Part A - Appendix D
Local Statement of Integrity
(Adaptive Strategies)
Priority Port Master Planning
Addendum to evidence base - Priority Port of Gladstone

Local Statement of Integrity
Contents

Introduction ................................................................................................................................................ 5
Purpose ..................................................................................................................................................... 5
Integrity of World Heritage Properties ....................................................................................................... 6
Considerations when assessing Integrity .................................................................................................. 7
Outstanding Universal Value at the Priority Port of Gladstone ................................................................. 8
Local Statement of Integrity for the Priority Port of Gladstone ................................................................. 10
References .............................................................................................................................................. 13
INTRODUCTION

The Queensland Government is currently advancing master planning for the priority ports of Gladstone, Abbot Point, Townsville, and Hay Point/Mackay in accordance with the Sustainable Ports Development Act (Ports Act).

Master planning for priority ports is one of the port-related actions of the Reef 2050 Long-Term Sustainability Plan, and is mandated under the Ports Act. Priority port master planning has a timeframe up to 2050 to align with the Reef 2050 Long-Term Sustainability Plan (DSD 2016a).

Through port master planning, the Queensland Government is seeking to effectively manage the land and marine areas needed for the efficient development and operation of the priority ports, while ensuring that the Outstanding Universal Value of the Great Barrier Reef (GBR) World Heritage Area is an intrinsic consideration in port development, management and governance (DSD 2016a).

The overarching purpose of master planning for each of Queensland’s priority ports is to:

- Define a long term strategic vision, objectives and desired outcomes for each port master planned area
- Identify the state interests in relation to the priority ports and articulate how those interests are to be considered in all planning decisions made within each port master planned area
- Present an environmental management framework (EMF) that states priority management measures for managing potential impacts on environmental values in the master planned area and surrounding areas in accordance with principles of ecologically sustainable development (ESD).

The Port of Gladstone is located within the GBR World Heritage Area and is Queensland’s largest multi-cargo port and the fifth largest coal export terminal in the world (by throughput). The port is located within a diverse region containing a range of urban communities, major industrial precincts and environmental values of international importance. There is significant opportunity for continued growth in the import and export of a range of commodities to Australia and the world, with the Port of Gladstone playing a pivotal role in the future growth of the national port trade.

PURPOSE

As part of the master planning process, the Department of State Development (DSD) has developed an evidence base to support and inform the preparation of the master plan and port overlay for the Priority Port of Gladstone. The evidence base collates information on the economic, environmental, community and cultural aspects of the priority Port of Gladstone. The evidence base supports the master planning process and includes:

- Evidence Base Report for the Proposed Gladstone Port Master Planned Area (AECOM 2016)
- Priority Port of Gladstone master planning – Infrastructure and Supply Chain Requirements Assessment (PSA Consulting 2016)

To identify and describe the local expression of the OUV of the GBR that occur within the master planned area and surrounds, the ‘Method for identifying the local expression of OUV within the Great Barrier Reef World Heritage Area’ (Adaptive Strategies 2017) has been applied.

The methodology also calls for a ‘Local Statement of Integrity’ to be produced as a means of providing clarity and understanding of how the proposed master plan relates to the Integrity of the World Heritage Area.
INTEGRITY OF WORLD HERITAGE PROPERTIES

All World Heritage properties are required to meet the conditions of integrity. This is defined by the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO 2016) as “a measure of the wholeness and intactness of the natural and/or cultural heritage and its features.” An assessment of the integrity of a property is required to determine the extent to which the property:

- includes all elements necessary to express its OUV
- is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance
- suffers from adverse effects of development and/or neglect.

The Operational Guidelines (UNESCO 2016) provide the following advice and criteria in relation to Integrity:

“For properties nominated under criteria (i) to (vi), the physical fabric of the property and/or its significant features should be in good condition, and the impact of deterioration processes controlled. A significant proportion of the elements necessary to convey the totality of the value conveyed by the property should be included. Relationships and dynamic functions present in cultural landscapes, historic towns or other living properties essential to their distinctive character should also be maintained.

For all properties nominated under criteria (vii) - (x), bio-physical processes and landform features should be relatively intact. However, it is recognized that no area is totally pristine and that all natural areas are in a dynamic state, and to some extent involve contact with people. Human activities, including those of traditional societies and local communities, often occur in natural areas. These activities may be consistent with the Outstanding Universal Value of the area where they are ecologically sustainable.

In addition, for properties nominated under criteria (vii) to (x), a corresponding condition of integrity has been defined for each criterion.

Properties proposed under criterion (vii) should be of Outstanding Universal Value and include areas that are essential for maintaining the beauty of the property. For example, a property whose scenic value depends on a waterfall, would meet the conditions of integrity if it includes adjacent catchment and downstream areas that are integrally linked to the maintenance of the aesthetic qualities of the property.

Properties proposed under criterion (viii) should contain all or most of the key interrelated and interdependent elements in their natural relationships. For example, an "ice age" area would meet the conditions of integrity if it includes the snow field, the glacier itself and samples of cutting patterns, deposition and colonization (e.g. striations, moraines, pioneer stages of plant succession, etc.); in the case of volcanoes, the magmatic series should be complete and all or most of the varieties of effusive rocks and types of eruptions be represented.

Properties proposed under criterion (ix) should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long term conservation of the ecosystems and the biological diversity they contain. For example, an area of tropical rain forest would meet the conditions of integrity if it includes a certain amount of variation in elevation above sea level, changes in topography and soil types, patch systems and naturally regenerating patches; similarly a coral reef should include, for example, seagrass, mangrove or other adjacent ecosystems that regulate nutrient and sediment inputs into the reef.

Properties proposed under criterion (x) should be the most important properties for the conservation of biological diversity. Only those properties which are the most biologically diverse and/or representative are likely to meet this criterion. The properties should contain habitats for maintaining the most diverse fauna and flora characteristic of the bio-geographic province and ecosystems under consideration. For example, a tropical savannah would meet the conditions of integrity if it includes a complete assemblage of co-evolved herbivores and plants; an island ecosystem should include habitats for maintaining endemic biota; a property containing wide ranging species should be large enough to include the most critical habitats essential to ensure the survival of viable populations of those species; for an area containing migratory species, seasonal breeding and nesting sites, and migratory routes, wherever they are located, should be adequately protected.”
CONSIDERATIONS WHEN ASSESSING INTEGRITY

The retrospective Statement of Outstanding Universal Value for the GBR World Heritage Area (UNESCO 2012) notes that in relation to integrity:

“The ecological integrity of the GBR is enhanced by the unparalleled size and current good state of conservation across the property. At the time of inscription it was felt that to include virtually the entire Great Barrier Reef within the property was the only way to ensure the integrity of the coral reef ecosystems in all their diversity.

A number of natural pressures occur, including cyclones, crown-of-thorns starfish outbreaks, and sudden large influxes of freshwater from extreme weather events. As well there is a range of human uses such as tourism, shipping and coastal developments including ports. There are also some disturbances facing the GBR that are legacies of past actions prior to the inscription of the property on the World Heritage list.

At the scale of the GBR ecosystem, most habitats or species groups have the capacity to recover from disturbance or withstand ongoing pressures. The property is largely intact and includes the fullest possible representation of marine ecological, physical and chemical processes from the coast to the deep abyssal waters enabling the key interdependent elements to exist in their natural relationships.

Some of the key ecological, physical and chemical processes that are essential for the long-term conservation of the marine and island ecosystems and their associated biodiversity occur outside the boundaries of the property and thus effective conservation programs are essential across the adjoining catchments, marine and coastal zones.”

The emphasis on size, condition and existing human activities are important elements when considering integrity. The Operational Guidelines (UNESCO 2012) note that: “…it is recognized that no area is totally pristine and that all natural areas are in a dynamic state, and to some extent involve contact with people. Human activities, including those of traditional societies and local communities, often occur in natural areas. These activities may be consistent with the Outstanding Universal Value of the area where they are ecologically sustainable.”

In the case of the GBR this aspect is particularly important given the large size of the property; its location adjacent to and including human settlements and the pre-existing presence of human settlements, infrastructure and urban, recreational and industrial activities within the property prior to its listing. Accordingly an important aspect of integrity is the state and condition of the property at the time of listing.

Additionally, the ‘Method for identifying the local expression of OUV within the Great Barrier Reef World Heritage Area’ (Adaptive Strategies 2016) recommends that the following criteria and considerations may help inform a ‘Local Statement of Integrity’.

Table 1: Consideration for developing a Local Statement of Integrity

<table>
<thead>
<tr>
<th>UNESCO CRITERIA</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
</table>
| Includes all elements necessary to express its Outstanding Universal Value      | - Will the relevant local area continue to support the significantly contributing environmental features of OUV in a sustainable and representative manner?  
- Will the diversity of the WH property be altered or diminished.               
- Will the significantly contributing features be maintained and protected to ensure the property continues to represent high levels of biological diversity? |
| Is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance | - Is the overall size of the WH property being altered or changed in a material way?  
- Will the boundary of the WH property be altered as a result of proposed planning and development?  
- Will the overall significance of the property be altered in any way?  
- Will the overall size and ecosystem functions within the WH property be altered in any way? |
| Suffers from adverse effects of development and/or neglect                      | - Will proposed plans and development result in an unmanaged level of impact or neglect to the local environmental features that significantly contribute to OUV?  
- Will significant contributing features be maintained and managed.  
- Will any impacts to significantly contributing features of natural beauty be assessed, minimised and managed as development proceeds? |
OUTSTANDING UNIVERSAL VALUE AT THE PRIORITY PORT OF GLADSTONE

To understand the integrity of the World Heritage Area at the priority Port of Gladstone it is first necessary to understand how OUV is expressed locally.

Using the methodology developed to determine the local expression of OUV (Adaptive Strategies 2017) an analysis has been undertaken to identify the presence and local expression of OUV within the priority Port of Gladstone master planned area and surrounding areas (Aurecon 2017). The report of this analysis forms part of the evidence base to the master plan (refer Addendum to evidence Base -Part A). The findings of this analysis are summarised below.

The analysis determined the level of contribution of local environmental attributes to the OUV of the World Heritage Area. The assessment of contribution utilised information on local presence and assessed the importance in the context of the World Heritage listing criteria. From this a determination of contribution to OUV has been made at one of three levels:

**Minor contribution:** The attribute is present however it occurs in low abundance or singularly and:
- is not essential to the sustainability of the attribute (e.g. substantial breeding population)
- is not recognised as a key feature of the GBR World Heritage Area
- is not included in the retrospective statement of OUV
- is not iconic, unique or a high quality example of the attribute.

**Moderate contribution:** The attribute occurs in moderate abundance or across a moderately large area but are not the prime occurrence or representation of the attribute within the GBR. The attribute does however represent a feature for which the GBR was listed as World Heritage.

**Significant contribution:** The attribute represents locally important examples of the attribute relative to the nature of the attribute across the GBR. Such an attribute may be specifically referred to within the retrospective statement of OUV or defined by other legislation, planning instrument or values assessment (e.g. GBR Outlook Report). The occurrence of the attribute locally is a prime example of the features mentioned in the retrospective statement of OUV.

Table 2: Contribution of local attributes to the OUV within the master planned area and surrounds (Aurecon 2017)

<table>
<thead>
<tr>
<th>Category</th>
<th>Local attribute</th>
<th>Relevant OUV criteria and contribution classifications¹</th>
<th>Key environment values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coral reefs</td>
<td>Fringing reefs</td>
<td>Min Min Min Min</td>
<td>Fringing coral reefs</td>
</tr>
<tr>
<td></td>
<td>Inshore turbid reefs</td>
<td>- Min Min Min</td>
<td>Inshore turbid coral reefs</td>
</tr>
<tr>
<td></td>
<td>Coral species diversity and extent</td>
<td>Min Min Min Min</td>
<td>Various coral species</td>
</tr>
<tr>
<td>Marine water quality</td>
<td>Marine water quality</td>
<td>- - Mod Mod</td>
<td>Marine water quality</td>
</tr>
</tbody>
</table>
| Fish                      | Fish species and diversity              | Min - Min Min                                            | Colosseum Inlet Fish Habitat Area  
Proposed Calliope River Fish Habitat Area  
Coral reefs, seagrass meadows, mangrove communities, hard and soft benthic substrates, beach habitats, estuaries, creeks and rivers |
| Marine megafauna          | Dugong                                 | - - - Mod                                               | Dugong species  
Seagrass meadows                                                                |
|                           | Species of whales                      | - - - Min                                               | Minke whales  
Sperm whales  
Humpback whales                                                              |
|                           | Migrating whales                       | Min - - -                                               | Humpback whales and calving habitat                                                  |
|                           | Species of dolphins                    | Min - - Sig                                             | Australian humpback dolphins                                                          |
| Marine turtles            | Breeding colonies of marine turtles     | Mod - - Mod                                             | Flatback turtle rookery on Curtis Island                                               |
## Priority Port of Gladstone – Local Statement of Integrity (Adaptive Strategies)

### Green turtle breeding
- Nesting beaches on Facing and Curtis Islands

### Marine turtle rookeries
- Mod

### Nesting turtles
- Min

### Seagrass and macroalgae
- Seagrass meadows
- Beds of *Halimeda* algae

### Marine turtle rookeries
- Mod

### Nesting turtles
- Min

### Seagrass and macroalgae
- Seagrass meadows
- Beds of *Halimeda* algae

### Shorebirds and migratory seabirds
- Potential foraging habitat
- Threatened migratory shorebird species
- Shorebird habitat and important roost sites (note these vary from year to year)

### Flora, fauna and ecological communities
- Coastal Saltmarsh Threatened Ecological Community

### Vegetated mountains
- Mount Larcom

### Mangroves
- Various mangrove sp.

### Vast mangrove forests
- Mangrove sequences at The Narrows

### Continental islands
- Curtis Island

### Plant species diversity and endemism (species being unique to a defined geographic location)
- Curtis Island

### Vegetation of the continental islands
- Curtis Island

### Geomorphology
- Curtis Island beaches
- Facing Island beaches
- Boyn Island Beach
- Parabolic dunes Curtis Island
- Marine tidal sand deltas (Curtis Island, Boyne River, Colosseum Inlet)
- The Narrows tidal passage

### Cultural heritage values
- Indigenous cultural heritage sites and values

### Marine fauna
- A diverse range of marine fauna species

### Table

<table>
<thead>
<tr>
<th>Category</th>
<th>Priority Level</th>
<th>Changes</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green turtle breeding</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nesting beaches on Facing and Curtis Islands</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Marine turtle rookeries</td>
<td>Mod</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nesting turtles</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Seagrass and macroalgae</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Beds of <em>Halimeda</em> algae</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Shorebirds and migratory seabirds</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potential foraging habitat</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Threatened migratory shorebird species</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Shorebird habitat and important roost sites</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>note these vary from year to year</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Flora, fauna and ecological communities</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vegetated mountains</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Coastsal Saltmarsh Threatened Ecological Community</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mangroves</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Various mangrove sp.</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vast mangrove forests</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mangrove sequences at The Narrows</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Continental islands</td>
<td>Mod</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>Mod</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plant species diversity and endemism</td>
<td>Mod</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vegetation of the continental islands</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Curtis Island</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Geomorphology</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Beaches</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Facing Island beaches</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Boyn Island Beach</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Parabolic dunes Curtis Island</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>River deltas</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Marine tidal sand deltas</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Narrows tidal passage</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural heritage values</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indigenous cultural heritage sites and values</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Marine fauna</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A diverse range of marine fauna species</td>
<td>Min</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Local Statement of Integrity for the Priority Port of Gladstone

The GBR was inscribed on the World Heritage List in 1981 in recognition of its Outstanding Universal Value. The World Heritage Committee listed the GBR for the following natural criteria:

Criterion (vii) – contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.

Criterion (viii) – be outstanding examples representing major stages of earth’s history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.

Criterion (ix) – be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, freshwater, coastal and marine ecosystems and communities of plants and animals.

Criterion (x) – contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of OUV from the point of view of science or conservation.

At the time of listing the GBR was recognized for its unparalleled size and current good state of conservation across the property. At the time of inscription it was felt that to include virtually the entire Great Barrier Reef within the property was the only way to ensure the integrity of the coral reef ecosystems in all their diversity. Despite ongoing pressures the GBR maintains these values to the present day.

The GBR was nominated on the basis of management for conservation and reasonable multiple use, and the inscription recognises long standing uses, such as: port operations; shipping; commercial, recreational and Indigenous fisheries; recreation; tourism; and activities on islands, coastal lands and catchments within, adjacent to or discharging into the waters of the GBR.

The Port of Gladstone is located within the Great Barrier Reef World Heritage Area and is Queensland’s largest multi-cargo port and the fifth largest coal export terminal in the world (by throughput). The port is located within a diverse region containing a range of urban communities, major industrial precincts and environmental values of international importance. The port was established in the 19th century and was a major trading port at the time the GBR was included in the list of World Heritage properties (1981). There is significant opportunity for continued growth in the import and export of a range of commodities to Australia and the world, with the Port of Gladstone playing a pivotal role in the future growth of the national port trade.

Under the Ports Act, the Port of Gladstone is defined as one of four priority ports in Queensland.

The GBR World Heritage Area includes waters seaward of the low water mark, including those within the Port of Gladstone. However the port is located outside of the Queensland and Commonwealth marine park boundaries.

The area of the priority port within the World Heritage Area constitutes 0.1% of the total 348,000 square kilometres of the GBR World Heritage Area.

While the area is a long established operating industrial area and port as well as a large city, the priority port master planned area and surrounds contain many natural environmental features of varying value and condition. An evaluation and assessment (Aurecon 2017) of the local attributes of the OUV expressed within and surrounding the priority Port of Gladstone has determined that:

- four local attributes provide a significant contribution
- eleven local attributes provide a moderate contribution
- twenty-two local attributes provide a minor contribution.
For the purposes of maintaining integrity of the property all of these attributes have relevance, however, it is primarily those that contribute significantly that will be most important in terms of maintaining the OUV of the GBR. A detailed analysis of all attributes and their contribution to OUV forms part of the evidence base to the Priority Port of Gladstone draft master plan (refer Addendum to Evidence Base -Part A, Appendix B).

The four significant contributing attributes identified are:

**Species of dolphins (Australian humpback dolphins)**
There are seven species of dolphin that have the potential to utilise habitat within the area, which contributes significantly to the dolphin species biodiversity of the GBR. On the basis of the limited population information available for the Australian humpback dolphin, the area is considered to be an important location within the GBR for this species. Furthermore, the Australian humpback dolphin populations are at risk of undetectable population declines (where less than 20% decline annually) (GBRMPA 2014).

**Shorebirds and migratory birds (threatened migratory shorebird species and shorebird habitat)**
Important habitat for migratory shorebirds is present at a number of locations within the area (e.g. Friend Point, Port Central and surrounds, and Facing Island). There are currently no shorebird population estimates available specifically for the GBR. However it is considered that due to the presence of important habitat within the area and in the surrounding areas, and the proportion of the Queensland populations of migratory shorebirds, that the area contributes significantly to the shorebird attribute of the OUV of the GBR.

**Plant species diversity and endemism (Curtis Island)**
Curtis Island is identified as having among the most diverse terrestrial flora in the GBR (Lucas et al. 1997), with approximately 590 flora species. The continental island flora species diversity and endemism represented on Curtis Island is also supported by the remnant vegetation values on the other continental islands in the area (e.g. Facing Island, She Oak Island, Diamantina Island).

**Vegetation of the continental islands (Curtis Island)**
As outlined above, Curtis Island and the other continental islands contain remnant vegetation communities. Curtis Island alone represents more than 57% of the total island flora species diversity recorded within the whole of the GBR Marine Park.

Maintaining these attributes along with the ecosystem process that support them is essential to maintaining the local integrity of the World Heritage Area.

**POTENTIAL FOR ALTERATION OR LOSS OF INTEGRITY**
The potential for the integrity of the World Heritage Area to be altered or lost locally due to the proposed priority port master planning outcomes is considered extremely low. The basis for this is outlined below against the key consideration relating to integrity.

**Includes all elements necessary to express its Outstanding Universal Value**
- The Port of Gladstone was established well before the GBR was included on the list of World Heritage properties. The ports maritime areas were recognised as forming part of the World Heritage Area at time of listing.
- The function and use of the port areas will remain substantially the same.
- Master planning outcomes will not alter ecosystem functions and connections; existing environmental approval process will ensure impacts are appropriately considered.
- Attributes making a significant contribution to the local expression of OUV will be maintained and protected, in most instances this will result in an improvement in protection and possible net benefit.
- The overall diversity of the property will not be affected.

**Is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance**
- The World Heritage boundary is established at the low water mark. The master plan will not alter the World Heritage boundary in any substantial manner. Small areas of land reclamation may occur primarily to ensure capital dredge material is reused and is not disposed of at sea.
- The extent of the priority port within the World Heritage Area will not increase from the current 0.1%.

**Suffers from adverse effects of development and/or neglect**
- Land and maritime use of the area is not altering significantly – specific areas have been designated for port related activities, avoiding where possible environmental values.
• A specific environmental management precinct has been identified. The purpose of this precinct is to limit development and manage environmental values including those terrestrial/island based attributes that contribute to OUV. The precinct includes:
  - Mount Larcom
  - Aldoga reserve
  - Facing Island
  - Part of Curtis Island
  - Other inshore islands (noting large parts of Curtis Island are not included within the priority port master planned area)

• A large marine precinct will be established. The purpose of this precinct is to limit port and industry development, and provide for non-port related marine activities. This precinct includes marine areas adjoining the marine infrastructure precinct which are not critical to the operation or growth of the port and includes intertidal or marine waters. Development in this precinct includes small scale maritime infrastructure, boat ramps, pontoons and coastal protection structures, coastal rescue services, commercial, recreational and residential uses. Development must be appropriately designed and located to manage potential impacts on environmental values within and surrounding the master planned area. Material placement areas used for the creation of environmental benefits such as artificial wetlands could be undertaken within this precinct. Many of the systems habitats that support OUV attributes occur in this precinct.

• The master plan does not alter the need to conduct detailed environmental impact assessment for any proposed development. Any development that may impact significantly on World Heritage values will still be required to be assessed and approved by the Commonwealth Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999*. Impacts to the integrity of the World Heritage Area would form part of any such assessment.

• The master plan includes an Environmental Management Framework to manage and monitor environmental values and adaptively control any related impacts. Additionally, a set of Priority Management Measures has been developed to improve environmental outcomes as part of the master planning process. A number of these Priority Management Measures specifically relate to the maintenance of OUV. The Priority Management Measures proposed are:

<table>
<thead>
<tr>
<th>Priority Management Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 <strong>Aboriginal cultural heritage notification</strong></td>
</tr>
<tr>
<td>2 <strong>Environmental values monitoring and reporting program</strong></td>
</tr>
<tr>
<td>3 <strong>Environmental assessment guideline</strong></td>
</tr>
<tr>
<td>4 <strong>Land management plan guideline</strong></td>
</tr>
<tr>
<td>5 <strong>Facing Island land management plan</strong></td>
</tr>
<tr>
<td>6 <strong>Inshore islands land management plan</strong></td>
</tr>
<tr>
<td>7 <strong>Mount Larcom landform land management plan</strong></td>
</tr>
<tr>
<td>Priority Management Measures</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>accordance with the land management plan guideline</td>
</tr>
</tbody>
</table>

**8 Aldoga reserve land management plan**  
Prepare and implement a land management plan for the Aldoga reserve land management plan area in accordance with the land management plan guideline

**9 Curtis Island land management plan**  
Prepare and implement a land management plan for the Curtis Island land management plan area in accordance with the land management plan guideline

**REFERENCES**


AECOM 2016, Evidence Base Report for the Proposed Gladstone Port Master Planned Area, Prepared for the Queensland Department of State Development, AECOM, Brisbane.


Department of State Development (DSD) 2016a, Guideline: master planning for priority ports, State of Queensland, Department of State Development, Brisbane.

Department of State Development (DSD) 2016b, *Draft master plan for the priority Port of Gladstone*, State of Queensland, Department of State Development, Brisbane.


Aurecon Australasia Pty Ltd
ABN 54 005 139 873
Level 14, 32 Turbot Street
Brisbane QLD 4000
Locked Bag 331
Brisbane QLD 4001
Australia

T  +61 7 3173 8000
F  +61 7 3173 8001
E  brisbane@aurecongroup.com
W  aurecongroup.com

Aurecon offices are located in:
Angola, Australia, Botswana, China,
Ghana, Hong Kong, Indonesia, Kenya,
Lesotho, Macau, Mozambique,
Namibia, New Zealand, Nigeria,
Philippines, Qatar, Singapore, South Africa,
Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam.