

## Part E

# Evidence base key issues incorporated into master planning





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### Existing evidence base background

The priority Port of Gladstone evidence based documents that have informed the key issues for incorporating into the master planning process included:

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

The findings of the additional investigations contained in this addendum report have also confirmed the key issues for incorporating into the master planning process and development of port overlay content.

### Key evidence base issues incorporated into master planning

Table E1 provides a summary of the key issues and recommendations raised by the evidence base, including reference to the specific individual report which raised the issue or recommendation.

Furthermore, to illustrate how these key issues and recommendations have been considered in the master planning process, detail is provided on the specific provisions of the master plan (including the objectives, desired outcomes, state interests and PMMs) and port overlay content (with supporting justification emphasising the current 'gap' in existing planning provisions and/or operational environmental management).

Table E1 Priority Port of Gladstone – evidence base key issues for consideration in master planning

Evidence base key issue	Evidence base document (section/map number)	Objectives	Desired outcomes	State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification
<b>Outstanding Universal Value of the Great Barrier Reef World Heritage Area (OUV of the GBRWHA) and all other environmental values</b>							
Development activities within the master planned area that have the potential to impact on the OUV of the GBRWHA and other environmental values	RA (Table 5.6) Addendum to the EB (Part A)	Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBRWHA Manage potential impacts of development on the scenic amenity of land and marine areas	<b>Environment</b> – OUV of the GBRWHA and all other environmental values <b>Community</b> – wellbeing of the community of the Gladstone region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>environmental values management code</b> Inclusion of mapping of the key OUV of the GBRWHA and other environmental values including seagrass meadows, coral reefs, turtle nesting beaches and migratory shorebird habitat	Provisions in existing planning instruments do not consistently or adequately address OUV of the GBRWHA and other environmental values identified as having a significant, moderate or minor notable contribution to local expression of the OUV of the GBRWHA in the Port of Gladstone. In addition, a number of these OUV of the GBRWHA and other environmental values are identified as being outside of the Gladstone Regional Council Planning Scheme (GRC Planning Scheme) and/or Gladstone Ports Corporation Port Land Use Plan (GPC Port LUP) areas
Information and mapping in relation to the OUV of the GBRWHA must be reviewed and updated on a regular basis in order to: <ul style="list-style-type: none"> <li>Identify gaps in knowledge or monitoring efforts</li> <li>Support improvements in data collection and management</li> </ul> Develop and set appropriate environmental objectives for the future Department of State Development (DSD) to review the Reef 2050 Integrated Monitoring and Reporting Program Strategy (GBRMPA 2015) and liaise with GBRMPA and other relevant stakeholders to ensure that the monitoring and reporting requirements PMM that relates does not duplicate that of the Reef 2050 Integrated Monitoring and Reporting Program (RIMReP)	Addendum to the EB (Part B)				<b>PMM 2 – Environmental values monitoring and reporting program</b>	<b>Yes</b> Operational matters – <b>PMM 2</b>	Implementation of <b>PMM 2</b> assists in reducing the potential environmental impacts/risks of development activities A number of existing research and monitoring programs within the Port of Gladstone are proposed to finish in the foreseeable future Future surveys beyond current committed programs are required to continue during the master plan timeframe to monitor, report and increase the understanding of the health and presence of key environmental values (eg seagrass meadows, coral reefs and marine fauna and shorebird habitat) within and surrounding the master planned area
The PMM that relates to the impact assessment guideline requirements should be incorporated into the terms of reference for an Environmental Impact Statement (EIS) prepared under the <i>State Development and Public Works Organisation Act 1971</i> (SDPWO Act), <i>Environmental Protection Act 1994</i> (EP Act) and/or <i>Planning Act 2016</i> (Planning Act)	RA (Section 5.8.4 additional general conclusions)				<b>PMM 2 – Environmental values monitoring and reporting program</b>	<b>Yes</b> Operational matters – <b>PMM 2</b>	The findings of the surveys undertaken in <b>PMM 2</b> will assist in the development of actions and measures for the future management of the OUV of the GBRWHA and other environmental values within the master planned area
					<b>PMM 3 – environmental assessment guideline</b>	<b>Yes</b> Operational matters – <b>PMM 3</b>	Implementation of this PMM seeks to ensure consistency between an EIS prepared under the SDPWO Act and the EP Act, and other environmental assessments undertaken under the Planning Act

Evidence base key issue	Evidence base document (section/map number)	Addressed in master plan Objectives	Desired outcomes	State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification
Land management inconsistencies across the master planned area	RA (Section 5.8.4 additional general conclusions)	Manage the OUV of the GBR/WHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBR/WHA	<b>Environment – OUV of the GBR/WHA and all other environmental values</b>	<b>PMM 4 – Land management plan guideline</b>	<b>Yes</b> Operational matters – <b>PMM 4</b>	Existing land management practices are inconsistent across the master planned area. Development of a guideline will support the preparation and implementation of consistent land management plans across the draft environmental management precinct
Inclusion of Lot 87 on SP144431 at Aldoga into the proposed environmental management precinct					<b>PMM 5 – Facing Island land management plan</b>	<b>Yes</b> Operational matters – <b>PMM 5</b>	Existing land management practices are inconsistent across the master planned area. <b>PMMs 5-9</b> identify the areas within the draft environmental management precinct where land management plans should be prepared (in accordance with the guideline)
Environmental management of the portion of Curtis Island within the environmental management precinct					<b>PMM 6 - Inshore islands land management plan</b>	<b>Yes</b> Operational matters – <b>PMM 6</b>	Ensures consistent land management practices are developed and implemented for non-freehold properties within the group of Inshore islands
					<b>PMM 7 – Mount Larcom landform area</b>	<b>Yes</b> Operational matters – <b>PMM 7</b>	Ensures consistent land management practices are developed and implemented for land within the Mount Larcom landform area
					<b>PMM 8 – Aldoga reserve land management plan</b>	<b>Yes</b> Draft precinct mapping in preliminary draft port overlay amended Operational matters – <b>PMM 8</b>	Ensures consistent land management practices are developed and implemented for land within the Mount Larcom landform area. The land has a restricted tenure based on its environmental value and is recognised in the Gladstone SDA Development Scheme
					<b>PMM 9 – Curtis Island land management plan</b>	<b>Yes</b> Operational matters – <b>PMM 9</b>	Ensures consistent land management practices are developed and implemented for the portion of Curtis Island that is within the draft environmental management precinct
Include PMM implementation and approvals timeframes, and a prioritisation framework for all PMMs to identify the required order of PMM implementation	RA (Section 5.8.3 port overlay matters)				All PMMs	<b>Yes</b> Operational matters - PMM provisions include reference to timeframes, and prerequisite PMMs where appropriate	Including PMM implementation timeframes provides certainty on when these provisions of the port overlay become a statutory requirement However, the preliminary draft port overlay has sought to avoid being too prescriptive regarding timeframes, instead opting in most instances to ensure timeframes are agreed between DSD and the relevant responsible entity

Evidence base key issue	Evidence base document (section/map number)	Addressed in master plan Objectives	Desired outcomes	State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification
The port overlay should consider including a marine precinct code which includes measures and other controls to be implemented by development within the master plan marine precinct	RA (Section 5.8.3 port overlay matters)	Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBRWHA	<b>Environment</b> – OUV of the GBRWHA and all other environmental values	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmark – <b>environmental values management code</b> Measures and controls relating to the draft marine precinct have been included within 'issues' based codes rather than being precinct based The previously named 'marine precinct' has now been revised and divided into the 'marine precinct' and 'marine infrastructure precinct'	There is no existing planning instrument for the marine component of the master planned area. These provisions are required to ensure: <ul style="list-style-type: none"><li>Consistency between the design, construction and operation of expanded or new developments within the draft marine precinct and draft marine infrastructure precinct</li><li>To ensure that expansions and new development and operations within the draft marine precinct are appropriately located, designed and implemented mitigation measures with due consideration of the OUV of the GBRWHA</li><li>Other areas identified as part of confirming, addressing information gaps and documenting the spatial extent and conservation significance of the other environmental values via field surveys and/or recognised expert advice</li></ul>
Renaming the draft environmental protection precinct to the draft environmental management precinct	RA (Section 5.8.4 additional general conclusions) Addendum to the EB (Part D)	Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBRWHA	<b>Environment</b> – OUV of the GBRWHA and all other environmental values	Not applicable	<b>Yes</b> Draft precinct mapping in the preliminary draft port overlay	Consistent with the terminology used in the Gladstone SDA Development Scheme and GRC Planning Scheme. This proposed change in terminology also better reflects the broader management intent (in accordance with the principles of Ecologically Sustainable Development (ESD)) for these areas and associated environmental values
DSD and the Department of Infrastructure, Local Government and Planning (DLGP) to update the State Planning Policy (SPP) and associated mapping to include the OUV of the GBRWHA and other environmental values so that these values can be included in other planning instruments adjoining the GBRWHA	RA (Section 5.8.4 additional general conclusions)	Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area Maintain quality of life for community in the Gladstone region	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBRWHA	<b>Environment</b> – OUV of the GBRWHA and all other environmental values	Not applicable	<b>No</b>	To allow all relevant local government planning schemes to consider the inclusion of the OUV of the GBRWHA and other environmental values as part of their planning scheme review and amendment process DSD will work cooperatively with DLGP to ensure the SPP is appropriately updated
Department of Transport and Main Roads (TMR) (Maritime Safety Queensland (MSQ)) undertake a review of its existing policies and procedures for emergency response and disaster management within the draft marine and draft marine infrastructure precincts and update to include consideration of the OUV of the GBRWHA. This may include identification of the OUV of the GBRWHA within the marine precinct and planned response, monitoring and reporting requirements for emergency response and disaster management actions	RA (Section 5.8.4 additional general conclusions)	Maintain quality of life for community in the Gladstone region	Manage potential development impacts on sensitive uses and areas surrounding the master planned area	<b>Environment</b> – OUV of the GBRWHA and all other environmental values <b>Community</b> – wellbeing of the community of the Gladstone region	Not applicable	<b>No</b>	DSD will work cooperatively with TMR (MSQ) to support TMR's review and updating of these existing policies and procedures

Evidence base key issue	Evidence base document (section/map number)	Addressed in master plan Objectives	Desired outcomes	State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification
PMM 3 – An environmental assessment guideline should be incorporated into the Gladstone SDA Development Scheme, GPC Port LUP and GRC Planning Scheme during their next review and amendment processes	RA (Section 5.8.4 – additional general conclusions)	Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential development impacts on all environmental values, including those that contribute to the OUV of the GBRWHA	<b>Environment</b> – OUV of the GBRWHA and all other environmental values	<b>PMM 3 – Environmental assessment guideline</b>	<b>Yes</b> (where stated under justification) <b>Operational matters – PMM 3</b> However, the port overlay cannot direct GRC or GPC to amend the GRC Planning Scheme or GPC Port LUP, respectively in a particular way <b>Yes</b> Other port overlay content - assessment benchmark – <b>environmental values management code</b> However, the port overlay cannot direct GRC or GPC to amend the GRC Planning Scheme or GPC Port LUP, respectively in a particular way <b>No</b> (for Gladstone SDA Development Scheme)	Under the Ports Act, the port overlay requires that the port overlay content must be considered by: <ul style="list-style-type: none"> <li>GRC in making or amending the planning instrument, and the port overlay overrides the planning instrument to the extent of any inconsistency</li> <li>GPC in making or amending the land use plan, and the port overlay overrides the land use plan to the extent of any inconsistency</li> </ul> <p>The port overlay does not regulate development within the Gladstone SDA where assessable under the Gladstone SDA Development Scheme</p> <p>However, in accordance with the Ports Act, the Coordinator-General is required to consider whether the Gladstone SDA Development Scheme is inconsistent with the port overlay after the port overlay takes effect. Where there is an inconsistency, the Coordinator-General must decide whether to amend the Gladstone SDA Development Scheme to remove the inconsistency, or table a report in the Legislative Assembly detailing the reasons should the Coordinator-General decide not to amend the Development Scheme.</p>
The OUV of the GBRWHA and other environmental values and master plan EMF objectives (where relevant) should be incorporated into the Development Scheme for the Gladstone SDA, GPC Land Use Plan and GRC Planning Scheme during the next review and amendment process					Not applicable		
Consideration should be given to the management of stormwater runoff within the master planned area and upstream catchment areas					Not applicable	<b>Yes</b> Other port overlay content - assessment benchmark – <b>environmental values management code</b> Measures and controls relating to the management of stormwater and avoiding/reducing impacts on waterways	Potential improvement in stormwater quality runoff into the marine waters of the master planned area and surrounds
<b>Shipping channels</b>							
The expansion of existing channels and berths is critical to ensuring that deep draft vessels (eg import and export cape size) are not limited in their movement in and out of the priority Port of Gladstone	IS CRA (Section 4.2) Addendum to the EB (Part C, Section 6)	Facilitate the economic growth of the state and the Gladstone region Enable the ongoing sustainable growth of trade through the Port of Gladstone	Provide for adequate supply chain development infrastructure, including connections between land and marine areas Provide economic benefit and employment opportunities for the Gladstone region	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of provisions to ensure development does not compromise or adversely impact on the <b>operation of the port navigable waterway</b> The previously named 'marine precinct' has now been revised and divided into the 'marine precinct' and 'marine infrastructure precinct'	Provisions in existing planning instruments do not provide adequate planning or management of the potential impacts of development upon future activities within marine areas (eg port navigable waterways), resulting in potential conflicts between constructed infrastructure and shipping movements
The operation of cape size vessels in the main shipping channel is the primary control on the capacity of the priority Port of Gladstone to grow in line with the potential for industrial growth							
Master planning should address the need to protect marine berth areas and shipping channels	Addendum to the EB (Part C, Section 6)						

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<b>Capital dredging</b> It is critical that capital dredging requirements within the priority Port of Gladstone are addressed by master planning Capital dredging underpins the medium and long term growth of the port and industries in the master planned area Industries are reliant upon the growth of the port facilities to significantly increase their import, export and production The master plan should recognise requirements for the placement of dredged material from capital dredging	ISCR (Section 4.2) Addendum to the EB (Part C, Section 3.6)	Enable the ongoing sustainable growth of trade through the Port of Gladstone	Dredging is undertaken where necessary to support the ongoing operation and growth of the Port of Gladstone	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of provisions to ensure development does not compromise or adversely affect the undertaking of <b>dredging</b> and associated activities	Provisions in existing planning instruments do not address the requirement to consider future needs to support the undertaking of dredging works and associated activities There are existing statutory assessment processes and approval requirements that address potential environmental impacts of capital dredging
<b>Maintenance dredging</b> Recognition of existing approvals for maintenance dredged material to be placed at sea at the East Banks dredged material placement area (DMPA) Maintenance dredging is essential to the ongoing operation and growth of the port Maintenance dredging is required for shipping channels, berth pockets and swing basins A section outlining long term maintenance dredging requirements should be included in the master plan The master plan should recognise requirements for the placement of dredged material from maintenance dredging	ISCR (Section 4.2) ISCR (Sections 4.2.2, 5.1.1 and 5.1.2.2)	Enable the ongoing sustainable growth of trade through the Port of Gladstone	Dredging is undertaken where necessary to support the ongoing operation and growth of the Port of Gladstone	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of provisions relating to the placement of dredged material (from capital and maintenance dredging) and beneficial reuse	The <b>Maintenance Dredging Strategy for Great Barrier Reef World Heritage Area Ports</b> released on 30 November 2016 addresses the maintenance dredging requirements for the priority Port of Gladstone Reference to the <b>Maintenance Dredging Strategy for GBRWHA Ports</b> has been included through the desired outcomes There are existing statutory assessment processes and approval requirements that address potential environmental impacts of maintenance dredging
<b>Beneficial reuse or onshore placement of dredged material</b> Due to prohibitions under the <i>Sustainable Ports Development Act 2015</i> (Ports Act), capital dredged material will need to be beneficially reused within the GBRWHA or placed onshore The master plan should where possible, identify the extent of potential material placement areas for capital dredged material and the long term use of these areas Identification of potential dredged material placement areas considered as part of the GPC Port of Gladstone Gatcombe and Gilding Cutting Channel Duplication Project EIS Dredge Material Placement Options Investigation (DMPOI) Inclusion of additional potential dredged material placement area (Facing Island (West)	ISCR (Sections 4.2.3 and 5.1.1) Addendum to the EB (Part C, Section 3)	Enable the ongoing sustainable growth of trade through the Port of Gladstone Manage the OUV of the GBRWHA Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Material generated from dredging is beneficially reused or placed in an appropriate location	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Environment</b> – OUV of the GBRWHA and all other environmental values	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of mapping of <b>potential material placement areas</b> which includes existing and potential areas Inclusion of provisions to ensure that the potential material placement areas are appropriately managed to avoid impacts from future development Inclusion of provisions to allow the identification of alternative areas for the placement of dredged material where the material placement areas are determined to be beneficial	Provisions in existing planning instruments do not identify or reflect existing or potential material placement areas Including existing and potential material placement areas within the preliminary draft port overlay provides greater transparency around the requirements for the placement of dredged material which complies with the Ports Act

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<b>Infrastructure and supply chain</b> Allow existing and potential berths and wharf centres to be maintained and developed to a standard capable of handling the necessary infrastructure and supply chain required to allow industries to continue to operate and grow, or new industries to emerge	ISCR (Section 4.2.4 and Map 1) Addendum to the EB (Part C, Section 3.4)	Continue to use and develop land and marine infrastructure efficiently Enable the ongoing sustainable growth of trade through the Port of Gladstone	Use of infrastructure is optimised prior to any expansion or development of infrastructure	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of mapping of <b>existing and potential port berths and wharf centres</b> as per ISCR Map 1	Provisions in existing planning instruments do not adequately identify existing and potential berths and wharves Including existing and potential berths and wharves within the preliminary draft port overlay provides greater transparency regarding the need to maintain and develop the necessary infrastructure to support ongoing port operations and growth of the port
Identification of marine infrastructure crossings within the master planned area from the mainland to islands which have existing and/or the potential to be developed for industry (eg bridges for road/rail, submarine pipelines, electricity transmission, distribution lines)	ISCR (Section 5.1.2,3 and Maps 9, 10 and 11)	Continue to use and develop land and marine infrastructure efficiently	Infrastructure corridors and nodes are protected from encroachment of incompatible uses		Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>supply chain infrastructure management code</b> Inclusion of provisions which support the management of areas within and adjoining the draft infrastructure and draft supply chain corridors precinct. The draft infrastructure and supply chain corridors precinct has been defined to include areas for future supply chain infrastructure.	Provisions in existing planning instruments do not identify infrastructure crossings within marine areas Incorporating areas for existing and potential marine infrastructure crossings in master planning provides for necessary planning and management There are existing statutory assessment processes and approval requirements that address potential environmental impacts of infrastructure crossings
Upgrades and additional infrastructure links are required to ensure the port can service industries within the master planned area and sub-regionally, including: <ul style="list-style-type: none"> <li>Port Access Road extension</li> <li>Gladstone SDA link to the Bruce Highway</li> <li>Curtis Island Road and Rail Bridge</li> <li>West Banks island material placement area road and rail link</li> </ul> Infrastructure links would provide strong dedicated freight routes that enhance the port's accessibility and allow over-size and over-mass loads that are destined for central Queensland coal and gas fields	ISCR (Section 4.3) EBR (Section 6.1.11) Addendum to the EB (Part C, Section 4.2)	Enable the ongoing sustainable growth of trade through the Port of Gladstone	Provide for adequate supply chain development, infrastructure, including connections between land and marine areas		Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>supply chain infrastructure management code</b> Inclusion of provisions which support the management of areas within and adjoining the draft infrastructure and supply chain corridors precinct. The draft infrastructure and supply chain corridors precinct has been defined to include areas for future supply chain infrastructure.	Provisions in existing planning instruments do not identify corridors for some of the infrastructure links and upgrades that have been determined as being necessary to support growth at the Port of Gladstone over the master plan timeframe
The Office of the Coordinator-General is currently preparing a road infrastructure study for the Gladstone SDA The timing of development in the Gladstone SDA needs to be carefully managed so that the number of development fronts and associated demand for access roads is both reasonable and affordable Potential roadworks within the Gladstone SDA include: <ul style="list-style-type: none"> <li>Upgrade of Landing Road</li> <li>Complete duplication of Gladstone-Mt Larcom Road/Port Curtis Way</li> <li>Second crossing of the Calliope River</li> <li>New Aldoga South Road</li> <li>Intersection of the Bruce Highway and Gladstone-Mt Larcom Road</li> </ul>	EBR (Section 6.2.1)	Enable the ongoing sustainable growth of trade through the Port of Gladstone			Not applicable		



Evidence base key issue	Evidence base document (section/map number)	Addressed in master plan Objectives	Desired outcomes	State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification					
Land uses adjoining and in proximity to infrastructure and services corridors critical to the functioning of the priority Port of Gladstone must be appropriately managed to avoid incompatible development impacting upon the future capacity and functioning of the port supply chain	EBR (Section 11.1)	Facilitate the economic growth of the state and the Gladstone region Enable the ongoing sustainable growth of trade through the Port of Gladstone	Provide for adequate supply chain development infrastructure, including connections between land and marine areas Port and supply chain infrastructure meets the needs of changing user requirements and has capacity to meet market demand Infrastructure corridors and nodes are protected from encroachment of incompatible uses	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>supply chain infrastructure management code</b> Inclusion of provisions which support the management of areas within and adjoining the draft infrastructure and supply chain corridors precinct. The draft infrastructure and supply chain corridors precinct has been defined to include areas for future supply chain infrastructure.	Whilst existing planning instruments require consideration of potential incompatible land uses adjoining and in proximity to some infrastructure and services corridors, these provisions are not consistently applied to all infrastructure corridor types and do not account for potential infrastructure links and upgrades determined as potentially being necessary to support growth at the Port of Gladstone over the master plan timeframe Provisions in existing planning instruments do not require consideration of port optimisation principles as part of development assessment					
								Protection of and planning for marine and land based infrastructure				
								Optimisation of port infrastructure is a specific action of Reer 2050 and needs to be addressed in the master planning for each of the priority ports	IS CRA (Section 6)			
<b>Economic and infrastructure</b>												
The continued attraction of industry with import and/or export requirements is recognised as a strong growth opportunity for the Port of Gladstone There is significant potential to expand upon existing bulk materials handling at the Port of Gladstone, particularly at Port Central and Fisherman's Landing Port Central has the potential to accommodate new imports and exports of new or temporary commodities following the winding down of the construction of the LNG facilities on Curtis Island	EBR (Section 11.5) Addendum to EBR (Part C, Section 4 and 5)	Facilitate the economic growth of the state and the Gladstone region Enable the ongoing sustainable growth of trade through the Port of Gladstone	Land and marine areas are available for the development of the port and port related industries Major industries of regional, state, national and global significance are appropriately located Provide economic benefit and employment opportunities for the Gladstone region	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> Inclusion of mapping of <b>existing and potential port berths</b> Other port overlay content – assessment benchmarks – <b>supply chain infrastructure management code</b> Inclusion of provisions which require consideration of port optimisation principles for both land and marine based supply chain infrastructure	Provisions in existing planning instruments do not consistently identify existing and potential future berths or require consideration of port optimisation principles to ensure efficient land and marine port operations Including existing and potential port berths and wharves within the port overlay provides greater transparency and certainty regarding the need to maintain and develop the necessary infrastructure to support ongoing port operations as well as potential future port growth					

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Optimisation of port infrastructure is a specific action of Reef 2050 and needs to be addressed in the master planning for each of the priority ports	Addendum to the EB (Part C, Section 5)	Facilitate the economic growth of the state and the Gladstone region Enable the ongoing sustainable growth of trade through the Port of Gladstone	Use of infrastructure is optimised prior to any expansion or development of infrastructure	<b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>supply chain infrastructure management code</b> Inclusion of provisions which require consideration of port optimisation principles for both land and marine based supply chain infrastructure	Provisions in existing planning instruments do not require proponents to consider port optimisation principles as part of development assessment
<b>Land use interfaces</b>							
In some instances, land use planning instruments do not provide adequate separation distances between incompatible land use interfaces. This is highlighted in the context of the residential interfaces of Barney Point and Gladstone Central with port development.	EBR (Section 11.1)	Maintain quality of life for community in the Gladstone region	Manage potential impacts of development on sensitive uses and areas surrounding the master planned area	<b>Community</b> – wellbeing of the community of the Gladstone region <b>Planning</b> – operation of the priority Port of Gladstone and its growth and development <b>Economic</b> – sustainable economic growth of the priority Port of Gladstone and the surrounding region	Not applicable	<b>Yes</b> Other port overlay content – assessment benchmarks – <b>residential and port industry interface code</b> The draft interface precinct has been expanded to include part of the strategic port land at Barney Point	Provisions in existing planning instruments do not consistently or adequately address interface issues between port industry areas and adjoining residential and sensitive receptors
Increased residential density resulting in an increase in the number of residents living adjacent to existing industrial areas and potential for increase in associated construction and operational impacts	RA (Table 5.6)						
Ensure compatibility in the location and design of future residential development within the draft interface precinct, and give due consideration to the close proximity of existing and future port and industrial development	RA (Section 5.8.4, additional general conclusions)						
Future expansions and new port and industrial developments must be appropriately designed to minimise and/or mitigate potential impacts on residential and other sensitive land uses	RA (Section 5.8.2)						
<b>Cultural heritage</b>							
Potential impacts to Aboriginal cultural heritage sites within the master planned area	EBR (Section 11.4)	Recognise and manage potential impacts on all environmental values, including the natural, social and cultural environments within and surrounding the master planned area	Manage potential impacts of development on cultural heritage values, including listed cultural heritage sites	<b>Community</b> – wellbeing of the community of the Gladstone region	<b>PMM 1 – Aboriginal cultural heritage notification</b>	<b>Yes</b> Operational matters – PMM 1	Inclusion of notification requirements for development applications triggering operational works to ensure consistent: <ul style="list-style-type: none"> <li>Management of cultural heritage across planning and approvals processes within the master planned area</li> <li>Involvement of relevant Aboriginal party/ies in the management of cultural heritage within the master planned area</li> <li>Management of cultural heritage across terrestrial, intertidal and marine areas within the master planned area</li> <li>Education and awareness of cultural heritage management.</li> </ul>
Direct impacts on cultural heritage sites during vegetation clearing and land disturbance	RA (Tables 5.6 and 5.7)						
Further consultation with the Gidarjil Cultural Heritage Corporation will need to be undertaken for planned future development activities							
Aboriginal cultural heritage notification	RA (Section 5.8.4 additional general conclusions)	Maintain quality of life for community in the Gladstone region					

Evidence base key issue	Evidence base document (section/map number)	Addressed in master plan		State interests	Priority management measures (PMMs)	Addressed in preliminary draft port overlay	Justification
		Objectives	Desired outcomes				
<b>Community and social</b> The Social Infrastructure Strategic Plan (SISP) and Needs Assessment undertaken for the Gladstone region found that significant investment in social infrastructure would be required to meet the needs of Gladstone's projected population growth to 2031 Maintaining public access to the foreshore and marine areas	EBR (Section 11.3)	Maintain the quality of life for community in the Gladstone region	-	<b>Community</b> – wellbeing of the community of the Gladstone region	Not applicable	<b>No</b>	Provision of planning for social infrastructure is considered outside of the scope of the preliminary draft port overlay and is more appropriately addressed through local, state and regional planning mechanisms
	EBR (Section 6.1.12)	Enhance community use of public space	Provide appropriate public access to waterfront and harbour	<b>Community</b> – wellbeing of the community of the Gladstone region	Not applicable	Yes Other port overlay content – assessment benchmarks – <b>marine infrastructure management code</b> The previously named 'marine precinct' has now been revised and divided into the 'marine precinct' and 'marine infrastructure precinct'	Inclusion of provisions to ensure adverse impacts on public safety or public access and use of the foreshore of the adjoining area are avoided unless it is contrary to the protection of coastal resources or public safety

**Table notes:**

ISCR: Infrastructure and Supply Chain Requirements Assessment Report (PSA Consulting Australia 2016)

EBR: Evidence Base Report (AECOM 2016)

RA: Risk Assessment (Aurecon 2016)

Addendum to EBR: Addendum to the Evidence Base (Aurecon 2017)





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