 of the DES *Operational policy for Management of declared FHAs* (<https://parks.des.qld.gov.au/managing/habitat-areas/>).

There is no requirement for an RAA to be obtained prior to the DA application being decided, therefore this PO provides an essential link to the prescribed development purposes which are fundamental to the management of declared FHAs.

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PO1: Information requirements

It is recommended that an RAA for a proposed development within a declared FHA is obtained prior to lodging a DA application.

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, satisfying this PO will require the provision of information to demonstrate that the development is for one of the prescribed purposes listed in the PO. Sections 6.2 to 6.11 of the DES *Operational policy for Management of declared FHAs* (<https://parks.des.qld.gov.au/managing/habitat-areas/>) provide interpretation of each of the prescribed purposes and should be specifically referred to in a response to this PO.

5.2 All development

Performance outcomes	Acceptable outcomes
<p>PO2 When development is proposed for any of the purposes mentioned in PO1, there is a demonstrated need for the development, and for the following types of development, alternative locations outside of the declared fish habitat area have been assessed and are not viable:</p> <ol style="list-style-type: none"> 1. For management A areas and management B areas: <ol style="list-style-type: none"> a. researching, including monitoring or educating b. ensuring public health or safety c. providing public infrastructure to facilitate fishing d. providing subterranean public infrastructure if the surface of the area can be restored, after the completion of the works or activity, to its condition before the performance of the works or activity e. constructing a temporary structure 2. For management B areas only: <ol style="list-style-type: none"> a. constructing a permanent structure on tidal land or within the management area, or 	<ul style="list-style-type: none"> • <i>For development to ensure public health and safety:</i> • AO2.1 Development is: <ol style="list-style-type: none"> 1. for a public health purpose and has been formally endorsed as being necessary by Queensland Health or the relevant government authority, or 2. for mosquito control and is required to be carried out under a mosquito management plan developed in accordance with the Mosquito management code of practice for Queensland, Local Government Association of Queensland, 2014 and do not include works for the control of other nuisance pest insect species (for example, midges), or 3. for an aid to navigation and is endorsed in writing by Department of Transport and Main Roads or Gold Coast Waterways Authority, or 4. is for a cyclone buoy mooring and: <ol style="list-style-type: none"> a. is identified under the relevant port cyclone contingency plan by the controlling authority (for example, a port authority)

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<p>b. depositing material for beach replenishment in the management area.</p>	<p>b. is located in accordance with any cyclone mooring plan prepared by the controlling authority</p> <p>c. is only used during a cyclone event or other genuine emergency situation.</p> <p><i>For any other development, no acceptable outcome is prescribed.</i></p>
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PO2: Context

FHAs are declared to identify and protect core areas of fish habitat that are critical to sustaining the State’s fish stocks and fisheries from development impacts. In addition to their high fish habitat values, these protected areas are almost entirely declared over public land and therefore are considered to be a public resource. Given these values and the public ownership of the resource, even when a development is for a prescribed development purpose, the development should only occur within a declared FHA:

1. if a clear need for the development can be demonstrated, and
2. if the development is needed, it can be demonstrated that alternate locations for the development outside the boundary of a declared FHA are not viable.

PO2 requires all applications for development within a declared FHA to be supported by information to demonstrate that the development is needed, including its component parts. Just as need is a core consideration for a development proponent in deciding to invest in a development it is equally important in determining if a declared FHA should be impacted by that development. An example of a situation where the need for a development may be difficult to justify would be a proposal to develop a private boat ramp into a management B declared FHA when an existing public boat ramp is present in the waterway only a short distance away.

In addition, PO2 requires development for the purposes listed in 1 and 2 under the PO to assess and demonstrate why that development cannot be delivered in a location that is outside of a declared FHA. While the need for a development may be clearly demonstrated, in some instances there may be a level of flexibility in the location at which that development could be delivered. For example, there may be a demonstrated need for a water pipeline to service a new residential community, however there may be a number of routes along which the pipeline could be installed. If the pipeline was proposed within a declared FHA (i.e. subterranean public infrastructure), detailed justification would be required to demonstrate why alternative routes that do not require impact to the declared FHA are not viable.

PO2: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the information below.

For all development a statement of response is required which provides information to demonstrate why the development is needed. Where relevant (e.g. for development of public facilities, development of erosion control structures) the response should draw upon relevant studies, planning documents and technical reports to assist with demonstrating this need. Acceptable outcomes (AOs) are nominated, that define the information that is required to address this PO for some development types and should be provided in the response. If information is provided to meet the AO, the PO is considered to have been met.

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In preparing a response it is recommended that Appendix 1 of the DES *Operational policy for Management of declared FHAs* (<https://parks.des.qld.gov.au/managing/habitat-areas/>), is considered. Appendix 1 provides specific policy guidance on works/structures that are typically proposed within declared FHAs. This information will assist understanding of the declared FHA policy position in relation to particular structures/ works and may highlight issues that should be addressed in the response to this PO. For example SPI 12 in Appendix 1 provides guidance on what constitutes a 'significant erosion threat', which is valuable information to assist preparation of a statement to demonstrate the need for an erosion control structure such as a revetment, groyne or gabion.

For developments for the purposes listed in 1 and 2 under this PO, in addition to justifying the need the development, the response is required to:

- Detail any reasonable options that were considered that would have avoided the need to impact on the declared FHA.
- Discuss why the option that involves development in the declared FHA is the preferred option.

Performance outcomes	Acceptable outcomes
PO3 Only those aspects of a development that have a physical or functional requirement to be located within the declared fish habitat area occur within the area. Ancillary elements (for example, car and trailer parks, rest rooms, offices) occur outside the declared fish habitat area.	No acceptable outcome is prescribed.

PO3: Context

Some structures that are proposed for development within a declared FHA are a component of a larger facility (e.g. a public boat ramp is generally part of a facility that includes an associated car-trailer parking area, amenities blocks and other land based recreational facilities). Components of a structure/facility that do not have a physical or functional requirement to be within a declared FHA should be located outside its boundaries.

Using the public boat ramp facility example, the ramp structure, including its batter protection, has a clear functional requirement to be within the declared FHA to enable vessels to be launched or retrieved from the water. However, an associated car park or amenities block have no requirement to be located in, and impact on, a declared FHA.

If suitable land adjacent to a declared FHA is not available for the development of necessary ancillary facilities to support a maritime structure, then an alternative location for that maritime structure should be explored.

PO3: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

Provision of plan which shows the location of the declared FHA boundary in relation to all structures that are proposed for construction and a discussion to justify why those elements that extend into the declared FHA have a physical/ functional requirement to be within that location.

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For most ‘standalone’ structures, such as a private jetties or pontoons that are proposed to extend from a private property into a management B area, it is likely that limited discussion will be required to address this PO. However, for structures that are part of a larger facility that includes both land based and maritime elements (e.g. a public boat ramp with associated car trailer parking facility), more detailed discussion may be required. In particular, justification for any components of the facility that provide for transition between the marine and land based elements that are proposed within the declared FHA should be given particular emphasis.

Performance outcomes	Acceptable outcomes
<p>PO4 The spatial extent of development within the declared fish habitat area is minimised to the greatest extent practical.</p>	<p><i>For development involving bridge infrastructure:</i></p> <p>AO4.1 Bridge abutments are sited outside the declared fish habitat area.</p> <p>AND</p> <p>AO4.2 Bridges are supported on piles only (not culverts, pipes or causeways) and the number of bridge piles within the declared fish habitat area is minimised.</p> <p><i>For development involving overhead electricity and communication cables:</i></p> <p>AO4.3 Development uses the maximum cable span length possible.</p> <p><i>For development involving private structures:</i></p> <p>AO4.4 Development that is for private jetties, pontoons, boat ramps and fishing platforms has a maximum total permanent footprint of 40 square metres.</p> <p>AND</p> <p>AO4.5 Development that is for private jetties, fishing platforms and pontoons has an access walkway, if required, that is less than 2 metres wide.</p> <p>AND</p> <p>AO4.6 Development that is for private buoy mooring is an environmentally friendly mooring design.</p> <p><i>For any other development, no acceptable outcome is prescribed.</i></p>

PO4: Context

Declared FHAs are a form of marine protected area and are an important state resource managed for fisheries, community access and biodiversity purposes. To minimise the physical impact on these values, development that is approved within a declared FHA should be designed to minimise its spatial extent to the greatest extent practical.

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PO4: Information requirements

A statement of response to demonstrate compliance with the PO is required to include information to demonstrate that the spatial extent of the development has been minimised as far as practical. Where applicable the response should refer to engineering standards and relevant best practice guidelines and operational policies (e.g. Department of Environment and Science, Operational Policy, Building and engineering standards for tidal works <https://www.qld.gov.au/environment/coasts-waterways>) to validate the design dimensions and scale of the development. Any site specific factors that are relevant to the design and dimensions of the development should also be highlighted.

Acceptable outcomes are nominated for a number of specific development types and should be referenced in the response where relevant, to demonstrate the AO is met.

Performance outcomes	Acceptable outcomes
<p>PO5 Development impacting communities' fisheries resources:</p> <ol style="list-style-type: none"> 1. directly abuts land that has full riparian access rights, or 2. is in a location within the declared fish habitat area with planning arrangements that support the structure e.g designated or agreed mooring areas. <p>Note: Further guidance on rights in context of fisheries resources and fish habitats is provided in the operational policy provisions of <i>Management and protection of marine plants and other tidal fish habitats (FHMOP 001)</i>, Department of Primary Industries and Fisheries, 2007 (https://www.daf.qld.gov.au/_data/assets/pdf_file/0010/56359/FHMOP001-Fish-Hab-Manage.pdf).</p> <p>The provision of owners consent to lodge the development application does not confer rights.</p>	<p>No acceptable outcome is prescribed.</p>

PO5: Context

Declared FHAs are high value community resources and are almost entirely declared over public tidal land and waters. Proponents wishing to undertake development within a declared FHA should demonstrate an interest in that part of the declared FHA that reasonably justifies the allocation and use of that area for their proposed development.

Most private development within a declared FHA would meet this requirement if the proposed development directly adjoins the waterfront boundary of a property owned or leased by the proponent (i.e. the proponent has riparian access rights).

Within some declared FHAs, the relevant maritime management authorities have undertaken planning processes to identify and allocate particular areas for the installation of private buoy moorings. As these designated/agreed mooring areas have been specifically set aside for this purpose, the installation of a buoy mooring within one of these mooring areas that meets the relevant design requirements, would be considered as an appropriate use for that area. It should be noted that the installation of moorings within these areas is

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often accepted development (refer to *Accepted development requirements for operational work completely or partly within a declared Fish habitat Area* available on the DES web site for further information).

The proponents of public development within declared FHAs (e.g. bridges, public boat ramp, public jetties) are usually State or local government agencies and typically either hold appropriate tenure over the land adjacent to the proposed development site or can demonstrate that tenure arrangements will be modified to accommodate their development (e.g. Department of Natural Resources, Mines and Energy have agreed to convert an area of Unallocated State Land to a Reserve suitable to accommodate the proposed development).

PO5: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details to demonstrate that the proposed development directly adjoins the waterfront boundary of a lot which is owned by the proponent, or over which the proponent can demonstrate tenure arrangements that are consistent with the proposed development (e.g. an appropriate term lease). Copies of relevant tenure plans, title documents or lease documents should be provided.

For the development of a private buoy mooring that is not located directly adjacent to the proponent’s property:

- Evidence that the buoy mooring is to be located within a designated/agreed mooring area.

Performance outcomes	Acceptable outcomes
<p>PO6 Development which is for restoration, management activities or temporary works (such as research, monitoring or educational activities), ensures fisheries resources and fish habitats return to pre-existing or improved condition when the activity has ceased.</p>	<p>No acceptable outcome is prescribed.</p>

PO6: Context

Development for the purposes listed in this PO will result in either temporary impacts to the declared FHA or are aimed at restoring or managing the declared FHA. Any development that is approved for these purposes must not result in ongoing negative impacts to the declared FHA and must demonstrate that, at its conclusion, the declared FHA can be fully restored or returned to an improved condition.

PO6: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of the nature and extent of any impacts to the declared FHA that are predicted to result from the development and discussion of the proposed actions that will be implemented to ensure that the area will be fully restored or returned to an improved condition after the development is complete, including:
 - Information on current condition of the declared FHA within the proposed development area and how that assessment was made.

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- Confirmation of the goal of the post development restoration (e.g. return to pre works condition or to an improved condition).
- Details of the actions (e.g. restoration works) that will be undertaken to achieve the restoration goal and the monitoring and maintenance activities that will be undertaken to ensure the post development restoration goal will be achieved.

The level of information required in the response is relative to the extent of disturbance to the declared FHA that is proposed and the complexity of the restoration works that will be required.

Performance outcomes	Acceptable outcomes
<p>PO7 Development does not increase the risk of mortality, disease or injury, or compromise the health, productivity, marketability or suitability for human consumption of fisheries resources, having regard to (but not limited to):</p> <ol style="list-style-type: none"> 1. biotic and abiotic conditions, such as water and sediment quality 2. substances that are toxic to plants or toxic to or cumulative within fish 3. design of structures 4. whether fish may be trapped or stranded 5. fish passage and access to habitat generally, and 6. the impacts of pest fish and other relevant pest species. 	<p>No acceptable outcome is prescribed.</p>

PO7: Context

Fish Habitat Areas are declared under the *Fisheries Act 1994* and work in combination with a range of other management initiatives under that legislation (e.g. marine plant protection, fishing closures, size limits, bag limits, fishing gear restrictions, etc.) to provide for the use, conservation and enhancement of the community’s fisheries resources and fish habitats. This PO seeks to ensure that any works within a declared FHA will not result in negative impacts to the health, quality and values of fish and marine plants (fisheries resources).

PO7: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of any potential impacts to fish and marine plants that may result from the proposed development. Particular focus should be given to issues 1 to 6 listed under PO7.
- Details on how the proposed development has been designed and / or will be managed to protect fish and marine plants from those potential impacts.

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Performance outcomes	Acceptable outcomes
PO8 Development maintains or improves water quality.	<p><i>For development involving bridge infrastructure:</i></p> <p>AO8.1 Bridges are designed to direct water run-off outside the declared fish habitat area.</p> <p><i>For any other development, no acceptable outcome is nominated.</i></p>

PO8: Context

As a form of marine protected area, FHAs are predominantly declared over areas that are permanently or intermittently submerged. The quality of the water that is within, or that enters the boundary of a declared FHA, has a significant influence on the condition and health of the habitats and fauna within that area and on its overall value. Development works undertaken within a declared FHA have the potential to negatively impact on water quality.

For many developments (e.g. jetties, boat ramps, boardwalks etc.) the highest potential for impacts to water quality occur during the construction phase, with the ongoing presence of the development being relatively benign from a water quality perspective. However other types of development (e.g. stormwater outlets, road bridges), in addition to their construction impacts, may cause ongoing water quality impacts within the declared FHA.

For all developments within a declared FHA, construction methods should aim to minimise the creation of water quality impacts and appropriate environmental management techniques should be adopted to ensure any potential construction related water quality impacts are contained and managed.

For development that has the potential to result in ongoing water quality impacts to the declared FHA, careful design is required to ensure that the existing water quality is maintained or improved. An example of a development that could achieve an improvement in water quality may be the upgrade of a traditional stormwater pipe outlet. If the upgraded structure were to incorporate a trash rack, diffuser and stormwater quality improvement device, it is likely that the water entering the FHA from the upgraded structure would be better than that being released by the existing structure.

PO8: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of the elements of the development (construction and operational) that have the potential to result in water quality impacts to the declared FHA.
- A description of the design, construction and/or environmental management initiatives that will be undertaken as part of the development to ensure that it will maintain or improve the water quality of the declared FHA.
- For developments with greater potential to result in water quality impacts, details of any water quality monitoring that is proposed to be undertaken to demonstrate compliance with this performance outcome.

Performance outcomes	Acceptable outcomes
PO9 Development maintains tidal or stream hydrology and retains natural drainage and inundation patterns.	<p><i>For works for mosquito control:</i></p> <p>AO9.1 Development for runnelling works complies with the policy guidelines in <i>Departmental procedures for</i></p>

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	<p><i>permit applications assessment and approvals for insect pest control in coastal wetlands (FHMOP 003)</i> Department of Primary Industries, 1996 https://www.daf.qld.gov.au/_data/assets/pdf_file/0017/53144/FHMOP003-Fish-Hab-Manage.pdf), and:</p> <ol style="list-style-type: none"> 1. increases tidal flushing 2. follows lines of natural water flow 3. is no deeper than 30 centimetres 4. has a 3:1 width:depth ratio, and 5. a spoon shape with gently sloping concave sides. <p><i>For any other development, no acceptable outcome is nominated.</i></p>
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PO9: Context

Most fish habitats and marine fauna are highly sensitive to, and influenced by, tidal movements, hydrological processes and inundation patterns. The declared FHA network includes large areas of intertidal, estuarine and shallow inshore habitats within which small changes in tidal inundation levels or hydrology can significantly affect fauna access to and from shallow habitats, inundation times (potentially resulting in habitat desiccation or ponding), bank erosion processes, larval settlement, fauna migration pathways and triggers for significant lifecycle events (e.g. spawning).

This PO acknowledges the importance of tidal and hydrological processes and aims to ensure that these important processes and their associated drainage and inundation patterns are not affected by development.

PO9: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of any elements of the development (construction and operational) that have the potential to affect tidal or stream hydrology and associated drainage and inundation patterns.
- Details on how those elements will be managed to ensure natural tidal or stream hydrology and associated drainage and inundation patterns within the declared FHA are maintained.
- For developments with greater potential to affect tidal or stream hydrology and associated drainage and inundation patterns, details of any monitoring that is proposed to be undertaken to demonstrate compliance with this performance outcome.

Performance outcomes	Acceptable outcomes
<p>PO10 Development likely to cause disturbance to potential or actual acid sulfate soil, prevents the release of contaminants.</p> <p>Note: Management of acid sulfate soil is consistent with the current Queensland acid sulfate soil technical manual: Soil management guidelines v4.0, Department of Science,</p>	<p>No acceptable outcome is prescribed.</p>

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Information Technology, Innovation and the Arts, 2014.	
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PO10: Context

Acid sulfate soils (ASS) are coastal and near-coastal soils, sediments or other materials containing iron sulfides and are common within declared FHAs. ASS are environmentally benign when left undisturbed in an aqueous, anoxic environment (e.g. left underwater and not exposed to the air). ASS in this unoxidised state are commonly referred to as potential acid sulfate soils (PASS).

When PASS are exposed to oxygen the iron sulfides break down, releasing sulfuric acid and soluble iron and can result in the mobilisation of other pollutants, if present in the soil (e.g. aluminium, lead and zinc). Partially or fully oxidised ASS are commonly referred to as actual ASS (AASS). The acid, iron and other contaminants released from AASS can kill vegetation and aquatic fauna, cause fauna avoidance within affected waterways, acidify ground and surface water and degrade concrete structures.

Development within declared FHAs has significant potential to excavate and expose ASS. This PO acknowledges this potential risk and requires appropriate management practices to be implemented to prevent the release of any contaminants to the declared FHA.

PO10: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of any elements of the proposed development that have the potential to disturb PASS or AASS and cause acid, iron and other contaminants to be released.
- Details on the volume of PASS or AASS that is expected to be disturbed and the management that will be adopted to ensure the release of contaminants to the declared FHA is prevented.
- Confirmation that the proposed management is consistent the current version of the Queensland acid sulfate soil technical manual (refer to PO Editor’s note for this publication reference).

Performance outcomes	Acceptable outcomes
<p>PO11 Where benthic disturbance is necessary, it is undertaken in a manner that enables the area to be restored to the pre-disturbance condition and profile, having regard to (amongst other things):</p> <ol style="list-style-type: none"> 1. surface sediment type and profile 2. bank profile and potential for erosion, and 3. amount of surface area disturbed. <p>Note: Such disturbances include but are not limited to those associated with provisions of subterranean infrastructure, or temporary structures</p>	<p>No acceptable outcome is prescribed.</p>

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PO11: Context

Within an intertidal or subtidal environment the substrate surface profile and sediment type significantly influences the vegetation that will grow in that area, the benthic fauna that will inhabit the sediment, the mobile fauna that will utilise the area and the structural stability of the area. Where a development within a declared FHA requires temporary disturbance of the substrate (e.g. excavation of a trench to install a submarine cable, installation of a temporary rock construction causeway) it is critical that any temporary fill or other material is removed and the natural substrate profile and sediment type is recreated, to facilitate the complete restoration of the affected area.

For developments that require large scale, temporary substrate disturbance, the process for removal of all introduced material and profiling of the impacted area should be a key consideration in the project design (including consideration of lower impact alternatives), planning and costing. For some projects the complexity associated with addressing this PO may require consideration of innovative construction methodologies that can be undertaken with a reduced substrate disturbance footprint. For example, installation of a temporary piled construction platform may be a viable alternative to the use of a rock construction causeway, when the complexity of completely removing the causeway rock from the soft substrate is considered.

PO11: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of any elements of the proposed development that have the potential to require temporary substrate disturbance (reference to a plan may be required).
- Discussion of any alternatives that could reduce the extent (footprint and depth) of temporary substrate disturbance and why these alternatives are not the preferred option.
- Details on the process proposed to restore temporarily disturbed substrate to its pre-disturbance condition and profile.
- Details of any monitoring that is proposed to be undertaken to demonstrate compliance with this performance outcome.

Performance outcomes	Acceptable outcomes
PO12 Excess sediment arising from development is managed to avoid further disturbance within the declared fish habitat area.	AO12.1 Excess sediment is disposed of outside of the boundaries of a declared fish habitat area.

PO12: Context

This PO aims to minimise unnecessary impacts to the declared FHA by ensuring that any excess sediment from a development (e.g. sediment that is extracted to install footings for a revetment wall or boat ramp) is removed from the declared FHA and appropriately disposed of.

PO12: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of the approximate volume of excess sediment that is expected to result from the development and details of the proposed method and location of disposal outside the boundary of the declared FHA.

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- Should the excess sediment be temporarily stockpiled adjacent to the boundary of the declared FHA, prior to its disposal (e.g. to enable the sediment to dry), a description of how the temporary stockpile area will be managed to protect the declared FHA from sedimentation and /or runoff from the stockpile area.

Performance outcomes	Acceptable outcomes
<p>PO13 The design and siting of development maximises light penetration under the structure where feasible, through measures such as:</p> <ol style="list-style-type: none"> increasing the height of the structure above the substrate decreasing the width of the structure using a north-south orientation using pedestrian decking surfaces that maximise light penetration to the substrate. 	No acceptable outcome is prescribed.

PO13: Context

Light is critical for marine vegetation (e.g. mangroves, seagrass, algae) to photosynthesise and grow. Structures with an elevated deck (e.g. bridges and jetties) cause shading of the habitats beneath the deck and will often exclude or compromise vegetation growth in these areas. While it is acknowledged that the design, location and construction materials used for a raised structure are influenced by a range of factors (e.g. engineering standards, safety requirements, land tenure arrangements, serviceability, cost), where feasible the design and siting of those structures should aim to maximise light penetration under the structure to maintain the suitability of the area for vegetation growth and to minimise the impacts of the structure on the declared FHA.

PO13: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification of how the design and siting of a development has maximised light penetration under the structure, particularly in relation to the measures 1 to 4 listed under the PO. Where enhancements to light penetration are not feasible, a brief discussion of the reasons for this is to be provided.

Performance outcomes	Acceptable outcomes
<p>PO14 Development is designed, sited and constructed such that the potential for additional works to ensure long term operability is minimised, having regard to (amongst other things) the need for future:</p> <ol style="list-style-type: none"> dredging to maintain access trimming of marine plants, or warning signs or protective structures. 	No acceptable outcome is prescribed.

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PO14: Context

The estuary and coastal habitats that make-up a large component of the declared FHA network can be highly dynamic. Natural events, such as floods and cyclones, can change the location of channels and shoals and significantly alter coastal and riverine processes that affect an area. As habitats change due to these natural events and processes, the distribution of vegetation and fauna communities will also often change in response. The declared FHA management aims to maintain natural processes without interference.

The design and location of development within a declared FHA should consider the natural processes that are influencing the proposed development area and aim to maximise long-term operability of the development without the requirement for additional works and impacts to the declared FHA. In particular, the location and design of vessel access structures (e.g. jetties, boat ramps and pontoons) that are dependent on available water depth should be carefully considered, as future dredging within a declared FHA to reinstate navigational access to this type of development is not a prescribed development purpose.

PO14: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of the natural processes (e.g. erosion, accretion, vegetation colonisation) that affect the proposed development area. Where applicable reference to historical imagery (e.g. aerial photography) may be useful to demonstrate changes that have occurred in the area over time.
- Details on how the proposed design, location and construction methodology has considered these natural processes and will ensure that the long term operability can be achieved with minimal ongoing works or impacts to the declared FHA.
- Discussion of why the proposed design, location and construction methodology is the best solution in relation to this PO.

Performance outcomes	Acceptable outcomes
<p>PO15 Public boat ramps have vessel staging areas that are appropriate for the size of the boat ramp.</p> <p>Note: vessel staging areas include land based staging areas and staging areas in water</p>	No acceptable outcome is prescribed.

PO15: Context

Public boat ramps are important access facilities that allow the public to use and enjoy declared FHAs for fishing, boating and other recreational and commercial purposes. The construction of public boat ramps is supported within all declared FHAs. However, it is recognised that these facilities often generate a concentration of use in their direct vicinity from vessel staging activities that can significantly increase the overall impact footprint of the development. A vessel staging area is an area of the waterway bank adjacent to the boat ramp where vessels are driven ashore after launching or prior to retrieval where they can be loaded/unloaded or wait for the ramp to become available for use.

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A suitable staging area is important to the efficient operation of most public boat ramps, but often results in the habitats within those areas being subject to erosion, trampling and a general reduction of value. If the boundary of a staging area is not well defined these impacts can incrementally extend a significant distance from the ramp.

New public boat ramps often include a floating walkway. Where a public boat ramp includes a floating walkway there may be no requirement for a staging area or the footprint of any staging area may be substantially reduced.

This PO aims to ensure that vessel staging areas are considered in the planning of a proposed public boat ramp and are appropriately sized to service the requirements of the ramp. The siting and sizing should consider the predicted level of use of the ramp, whether the ramp will incorporate a floating walkway (or adjacent public pontoon) and the fish habitat values in the area surrounding the ramp. The footprint of a staging area should be minimised, located to minimise impacts to fish habitats and managed to avoid incremental enlargement by boat ramp users.

PO15: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the need for, and dimensions of, a staging area to service the public boat ramp. The response should be supported by information on the predicted level of use of the ramp and whether the ramp will incorporate a floating walkway (or adjacent public pontoon).
- Definition of the location and size of the proposed staging area with reference to a plan.
- Discussion of how the footprint of the proposed staging area has been minimised, impacts to the habitat values of the area have been minimised and how the area will be managed to avoid incremental enlargement.

Performance outcomes	Acceptable outcomes
<p>PO16 Development minimises disturbance to marine plants.</p>	<p><i>For private structures or works:</i></p> <p>AO16.1 Private fishing platforms, private jetties and pontoons extend through a marine plant fringe that is no more than 15 metres wide (measured perpendicular to the shore).</p> <p>AND</p> <p>AO16.2 Private boat ramps have a total area of marine plant disturbance for construction that is less than 45 square metres and extends through a marine plant fringe that is no more than 3 metres wide (measured perpendicular to the shore).</p> <p><i>For signs:</i></p>

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	<p>AO16.3 Signs do not involve disturbance of <u>marine plants</u> unless this would compromise the purpose of a warning sign.</p> <p><i>For any other development, no acceptable outcome is prescribed.</i></p>
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PO16: Context

‘Marine plant’ is a collective term for the plants that grow on or adjacent to tidal lands such as; mangroves, seagrass, saltcouch, algae, samphire, paper barks and coastal she-oaks. Marine plants provide a wide range of services that support the fisheries values of an area including, provision of a direct food source, provision of habitat for fauna, protection of the coastline from erosion, nutrient uptake and carbon sequestration. The FHA management philosophy is to provide equal protection to all habitats within the boundary of a declared FHA. However, this PO specifically addresses marine plants to recognise that these plants fringe much of the landward margin of the declared FHA network and therefore are a habitat type that is commonly subject to development impacts.

The objective of the PO is to minimise all temporary and permanent disturbance of marine plants. The PO can often be achieved through careful site selection, design of the proposed development and the use of low impact construction methodologies. It should be noted that acceptable outcomes in relation to this PO are provided for some development.

PO16: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of how the siting, design and construction methods of the proposed development have minimised both the temporary and permanent disturbance of marine plants. Plans and/ or aerial images which show the footprint of the development works in relation to marine plant communities within and surrounding the area should be provided as supporting information.
- Identification of any alternative sites for the development that would require less marine plant disturbance and discussion of the reasons for the non-selection of those areas for the development.
- Where applicable to the development type, reference should be made to the acceptable outcomes.

Performance outcomes	Acceptable outcomes
<p>PO17 To the greatest extent practical, development occurs in a way that allows for the fish habitat to quickly recover through natural processes.</p> <p>Note: A condition of approval for any restoration proposed in a declared fish habitat area is likely to require a post-works monitoring and maintenance program appropriate for the scale of the restoration works.</p>	<p>No acceptable outcome is nominated.</p>

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PO17: Context

When a declared FHA is disturbed by development, the habitat values within the development area are temporarily or permanently reduced or altered. It is important that development is carefully planned and carried out with the objectives of:

- minimising the extent, duration and intensity of impacts on the declared FHA, and
- ensuring that any unavoidable, temporary disturbances are quickly and effectively restored so that the pre-existing values of the area can recover (e.g. sediment and erosion control devices are removed, disturbed substrate profiles are restored, any excess sediment is removed as soon as practical).

The careful restoration of stable, pre-development substrate profiles within a temporarily disturbed area of a declared FHA is often sufficient to facilitate its reestablishment with benthic infauna communities and vegetation from the surrounding area. However, in some circumstances (e.g. in locations where there is limited surrounding parent stock to facilitate natural revegetation), complimentary revegetation may be required.

Any area of a declared FHA that has been disturbed by development and restored should be supported by a post works monitoring and maintenance program appropriate for the scale of the restoration works.

PO17: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of any elements of the proposed development, its construction methodology and works area restoration methodology that have been incorporated to minimise its impacts on the declared FHA and/or that will facilitate the timely and effective restoration of any temporarily disturbed areas.
- Details of how flora and fauna recolonisation of any restored areas is proposed to be achieved (i.e. via natural recolonisation or revegetation), including justification for the proposed method.
- Details of post works monitoring and maintenance that is proposed to be undertaken to demonstrate compliance with this performance outcome.

Performance outcomes	Acceptable outcomes
<p>PO18 Marine plants to be used for revegetation purposes have local provenance and are obtained from within a declared fish habitat area only if:</p> <ol style="list-style-type: none"> 1. no alternative source of marine plants is feasible, or 2. the removal of marine plants will have minimal impact on the declared fish habitat area. <p>Note: Vegetation to be used in a restoration project should comply with any relevant provisions of the National policy for the translocation of live aquatic organisms. See <i>Management and protection of marine plants and other tidal fish habitats (FHMOP 001)</i>, Department of Primary Industries and Fisheries, 2007 for specific guidance on marine plant translocation.</p>	<p>No acceptable outcome is prescribed.</p>

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<p>(https://www.daf.qld.gov.au/_data/assets/pdf_file/0/010/56359/FHMOP001-Fish-Hab-Manage.pdf). <i>Management and protection of marine plants and other tidal fish habitats (FHMOP 001)</i>.</p>	
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PO18: Context

To reduce the risk of genetic ‘pollution’ and potential for transfer of pathogens and parasites to new areas, marine plants (including seeds or seedlings) to be used for revegetation purposes within a declared FHA should be collected within the local area (defined as, within 100 km of the proposed restoration site).

In the case of the grey mangrove (*Avicennia marina*), which has discrete northern and southern varieties, additional care is required to ensure that only grey mangrove seeds or seedlings of the variety that is endemic to the local area is used in a restoration project. Further information on this issue is available in the *Fish Habitat Management Operational Policy (FHMOP 001)* (<https://www.daf.qld.gov.au/>).

To minimise unnecessary impacts to the declared FHA network, marine plants to be used for a revegetation project either within, or outside, of a declared FHA should preferably be sourced from outside the boundary of a declared FHA. It is recognised that this may not always be feasible (e.g. if the particular species required for the revegetation has limited distribution in the local area and is only present within the declared FHA), in which case sourcing marine plants from within a declared FHA may be approved, provided all viable alternatives have been considered and impacts to the declared FHA are minimised.

PO18: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the species and number of marine plants that are required for the restoration project.
- Justification for why the marine plants cannot be obtained from outside the boundary of the declared FHA.
- Demonstration that the marine plants to be used for the restoration project will have local provenance.
- Identification of the site, or sites, within the declared FHA from which the marine plants are proposed to be sourced (with reference to a plan).
- Description of how the marine plants will be removed to minimise impacts to the declared FHA and justification that the removal will result in a minimal impacts to the declared FHA.

Performance outcomes	Acceptable outcomes
<p>PO19 Development for a public or educational purpose is located to optimise public use, benefit or awareness of the declared fish habitat area.</p>	<p>No acceptable outcome is prescribed.</p>

PO19: Context

Developments for a public purpose are generally of a significant scale, are expensive to construct and are only proposed when the allocation of public funding can be justified by the existing or predicted public demand. The siting of public infrastructure is also significantly influenced and limited by surrounding land tenure arrangements

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(e.g. a proposed road bridge over a management B declared FHA will generally need to align with roads on both sides of the area). Due to this cost and complexity, public infrastructure developers (e.g. local government and State government agencies) typically undertake comprehensive planning and assessment studies to confirm the need for and optimal siting of the infrastructure. Such a planning and assessment study should provide sufficient evidence to demonstrate that a public development is located to optimise public use.

For some public developments, additional elements may be incorporated into the primary development to value add to its overall public benefits (e.g. a road bridge over a management B declared FHA may be proposed to include a pedestrian walkway and fishing platform). It is important that the design and location of these additional elements are also carefully considered to maximise their use and benefit. In relation to a public fishing platform, consultation with local recreational fishing representatives and evidence of their support for the design and location of a fishing platform may provide valuable evidence to support compliance with the PO.

Development proposed for an educational purpose (e.g. educational signs, boardwalks) must also demonstrate that it is appropriately located to achieve a high level of public educational benefit. While developments for this purpose invariably have a positive intent, they do result in impacts to the declared FHA and therefore it must be demonstrated that the public educational benefits will justify the impacts.

PO19: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of how the proposed development has been located to optimise its use by the public and its public benefit. The response should identify key constraints that have influenced the proposed location of the development (e.g. land tenure constraints) and where available reference should be made to relevant planning studies and key stakeholder consultation to support this proposed location.

For development for an educational purpose, the response must identify how the proposed location of the development will optimise the public educational outcome, particularly in relation to awareness of the declared FHA and its values.

Performance outcomes	Acceptable outcomes
<p>PO20 Development does not adversely impact on community access to fisheries resources and fish habitats including recreational and indigenous fishing access.</p> <p>Note: In some cases, compensation for impact on fisheries access may be necessary. The Guideline on fisheries adjustment provides advice for proponents on relevant fisheries adjustment processes and is available by request from the Department of Agriculture and Fisheries.</p>	<p>No acceptable outcome is prescribed.</p>

PO20: Context

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As detailed in the context section for PO1, assessable development within a declared FHA requires both an RAA under the *Fisheries Act 1994* and a development approval under the *Planning Act 2016*, before it can proceed. Section 215 of the Fisheries Regulation 2008 requires the assessment of an application for an RAA to consider the effect of a proposed development within a declared FHA on the, “maintenance of community use of an area, in particular in relation to fishing activities”. This PO for the development approval reflects this requirement.

The location, design and construction methods for all proposed development within a declared FHA must consider the potential, short and long-term adverse impacts to public access. Even developments that are specifically for the purpose of providing public access to the declared FHA to facilitate fishing (e.g. a public boat ramp facility) can result in some negative impacts to community access (e.g. a public boat ramp may cut-off pedestrian access along a foreshore for shore based anglers). The inclusion of relatively minor design elements into a development can often overcome impacts on community access (e.g. a revetment wall proposed to protect an area of public land from erosion in a management B declared FHA could incorporate stairs at regular intervals along its length to provide for safe public access onto the foreshore at low tide).

Maintenance of access to the declared FHA for commercial fishing is also an important consideration and is specifically dealt with by PO21.

PO20: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification and discussion of any elements of the location, design and construction methods of the proposed development that have the potential to adversely impact on community access to fisheries resources and fish habitats (i.e. the declared FHA), including recreational and indigenous fishing access.
- Discussion of all aspects of the proposed development that have been incorporated to ensure that its community access to fisheries resources and fish habitats will not be adversely impacted by the development.

Performance outcomes	Acceptable outcomes
<p>PO21 Development does not adversely impact on commercial fishing access and linkages between a commercial fishery and infrastructure, services and facilities.</p> <p>Note: In some cases, compensation for impact on fisheries access may be necessary. The Guideline on fisheries adjustment provides advice for proponents on relevant fisheries adjustment processes and is available by request from the Department of Agriculture and Fisheries.</p>	<p>No acceptable outcome is prescribed.</p>

PO21: Context

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The requirement under the Fisheries Regulation 2008 for the effect of a proposed development on the, “maintenance of community use of an area, in particular in relation to fishing activities” to be considered, as discussed in the context section for PO20, is also relevant to development impacts on commercial fishing activities. Commercial fishing has an important role in providing seafood for purchase and consumption by the general public. For members of the public who do not wish to catch seafood for themselves, commercial fishing provides the only lawful source of wild caught, local seafood.

The location, design, construction methods and construction timing for all proposed development within a declared FHA must consider the potential, short and long-term impacts on commercial fishing access, and ensure that adverse impacts are avoided. Potential impacts to commercial fishing access vary from location-to-location, but may include:

- Commercial fishing activities that are undertaken close to shore (e.g. beam trawling) can be impacted by development (e.g. jetties, pontoons, outlet structures) that extends into the waterway and restricts access to particular productive habitats.
- Commercial fishing vessels that have high superstructure can be susceptible to exclusion from particular areas by low bridges or other overhead infrastructure.
- Ocean beach netting operations can be impacted by beach nourishment works.

PO21: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that approval.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Identification and discussion of any elements of the location, design and construction methods of proposed development that have the potential to adversely impact on commercial fishing access and linkages between a commercial fishery and infrastructure, services and facilities.
- Discussion of all aspects of the proposed development that have been incorporated to ensure that commercial fishing access and linkages between a commercial fishery and infrastructure, services and facilities will not be adversely impacted.

5.3 Research including monitoring or education

Performance outcomes	Acceptable outcomes
<p>PO22 Development that is for researching, including monitoring, surveying and investigating or educating, is directly related to one or more of the following:</p> <ol style="list-style-type: none"> 1. fish, fisheries or fish habitat, or 2. general biological or ecosystem values or processes within the area, or 3. protected area management, or 4. investigation of impacts of development on the declared fish habitat area. 	<p>No acceptable outcome is prescribed.</p>

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<p>Editor’s note: Researching, including monitoring, surveying and investigating or educating should be undertaken by a public sector entity; primary, secondary or tertiary education institution, research institution, registered surveyor, registered research company or appropriately qualified and experienced consultant.</p>	
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PO22: Context

The high habitat diversity and relatively undisturbed condition of the declared FHA network makes these areas potentially suitable and sought after as locations for conducting aquatic research and education activities. Education and research conducted within a declared FHA can enhance the scientific understanding of the area’s values and expose the broader community to these values. Low impact and appropriately located education and research development is supported within declared FHAs, provided it is directly related to, and benefits, the declared FHA (i.e. is related to any of the four focus areas listed under the PO).

Development required for monitoring, surveying and investigating within a declared FHA is also supported, provided it is necessary, limits impacts, is appropriately located and is for any of the four focus areas listed under the PO. If development for a research purpose (including for monitoring, surveying and investigating or educating) will not benefit the declared FHA it should be undertaken outside of its boundary.

PO22: Information requirements

If an RAA has been granted for the proposed development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, information on how the proposed development will benefit the declared FHA by being directly related to one, or more of the four focus areas listed under the PO.

5.4 Constructing a temporary structure

Performance outcomes	Acceptable outcomes
<p>PO23 A temporary structure is in place for a limited period and is designed to be completely removed.</p>	<p>AO23.1 The structure is able to be removed in its entirety.</p> <p>AND one of the following acceptable outcomes apply</p> <p>AO23.2 A temporary waterway barrier that prevents tidal flow is in place for no more than 21 business days.</p> <p>OR</p> <p>AO23.3 A temporary structure, that is not a waterway barrier that prevents tidal flow, is in place for the shortest possible time, but no more than six months.</p>

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PO23: Context

A temporary structure may be the only element of the development that is within a declared FHA (e.g. a temporary dredge pipeline that traverses the area) or it may be ancillary to a permanent development within a declared FHA (e.g. a temporary sheet pile enclosure required for the construction of a public boat ramp). In all situations a temporary structure should be in place for the shortest time possible and completely removed as soon as it is no longer required, to minimise its impacts to the declared FHA.

PO23: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Justification for the length of time that all proposed temporary structures will be required. Acceptable timeframes are included in the AOs for the PO.
- Details of the process that will be undertaken to completely remove all temporary structures.

Performance outcomes	Acceptable outcomes
PO24 The temporary structure minimises impacts on fish migration.	No acceptable outcome is prescribed.

PO24: Context

Free movement along waterways and between different habitat types is integral to the lifecycle of many species of fish. Most fish need to move into different habitats for spawning, to access suitable nursery areas, to search for food, seek protection from predators and to respond to changes in environmental conditions. Movement requirements can vary considerably between species and during different life stages (adult, juvenile and larval stages) within a species.

This PO aims to ensure that temporary structures do not impact on significant known fish migration locations and corridors, particularly during key migration periods (e.g. spawning migrations).

It is recognised that proponents of a temporary structure often rely on the structure's short-term duration and complete removal to minimise its impacts, rather than attempting to incorporate extensive environmentally sensitive design features that may be logistically complex and prohibitively expensive to incorporate into a temporary structure. This approach is often satisfactory, however it is important that the installation of any temporary structure that is of a type that could significantly impact on fish movement (e.g. a large causeway, dredge pipeline or impoundment structure) is considered in relation to its potential to impact on fish migration.

The simplest method of minimising potential impacts to fish migration is to schedule temporary development to a time of the year when fish migration of species likely to utilise the development area is at its lowest. A list of spawning periods for key fish and crustacean species is provided in Appendix 1 of DAF *Fish habitat management Operational Policy (FHMOP 001)* (<https://www.daf.qld.gov.au/>). Based on this information the post wet season (Autumn) is generally the period of lowest spawning /migration activity.

PO24: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of the potential for the proposed temporary structure to impact on a known fish migration locations /corridors, particularly during key migration periods.

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- Details of the management that is proposed to be implemented to minimise any identified impacts on fish migration.

5.5 Structures in a management A area that were constructed before the area was declared as a Fish Habitat Area

Performance outcomes	Acceptable outcomes
<p>PO25 Relocation or exchange of an existing structure:</p> <ol style="list-style-type: none"> 1. results in a footprint that is less than or equal to the footprint of the existing structure 2. improves the condition of fisheries resources and fish habitats, including through water quality outcomes. 	No acceptable outcome is prescribed.

PO25: Context

A structure that was constructed prior to the date of first declaration of the FHA may be maintained within a management A (and B) declared FHA. It is also recognised, that in some circumstances, it may be beneficial to the structure owner and to the declared FHA, if the structure is relocated or exchanged, rather than being maintained in its existing form or location.

Relocation may be appropriate, where the waterway or habitats within the area have changed and the structure could operate more effectively and with lower impacts, in an alternative location (e.g. relocating a jetty to a different location along a property boundary to align with a deep-water area that has developed from natural channel movement).

Exchange of a structure may be considered when new technology has led to the development of a different design that more efficiently or effectively achieves the same purpose as that of the original structure (e.g. exchange of a jetty to a floating pontoon). Exchange is only relevant if the structures are for the same purpose and result in a benefit to the declared FHA.

A proposal for relocation or exchange would only be supported if:

- the footprint of the relocated or exchanged structure is the same or less than the footprint of the original structure, and
- an overall benefit to the declared FHA can be demonstrated.

Further information regarding relocation and exchange is provided in Sections 6.9.2 of the DES *Operational policy for Management of declared FHAs* (<https://parks.des.qld.gov.au/managing/habitat-areas/>).

PO25: Information requirements

If an RAA has been granted for the proposed relocated or exchanged structure, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Demonstration that the existing structure was constructed prior to the first declaration of the declared FHA.

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- Details of the footprint of the existing structure and the footprint of the proposed relocated or exchanged structure, with reference to a plan showing the existing and proposed structures.
- Justification for the proposed relocation or exchange, including a discussion of any functional issues with the existing structure that would be overcome by its relocation or exchange.

Discussion of the benefits to the declared FHA that would be achieved by the relocation or exchange, include details of any habitats that will need to be disturbed, the process for removal of the existing structure and how the declared FHA in that location will be restored.

Performance outcomes	Acceptable outcomes
PO26 Upgrading or replacement of public sewerage, water treatment and stormwater infrastructure minimises the disturbance footprint within the declared fish habitat area and improves the condition of fisheries resources and fish habitats, including through improved water quality outcomes.	AO26.1 Development that is for an upgrade to existing stormwater, sewer or water treatment infrastructure results in an increase in the size of the structure by no more than 20 square metres and water is treated to a higher standard than the existing situation, before entering the declared fish habitat area.

PO26: Context

Within a management A declared FHA, the development of new stormwater, sewerage and water treatment infrastructure is not supported. However, it is recognised that many management A declared FHAs contain existing public infrastructure of this type (most commonly outlets structures) that was present prior to the first declaration of the FHA. As this existing infrastructure ages, it needs to be maintained or replaced.

Contemporary outlet structures often use prefabricated, standard sized components which are unlikely to exactly match the size of the existing structure. Further, contemporary outlets may enable the incorporation of design features that can reduce scour, filter pollutants (e.g. trash racks) and improve public safety. This PO allows for a level of flexibility in relation to the disturbance footprint allowed for upgrade and replacement of public sewerage, water treatment and stormwater infrastructure, provided it can be demonstrated that the upgrade and replacement will result in a clear benefit to the declared FHA.

PO26: Information requirements

If an RAA has been granted for the proposed replacement or upgraded public structure, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Demonstration that the existing public infrastructure was constructed prior to the first declaration of the declared FHA.
- Details of the footprint of the existing infrastructure and the footprint of the proposed upgrade or replacement infrastructure, with reference to a plan showing the existing and proposed structures and discussion of how the proposal complies with the acceptable outcome.
- Justification of the need for the proposed upgrade or replacement.
- Discussion of the benefits to the declared FHA that would be achieved by the proposed upgrade or replacement.

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- Description of all habitats that will be disturbed by the upgrade or replacement works.

5.6 Structures in a management B area

Performance outcomes	Acceptable outcomes
PO27 For private development that is for the purposes of facilitating fishing or boat access (e.g. installation of a private jetty, pontoon, boat ramp or fishing platform), only one structure or facility is provided per adjoining property and is located entirely within the extension of the side boundaries of that property.	No acceptable outcome is prescribed.

PO27: Context

The development of a small private facility to facilitate fishing or boat access (e.g. jetty, pontoon, fishing platform or boat ramp), when viewed in isolation, may have limited direct environmental impact. However, due to the popularity of these structures, their cumulative and indirect impacts are an important consideration for the management of declared FHAs and these impacts become particularly evident when these structures extend from adjoining small lots. These impacts include:

- Removal of vegetation from the waterway bank for the abutment of the structure may increase the banks susceptibility to erosion at and adjacent to the site, and require bank stabilisation.
- Reduced community access to and use of the waterway, particularly for fishing (e.g. vessel access near waterway banks may be limited and pedestrian access along intertidal banks at low tide can be impeded by these structures).
- Disturbance of local coastal processes (e.g. causing erosion problems or interfering with longshore movement of sand).
- Shading of habitats beneath the structure footprint.

This PO aims to provide the owner of a property that directly adjoins a management B declared FHA with reasonable private access to the adjacent waterway for boating and fishing (i.e. a single structure) from their property, while minimising impacts to the habitat values and community use of the declared FHA.

PO27: Information requirements

If an RAA has been granted for the proposed structure, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the proposed single private facility to facilitate fishing or boat access with reference to a plan showing the proposed structure footprint in relation to the waterfront and side boundaries of the subject property.
- Details of any existing structures (e.g. revetments pontoons, boat ramps) present along the waterfront boundary of the subject property and its neighbouring properties. The location of any structures should be presented on a plan.

Performance outcomes	Acceptable outcomes
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<p>PO28 For private development that is for the purposes of a private boat mooring (e.g. installation of a private buoy mooring):</p> <ol style="list-style-type: none"> 1. only one mooring is provided per adjoining property and is located entirely within the extension of the side boundaries of that property, or 2. the mooring is installed within a government approved designated mooring area or within a location that is supported by the Department of Transport and Main Roads. 	<p>No acceptable outcome is prescribed.</p>
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PO28: Context

Private buoy moorings are used for the storage of larger vessels within many of Queensland's coastal waterways. They are occasionally installed adjacent to the vessel owner's private property but more often are opportunistically located in clusters within deeper, protected areas of the waterway, in the general vicinity of developed areas. These opportunistically located moorings usually have no connection with their owner's property and are often owned by people who do not live adjacent to the water.

A buoy mooring, with its attached vessel and associated vessel swing requirements, utilises and alienates a large area of a waterway from general community use. With the exception of a mooring installed directly adjacent to its owner's private property within a management B declared FHA, moorings should only be installed within a designated mooring area or within a location that is specifically supported by the Department of Transport and Main Roads for the installation of buoy moorings. The installation of moorings within designated mooring areas may be acceptable development (refer the *Accepted development requirements for operational work completely or partly within a declared Fish habitat Area* available on the DES web site for details and for information on the location of designated mooring areas).

The installation of a private buoy mooring directly adjacent to its proponent's private property, within a management B declared FHA, provides similar private access to the waterway for boating and fishing as does a private jetty or pontoon (refer to PO27). Based on this similar function, the installation of a mooring directly adjacent to its proponent's private property can be supported, provided the mooring and its attached vessel do not extend beyond an extension of the side property boundaries and only one mooring is proposed per adjacent property.

PO28: Information requirements

If an RAA has been granted for the proposed buoy mooring, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

For a private mooring directly adjacent to its proponents private property

- Details (design, length of attached vessel, total swing radius) of the proposed single private mooring, with reference to a plan showing the mooring location, and total swing radius in relation to the waterfront and side boundaries of the proponent's property.

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- Details of any existing structures (e.g. revetments pontoons, boat ramps) present along the waterfront boundary of the subject property and its neighbouring properties. The location of any structures should be presented on a plan.

For a private mooring not directly adjacent to its proponents private property

- Details to demonstrate that proposed the mooring will be installed within a government approved designated mooring area or within a location that is supported by the Department of Transport and Main Roads.

Performance outcomes	Acceptable outcomes
PO29 The establishment of structures or infrastructure does not involve filling of tidal land.	No acceptable outcome is prescribed.

PO29: Context

'Filling' is considered to be the intentional conversion of tidal land to terrestrial land. Any permanent filling within a declared FHA results in total and permanent loss of the fish habitat values that were previously present in that location. Filling also affects natural coastal / waterway processes and often requires the filled area to be protected from erosion through the installation of hard revetment structures.

It is recognised that the development of some structures (e.g. a revetment wall or groyne structure) could technically be considered as filling of land, as that part of the declared FHA beneath the footprint of the structure is effectively filled over by rock, concrete or other construction material. It is not the intent of this PO to capture the footprint of a structure as filling of tidal land.

A practical approach is adopted in relation to assessing structures in relation to compliance with this PO. Some minor bank regularisation (i.e. cut and fill of the bank) may be required for the installation of revetment walls to ensure stable alignment and profile for the structure can be achieved, however intentional filling to extend the adjacent terrestrial land into the declared FHA should not be proposed.

Further information regarding filling of tidal land within a declared FHA is provided in Appendix 1, SPI 14 of the DES *Operational policy for Management of declared FHAs* (<https://parks.des.qld.gov.au/managing/habitat-areas/>).

Beach replenishment projects with a management B declared FHA are not considered to be filling of tidal land. Reference should be made to the specific beach replenishment POs (PO33-38).

PO29: Information requirements

If an RAA has been granted for the proposed structure or infrastructure, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Plans, showing plan view and elevations of the structure or infrastructure in relation to the level of highest astronomical tide, mean high water springs and mean low water springs levels.
- Identification of any elements of the development that could be considered to be filling of tidal land and discussion of how those elements achieve the PO.

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Performance outcomes	Acceptable outcomes
<p>PO30 Development for erosion control purposes (including revetments, groynes and gabions) only occurs where erosion is resulting in an immediate threat to:</p> <ol style="list-style-type: none"> 1. the ability to use the land for its existing or approved purpose, or 2. infrastructure, structures or buildings that are not expendable or not able to be relocated, or 3. a cultural heritage site. 	<p>No acceptable outcome is prescribed.</p>

PO30: Context

Erosion and accretion are important natural processes within estuaries, rivers and along the coast, that provide the dynamic structure that is the basis of diverse and productive fish habitats (e.g. undercut banks, shallow flats, snags, gutters).

Wherever possible, it is preferred that erosion is not actively managed and natural processes are allowed to continue. However, it is recognised that in some locations within a management B declared FHA, erosion has the potential to significantly impact on adjacent land uses, infrastructure and significant sites, and management intervention is required.

This PO requires development for erosion control purposes to only be undertaken where the erosion is an immediate threat to those uses, structures or sites listed in the PO.

PO30: Information requirements

If an RAA has been granted for the proposed erosion control development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the existing or approved land use, structure or cultural heritage site that is under threat from the erosion.
 - For infrastructure, structures and buildings that are under erosion threat the description should include information to justify why its relocation or loss is not a viable option.
- Justification that the erosion threat is immediate, supported by photos of the current erosion area and evidence of the erosion rate in the subject area (e.g. a time series of historical aerial imagery).

Performance outcomes	Acceptable outcomes
<p>PO31 Development for erosion control purposes (including revetments, groynes and gabions) represents the best available erosion management solution from both an erosion</p>	<p>No acceptable outcome is prescribed.</p>

State Code 12: Development within a declared fish habitat area

management and a fish habitat management perspective.	
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PO31: Context

Within a declared FHA it is preferred that erosion is not actively managed to maintain the existing natural processes, or where management cannot be avoided in a management B declared FHA, the management method that is applied is the least impact option.

Determining the cause of erosion is critical for its effective management. If erosion is caused by human activities, it is likely to be more effective to treat the cause rather than only using erosion control structures to manage the ‘symptom’. Managing the cause of erosion is also likely to have greater benefits for fisheries resources.

In some situations it is recognised that the installation of solid rock or concrete revetments may be the only effective option to manage an erosion threat. However, there may be other situations and locations where alternative, environmentally sensitive options may be viable and effective (e.g. bank profiling and revegetation, installation of gabions that also serve to maintain or re-establish bank vegetation).

PO31: Information requirements

If an RAA has been granted for the proposed erosion control development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the cause of the erosion problem. Where appropriate, reference should be made to relevant erosion studies, erosion management plans (e.g. Local Government shoreline erosion management plans) and aerial imagery.
- Details of the erosion management options that were considered to address the erosion problem and discussion of why the proposed option is preferred from both erosion management and declared FHA management perspectives.

Performance outcomes	Acceptable outcomes
PO32 Development for erosion control purposes (including revetments, groynes and gabions) does not result in permanent loss of fish habitat beyond the footprint of the structure, other than where caused by minimal regularisation of the foreshore boundary required to maintain a consistent alignment with adjacent properties as part of a co-ordinated erosion control strategy for the location.	No acceptable outcome is prescribed.

PO32: Context

Erosion control structures can be highly effective in protecting an area from erosion. However, unless these structures are carefully designed, aligned and constructed, they have the potential to divert and concentrate erosive forces to other parts of the waterway (e.g. directly upstream or downstream of the structure) and can result in increased erosion in those locations. This PO aims to ensure that development for erosion control

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purposes does not result in permanent loss of fish habitat and impacts to the declared FHA beyond the footprint of the erosion control structure.

PO32: Information requirements

If an RAA has been granted for the proposed erosion control development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion to demonstrate that the proposed design, alignment and construction methodology for the erosion control development has considered its potential to increase of impacts to fish habitat and the declared FHA beyond the footprint of the development.
- Details of any elements of the proposed development that have been incorporated to address or minimise the identified potential impacts.

5.7 Beach replenishment in a B management area

Performance outcomes	Acceptable outcomes
<p>PO33 Beach replenishment only occurs where erosion is resulting in an immediate threat to:</p> <ol style="list-style-type: none"> 1. the ability to use the land for its existing or approved purpose, or 2. infrastructure, structures or buildings that are not expendable or not able to be relocated, or 3. a significant cultural heritage site. 	No acceptable outcome is prescribed.

PO33: Context

The replenishment (nourishment) of beaches and foreshores in Queensland is generally proposed to maintain the community's recreational and tourism objectives for beaches that have been impacted by erosion and/or as an environmentally sensitive solution for management of foreshore erosion of sandy habitats.

Beach 'replenishment' is also occasionally proposed to transform an existing foreshore habitat (e.g. a muddy foreshore) into a more aesthetic and user friendly environment and / or as a convenient option for the disposal of sand extracted from a nearby dredging project.

This PO aims to ensure that beach replenishment is only proposed within a management B declared FHA to manage erosion that is an immediate threat to any of the uses, structures or sites listed under the PO.

PO33: Information requirements

If an RAA has been granted for the proposed beach replenishment development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Discussion of the existing or approved land use, structure or cultural heritage site that is under threat from the erosion.

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- For infrastructure, structures and buildings that are under erosion threat the description should include information to justify why its relocation or loss is not a viable option.
- Demonstration that the erosion threat is immediate, including advice from an appropriately qualified coastal engineer and photos of the current erosion area and evidence of the erosion rate in the subject area (e.g. a time series of historical aerial imagery).

Performance outcomes	Acceptable outcomes
PO34 The area that the beach replenishment is to be carried out on is a high-energy, sandy sediment shoreline with biological communities adapted to mobile sediments.	No acceptable outcome is prescribed.

PO34: Context

Beach replenishment should only be considered as a potential erosion control method on existing sandy shorelines in high energy environments such as open coasts and exposed estuarine areas. In these environments benthic floral and faunal communities are adapted to mobile sandy substrates, and are therefore more tolerant to the smothering and abrasive impacts of beach replenishment.

Conversely the use of sand to replenish of low energy, non-sandy environments would significantly change the habitat type in the area and is likely to result in long term impacts to the fish habitat values of the area through poor benthic flora and fauna recovery and colonisation.

PO34: Information requirements

If an RAA has been granted for the proposed beach replenishment development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

Evidence to demonstrate that the proposed replenishment site is a high-energy, sandy sediment shoreline. Reference should be made to plans and/or aerial imagery which show the location of the proposed nourishment site in relation to high-energy sections of the waterway or coastline (i.e. open coasts and exposed estuarine areas).

Performance outcomes	Acceptable outcomes
PO35 Beach replenishment does not create terrestrial land, unless a sacrificial dune or beach which forms an integral part of the erosion control design.	No acceptable outcome is prescribed.

PO35: Context

It is recognised that beaches are complex systems that are often backed by dunes that are built up by dry beach sand that is blown inland and trapped by vegetation and other obstructions. Dunes play an important role in protecting the coastline, acting as a buffer against wave damage during storm events and providing a barrier that allows the natural development of plant communities that enhance the overall stability of the beach. Importantly dunes also act as a reservoir of sand to naturally replenish the beach during times of erosion.

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While dunes can grow in height such that their surface is often above the level of Highest Astronomical Tide (i.e. not tidal), they remain part of the active component of the beach system.

This PO supports the creation of a sacrificial dune as part of beach replenishment development to control erosion within a management B declared FHA, provided is it integrated component of the replenishment design and entirely for that purpose. The creation of terrestrial land (e.g. the seaward extension of an adjacent foreshore park) that is not intended to remain in the active beach system or integral to the replenishment design, is not supported by this PO.

PO35: Information requirements

If an RAA has been granted for the proposed beach replenishment development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Confirmation that the replenishment design does not include any areas that are proposed to be filled to above the level of highest astronomical tide; or
- Information to demonstrate that any areas that will be above the level of highest astronomical tide as a result of the replenishment are integral to the replenishment design, will remain in the active beach system and are not intended to be used for any alternative purposes. Reference should be made to detailed drawings of the replenishment design and evidence should be provided to demonstrate that the design is in accordance with an erosion management plan (e.g. a Local government SEMP) and/or is endorsed by an RPEQ certified coastal engineer.

Performance outcomes	Acceptable outcomes
PO36 The beach replenishment work is undertaken in a way that minimises the need for other erosion control activities or works.	No acceptable outcome is prescribed.

PO36: Context

Where erosion management is required within a management B declared FHA it is important that the management method that is adopted is the best and least impact option. Beach replenishment can be an effective and low impact erosion control option, however the alteration of an existing foreshore profile can divert and concentrate erosive forces to other parts of the waterway (e.g. directly upstream or downstream of the nourishment area) and result in increased erosion in those locations. This PO aims to ensure that a beach replenishment development does not result in an increase in erosion in other locations that will trigger a requirement for additional erosion control activities or works.

PO36: Information requirements

If an RAA has been granted for the proposed beach nourishment development, demonstration of compliance with this PO would be achieved by referring to the RAA and confirming that the development will comply with any limitations and conditions of that authority.

If a DA application is lodged prior to obtaining an RAA, a statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

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- Discussion to demonstrate that the proposed beach replenishment design has considered its potential to increase impacts to fish habitat and the declared FHA beyond the footprint of the development. Any aspects of the proposed development that have been incorporated to address potential impacts should be highlighted. The response should draw upon advice regarding this issue from an RPEQ certified coastal engineer and any relevant information from an approved erosion management plan (e.g. a Local government SEMP) relevant to the proposed development area.

Performance outcomes	Acceptable outcomes
PO37 The beach replenishment work is undertaken in a way that minimises the frequency of any ongoing replenishment requirements.	AO37.1 Beach replenishment will not require maintenance more often than every two years.

PO37: Context

The benthic flora and fauna communities that inhabit the mobile sandy substrates that are the subject to a beach replenishment development proposals, tend to be well adapted to recover quickly following disturbance. These flora and fauna communities are an important component of a beach ecosystem and are a direct food source for a range of commercially and recreationally important fish species. To provide for a reasonable level of benthic flora and fauna recovery between replenishment events and to protect the declared FHA values more generally, it is recommended that the frequency of replenishment works are limited to the greatest extent possible, but in no case are undertaken more frequently than every two years.

PO37: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details on the expected frequency of replenishment events to ensure that the erosion is effectively managed. The response should draw upon assessment and advice from an appropriately RPEQ certified coastal engineer.
- Confirmation that the replenishment frequency will be greater than two years, as identified in the acceptable outcome.

Performance outcomes	Acceptable outcomes
PO38 A source of replenishment material for future maintenance is identified and secured.	AO38.1 Beach replenishment material is sourced from: <ol style="list-style-type: none"> 1. a distance of greater than 100 metres from a declared fish habitat area, or 2. from works within a declared fish habitat area that have been authorised for another purpose, or 3. from a navigational channel.

PO38: Context

The management of erosion through beach replenishment is usually undertaken with the expectation that the replenished beach profile will require the addition of sand from time-to-time to maintain its effectiveness.

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Identification of a reliable source of suitable replenishment material for both the capital works and future maintenance is essential for beach replenishment to be considered as an effective and long-term erosion management solution.

Obtaining replenishment material from within the declared FHA, unless opportunistically sourced from an approved development within the area, is not supported as this would result in a double disturbance to the declared FHA.

PO38: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details of the volume of material required for the capital replenishment works and expected frequency and volume of material required for ongoing maintenance of the replenishment area. The response should draw upon assessment and advice from an RPEQ certified coastal engineer.
- Details of the proposed source of material for the capital and future maintenance replenishment material, including information on the volume of material available at that location, the suitability of its physical properties for use as replenishment material (e.g. grain size) and how it would be transported to the replenishment site.
- Discussion of how the proposed source of material aligns with the acceptable outcomes.

5.8 Dredging or extracting sediment

Performance outcomes	Acceptable outcomes
<p>PO39 Dredging or extracting sediment is only undertaken for the purposes of:</p> <ul style="list-style-type: none"> • restoring fish habitats or natural processes, or • as part of the construction of a structure (e.g. excavating the footings for a boat ramp or revetment wall). 	No acceptable outcome is prescribed.

PO39: Context

Dredging or extracting sediment are not prescribed development purposes for which approval can specifically be granted within a declared FHA (refer to PO1). Dredging and sediment extraction results in direct impacts on the flora, fauna and habitats within the works area and can have substantial indirect impacts on the broader waterway, its coastal processes and habitats. While dredging and sediment extraction projects (e.g. dredging to create a navigation channel, extraction of sand for sale or for beach nourishment purposes) within a declared FHA are not supported, there are limited circumstances where sediment extraction, including with dredging equipment, may be supported as an operational element of delivering a development that can be approved as a prescribed development purpose. These are:

- ‘Restoring the fish habitat or natural processes within a declared FHA’, where dredging may be required to achieve the approved restoration outcome (e.g. to removal illegally dumped fill); or
- For those prescribed development purpose that allow for construction (or maintenance) of a structure, where minor sediment extraction within and directly adjacent to the footprint of the structure may be required for the installation or replacement of components of the structure (e.g. dredging /extraction of sediment for installation of the structure footings).

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This strict management of dredging within the declared FHA may appear to significantly limit navigational access and safety within a declared FHA, however it is important to note that the area of a channel marked with aids to navigation that is present within the outer boundary of a declared FHA, is excluded from the declared FHA under Section 617 of the Fisheries Regulation 2008. This legislative exclusion of navigation channels ensures that maintenance of the key public navigation channel network is not effected by the declared FHA management in relation to dredging.

PO39: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details on the nature and extent of any dredging or sediment extraction associated with the proposed development, including discussion of the dredging and extraction equipment that is proposed to be used.
- Demonstration that the proposed dredging and extraction is either for, restoring fish habitats or natural processes or as part of the construction or maintenance of a structure.
- Discussion on how the footprint of the dredging or sediment extraction has been minimised.
- Details on how impacts of the dredging or sediment extraction are proposed to be managed.

5.9 Aquaculture

Performance outcomes	Acceptable outcomes
<p>PO40 Development for aquaculture is only for tidal works associated with oyster production within licensed oyster areas in compliance with the Oyster industry plan for Moreton Bay Marine Park, Department of Agriculture and Fisheries, 2015.</p> <p>Note: Water intake and discharge structures associated with land based aquaculture developments (e.g. prawn farms) are considered as structures within a declared fish habitat area rather than aquaculture.</p>	No acceptable outcome is prescribed.

PO40: Context

Aquaculture of marine species in Queensland is either:

- conducted in land based facilities which use tidal water extracted from an adjacent waterway (e.g. prawn farms), or
- conducted directly within tidal waters (e.g. oyster culture, cage culture or sea ranching).

The only components of a land based aquaculture development that are typically proposed within the boundary of a declared FHA are its water inlet and outlet structures. As these structures have a similar design and function to other industrial inlet and outlet structures (e.g. cooling water intakes and outlets) they are dealt with by the declared FHA management as structures, rather than as aquaculture, and are therefore the proponent should address the POs that are relevant to a water inlet/outlet structure.

With the exception of oyster culture in specific declared FHAs within Moreton Bay, tidal aquaculture should be undertaken outside of declared FHAs. Oyster and cage culture requires the installation of infrastructure (e.g. racks, long lines, sea cages) which have large physical footprints. If installed within a declared FHA, this

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aquaculture infrastructure would alienate significant areas from community use and would compromise the management of a declared FHA as a community resource.

Sea ranching is also not supported within declared FHAs. This form of tidal aquaculture involves the addition of large numbers of seeded animals (hatchery bred animals such as sea cucumbers and scallops) into an area of unenclosed natural tidal habitat. The possible ecological impacts (e.g. impacts to the natural population structure and balance) which may result from the addition of large numbers of seeded animals to a declared FHA, combined with its likely impact on community access (limitations on fishing with the sea ranching area) make this form of tidal aquaculture also incompatible with the declared FHA management.

Oyster cultivation and aquaculture within Moreton Bay has a long and continuous history dating back to the late 1800's, well before the first declaration of FHAs in that area. The declared FHA management recognises this long oyster aquaculture history and as identified in this PO, provides for its continuation. An oyster industry plan for Moreton Bay Marine Park has been developed by the relevant State Agencies in consultation with the Queensland Oyster Growers Association and other key stakeholders. This plan provides a comprehensive framework for the management of oyster culture within Moreton Bay, including the declared FHAs within the plan area. A copy of the *Oyster industry plan for Moreton Bay Marine Park 2015* is available on the DES website (<https://parks.des.qld.gov.au/parks/moreton-bay/>).

PO40: Information requirements

A statement of response to this PO must discuss how the proposed tidal aquaculture development complies with all requirements detailed in *Oyster industry plan for Moreton Bay Marine Park 2015*.

5.10 Matters of state environmental significance

Performance outcomes	Acceptable outcomes
<p>PO41 Development:</p> <ol style="list-style-type: none"> 1. avoids impacts on matters of state environmental significance, or 2. minimises and mitigates impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible, and 3. provides an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable significant residual impact on a matter of state environmental significance. <p>Statutory note: (3) only applies to development on Brisbane core port land within the area identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the Brisbane Port LUP precinct plan on the Port of Brisbane website at https://www.portbris.com.au/.</p>	<p>No acceptable outcome is prescribed.</p>

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<p>Note: For the purpose of this code, the matters of state environmental significance assessed are marine plants, waterways that provide for fish passage and declared fish habitat areas.</p> <p>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 under the Environmental offsets framework, the offset should be delivered in accordance with the <i>Environmental Offsets Act 2014</i>.</p>	
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PO41: Context

Declared FHAs are a matter of state environmental significance (MSES) under the *Environmental Offsets Act 2014*. An environmental offset may be required for development within a declared FHA if the development will, or is likely to have, a significant residual impact on the declared FHA.

The 'avoid, mitigate, offset' approach underpins the State's assessment and decision making processes for development within a declared FHA. This framework requires in the first instance, that impacts on the declared FHA be avoided. If avoidance cannot be achieved, it must be demonstrated that impacts have been carefully managed and minimised (mitigated).

If after all reasonable avoidance and mitigation measure have been taken, there is still a residual impact on the declared FHA, an offset may be required where the impact is, or is likely to be, 'significant'.

Applying for an environmental offset does not mean that development with unacceptable impacts will be approved. Offsets simply provide an additional tool that can be used in the application and assessment process.

PO41: Information requirements

A statement of response to demonstrate compliance with the PO should include, but is not limited to, the following information:

- Details on how the proposed development has avoided, minimised and/or mitigated impacts to the declared FHA.
- Details (dimensions and area) and description of all permanent and temporary areas of impact to the declared FHA that will result from the proposed development and identification of any impacts that are considered to be a significant residual impact to the declared FHA, in accordance with the *Significant residual impact guideline*, Department of State Development, Infrastructure and Planning, 2014
- Description of how any significant residual impacts to the declared FHA that will result from the development are proposed to be offset.

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Approved By

Richard Watson

Signature

15/06/17

Date

A/Deputy Directory General
Strategic Policy and Racing Industry Governance
Department of National Parks, Sport and Racing

Enquiries:
Marine Protected Area Policy
Marine.policy@des.qld.gov.au