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# INTRODUCTION

### Background

Gladstone Ports Corporation's Development Code has been prepared to assist development applicants in understanding Gladstone Ports Corporation's role in development assessment and assist in the implementation of Gladstone Ports Corporation's Land Use Plan 2012 (LUP 2012).

Gladstone Ports Corporation (GPC) is generally the Assessment Manager for development on Strategic Port Land under the *Sustainable Planning Act 2009* (SPA). As Assessment Manager, the GPC will determine the extent to which an application for development complies with the land use plan and the code by assessing each proposal against the performance outcomes and acceptable outcomes contained in this code in accordance with section 313 (4) of the SPA.

The land use plan guides decisions about the type of specific land uses or development in individual land use precincts within the port. The code guides the physical form and operational aspects of development on Strategic Port Land.

The Development Code provides information to ensure that development will:

- recognise the GPC's development vision for the desired physical and functioning form of development and management of any impacts; and
- achieve the precinct intents and strategic outcomes set out in the land use plan.

Individual developments will contribute to the GPC's development vision of being a world-class industrial, trade and transport hub. The vision for individual industrial, trade and transport facilities and general port developments is that they:

- are designed to be fit-for-purpose, and their use complies with the intent of the land use plan;
- contribute positively to the overall commercial activity, operation, amenity and sustainability of the port; and
- incorporate best practice in safety, risk and environmental management.

Document Name	Document Purpose	
Land Use Plan 2012	<ul> <li>Identifies key precincts across port land holdings</li> </ul>	
	<ul> <li>Guides land uses on port land</li> </ul>	
Development Code	<ul> <li>Guides physical form and operational aspects of development on port land</li> <li>Outlines technical requirements for development on port land</li> </ul>	

### Table 1: Summary of Port Planning Documents

### **GPC's Role in Development Assessment**

GPC is generally the Assessment Manager for development on Strategic Port Land under the Sustainable Planning Act 2009 (SPA). Most development on Strategic Port Land is code assessable under the SPA (Schedule 3, SPA Regulations 2009). Development subject to code assessment requires a development permit issued by GPC, before development can commence. GPC does not act as the Assessment Manager for Plumbing and Drainage Works or Building Works applications.

GPC is also Assessment Manager for port applications regarding development on port land that is not assessable under the SPA.



# DETERMINING LEVEL OF ASSESSMENT

### **Determining Level of Assessment**

The level of assessment for development on Strategic Port Land and the Assessment Manager for development on Strategic Port Land is determined by the Sustainable Planning Regulation (SPR) 2009. Examples are outlined in the table below for information purposes only. Concurrence and Advice Agencies are also determined by SPR 2009.

Type of Development	Level of Assessment	Assessment Manager	
Material Change of Use:			
That is consistent with the LUP 2012 and requires approval under the LUP 2012 or other legislation	Assessable Development - Code Assessable	GPC is the Assessment Manager	
<ul> <li>eg. within the Fisherman's Landing, Gladstone Marina and East Shores planning localities</li> </ul>	Assessable Development - Code Assessable	GPC is the Assessment Manager.	
• eg. for a brothel	Assessable Development - Code Assessable	Gladstone Regional Council is the Assessment Manager.	
• eg. within the GSDA*	Assessable Development - Code Assessable	Co-ordinator General, Dept. of Employment, Economic Development and Innovation (DEEDI) is the Assessment Manager. GSDA development scheme applies**.	
That is consistent with the LUP2012 and does not require approval under other legislation or the LUP	Assessable Development - Self Assessable	The material change of use component of the development is exempt development in accordance with the SPA.	
That is inconsistent with the LUP 2012	Assessable Development - Code Assessable	GPC is the Assessment Manager,	
Material Change of Use for an Environmentally Relevant Activity	Assessable Development - Code Assessable	GPC is the Assessment Manager.	
Reconfiguration of a Lot	Exempt Development in accordance with Schedule 4 of the SPA	Nil	
Operational Works	Exempt Development in accordance with Schedule 4 of the SPA	Nil	
Other Development:			
Tidal Works	Assessable Development - Code Assessable	GPC is the Assessment Manager,	
Building Works	Are not assessed by the GPC. Use of private certifier recommended.		
Plumbing or Drainage Works	Are not assessed by the GPC.		

### Table 2: Level of Assessment as Determined by SPA

\* GSDA – Gladstone State Development Area

\*\* In the event Strategic Port Land is also within the GSDA, the development will be assessed against the development scheme for the GSDA only. The GPC will assess the development application as a concurrence agency.

Where a type of development is consistent with the land use plan, it does not trigger the requirement for an approval under other legislation, and it is not identified in the table above, the material change of use component of the development is exempt development and does not require an application for approval in accordance with SPR 2009.

There is some development which does not require a development approval under SPR 2009, but still must be approved by the GPC prior to development commencing. Such development proposals must be submitted to GPC as a Port Application. The following table provides the level of assessment and the Assessment Manager as determined by the land use plan for various types of development on port land.

Type of Development	Level of Assessment	Assessment Manager
Port Application: ie	Port Assessable Development - Code Assessable	GPC is the Assessment Manager
• Excavating or filling that materially affects premises or their use, and		
• Undertaking work in, on, over or under premises that materially affects premises or their use.		
For example:		
<ul> <li>⊖ Earthworks</li> </ul>		
<ul> <li>Car/trucks parks</li> </ul>		
<ul> <li>Internal roads/weighbridges</li> </ul>		
<ul> <li>Office/administration buildings</li> </ul>		
<ul> <li>Warehouse/storage buildings</li> </ul>		
<ul> <li>Ablution buildings</li> </ul>		
<ul> <li>Washdown bays</li> </ul>		

### Table 3: Level of Assessment as Determined by LUP



# STRUCTURE OF DEVELOPMENT CODE

The Development Code is divided into two parts. Part A provides development assessment criteria through the provision of six codes and Part B provides further technical information within six guidelines.

### Codes

The Development Code is divided into six codes that define overall outcomes and development assessment criteria that apply to each code. The codes are the:

- Port Code;
- Tidal Works Code;
- Earthworks Code;
- Light Industry & Commercial Code;
- Marina and Community Facilities Code; and
- Buffer Code.

The codes provide measures for achieving the strategic and specific outcomes and intents contained in the plan and the overall outcomes of the codes, through the provision of assessment criteria. The assessment criteria define more specific "performance outcomes" that apply to individual elements of development and "acceptable outcomes" that are deemed to satisfy the performance criteria. Each code within the Development Code contains the same structure as follows:

- <u>Purpose</u> this is the purpose of the code and lists the overall outcomes that apply to all of the code.
- <u>Application</u> describes the locality and precinct and/or development type to which the code applies.
- <u>Assessment Criteria:</u>
  - <u>Performance outcomes</u> are statements for what the GPC is seeking to achieve. Collectively they
    contribute to achieving the purpose of the code.
  - <u>Acceptable outcomes</u> are considered suitable to achieve the outcomes prescribed by the performance outcomes.

The codes may refer to legislation, codes, regulations, policies and other guidelines that are not included in this document. In preparing a proposal, it is strongly advised that these other documents be consulted. Should there be any conflict between any State or Federal legislation and these development codes, the legislation always prevails. The level of information required to be included in a development application to address these codes will vary based on the nature and scope of the proposed development.

Note: Every effort has been made to address all relevant issues relating to a proposed port activity. However, in some cases, further information may be requested that is outside the scope of a code. It is requested that any request for further information from the GPC is comprehensively addressed to facilitate the best development outcome.

### Guidelines

The Development Code includes six guidelines that offer further supporting technical provisions to assist applicants in implementing the acceptable outcomes and achieving the performance outcomes described in the development codes. While the provisions within the guidelines are not mandatory, they do afford best-practice and innovative solutions for achieving appropriate development outcomes. Guidelines are provided for:

- Car Parking and Access;
- Landscaping;
- Stormwater Management;
- Environmental Management Plans;



- Building Development in Gladstone Marina; and
- Gladstone Regional Council Consultation Guideline.

### **Determining Applicable Codes**

Table 4 is provided below to assist an applicant in determining the development code/s applicable to the proposed development based upon the location of the development ie which precinct it is proposed for.

### **Compliance with Codes**

Compliance with each relevant code is achieved when development is consistent with the performance outcomes and the acceptable outcomes of the assessment criteria.



## Table 4: Determining Applicable Codes for Precincts

PRECINCT	Port Development Code	Tidal Works Code*	Light Industry & Commercial Code	Earthworks Code**	Marina and Community Facilities Code	Buffer Code
1. Port Industry Precinct	✓			$\checkmark$		
2. Wharves (Off-Shore) Precinct		$\checkmark$				
3. Port Operations Support Precinct	✓	$\checkmark$		$\checkmark$		
4. Light Industry & Commercial Precinct			$\checkmark$	$\checkmark$		
5. Marine Industry Precinct		$\checkmark$		✓	$\checkmark$	
6. East Shores Precinct				✓		
7. Parkland & Education Precinct			$\checkmark$	$\checkmark$	✓	
8. Buffer Precinct	✓		$\checkmark$	$\checkmark$		✓
9. Environment Precinct				$\checkmark$		

\* Note: The Tidal Works Code applies to any works proposed for any tidal waters.

\*\* Note: The Earthworks Code applies to any development involving earthworks that materially affects premises or their use.



# PREPARING A DEVELOPMENT APPLICATION

Strategic Port Land is not subject to local government planning schemes. All assessable developments on Strategic Port Land require a planning application to be made to GPC rather than Gladstone Regional Council. The term 'development' may include but not be limited to, such matters as the establishment of a new use, construction of new buildings, increasing the extent of hardstand areas, changing the intensity or scale of an existing development, and/or permitting any activity that results in an increase in traffic volume. GPC does not assess Plumbing and Drainage Works or Building Works.

The process outlined in this document does not replace requirements or an individual's responsibility to understand obligations under SPA and associated legislation, but rather serves as a preliminary overview of the application of state planning and development requirements for GPC.

### **GPC Assistance**

GPC employs a full-time Planning Officer to assist applicants with preparing their development applications. The Planning Officer can also co-ordinate pre-lodgement meetings with the relevant GPC personnel or functional areas involved in the assessment process, as well as any government agencies that may have a role in the approval process.

GPC recommends that you consult with the Planning Officer in the preliminary phase of the process to ensure that relevant issues are addressed in your application and that a clear understanding of the approval process is obtained (see Contact Details below). It is also encouraged to have preliminary discussions with any Referral Agencies for a development application.

### **GPC Planning Officer Contact Details**

Planning Officer - (07) 4976 1333.

### **Development Application Requirements**

GPC administers its responsibilities for land use planning matters and specifically development assessment through the Integrated Development Assessment System (IDAS).

The following sets out the information required to be submitted with a development proposal in order for the application to be assessed against the provisions of the land us plan. This information is to be provided on an approved IDAS application form. *Note: this information will be required as part of an application whether it is an application requiring statutory approval or only GPC approval.* IDAS forms are available from the Department of Employment, Economic Development and Innovation website www.deedi.qld.gov.au.

### **IDAS** Forms

Mandatory information that the application must contain (made on an approved IDAS application form) includes:

- a real property description of the subject land;
- the address of the subject site (where possible);
- full name and postal address of the applicant;
- applicants' company name (where applicable);
- the signature of the lessee;
- the written consent of the owner of the land;
- the nature of the proposed use (proposed operations and activities to be carried out on site/premises); and
- if the application relates to building works, the dimensions and gross floor area.

Additional IDAS forms are to be completed and submitted as required by the particular proposal (refer to www.deedi.qld.gov.au).

#### **Development Proposal Information**

Information that must accompany the IDAS forms includes, but is not limited to:

- a covering letter explaining the application request;
- a letter or report describing the proposed activity in as much detail as possible;
- site plans and elevations of buildings and structures;
- appropriate engineering drawings of buildings and structures including any marine infrastructure; and
- environmental management plans (depending upon the nature of the application).

#### Additional Information

In order to make the assessment, GPC requires a level of information commensurate with the size and potential impacts of the proposal being submitted. It is acknowledged that less complex applications are not likely to have the same impacts and therefore, do not need to address all the development requirements to the same extent as complex, high impact development proposals. To make it easier to determine what level of information you need to provide, development has been categorised into four types in Table 5 with examples and relevant requirements.

Depending upon the complexity or potential impacts of the development proposal, additional information may be required. It is recommended that applicants attend pre-lodgement meetings with GPC to determine information requirements prior to and during preparation of the application.

GPC may also request additional information in order to assess the application through an Information Request after the application has been submitted. Additional information may include any of the following:

- A site plan illustrating the following:
  - o Contours of the site,
  - o Pedestrian and service entrances,
  - o Proposed location of service connection points (water and sewer) and gross pollutant trap,
  - Access, parking and manoeuvring areas,
  - Setback areas and landscaping areas,
  - Refuse storage areas,
  - o Location, height and material of any proposed fencing, and
  - Height, gross floor area and site coverage of any buildings.
- Number of persons proposed to be engaged in the development;
- Type of machinery proposed to be employed;
- Details of processes to be carried out on site;
- Hours of operations; and
- Number of client visits.

## Table 5: Development Complexity and Associated Requirements

Type	1	2	3	4
Complexity	A development or activity not pertaining to an IDAS assessable development.	Uncomplicated minor developments that do not have an ERA and therefore do not have any referral agencies	Relatively uncomplicated developments that may involve one or more ERA's and require detailed planning and environmental assessment.	Complex applications that almost always involve ERA's and potentially other referral agencies, such as DERM, DEEDI, DTMR and Emergency Services. These applications generally require detailed analysis of environmental impact or risk assessment and may require development-specific modification of existing infrastructure
Examples	Gladstone Ports Corporation's (GPC) Consent as land owner	Minor extensions to a building and development that involves minimal site disturbance.	Major change to an existing development, new medium sized developments with construction and earthworks.	Boat building facilities, bulk storage facilities, export/import facilities, chemical storage facilities, major GPC projects and other major developments with construction and earthworks. Usually Type 4 developments will require input from experienced specialist consultants in various technical areas.
Application Forms	IDAS Form 1 for consistency of information	Completed application IDAS Forms and the IDAS Assessment Checklist	Completed application IDAS Forms and the IDAS Assessment Checklist	Completed application IDAS Forms and the IDAS Assessment Checklist
Details	Covering Letter explaining the details of the application/request	Covering Letter explaining the details of the proposal (short sub headings) including; proposal summary, impacts on ecological areas/the environment; impacts on the existing land uses (on and external to the site); flooding issues, acid sulphate soils, landscaping, vehicles parking and impact on existing vehicular movements, works, services and infrastructure impacts; and public access issues	Short Report: Explaining the details of the proposal and addresses the development requirements. All issues are to be reviewed and addressed where relevant.	Detailed Report: Addressing the development requirements. All issues are to be reviewed and addressed where relevant.



Type	1	2	3	4
Plan/s	Plans showing the details of the proposed development, (ie design drawings), and location of the development on the site, (ie site plan).	Professionally drawn plans showing details of the proposed development, (ie design drawings) and location of the development on the site (ie, site plan).	Professionally drawn plans showing details of the proposed development, (ie design drawings) and location of the development on the site (ie, site plan).	Professionally drawn plans showing details of the proposed development, (ie design drawings) and location of the development on the site (ie, site plan).
EMP	An Environment Management Plan (EMP) as requested by the GPC depending on the nature of the application.	Brief construction EMP and EMP for the operational phase of development (1-2 pages detailing environmental issues/risks and controls to be used for the construction and operational phases of development.	Construction EMP and EMP for the operational phase of development (scale and nature dependent - detailing environmental issues/risks and controls to be used for the construction and operational phases of development.	Require a detailed construction EMP and an operational EMP.

Additional reports, assessments, studies and plans may be required, including but not limited to:

- Acid Sulphate Soils Investigation,
- Flood Study,
- Acoustic Noise Reports,
- Hazard and Risk Impact Assessment Study,
- Air Quality Analysis,
- Landscape Plan,
- Cultural Heritage Management Plan,
- Noise Assessment Report,
- Lighting Assessment Report,
- Economic Impact,
- Stormwater Quality Management Report (including Stormwater Management Plan),
- Traffic Study or Traffic Management Plan,
- Environmental Management Report (including Environmental Management Plan),
- Emergency Response and Preparedness Plan.



# LODGEMENT & ASSESSMENT PROCESS

### Lodgement Process

The Planning Officer can coordinate pre-lodgement meetings with relevant GPC personnel or functional areas involved in the assessment process, as well as any government agencies that have a role in the approval process. At the arranged meeting a range of issues can be discussed and good planning outcomes can be achieved.

The Planning Officer can review your application prior to lodgement and provide preliminary comments and further detailed guidance on content and issues to be covered. This preliminary review process is particularly useful to reduce the potential for further information requests and therefore, minimise opportunities for delays in the assessment process.

The application should be directed to:

The Assessment Manager Gladstone Ports Corporation PO Box 259 GLADSTONE QLD 4680

Alternatively your application may be lodged in person at:

Gladstone Ports Corporation 40 Goondoon Street GLADSTONE QLD 4680

### Assessment Process

The following diagram illustrates the development assessment process where GPC is Assessment Manager. The diagram shows each step the applicant must carry out and the corresponding steps the Assessment Manager must carry out. Note the time frames allocated to each step of the assessment process for both the applicant and the Assessment Manager.

Receipt of Application	Timeframes	Application lodged by applicant, according owners consent and received by GF				
and Landowner	5-10 b.days	<u> </u>	·			
Consent Stage		Landowner consent granted by GP	C	]		
		Û		-		
		Application accepted by GPC		]		
Application Stage	10 b.days	Û		_		
		Acknowledgement Notice issued b	y GPC	<u> </u>		
		Û	Û			
	10 b.days	GPC makes Information Request	Applicant refers application to IDAS referral agencies	20 b.days		
		Û	Û			
	6 months	Applicant forwards response to	Concurrence Agency makes	10 b.days		
Information and		GPC information request	Information Request			
Referral Stage			<u>↓</u>			
			Applicant forwards <b>response</b>	6 months		
			to concurrence agencies			
			information request	+		
			<u>0</u>	1		
			Referral agency assesses			
			application and gives	30 b.days		
			response to GPC and			
			applicant	L		
Decision Stage 20 b.days		Q Q		7		
		GPC assesses and decides applica	tion			
	5 b.days	Û		7		
	0.000,0	GPC advises applicant and IDAS ref	erral agencies of decision			

Port of Townsville (2010)



# SUBSEQUENT APROVALS

#### Building works and/or plumbing and drainage works

In addition to obtaining planning approval from GPC, separate approvals for Building Works and/or Plumbing and Drainage Works may be required for the development.

You may engage the services of Gladstone Regional Council or a private certifier to assess and approve Building Works. You must use Gladstone Regional Council for the Plumbing and Drainage Works application. It should be noted that GPC does not offer these services and cannot provide such approvals.

An important aspect of the design process for the development will be compliance with the requirements of the *Building Code of Australia* and the *Standard Building Regulation*. GPC can assist with discussions between the applicant and the relevant agencies including Queensland Fire and Rescue Service to ensure that the design meets the requirements of these agencies.

#### Health, Safety and Emergency Response

As required by relevant legislation, you are encouraged to develop a Workplace Health and Safety Plan for the construction phase of your development in accordance with the relevant legislation. Similarly, an Emergency Response Plan for the operational phase of your development is recommended and may be required under relevant legislation. Such a plan should also include a site or operation-specific cyclone response plan.

#### **Other Licences and Approvals**

Depending on the nature or location of your development, you may also require a range of other licenses and approvals. These licences and approvals are likely to include, but may not be limited to, a Liquid Waste Permit, approval for the storage of flammable and combustible liquids, or approvals under the *Dangerous Goods Safety Management Act 2001 (Qld).* 



# PART A – CODES

The Development Code is divided into six codes that define assessment criteria for development through specific "performance outcomes" that apply to individual elements of development and "acceptable outcomes" that are deemed to satisfy the performance outcomes. The codes are as follows:

- **Port Code:** This code incorporates performance outcomes that address development ie construction and operational issues universally relevant to many precincts within the Strategic Port Land areas. While it is recognised that Strategic Port Land has an inherent industrial character, the code encourages development to achieve a high level of visual amenity, including innovative, flexible and varied construction standards and environmentally sustainable development standards.
- Tidal Works Code:The Tidal Works Code describes the necessary requirements for the preparation of<br/>a tidal works application to achieve approval for works from the Corporation and<br/>provides assistance in relation to approvals from Referral Agencies. Tidal works<br/>refers to any works occurring in or over tidal water (below Mean High Water Spring<br/>[MHWS]). Such development may include jetties, rock walls, dredging, drains,<br/>outfalls, pontoons, reclamation, and wharves.

The Department of Environment and Resource Management (DERM) and Maritime Safety Queensland (MSQ) are Concurrence Agencies for tidal works applications on Strategic Port Land. A third Concurrence Agency, the Department of Employment, Economic Development & Innovation, may be triggered for the removal or damage of marine plants. If the application involves three Concurrence Agencies, the application triggers referral coordination in accordance with the SPA.

No tidal works, whether new works or extensions/alterations to existing structures, may be carried out in, on, or above land under tidal water in the State of Queensland without a development approval from DERM. However, maintenance work carried out on lawful tidal works is excluded from being assessable.

- Light / Commercial Industry Code: This code incorporates performance outcomes that seek to ensure development includes a mix of light industry and commercial uses that complement or support core port activities and the local government's planning scheme outcomes. Development in this area acts as a productive buffer between the core port activities or the traditional heavier impact operations and adjoining, more sensitive activities and land uses.
- Earthworks Code: This code seeks to achieve outcomes for earthworks and associated site development. Outcomes will particularly target environmental issues such as air emissions, water quality and erosion and contaminated fill as well as drainage.
- Marina and Community Facilities Code: This code seeks to ensure that development incorporates public open-space linkages, distinctive landscaping concepts, foreshore accessibility and connectivity, and key design elements that are reflective of the community nature of the precinct. Development will achieve highly articulated and aesthetically appealing building façades and quality design, through the use of various materials, forms and structures, and environmental performance.
- **Buffer Code:** The Buffer Code seeks to minimise the proximity of incompatible land uses and to mitigate port impacts on sensitive land uses.



## Port Code

### Purpose

The purpose of the Port Code is to ensure that the following overall outcomes are achieved:

- (a) Buildings and structures incorporate a variety of building forms, materials and façade treatments;
- (b) Land-sea interface areas are designed and operated in a way that maximises the safe and efficient operation of shipping and handling of cargo;
- (c) Transport integration is designed to support safety and efficiencies in cargo storage and handling;
- (d) Development is appropriately serviced and accommodates planned future port activities and other infrastructure;
- (e) The amenity of any nearby residential premises or other sensitive premises is protected;
- (f) Any potential impacts on the environment are minimised and/or avoided; and
- (g) Any significant environmental values of the area, including waterways and wetlands are protected.

The purpose of the code will be achieved through compliance with the assessment criteria provided below.

### Application

The Port Code applies to the following Land Use Plan Localities and Precincts:

Localities	Precincts
Fisherman's Landing	Port Industry
	Port Operations Support
Wiggins Island	Port Industry
	Port Operations Support
RG Tanna Coal Terminal	Port Industry
	Buffer
Port Central	Port Industry
	Buffer
South Tree/Boyne Wharf	Port Operations Support
Curtis Island	Port Industry
Port Alma	Port Industry
	Port Operations Support

### Assessment Criteria

PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME	
Building	g/Facility Design		
P01	Buildings and ancillary structures are sited to be consistent with the surrounding development.	A01.1	<ul> <li>Building or structures have a minimum setback of:</li> <li>10 metres from an arterial, sub-arterial road</li> <li>6 metres from any other road frontage; and</li> <li>3 metres from the side or rear boundaries.</li> </ul>
		AO1.2	Buildings and structures are setback a minimum of 6 metres from the property boundary of any existing residential zoned land.
PO2	Building height must not result in significant loss of visual amenity of the streetscape.	AO2.1	No maximum building height is specified, however, building height should reflect surrounding development.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO3	<ul> <li>The site coverage of all buildings and associated structures must allow for sufficient:</li> <li>building setbacks;</li> <li>landscaping (refer to Landscaping Guidelines);</li> <li>car parking;</li> <li>loading and unloading area;</li> <li>vehicle manoeuvring and access.</li> </ul>	AO3.1	Site coverage does not exceed 70% of the site area.
PO4	Buildings and ancillary structures are designed to be attractive and consistent with the character of the surrounding area.	AO4.1	<ul> <li>All buildings and ancillary structures (including warehouses) must achieve a high standard of visual amenity and incorporate a range of design elements including:</li> <li>façade treatments;</li> <li>roof pitch and design;</li> <li>recesses, overhangs and shading; and</li> <li>colours and building textures.</li> </ul>
		AO4.2	All aspects of the building design comply with the relevant Building Code regulations and standards, and any relevant state planning policies.
		AO4.3	A formal entry is provided to all buildings, designed to address, be visible and accessible from, the principle road frontage.
PO5	Open storage areas are adequately screened so as to minimise adverse impacts to the visual amenity of the area.	AO5.1	<ul> <li>Depending upon the size, type and location of the open storage area, appropriate screening can include:</li> <li>fencing (minimum height of 1.8m); and/or</li> <li>vegetation eg direct seeded trees, gardens etc.</li> </ul>
PO6	Buildings are designed to minimise impacts on existing services.	AO6.1	<ul> <li>Buildings and ancillary structures are sited to avoid building over:</li> <li>potable water supply mains;</li> <li>sewer or stormwater mains;</li> <li>power services;</li> <li>telecommunication and fibre optic services.</li> </ul>
PO7	The development, including but not limited to buildings, storage facilities and loading and unloading facilities, minimises adverse impacts to the surrounding sensitive receptors and receiving environments.	A07.1	The development contributes to the amenity of the local area by avoiding or minimising any adverse impacts from or related to (and not limited to the following): odour and fumes; dust and particulates; waste; stormwater quality and erosion; noise; hours of operation; traffic; lighting; signage; visual amenity; privacy; and loss of flora and fauna.
		A07.2	The design, construction and maintenance of the development incorporates measures to minimise any associated impacts.
		AO7.3	Compliance with relevant government legislation, policies and approvals.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO8	Development must provide for non- discriminatory access.	AO8.1	Building design must provide for non-discriminatory access in accordance with AS1428 – Design Access and Mobility.
Flood a	nd Storm Surge		
PO9	Premises or structures subject to risk of inundation or damage through flood or storm surge and including all premises and land situated below 4 metres AHD are provided with appropriate flood and storm surge immunity to reduce potential property damage and to ensure public safety.	A09.1	<ul> <li>Development is sited on land that would not be subject to flooding during a 100yr ARI flood and storm surge event;</li> <li>or</li> <li>buildings are located and designed so that floor levels (except areas used for car parking) are 500mm above the 100yr ARI flood and storm event; or</li> <li>there is at least one evacuation route that remains passable for emergency evacuations during all floods up to and including 100yr ARI storm surge events; or</li> <li>a flood warning system enables safe evacuation; or</li> <li>a flood free refuge is available for people within the development.</li> </ul>
Access	and Parking		
PO10	Parking meets all operational, employee and customer needs.	AO10.1 AO10.2	Parking must be provided on site to accommodate all vehicles (i.e. employees, operational and/or visitors). Compliance with Car Parking and Access Guideline
PO11	The design of vehicle access, circulation, manoeuvring and parking areas demonstrated compliance with relevant Australian Standards, relevant State policy or other standard adopted by the Assessment Manager.	PO11.1	<ul> <li>An access, circulation, manoeuvring and parking plan to be provided which illustrates the following details:</li> <li>dimensions of all pavements and areas;</li> <li>turning templates for largest turning circle of vehicles accessing the site;</li> <li>access for service vehicles;</li> <li>depths of, and materials used to construct pavements;</li> <li>all gradients of parking, access and circulation areas;</li> <li>sight lights; and</li> <li>height clearances.</li> </ul> At the discretion of the Assessment Manager, a traffic management plan may be required, addressing impacts of the development as associated vehicle activity on the road network.
P012	On site vehicle access is designed to be safe, effective, minimise traffic congestion and of a standard to the satisfaction of the Assessment Manager.	A012.1 A012.2	<ul> <li>Appropriate driveways and crossovers are provided according to the type of vehicles expected to access the site.</li> <li>Provision is made to ensure all vehicles: <ul> <li>entering a site do not queue across footpaths or onto external roads; and</li> <li>are exclusively accommodated within the lease</li> </ul> </li> </ul>
PO13	Access to industrial development is designed and constructed with safe ingress and egress	AO13.1	boundary. Access to light industrial sites is designated as follows:



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
	of vehicles to the site.		<ul> <li>(i) a vehicle access point is at least 10m to an intersecting street when the driveway is on the same side of the street; and</li> <li>(ii) a minimum sight distance of 110m is provided in either direction to an access point.</li> </ul>
PO14	Internal driveways have sufficient width to adequately cater for the nature of the traffic envisaged.	AO14.1	Internal driveway widths are 9m.
PO15	Vehicle circulation and manoeuvring is provided on-site to meet all operational, employee and customer needs. Vehicle circulation paths and loading/unloading areas are segregated from storage and vehicle parking areas. All queuing or other vehicle activity associated with the operation of the site; including collection and distribution of cargo, goods and material; must be accommodated on site.	A015.1 A015.2	<ul> <li>Internal circulation routes function safely and efficiently and accommodate all expected traffic on site, including:</li> <li>delivery and pick-up services;</li> <li>loading, unloading and refuelling areas;</li> <li>wash-down, repair, service and inspection areas;</li> <li>movement between access points, parking and storage;</li> <li>movement between outdoor and indoor areas; and</li> <li>service vehicles, including rubbish collection.</li> </ul> Internal circulation roads do not conflict with parking areas. All circulation and parking areas allow for the safe manoeuvring of all vehicles according to AUSTROADS or
		AO15.3	other standard vehicle manoeuvring template, to the satisfaction of the Assessment Manager. Vehicle manoeuvring is provided on site so that the design vehicle/s can enter and leave the site in a forward motion.
		AO15.4	Vehicle parking is segregated from areas dedicated to loading/unloading and waste storage areas.
Infrastru	ucture and Services Provision		
PO16	Land is adequately serviced by reticulated infrastructure, such as water supply, sewage disposal, streets lighting, telecommunications and energy. Infrastructure is appropriately maintained.	AO16.1	<ul> <li>All land is provided with:</li> <li>reticulated water;</li> <li>sewerage;</li> <li>drainage;</li> <li>energy;</li> <li>telecommunications; and</li> <li>gas service where required.</li> </ul>
PO17	Site design and layout include provisions for additional infrastructure to facilitate future telecommunications services.	A017.1	Conduits are provided to enable the future provisions of fibre-optic cabling and other 'smart wiring'.
PO18	<ul> <li>Frontage of the site provides the following at an appropriate standard:</li> <li>high quality paved roadway;</li> <li>safe, high quality crossings over channels and walkways;</li> <li>provision, alteration and upgrading of public utilities:</li> <li>effective drainage;</li> <li>landscaping and/or street trees and furniture where appropriate; and</li> </ul>	AO18.1	<ul> <li>The following are provided or already exist at the frontage of the site:</li> <li>kerb and channel;</li> <li>construction of a carriageway with sufficient width to accommodate the land use and associated activities;</li> <li>forming and grading walkways;</li> <li>reconstruction of any damage to, public walkway and kerb and channel;</li> <li>drainage works;</li> <li>installation of electrical conduits;</li> </ul>



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO19	<ul> <li>appropriate conduits for provision of required street lighting systems and traffic signals.</li> <li>Development provides appropriate storage and collection areas, which do not adversely affect the amenity of the site, for services</li> </ul>	AO19.1	<ul> <li>construction of, and required alterations to, public utility mains, services or installations;</li> <li>landscaping and/or street trees and furniture.</li> <li>Appropriately located waste-storage areas, which meet the needs of regularity of visits to the site, are incorporated into the site layout and building design.</li> </ul>
	visiting the site, such as: rubbish collection; and trade –waste removal.	AO19.2	Waste storage areas are screened from public view by dense landscaping at least two (2) metres wide, fencing or buildings are located a minimum of five (5) metres from a road frontage.
PO20	Fire hydrants and boosters are in locations that enable the provision of water and pressure for use by the Queensland Fire and Rescue Service.	AO20.1	Fire hydrants are provided in accordance with Queensland Fire and Rescue Service standards.
PO21	Infrastructure, utilities and services, whether reticulated or not, do not constrain future planned development of any other infrastructure and/or services.	AO21.1	<ul> <li>The design and operation of all infrastructure, utilities and services do not compromise planned future land uses and infrastructure, and include:</li> <li>appropriate alignments on and off site;</li> <li>appropriate locations on and off site;</li> <li>appropriate discharge and/or connection points; and</li> <li>sufficient additional design capacity.</li> </ul>
Outdoo	r Lighting		
PO22	<ul> <li>All lighting is to:</li> <li>facilitate a safe and secure working environment;</li> <li>be energy efficient;</li> <li>not have an adverse impact on navigation; and</li> <li>not result in adverse impact on any person, activity or surrounding environment.</li> </ul>	A022.1	Lighting structures are of a sufficient height to provide enhanced safety and security of an area. All outdoor lighting areas are to be lit to a standard appropriate to allow for a safe night time working environment. To ensure that outdoor lighting minimises light spillage and adverse impacts on environment, either directly or by reflection, light shades and other devices to control and manage light are used to reduce light spillage affecting sensitive places, environments, uses or areas. Lighting is to be projected no further than 5° from horizontal. Technical parameters, design, installation, operation and maintenance of outdoor lighting comply with the requirements of Australian Standard on the AS4282 Control of the Obtrusive Effects of outdoor Lighting. Energy efficient lighting technologies are adopted.
		AO22.2	An assessment of lighting and its affect on navigation is to be made within 3 months of commencement of use of a new structure and lighting adjustments made as required or requested by GPC.
Stormw			
PO23	Stormwater drainage from the site is at approved locations and is of an acceptable quality and volume to prevent harmful impacts on receiving waters.	AO23.1	Development includes stormwater quality improvement devices to optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
		AO23.2	Development includes velocity reduction measures including the maintenance and re-establishment of native vegetation in drainage, riparian and foreshore areas.
		AO23.3	Development includes, where possible, the retention of natural drainage patterns.
		AO23.4	Development includes stabilisation of exposed surfaces through sediment fencing, erosion protection (matting or vegetation), vegetation buffers or retention, temporary sediment basins or other controls as appropriate.
		AO23.5	Compliance with Stormwater Guideline
Air Qua	lity		
PO24	All activities maintain the air quality and consequently, public health standards by	AO24.1	No acceptable outcome is specified.
	<ul> <li>providing:</li> <li>adequate physical measures for removing pollutants from emissions prior to discharge to the atmosphere;</li> <li>adequate physical measures for reducing the temperature gradient between emissions and the atmosphere prior to discharge;</li> <li>effective operational systems, including monitoring systems for major industry and major infrastructure, which maintain ambient air quality in accordance with acceptable standards;</li> <li>premises which create thermal, gaseous or particulate emissions are located, designed and operated in a manner which protects the amenity of any surrounding urban areas;</li> <li>external storage, parking, loading and access areas which are built and maintained to prevent dust generation;</li> <li>landscaping to prevent the generation of dust;</li> <li>stockpiles which are managed to minimise the release of wind blown dust or particulate matter to the atmosphere; and</li> <li>loading and unloading equipment including but not limited to dump stations, conveyors and chutes to be managed to minimise the release of dust or particulate matter to the atmosphere.</li> </ul>		Note: The provisions of the Environmental Protection Policy (Air) apply.
		1025 4	On aita landaganing is provided along the full leasth of the
PO25	<ul> <li>Landscaping is:</li> <li>of a high quality that focuses on all road and other public space frontages to enhance the overall amenity of the</li> </ul>	AO25.1	On site landscaping is provided along the full length of the road frontage of the site, apart from vehicle access points, with minimum width of 2 metres.
	<ul><li>streetscape and soften the visual impact of the land use;</li><li>is used to provide a visual/landscape</li></ul>	AO25.2	Buildings and structures of 2 storeys or more in height are complemented by species that attain a mature height of at least 10 metres.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
Fencing		AO25.3 AO25.4	Compliance with Landscaping Guideline. Premises provide shade trees in diamond shaped openings in surface car parking areas at a minimum rate of 1 shade tree per 6 car parking spaces.
PO26	Fencing is provided to ensure public safety with regard to potential hazards and storage of hazardous goods.	AO26.1	Activities undertaken on site that may pose a direct physical hazard or potential hazard to the public are fenced and security gated so that access is denied. Storage areas are reasonably secured from general access.
PO27	All fencing is of a design that provides maximum security and/or separation without adversely affecting overall amenity and streetscape quality.	AO27.1	The minimum standard for access control security fencing is 1.8 metre high, black PVC, plastic coated, chain wire mesh fence with black posts. Any fencing other than chain wire mesh is to be constructed of a durable material that does not create glare, is not brightly coloured and has prior approval of GPC.
Advertis	sing Signage		
PO28	Signage on or associated with new buildings does not detract from public safety or the amenity of the natural or built environment.	AO28.1 AO28.2	Advertising signs do not protrude above the roof line of existing buildings, and in all situations do not exceed 10 metres in height. Content of signage exhibits a direct correlation to a business, operation or activity at the port.
Sustain	able Design		
PO29	able Design Site layout and design features incorporate sustainable design, operation and management features.	AO29.1	<ul> <li>Site and building design and layout incorporate passive and active sustainable development through use of a cleaner production and eco efficiency approaches, including</li> <li>(i.) Energy efficiency e.g.: <ul> <li>Reduction in energy consumption, through design that considers items such as natural ventilation, process heat gains/losses and potential for energy use, natural light usage, transport and site vehicle movement requirements;</li> </ul> </li> <li>(ii.) Water usage efficiency e.g.: <ul> <li>Improvement in water use efficiency through design that considers items such as process water reuse, storm water capture and reuse (segregation clean water from any pollutants), improved site processes to reduce requirement for water use;</li> </ul> </li> <li>(iii.) Waste management / minimisation e.g.:</li> </ul>
			Improvement in waste management and



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			resource use efficient through design that considers effective capture segregation/separation of wastes, material reuse and recycling, minimisation or process wastes.
		AO29.2	Site layout incorporates the use of water sensitive urban design elements to effectively manage and treat storm water before release to the drainage system e.g.: sediment basins; bio-retention swales / basins; sand filters; other swale or buffer systems; rainwater tanks; and ponds or constructed wetlands where appropriate.
Hazards	s and Safety		
PO30	Development and operations do not present hazards which lead to unacceptable risks to public safety.	AO30.1	In partial compliance with PO17: Car parking must be located close to building entrances to enable safe access at night.
PO31	Outdoor lighting must be provided for safety and security where required.	AO31.1	Where it is intended that a facility will operate at night, outdoor work areas, car parking and pedestrian areas must incorporate motion sensor security and safety lighting.
PO32	Development does not contravene any Australian quarantine or customs legislative requirements.	AO32.1	<ul> <li>Development complies with any requirements of the Australian Quarantine Inspection Service (AQIS), associated Commonwealth legislation, and any subordinate legislation, including, but not limited to, the:</li> <li>Quarantine Act 1908;</li> <li>Imported Food Control Act 1992; and</li> <li>Export Control Act 1982.</li> </ul> Should the Assessment Manager consider it appropriate the application may be referred to AQIS or Customs for Advice Agency assessment.
PO33	<ul> <li>Risks and hazards associated with the storage or transport of hazardous or flammable materials:</li> <li>satisfies all Local, State and Commonwealth legislation and/or requirements; and</li> <li>does not endanger any person or the natural or built environment.</li> </ul>	AO33.1	<ul> <li>Storage of any hazardous or flammable materials:</li> <li>is appropriately licensed and managed in accordance with: <ul> <li>Flammable and Combustible Liquids Regulation 1994;</li> <li>Dangerous Goods Safety Management Act 2001;</li> <li>Australian Standard AS1940:2004 The Storage and Handling of Flammable and Combustible Liquids; and</li> <li>Australian Code for the Transport of Dangerous Goods by Road Rail.</li> </ul> </li> <li>Does not pose a safety, environmental or health threat to any adjoining areas or people;</li> <li>Demonstrates that it is appropriately separated from surrounding sensitive land uses.</li> </ul> Any proposed Major Hazard Facility (MHF) or Possible Major Hazard Facility (PMHF) is required to be referred to the Department of Emergency Services (CHEM Department) for Concurrence Agency assessment.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			Where a Large Dangerous Good Facility (LDGF) is proposed the Assessment Manager may refer the development to the Department of Emergency Services for Advice Agency comments.
		AO33.2	The Assessment Manager may request the submission of a safety / hazard management plan, risk contour map or other plan identifying the risks and outlining relevant safety and emergency procedures.
PO34	The construction site is managed and operated to ensure a safe workplace for onsite employees.	AO34.1	The proponent and its appointed contractors are required to ensure that a workplace plan that meets the requirements of Queensland Workplace Health and Safety Act 1995 is developed and implemented during construction.
Geotec	hnical Requirements		
PO35	Ground level geotechnical conditions are constructed to a sufficient engineering standard to allow for imposed loadings.	AO35.1	All ground level pavements, slabs and hardstand areas have been certified by a Registered Professional Engineers of Queensland to withstand proposed loadings of buildings, vehicles, structures and container staking where applicable.
Acid Su	Ilphate Soils		
PO36	Development complies with State Planning Policy 2/02 – Planning and Management Development Involving Acid Sulphate Soils and accompanying Guideline.	AO36.1	<ul> <li>In an area that is below 5 metre AHD, an Acid Sulphate Soil Investigation Report is provided that:</li> <li>assesses the potential for acid sulphate soils that may be affected by the development; and</li> <li>uses levels of testing commensurate with the level of disturbance.</li> </ul>
PO37	<ul> <li>Development must ensure that potential or actual acid sulphate soils are managed such that:</li> <li>discharge water quality is acceptable at receiving waters;</li> <li>assets are not subject to accelerated corrosion; and</li> <li>environmentally sensitive areas are not detrimentally affected.</li> </ul>	AO37.1 AO37.2	<ul> <li>Where disturbing less than 100m<sup>3</sup> of soil and not affected the water table, an Acid Sulphate Soils Management Plan is provided detailing: <ul> <li>the sampling and analysis procedures to be adopted;</li> <li>the method of treating/managing soils, if required; and</li> <li>the proposed monitoring procedures, if required.</li> </ul> </li> <li>Where disturbing 100m<sup>3</sup> or more of soil and/or affecting the water table, an Acid Sulphate Soils Investigation Report and Management Plan are provided using level of testing commensurate with the level of risk.</li> </ul>
Tenure			
PO38	The proponent has been granted tenure for the proposed use by GPC.	AO38.1	No acceptable outcome is specified.



## **Tidal Works Code**

### Purpose

The purpose of the Tidal Works Code is to ensure that the following overall outcomes are achieved:

- (a) Any potential impacts on the environment are minimised and/or avoided;
- (b) Significant environmental values of the area are protected;
- (c) Tidal works\* do not impact upon, or impede, port operations;
- (d) The highest personal safety standards are met; and
- (e) Tidal works are undertaken in accordance with relevant legislative requirements.
- \* Tidal works means the sea and any part of a harbour or watercourse ordinarily within the ebb and flow of the tide at spring tides.

The purpose of the code will be achieved through compliance with the assessment criteria provided below.

Proponents to note, this code does not replace any requirements other relevant authorities (eg Department of Environment & Resource Management (DERM), Department of Maritime Safety Queensland (MSQ) and Department of Employment, Economic Development and Innovation (DEEDI) may have regarding tidal works.

#### Application

The Tidal Works Code applies to any works proposed for any tidal waters within Strategic Port Land including the following Land Use Plan Precincts and Localities:

Localities	Precincts
Fisherman's Landing	Wharves (Off-Shore)
rionerman's Eanding	Port Operations Support
Wiggins Island	Wharves (Off-Shore)
	Port Operations Support
RG Tanna Coal Terminal	Wharves (Off-Shore)
Port Central	Wharves (Off-Shore)
	Buffer
Hanson Road	Buffer
Gladstone Marina	Marine Industry
South Trees & Boyne Wharf	Wharves (Off-Shore)
	Port Operations Support
Port Alma	Wharves (Off-Shore)
	Port Operations Support

The Tidal Works Code also applies to all tidal works within Port Limits for which GPC is a concurrence agency.



### Assessment Criteria

	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
Port Operation	ations		
	idal work has no adverse impacts on current and future port operations.	A01.1	<ul> <li>Tidal work does not:</li> <li>interfere with the operation of ship entering or leaving the Gladstone Port or Port Alma;</li> <li>interfere with loading or unloading operations at the Gladstone Port or Port Alma;</li> <li>interfere with stevedoring operations at the Port of Gladstone or Port Alma; or</li> <li>interfere with the dredging operations of the Gladstone Port or Port Alma.</li> </ul>
		A01.2	A letter is provided to GPC within 3 months of completion of tidal works certifying that the seabed is clear of any materials fallen or deposited on tidal lands or into tidal waters during construction.
Tidal Wor	ks - General		
i	A tidal works application provides sufficient information and is of an acceptable standard, to allow proper assessment by the GPC and the relevant authority.	A02.1	<ul> <li>All tidal works applications provide drawings and information to clearly define:</li> <li>the works for which approval is sought (including existing works to be removed);</li> <li>all approved works on the waterfrontage of the property which would abut the proposed works, whether they have been constructed or not;</li> <li>all existing unapproved works on the waterfrontage of the property which would abut the proposed works, which are not included in the current application;</li> <li>the current real property description and real property boundaries of the property which would abut the proposed works would be constructed if there is a current tenure over this tidal land (the metes and bounds description of real property boundaries shown must be marked on these boundaries);</li> <li>the location with respect to real property boundaries of, and the plan view of: <ul> <li>the proposed works for the current application;</li> <li>existing works on adjacent properties where these works are within 20m of the works for the current application;</li> <li>the constructional details of the proposed works;</li> </ul> </li> </ul>



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
Tidal W PO3	PERFORMANCE OUTCOME	A03.1	ACCEPTABLE OUTCOME astronomical tide (HAT); the design criteria for the proposed works the datum for the levels shown. Identify other approvals required and being sought eg Environmentally Relevant Activity (ERA) from DERM, Resource Allocation from DERM, Damage or Destruction of Marine Plants from DEEDI etc. Note: If required, a resource allocation approval from DERM must be obtained prior to submission of a tidal works application. All tidal works applications for dredging, excavation and reclamation provide the following drawings and information: drawings and description of the location of the dredging and location of the disposal site; drawings of the boundaries of the structure to be dredged; drawings showing design of the structure including batter slopes etc; drawings and description to be used eg type of dredged; drawings and design of any reclamation area to be constructed/used including details of bund constructed/used including details of bund construction and rock revetment works; demonstration that the disposal area has the capacity required; Dredge Management Plan including management of disposal of dredged material. Demonstrate that dredge spoil is being deposited to an approved area. Identify other approvals required and being sought eg Environmentally Relevant Activity (ERA) from DERM, Resource Allocation from DERM, Damage or Destruction of Marine Plants from DEEDI etc. Note: If required, a resource allocation approval from DERM must be obtained prior to submission of a tidal
			works application.
Tidal W	orks - Infrastructure		
PO4	A tidal works application provides sufficient information and is of an acceptable standard, to allow proper assessment by the GPC and the relevant authority.	AO4.1	<ul> <li>For any infrastructure under, on or above tidal areas eg wharves, jetties, pontoons etc provide all the following drawings and information:</li> <li>"For Construction" drawings of the structure/s;</li> </ul>
			<ul> <li>General arrangements of how the marine structure will tie in with adjacent land;</li> </ul>



PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
		<ul> <li>Details of all services to/on the structure eg electrical, water, communications etc;</li> <li>Services including safety and fire fighting systems including man overboard recovery systems (eg access ladders, life rings), fire hydrants, fire reels, fire extinguishers and oil/fuel spill equipment;</li> <li>Corrosion prevention systems for the structure;</li> <li>Lighting systems eg operational purposes, personnel safety, security etc;</li> <li>Navigation aids/warning signs eg lighting, buoys, markers, signs;</li> <li>Anchorage systems for floating plant and equipment during construction;</li> <li>Berthing or mooring arrangements/plans for all proposed vessels eg tie up systems to be used, tugs to be used etc;</li> <li>Anchorage/berthing systems during operational phases when vessels are not in use;</li> <li>Vessel information including types and sizes of vessels to be accommodated;</li> <li>Details of fuelling/refuelling arrangements for vessels during construction and operations.</li> </ul> Identify other approvals required and being sought eg Environmentally Relevant Activity (ERA) from DERM, Resource Allocation from DERM, Damage or Destruction of Marine Plants from DEEDI etc. Note: If required, a resource allocation approval from DERM must be obtained prior to submission of a tidal works application.
Drowingo		
Drawings           PO5         Certified drawings are provided to GPC with the development application.	AO5.1	Drawings are signed by a Registered Professional Engineer of Queensland who is responsible for the design of the works.
	AO5.2	<ul> <li>A Registered Professional Engineer of Queensland or an interstate or international equivalent certifies on the plans or by written notice that:</li> <li>the works are structurally adequate for anticipated usage; and the works comply with all relevant codes.</li> </ul>
<b>PO6</b> Certification that works have been constructed in accordance with approved drawings is provided to GPC.	AO6.1	Within 3 months of the date of practical completion of the works, a letter from a Registered Professional Engineer of Queensland (or national or international equivalent) certifying that the works have been constructed in accordance with the approved drawings and the development approval conditions is provided to GPC.
Management Plans		
<ul> <li>PO7 All tidal works development undertaken within port limits must receive approval from the GPC for:         <ul> <li>a Construction and an Operational Environmental Management Plan</li> </ul> </li> </ul>	A07.1	A construction and an operational Environmental Management Plan have been submitted to the GPC in accordance with Environmental Management Plan Guidelines and are approved prior to works commencing.
<ul> <li>a Construction and Operational Oil/fuel/pollutant Spill Management and</li> </ul>	A07.2	An Oil/fuel/pollutant Spill Management and Prevention Plan:



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
	<ul> <li>Prevention Plan</li> <li>a Construction and Operational Emergency Management Plan including a Cyclone Management Plan</li> </ul>	A07.3	<ul> <li>for construction has been submitted to the GPC and approved prior to works commencing; and</li> <li>for operations has been submitted to the GPC and approved at least 3 months prior to commencing use of the new facility.</li> </ul> An Emergency Management Plan including a Cyclone Management Plan:
			<ul> <li>for construction has been submitted to the GPC and approved prior to works commencing; and</li> <li>for operations has been submitted to the GPC and approved at least 3 months prior to commencing use of the new facility.</li> </ul>
PO8	An approved Site Rehabilitation Plan when requested by GPC	PO8.1	A Site Rehabilitation Plan has been submitted to the GPC and approved 3 months prior to cessation of the use.
Access	and Parking		
PO9	The development must allow for sufficient vehicle manoeuvring and access.	AO9.1	No acceptable outcome is specified.
PO10	On site vehicle access is designed to be safe and effective and of a standard to the satisfaction of the GPC.	AO10.1	Appropriate access is provided according to the type of vehicles expected to access the site and approved by the GPC.
		AO10.2	Vehicle manoeuvring is provided on site so that the design vehicle/s can enter and leave the site in a forward motion.
Infrastr	ucture and Services Provision		
PO11	Development provides appropriate storage and collection areas, which do not adversely affect the amenity of the site, for services visiting the site, such as:	AO11.1	Appropriately located waste-storage areas, which meet the needs of regularity of visits to the site, are incorporated into the site layout and building design.
	<ul> <li>rubbish collection; and</li> <li>trade –waste removal.</li> </ul>	AO11.2	Waste storage areas are screened from public view by dense landscaping at least two (2) metres wide, fencing or buildings are located a minimum of five (5) metres from a road frontage.
PO12	Fire hydrants and boosters are in locations that enable the provision of water and pressure for use by the Queensland Fire and Rescue Service.	A012.1	Fire hydrants are provided in accordance with Queensland Fire and Rescue Service standards.
Outdoo	r Lighting		
P013	<ul> <li>All lighting is to:</li> <li>facilitate a safe and secure working environment;</li> <li>be energy efficient;</li> <li>not have an adverse impact on navigation; and</li> <li>not result in adverse impact on any person, activity or surrounding environment.</li> </ul>	P013.1	Lighting structures are of a sufficient height to provide enhanced safety and security of an area. All outdoor lighting areas are to be lit to a standard appropriate to allow for a safe night time working environment. To ensure that outdoor lighting minimises light spillage and adverse impacts on environment, either directly or by reflection, light shades and other devices to control and manage light are used to reduce light spillage affecting sensitive places, environments, uses or areas.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			Lighting is to be projected no further than 5° from horizontal. Technical parameters, design, installation, operation and maintenance of outdoor lighting comply with the
			requirements of Australian Standard on the AS4282 Control of the Obtrusive Effects of outdoor Lighting.
			Energy efficient lighting technologies are adopted.
		PO13.2	An assessment of lighting and its affect on navigation is to be made within 3 months of commencement of use of a new structure and lighting adjustments made as required or requested by GPC.
Stormw	ater		
P014	Stormwater drainage from the site is at approved locations and is of an acceptable quality to prevent harmful impacts on receiving waters.	A014.1	Where ever feasible, development includes stormwater quality improvement devices to optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).
Air Qua	lity		
P015	<ul> <li>Activities minimise adverse affects to the air quality by providing where feasible:</li> <li>physical measures for removing pollutants from emissions prior to discharge to the atmosphere;</li> <li>effective operational systems, including monitoring systems for major industry and major infrastructure, which monitor and maintain ambient air quality in accordance with acceptable standards;</li> <li>premises which create gaseous or particulate emissions are located, designed and operated in a manner which minimises adverse impacts to surrounding urban areas;</li> <li>loading and unloading equipment including but not limited to conveyors and chutes to be designed, maintained and managed to minimise the release of dust or particulate matter to the atmosphere.</li> </ul>	A015.1	No acceptable outcome is specified. Note: The provisions of the Environmental Protection Policy (Air) apply.
Fencing			
PO16	Fencing is provided to ensure public safety with regard to potential hazards.	AO16.1	Activities undertaken on site that may pose a direct physical hazard or potential hazard to the public are fenced and security gated so that access is denied.
			Storage areas are reasonably secured from general access.
PO17	All fencing is of a design that provides maximum security and/or separation without adversely affecting overall amenity.	AO17.1	The minimum standard for access control security fencing is 1.8 metre high, black PVC, plastic coated, chain wire mesh fence with black posts.
			Any fencing other than chain wire mesh is to be constructed of a durable material that does not create glare and is not brightly coloured.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
		AO17.2	Maximum fence height is three (3) metres.
PO18	sing Signage Signage on or associated with new tidal works does not detract from public safety or the amenity of the natural or built environment.	AO18.1	Advertising signs do not protrude above the height of existing building/structures, and in all situations do not exceed 10 metres in height.
		AO18.2	Content of signage exhibits a direct correlation to a business, operation or activity at the port.
Sustain	able Design	-	
PO19	Over water infrastructure design features incorporate sustainable design, operation and management features.	A019.1	<ul> <li>Infrastructure design and layout incorporate passive and active sustainable development through use of a cleaner production and eco efficiency approaches, including</li> <li>(i.) Energy efficiency e.g.: Reduction in energy consumption;</li> <li>(ii.) Water usage efficiency e.g.: Improvement in water use efficiency through design that considers items such as process water reuse, storm water capture and reuse (segregation clean water from any pollutants), improved site processes to reduce requirement for water use;</li> <li>(iii.) Waste management / minimisation e.g.: Improvement in waste management and resource use efficient through design that considers effective capture segregation/separation of wastes, material reuse and recycling, minimisation or process wastes.</li> </ul>
Hazards	s and Safety		
PO20	The proposal does not pose a safety risk for fire hazard to adjoining people or property.	AO20.1	The proposed structure and/or works meet all legislative requirements and/or Australian Standards regarding safety and risk management including required fire fighting infrastructure.
PO21	Development and operations do not present hazards which lead to unacceptable risks to public safety.	AO21.1	No acceptable outcome is specified.
PO22	The construction site is managed and operated to ensure a safe workplace for onsite employees.	AO22.1	The proponent and its appointed contractors are required to ensure that a workplace plan that meets the requirements of Queensland Workplace Health and Safety Act 1995 is developed and implemented during construction.
PO23	Development does not contravene any Australian quarantine or customs legislative requirements.	A023.1	<ul> <li>Development complies with any requirements of the Australian Quarantine Inspection Service (AQIS), associated Commonwealth legislation, and any subordinate legislation, including, but not limited to, the:</li> <li>Quarantine Act 1908;</li> <li>Imported Food Control Act 1992; and</li> <li>Export Control Act 1982.</li> </ul> Should the Assessment Manager consider it appropriate the application may be referred to AQIS or Customs for



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
		A023.2	Advice Agency assessment. Activities comply with any state and federal bio-security requirements including but not limited to adherence to the National System for the Prevention and Management of Marine Pest Incursions for vessels and plant carrying out marine works
PO24	<ul> <li>Risks and hazards associated with the loading and unloading of hazardous or flammable materials:</li> <li>satisfies all Local, State and Commonwealth legislation and/or requirements; and</li> <li>does not endanger any person or the natural or built environment.</li> </ul>	AO24.1	<ul> <li>Loading and unloading of any hazardous or flammable materials:</li> <li>is appropriately licensed and managed in accordance with: <ul> <li>Flammable and Combustible Liquids Regulation 1994;</li> <li>Dangerous Goods Safety Management Act 2001;</li> <li>Australian Standard AS1940:2004 The Storage and Handling of Flammable and Combustible Liquids; and</li> <li>Australian Code for the Transport of Dangerous Goods by Road Rail.</li> </ul> </li> <li>Does not pose a safety, environmental or health threat to any adjoining areas or people;</li> <li>Demonstrates that it is appropriately separated from surrounding sensitive land uses.</li> </ul>
Acid Su	Iphate Soils		
PO25	Development complies with State Planning Policy 2/02 – Planning and Management Development Involving Acid Sulphate Soils and accompanying Guideline.	AO25.1	<ul> <li>In an area that is below 5 metre AHD, an Acid Sulphate Soil Investigation Report is provided that:</li> <li>assesses the potential for acid sulphate soils that may be affected by the development; and</li> <li>uses levels of testing commensurate with the level of disturbance.</li> </ul>
PO26	<ul> <li>Development must ensure that potential or actual acid sulphate soils are managed such that:</li> <li>discharge water quality is acceptable at receiving waters;</li> <li>assets are not subject to accelerated corrosion; and</li> <li>environmentally sensitive areas are not detrimentally affected.</li> </ul>	A026.1 A026.2	<ul> <li>Where disturbing less than 100m<sup>3</sup> of soil and not affected the water table, an Acid Sulphate Soils Management Plan is provided detailing:</li> <li>the sampling and analysis procedures to be adopted;</li> <li>the method of treating/managing soils, if required; and</li> <li>the proposed monitoring procedures, if required.</li> </ul>
			the water table, an Acid Sulphate Soils Investigation Report and Management Plan are provided using level of testing commensurate with the level of risk.
Legislat			
PO27 Tenure	The proposal complies with all relevant legislative requirements.	PO27.1	No acceptable outcome is prescribed as compliance with performance criteria is mandatory.
PO28	Tenure has been issued for the works by the GPC.	PO28.1	All works are located within an approved perpetual (wet) lease issued by the GPC.



## Light Industry & Commercial Code

### Purpose

The purpose of the Light Industry & Commercial Code is to ensure that the following overall outcomes are achieved:

- (a) Land uses include a mix of light industry and commercial uses that complement or support core port activities;
- (b) Land uses complement the local governments commercial outcomes for Hanson Road;
- (c) Development acts as an effective buffer between the heavy industry activities and residential areas; and
- (d) Buildings and structures incorporate a variety of building forms, materials and façade treatments.

The purpose of the code will be achieved through compliance with the assessment criteria provided below.

#### Application

The Light Industry & Commercial Code applies to the following Land Use Plan Precincts and Localities:

Localities	Precincts	
RG Tanna Coal Terminal	Light Industry and Commercial	
Port Central	Light Industry and Commercial	
Hanson Road	Light Industry and Commercial	
Gladstone Marina	Marine Industry	
	Parkland and Education	
East Shores	East Shores	
Wiggins Island	Marine Industry	

### Assessment Criteria

PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME	
Buildin	g Design		
PO1	<ul> <li>The built form is:</li> <li>dominated by warehouses and other industrial-like buildings;</li> <li>of a type and scale which contributes to a high quality and attractive streetscape;</li> <li>constructed of materials and finishes complementary to the area;</li> <li>integrated with the surrounding development;</li> <li>minimises the visual bulk of buildings by articulating facades to street frontages or</li> </ul>	A01.1	<ul> <li>All buildings and ancillary structures (including warehouses) must achieve a high standard of visual amenity and incorporate a range of design elements including:</li> <li>façade treatments;</li> <li>roof pitch and design;</li> <li>recesses, overhangs and shading;</li> <li>materials and features which reflect the local climate; and</li> <li>colours and building textures.</li> </ul>
	building facades visible from the street, open space or the water.	A01.2	A formal entry is provided to all buildings, designed to address, be visible and accessible from, the principle road frontage.
		AO1.3	Buildings and ancillary structures avoid the use of highly reflective materials and colours.
PO2	Buildings height must not result in significant loss of visual amenity of the streetscape ie is to be compatible with and reflect prevailing built form.	AO2.1	Buildings and structures have a maximum height of 2 storey or 11.0m.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO3	Buildings and ancillary structures are sited to be consistent with the surrounding development.	AO3.1	<ul> <li>Building or structures have a minimum setback of:</li> <li>10m from sub-arterial or arterial road;</li> <li>6m from any other road; and</li> <li>6m from any sensitive land.</li> </ul>
		AO3.2	All aspects of the building design comply with the relevant Building Code regulations and standards, and any relevant state planning policies.
PO4	Open storage areas are adequately screened so as not to detract from the visual amenity of the area.	AO4.1	A solid screen fence (minimum 1.8m height) is located around storage areas.
PO5	<ul> <li>The site coverage of all buildings and associated structures must allow for sufficient:</li> <li>building setbacks;</li> <li>landscaping (refer to requirements);</li> <li>car parking;</li> <li>loading and unloading areas;</li> <li>vehicle manoeuvring and access.</li> </ul>	A05.1	Site coverage does not exceed 70% of the site area.
PO6	Buildings are designed to minimise impacts on existing services.	AO6.1	<ul> <li>Buildings and ancillary structures are sited to avoid building over:</li> <li>potable water supply mains;</li> <li>sewer or stormwater mains;</li> <li>power services; and</li> <li>telecommunication and fibre optic services.</li> </ul>
PO7	The development design, construction and maintenance minimises adverse impacts to the surrounding sensitive receptors and receiving environments.	A07.1	The development contributes to the amenity of the local area by avoiding or minimising any adverse impacts from, or related to (but not limited to): odour and fumes; dust and particulates; waste; stormwater quality and erosion; noise; hours of operation; traffic; lighting; signage; visual amenity; privacy; loss of flora and fauna; and reflectivity of glazing.
		A07.2	Compliance with relevant government legislation, policies and approvals.
PO8	Development must provide for non- discriminatory access.	A08.1	Building design must provide for non-discriminatory access in accordance with AS1428 – Design Access and Mobility.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
Flood and Storm Surge			
PO9	Premises subject to risk of inundation or damage through flood or storm surge and including all premises and land situated below 4 metres AHD are provided with appropriate flood and storm surge immunity to reduce potential property damage and to ensure public safety.	AO9.1	<ul> <li>Development is sited on land that would not be subject to flooding during a 100yr ARI flood and storm surge event; or</li> <li>buildings are located and designed so that floor levels (except areas used for car parking) are 500mm above the 100yr ARI flood and storm event; or</li> <li>there is at least one evacuation route that remains passable for emergency evacuations during all floods up to and including 100yr ARI storm surge events; or</li> <li>a flood warning system enables safe evacuation; or</li> <li>a flood free refuge is available for people within the development.</li> </ul>
Access	and Parking		
PO10	Parking meets all operational, employee and customer needs.	AO10.1	Parking must be provided on site to accommodate all vehicles (i.e. employees, operational and/or visitors).
		AO10.2	Compliance with Car Parking and Access Guidelines.
P011	Car parking is situated on a site to be evident but not dominant in the streetscape.	AO11.1	No acceptable outcome is specified.
PO12	On site vehicle access is designed to be safe, effective, minimise conflicts and of a standard to the satisfaction of the Assessment Manager.	A012.1 A012.2	<ul> <li>Appropriate driveways and crossovers are provided according to the type of vehicles expected to access the site.</li> <li>Provision is made to ensure all vehicles: <ul> <li>entering a site do not queue across footpaths or onto external roads; and</li> </ul> </li> </ul>
			<ul> <li>are exclusively accommodated within the lease boundary.</li> </ul>
PO13	Access to industrial development is designed and constructed with safe ingress and egress of vehicles to the site.	A013.1	<ul> <li>Access to light industrial sites is designated as follows:</li> <li>(i) a vehicle access point is at least 10m to an intersecting street when the driveway is on the same side of the street; and</li> <li>(ii) a minimum sight distance of 110m is provided in either direction to an access point.</li> </ul>
PO14	Internal driveways have sufficient width to adequately cater for the nature of the traffic envisaged.	AO14.1	Internal driveway widths are 6m.
PO15	Vehicle circulation and manoeuvring is provided on-site to meet all operational, employee and customer needs. All queuing or other vehicle activity associated with the operation of the site; including	AO15.1	<ul> <li>Internal circulation routes function safely and efficiently and accommodate all expected traffic on site, including:</li> <li>delivery and pick-up services;</li> <li>loading, unloading and refuelling areas;</li> <li>wash-down, repair, service and inspection areas;</li> <li>movement between access points, parking and</li> </ul>



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
	collection and delivery of goods and materials must be accommodated on site.		<ul> <li>storage;</li> <li>movement between outdoor and indoor areas; and</li> <li>service vehicles, including rubbish collection.</li> </ul>
		AO15.2	Internal circulation roads do not conflict with parking areas.
			All circulation and parking areas allow for the safe manoeuvring of all vehicles according to AUSTROADS or other standard vehicle manoeuvring template, to the satisfaction of the Assessment Manager.
		AO15.3	Vehicle manoeuvring is provided on site so that the design vehicle/s can enter and leave the site in a forward motion.
PO16	The design of vehicle access, circulation, manoeuvring and parking areas demonstrated compliance with relevant Australian Standards, relevant State policy or other standard adopted by the Assessment Manager.	A016.1	<ul> <li>An access, circulation, manoeuvring and parking plan to be provided which illustrates the following details:</li> <li>dimensions of all pavements and areas;</li> <li>turning templates for largest turning circle of vehicles accessing the site;</li> <li>access for service vehicles;</li> <li>depths of, and materials used to construct pavements;</li> <li>all gradients of parking, access and circulation areas;</li> <li>sight lights; and</li> <li>height clearances.</li> </ul> At the discretion of the Assessment Manager, a traffic management study may be required, addressing impacts of the development as associated vehicle activity on the
Infrastr	ucture and Services Provision	-	road network.
PO17	Land is adequately serviced by reticulated infrastructure, such as water supply, sewage disposal, streets lighting, telecommunications and energy. Infrastructure is appropriately maintained.	A017.1	All land is provided with: reticulated water; sewerage; drainage; energy; telecommunications; and gas service where required.
PO18	Site design and layout include provisions for additional infrastructure to facilitate future telecommunications services.	AO18.1	Conduits are provided to enable the future provisions of fibre-optic cabling and other 'smart wiring'.
PO19	<ul> <li>Frontage of the site provides the following at an appropriate standard:</li> <li>high quality paved roadway;</li> <li>kerb-channel;</li> <li>safe, high quality crossings over channels and walkways;</li> <li>provision, alteration and upgrading of public utilities:</li> <li>effective drainage;</li> <li>landscaping and/or street trees and furniture where appropriate; and</li> <li>appropriate conduits for provision of required street lighting systems and traffic signals.</li> </ul>	AO19.1	<ul> <li>The following are provided or already exist at the frontage of the site:</li> <li>kerb and channel;</li> <li>construction of a carriageway with sufficient width to accommodate the land use and associated activities;</li> <li>forming and grading walkways;</li> <li>reconstruction of any damage to, public walkway and kerb and channel;</li> <li>drainage works;</li> <li>installation of electrical conduits;</li> <li>construction of, and required alterations to, public utility mains, services or installations; and</li> <li>landscaping and/or street trees and furniture.</li> </ul>



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO20	Development provides appropriate storage and collection areas, which do not adversely affect the amenity of the site, for services visiting the site, such as: rubbish collection; and trade –waste removal.	AO20.1 AO20.2	Appropriately located waste-storage areas, which meet the needs of regularity of visits to the site, are incorporated into the site layout and building design. Waste storage areas are screened from public view by dense landscaping at least two (2) metres wide, fencing or buildings are located a minimum of five (5) metres from a road frontage.
PO21	Fire hydrants and boosters are in locations that enable the provision of water and pressure for use by the Queensland Fire and Rescue Service.	AO21.1	Fire hydrants are provided in accordance with Queensland Fire and Rescue Service standards.
Outdoo	r Lighting		
PO22	<ul> <li>All lighting is to:</li> <li>facilitate a safe and secure working environment;</li> <li>be energy efficient;</li> <li>not have an adverse impact on navigation; and</li> <li>not result in adverse impact on any person, activity or surrounding environment.</li> </ul>	A022.1	Lighting structures are of a sufficient height to provide enhanced safety and security of an area. All outdoor lighting areas are to be lit to a standard appropriate to allow for a safe night time working environment. To ensure that outdoor lighting minimises light spillage and adverse impacts on environment, either directly or by reflection, light shades and other devices to control and manage light are used to reduce light spillage affecting sensitive places, environments, uses or areas. Lighting is to be projected no further than 5° from horizontal. Technical parameters, design, installation, operation and maintenance of outdoor lighting comply with the requirements of Australian Standard on the AS4282 Control of the Obtrusive Effects of outdoor Lighting. Energy efficient lighting technologies are adopted.
Stormw	ater		
PO23	Stormwater drainage from the site is at approved locations and is of an acceptable quality and volume to prevent harmful impacts on receiving waters.	AO23.1	Development includes stormwater quality improvement devices optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).
		AO23.2	Development includes velocity reduction measures including the maintenance and re-establishment of native vegetation in drainage riparian and foreshore areas.
		AO23.3	Development includes, where possible, the retention of natural drainage patterns.
		AO23.4	Development includes stabilisation of exposed surfaces through sediment fencing, erosion protection (matting or vegetation), vegetation buffers or retention, temporary sediment basins or other controls as appropriate.
		AO23.5	Compliance with Stormwater Guideline.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
Air Qua	lity		
PO24	<ul> <li>All activities maintain the air quality and consequently, public health standards by providing:</li> <li>adequate physical measures for removing pollutants from emissions prior to discharge to the atmosphere;</li> <li>adequate physical measures for reducing the temperature gradient between emissions and the atmosphere prior to discharge;</li> <li>effective operational systems, including monitoring systems for major industry and major infrastructure, which maintain ambient air quality in accordance with acceptable standards;</li> <li>premises which create thermal, gaseous or particulate emissions are located, designed and operated in a manner which protects the amenity of any surrounding urban areas;</li> <li>external storage, parking, loading and access areas which are built and maintained to prevent dust generation; and</li> <li>landscaping to prevent the generation of dust.</li> </ul>	A024.1	No acceptable outcome is specified. Note: The provisions of the Environmental Protection Policy (Air) apply.
Landsca PO25	<ul> <li>Landscaping is:</li> <li>of a high quality that focuses on all road and other public space frontages to enhance the overall amenity of the streetscape and soften the visual impact of the land use;</li> <li>is used to provide a visual/landscape buffer between port operations and residential or community based activities;</li> <li>is maintained to a high level;</li> <li>is designed to require limited watering and maintenance; and</li> <li>is integrated with the site's stormwater management system and provision of:</li> <li>staff recreation areas; and</li> <li>screening of air conditioning plant and rubbish collection areas.</li> </ul>	A025.1 A025.2 A025.3 A025.4	<ul> <li>On site landscaping is provided along the full length of the principal road frontage of the site, apart from vehicle access points, as follows: <ul> <li>5m along arterial road; or</li> <li>3m along other roads.</li> </ul> </li> <li>Premises provide shade trees in diamond shaped openings in surface car parking areas at a minimum rate of 1 shade tree per 6 car parking spaces.</li> <li>Buildings and structures of 2 storeys or more in height are complemented by species that attain a mature height of at least 10 metres.</li> <li>Compliance with Landscaping Guideline.</li> </ul>
Fencing			
PO26	Fencing is provided to ensure public safety with regard to potential hazards and storage of hazardous goods.	AO26.1	Activities undertaken on site that may pose a direct physical hazard or potential hazard to the public are fenced and security gated so that access is denied. Storage areas are reasonably secured from general access.
PO27	All fencing is of a design that provides maximum security and/or separation without adversely affecting overall amenity and streetscape quality.	AO27.1	The minimum standard for access control security fencing is 1.8 metre high, black PVC, plastic coated, chain wire mesh fence with black posts.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			<ul> <li>Any fencing other than chain wire mesh requires prior approval of GPC.</li> <li>Fencing needs to be : <ul> <li>constructed of a durable material that does not create glare and is not brightly coloured;</li> <li>compatible with buildings on site and in the area; and</li> <li>permeable along road frontages, where casual surveillance is necessary.</li> </ul> </li> </ul>
PO28	Fencing in the Gladstone Marina Locality must adequately screen activities and secure the premises.	AO28	Where required by GPC, activities are required to install white colour-bond fencing to a height of 1.8m.
Adverti	sing Signage		
PO29	Signage on or associated with new buildings does not detract from public safety or the amenity of the natural or built environment.	AO29.1	<ul> <li>Advertising signs are limited to:</li> <li>1 per site;</li> <li>heights of less than 10 metres;</li> <li>a total surface area on the site of less than 10m<sup>2</sup>; and</li> <li>does not impact on vehicle line of sight.</li> </ul>
		AO29.2	Advertising signs do not protrude above the roof line of existing buildings, and in all situations do not exceed 10 metres in height.
		AO29.3	Content of signage exhibits a direct correlation to a business, operation or activity at the port.
Sustain	able Design		
PO30	Site layout and design features incorporate sustainable design, operation and management features.	AO30.1	<ul> <li>Site and building design and layout incorporate passive and active sustainable development through use of a cleaner production and eco efficiency approaches, including</li> <li>(i) Energy efficiency e.g.: Reduction in energy consumption, through design that considers items such as natural ventilation, process heat gains/losses and potential for energy use, natural light usage, transport and site vehicle movement requirements;</li> <li>(ii) Water usage efficiency e.g.: Improvement in water use efficiency through design that considers items such as process water reuse, storm water capture and reuse (segregation clean water from any pollutants), improved site processes to reduce requirement for water use;</li> <li>(iii) Waste management / minimisation e.g.: Improvement in waste management and resource use efficient through design that considers items e.g.:</li> <li>(iii) Waste management / minimisation e.g.: Improvement in waste management and resource use efficient through design that considers enduce requirement and resource use efficient through design that considers effective capture segregation/separation of wastes, material reuse and recycling, minimisation or process wastes.</li> </ul>

	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
		AO30.2	Site layout incorporates the use of water sensitive urban design elements to effectively manage and treat storm water before release to the GPC drainage system e.g.: sediment basins; bioretention swales / basins; sand filters; other swale or buffer systems; rainwater tanks; and ponds or constructed wetlands where appropriate.
Hazards	s and Safety		
PO31	Development and operations do not present hazards which lead to unacceptable risks to public safety.	AO31.1	In partial compliance with PO31, car parking must be located close to building entrances to enable safe access at night.
PO32	Outdoor lighting must be provided for safety and security where required.	AO32.1	Where it is intended that a facility will operate at night, outdoor work areas, car parking and pedestrian areas must incorporate motion sensor security and safety lighting.
P033	<ul> <li>Risks and hazards associated with the storage or transport of hazardous or flammable materials:</li> <li>satisfies all Local, State and Commonwealth legislation and/or requirements; and</li> <li>does not endanger any person or the natural or built environment.</li> <li>The construction site is managed and operated to ensure a safe workplace for onsite employees.</li> </ul>	A033.1	<ul> <li>Storage of any hazardous or flammable materials: <ul> <li>is appropriately licensed and managed in accordance with:</li> <li>Flammable and Combustible Liquids Regulation 1994;</li> <li>Dangerous Goods Safety Management Act 2001;</li> <li>Australian Standard AS1940:2004 The Storage and Handling of Flammable and Combustible Liquids; and</li> <li>Australian Code for the Transport of Dangerous Goods by Road Rail.</li> </ul> </li> <li>Does not pose a safety, environmental or health threat to any adjoining areas or people;</li> <li>Demonstrates that it is appropriately separated from surrounding sensitive land uses.</li> </ul> Any proposed Major Hazard Facility (MHF) or Possible Major Hazard Facility (PMHF) is required to be referred to the Department of Emergency Services (CHEM Department) for Concurrence Agency assessment. Where a Large Dangerous Good Facility (LDGF) is proposed the Assessment Manager may refer the development to the Department of Emergency Services for Advice Agency comments. The Assessment Manager may request the submission of a safety / hazard management plan, risk contour maps or other plan identifying the risks and outlining relevant safety and emergency procedures. The proponent and its appointed contractors are required to ensure that a workplace plan that meets the requirements of Queensland Workplace Health and Safety Act 1995 is developed and implemented during construction.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME	
Geotec	hnical Requirements			
PO34	Ground level geotechnical conditions are constructed to a sufficient engineering standard to allow for imposed loadings.	AO34.1	All ground level pavements, slabs and hardstand areas have been certified by a Registered Professional Engineers of Queensland to withstand proposed loadings of buildings, vehicles, structures and container staking where applicable.	
Acid Su	Iphate Soils			
PO35	Development complies with State Planning Policy 2/02 – Planning and Management Development Involving Acid Sulphate Soils and accompanying Guideline.	AO35.1	<ul> <li>In an area that is below 5 metre AHD, an Acid Sulphate Soil Investigation Report is provided that:</li> <li>assesses the potential for acid sulphate soils that may be affected by the development; and</li> <li>uses levels of testing commensurate with the level of disturbance.</li> </ul>	
PO36	<ul> <li>Development must ensure that potential or actual acid sulphate soils are managed such that:</li> <li>discharge water quality is acceptable at receiving waters;</li> <li>assets are not subject to accelerated corrosion; and</li> <li>environmentally sensitive areas are not</li> </ul>	AO36.1	<ul> <li>Where disturbing less than 100m<sup>3</sup> of soil and not affected the water table, an Acid Sulphate Soils Management Plan is provided detailing:</li> <li>the sampling and analysis procedures to be adopted;</li> <li>the method of treating/managing soils, if required; and</li> <li>the proposed monitoring procedures, if required.</li> </ul>	
	detrimentally affected.	AO36.2	Where disturbing 100m <sup>3</sup> or more of soil and/or affecting the water table, an Acid Sulphate Soils Investigation Report and Management Plan are provided using level of testing commensurate with the level of risk.	
Tenure				
PO37	The proponent has been granted tenure for the proposed use by GPC.	P\$37.1	No outcome is specified.	



## **Earthworks Code**

## Purpose

The purpose of the Earthworks Code is to ensure that the following overall outcomes are achieved:

- (a) Any potential impacts on the environment are minimised and/or avoided;
- (b) Significant environmental values of the area are protected;
- (c) Earthworks do not impact upon, or impede, port operations; and
- (d) Earthworks are undertaken in accordance with relevant legislative requirements.

The purpose of the code will be achieved through compliance with the Assessment Criteria provided below.

### Application

The Earthworks Code applies to all development incorporating operational works (earthworks) in all precincts with the exception of the Wharf (off-shore) Precinct.

## Assessment Criteria

PERFORMANCE OUTCOMES			ACCEPTABLE OUTCOME
Land C	ontamination		
P01	The carrying out of any excavation or filling does not contaminate any land.	A01.1	No contaminated material or acid sulphate soil is used as fill.
Infrastr	ucture		
PO2	The carrying out of any excavation or filling does not impact upon infrastructure or services on the land	AO2.1	No acceptable outcome specified.
PO3	The carrying out of any excavation or filling maintains the efficiency of the road network and does not adversely impact upon other port users or road infrastructure.	AO3.1	No acceptable outcome specified.
PO4	The works involve vehicle movements on roads suitable for the level and nature of use proposed as demonstrated in a report prepared to accompany the application	AO4.1	No acceptable outcome specified.
PO5	<ul> <li>For filling or excavation of total in excess of 1000 cubic metres, a report is provided to GPC detailing impact mitigation measures of the activity addressing:</li> <li>total amount of material to be moved to or from the site;</li> </ul>	AO5.1	No acceptable outcome specified.
	<ul> <li>truck haulage routes;</li> </ul>		
	<ul> <li>types of vehicles to be used;</li> </ul>		
	<ul> <li>suitability of vehicles to manoeuvre on minor roads;</li> </ul>		
	<ul> <li>times and numbers of truck movements;</li> </ul>		



	PERFORMANCE OUTCOMES		ACCEPTABLE OUTCOME
	<ul> <li>methods of preventing spillage or wind borne materials from leaving vehicles;</li> <li>methods of prevention, or clean up of material deposited on roads by vehicles leaving and entering the site;</li> <li>hours of truck operations, desirably avoid shift change times of 5.30-7.00 morning and evening; and</li> <li>means of limiting dust emissions to extend beyond the boundary.</li> </ul>		
Land St PO6	ability and Safety The carrying out of any excavation or filling	AO6.1	No acceptable outcome specified.
	<ul> <li>does not create any land instability or personnel safety risk or reduce the utilisation of the adjoining land by its users.</li> <li>Note: Evidence will need to be provided through a landslide hazard assessment prepared by a Registered Professional Engineer that any land with a slope in excess of 15% is not prone to landslide.</li> </ul>		
PO7	Development maintains the safety of people, property and hazardous materials stored in bulk from the risk of landslide	A07.1	<ul> <li>The development site is not subject to landslide hazard, either internally or from sloping land above the site.</li> <li>Or</li> <li>The development does not: <ul> <li>Involve any new building work other than a minor extension (&lt;20m2 gross floor area to an existing building; or</li> <li>Involve vegetation clearing; or</li> <li>Alter ground levels or stormwater conditions.</li> </ul> </li> </ul>
PO8	<ul> <li>The development includes measures that ensure:</li> <li>The long-term stability of the development site; and</li> <li>The development site will not be adversely affected by landslide activity originating on sloping land above the development site.</li> </ul>	A08.1	No acceptable outcome specified.
Stormw	ater		
PO9	Stormwater drainage from the site is at approved locations and is of an acceptable quality and volume to prevent harmful impacts on receiving waters.	AO9.1	Development includes stormwater quality improvement devices optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).



	PERFORMANCE OUTCOMES		ACCEPTABLE OUTCOME
		AO9.2	Development includes velocity reduction measures including the maintenance and re-establishment of native vegetation in drainage riparian and foreshore areas.
		AO9.3	Development includes, where possible, the retention of natural drainage patterns.
		AO9.4	Development includes stabilisation of exposed surfaces through sediment fencing, erosion protection (matting or vegetation), vegetation buffers or retention, temporary sediment basins or other controls as appropriate.
		AO9.5	Compliance with Stormwater Guideline.
Soil Erc	osion and Sedimentation Management		
PO10	Earthworks prevent any worsening or acceleration of soil erosion on the site, any adjoining land, or land upstream or downstream of the site as a consequence of the work to ensure that:	A10.1	No acceptable outcome specified.
	<ul> <li>Environmental values and water quality objectives of receiving waters within or downstream of the proposal are protected or enhanced during the construction, operation and maintenance phases; and</li> </ul>		
	<ul> <li>The release of sediment-laden stormwater for all land disturbances is minimised through the use of all reasonable and practicable erosion and sediment control measures with degraded areas reinstated.</li> </ul>		
PO11	Development proponents adopt a comprehensive approach to soil erosion control and sedimentation management by adopting the "Soil Erosion and Sedimentation Control Guidelines" (Institution of Engineers Australia 1996).	A011.1	No acceptable outcome specified.
PO12	Development proponents to adopt a comprehensive approach to soil erosion by:	AO12.1	No acceptable outcome specified.
	<ul> <li>avoiding land clearing or earthworks in the riparian corridor to a designated stream;</li> </ul>		
	<ul> <li>restricting slope batters to 1:5 or 20%;</li> </ul>		
	<ul> <li>vegetating or mulching slope batters to minimise erosion;</li> </ul>		
	<ul> <li>managing and controlling surface drainage by using natural flow paths wherever possible;</li> </ul>		
	<ul> <li>rehabilitating disturbed areas as soon as practical after completion of works by re- establishing the vegetation including native seeding, planting of seedling and mulching;</li> </ul>		



	PERFORMANCE OUTCOMES		ACCEPTABLE OUTCOME
	and		
	• where appropriate, construct ponds for collection of surface drainage from areas disturbed for prolonged periods such as, quarries, material extraction sites, reclamation areas etc.		
PO13	Progressive rehabilitation of disturbed areas within the site is undertaken, as part of the completion of each stage of development, or where there are no stages, within 3 months of the completion of the works.	AO13.1	No acceptable outcome specified.
P014	Development provides for a comprehensive rehabilitation program including:	AO14.1	No acceptable outcome specified.
	<ul> <li>the grading and reshaping of the disturbed areas to provide controlled and stable drainage flow paths;</li> </ul>		
	<ul> <li>the construction of drainage paths which divert high velocity flows away from disturbed areas;</li> </ul>		
	• the re-spreading of stored top soil stripped from the site prior to commencement of construction works; and		
	• the planting of the disturbed area with native species of grasses, ground covers and trees and placing mulch in between on the surface.		
Visual A	Amenity		
PO15	The carrying out of any excavation or filling maintains the visual amenity of surrounding	AO15.1	The extent of filling or excavation is less then 1.5m high within 2m of the boundary.
Bridge a	and Culvert Works		
PO16	Bridges and culverts for flood immunity minimise traffic disruption, improve public safety and consider fauna habitat movement.	AO16.1	No acceptable outcome is specified.
Acid Su	Iphate Soils		
PO17	Development complies with State Planning Policy 2/02 – Planning and Management Development Involving Acid Sulphate Soils and accompanying Guideline.	AO17.1	<ul> <li>In an area that is below 5 metre AHD, an Acid Sulphate Soil Investigation Report is provided that:</li> <li>assesses the potential for acid sulphate soils that may be affected by the development; and</li> <li>uses levels of testing commensurate with the level of disturbance.</li> </ul>
PO18	<ul> <li>Development must ensure that potential or actual acid sulphate soils are managed such that:</li> <li>discharge water quality is acceptable at receiving waters;</li> <li>assets are not subject to accelerated</li> </ul>	AO18.1	<ul> <li>Where disturbing less than 100m<sup>3</sup> of soil and not affected the water table, an Acid Sulphate Soils Management Plan is provided detailing:</li> <li>the sampling and analysis procedures to be adopted;</li> <li>the method of treating/managing soils, if required; and</li> </ul>



	PERFORMANCE OUTCOMES		ACCEPTABLE OUTCOME
	<ul> <li>corrosion; and</li> <li>environmentally sensitive areas are not detrimentally affected.</li> </ul>		<ul> <li>the proposed monitoring procedures, if required.</li> </ul>
		AO18.2	Where disturbing 100m <sup>3</sup> or more of soil and/or affecting the water table, an Acid Sulphate Soils Investigation Report and Management Plan are provided using level of testing commensurate with the level of risk.
Tenure			
PO19	The proponent has been granted tenure for the proposed use by GPC.	AO19.1	No acceptable outcome is specified.

Gladstone Regional Council (2006)



## Marina and Community Facilities Code

## Purpose

The purpose of the Marina and Community Facilities Code is to ensure that the following overall outcomes are achieved:

- (a) Development promotes public access, recreation, community benefits;
- (b) Land uses are linked to and support the Marina, university and tourism/visitor related needs; and
- (c) Development incorporates highly articulated and aesthetically appealing building façades, through the use of various materials, forms and structures.

The purpose of the code will be achieved through compliance with the Assessment Criteria provided below.

## Application

The Marina and Community Facilities Code applies to the following Land Use Plan Precincts and Localities:

Localities	Precincts
Gladstone Marina	Marine Industry
	Parkland & Education
Wiggins Island	Marine Industry

## Assessment Criteria

PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME		
Marinas				
P01	Marina design does not impede existing navigational channels or berths, and allows for the safe movement and manoeuvring of existing boats.	AO1.1	New marinas accord with an approved marina structure plan.	
PO2	The marina is designed to acceptable Australian engineering and design standards.	AO2.1	The marina complies with Australian Standard AS3962-2001.	
Building	g Design			
PO3	Buildings are designed to address the street frontages, as well as the pedestrian/ community areas.	AO3.1	No acceptable outcome is specified.	
PO4	Building bulk is greatest at ground level and podium levels, graduating to less bulky towers above.	AO4.1	Ground level podiums are set back at least 3 metres from the street frontage.	
		AO4.2	Podium level is a maximum of 2 storeys or 8 metres.	
PO5	Building height and form is varied to reduce bulk and mass and to maintain a high standard of visual amenity.	AO5.1	Compliance with "Guidelines for Building Development within Gladstone Marina".	
PO6	Buildings and ancillary structures are designed to be attractive and consistent with the character of the surrounding area.	AO6.1	All buildings and ancillary structures (including warehouses) must achieve a high standard of visual amenity and incorporate a range of design elements including:	



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			<ul> <li>façade treatments;</li> <li>roof pitch and design;</li> <li>recesses, overhangs and shading;</li> <li>materials and features which reflect the local climate; and</li> <li>colours and building textures.</li> </ul>
		A06.2	Compliance with "Guidelines for Building Development within Gladstone Marina".
P07	The bulk and scale of buildings is consistent with surrounding development and steps down to complement the open space areas.	A07.1	No acceptable outcome is specified.
Access	and Parking		
PO8	Parking meets all marina users, tourists, employee and customer needs.	AO8.1	Parking must be provided on site to accommodate all vehicles i.e. of employees, customers and/or visitors.
	Vehicle parking rates may be relaxed at the discretion of the assessment management, where it can be demonstrated there is a low demand for parking spaces.	AO8.2	Compliance with Car Parking and Access Guideline.
PO9	On site vehicle access is designed to be safe, effective, minimise traffic congestion and of a standard to the satisfaction of the Assessment Manager.	AO9.1	Appropriate driveways and crossovers are provided according to the type of vehicles expected to access the site.
			<ul> <li>Provision is made to ensure all vehicles:</li> <li>entering a site do not queue across footpaths or onto external roads; and</li> <li>are exclusively accommodated within the lease boundary.</li> </ul>
PO10	Access to industrial development is designed and constructed with safe ingress and egress of vehicles to the site.	AO10.1	<ul> <li>Access to light industrial sites is designated as follows:</li> <li>(i) a vehicle access point is at least 10m to an intersecting street when the driveway is on the same side of the street; and</li> </ul>
			<ul><li>(ii) a minimum sight distance of 110m is provided in either direction to an access point.</li></ul>
PO11	Internal driveways have sufficient width to adequately cater for the nature of the traffic envisaged.	AO11.1	Internal driveway widths are 6m.
PO12	Car parking is situated on a site to be evident but not dominant in the streetscape.	AO12.1	No acceptable outcome is specified.
PO13	Vehicle circulation and manoeuvring is provided on-site to meet all operational, employee and customer needs.	AO13.1	<ul> <li>Internal circulation routes function safely and efficiently and accommodate all expected traffic on site, including:</li> <li>delivery and pick-up services;</li> <li>movement between outdoor and indoor areas; and</li> <li>service vehicles, including rubbish collection.</li> </ul>
		AO13.2	Vehicle manoeuvring is provided on site so that the design vehicle/s can enter and leave the site in a forward motion.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
PO14	The design of vehicle access, circulation, manoeuvring and parking areas demonstrated compliance with relevant Australian Standards, relevant State policy or other standard adopted by the Assessment Manager.	A014.1	<ul> <li>An access, circulation, manoeuvring and parking plan to be provided which illustrates the following details:</li> <li>dimensions of all pavements and areas;</li> <li>turning templates for largest turning circle of vehicles accessing the site;</li> <li>access for service vehicles;</li> <li>depths of, and materials used to construct pavements;</li> <li>all gradients of parking, access and circulation areas;</li> <li>sight lights; and</li> <li>height clearances.</li> </ul> At the discretion of the Assessment Manager, a traffic management study may be required, addressing impacts of the development as associated vehicle activity on the road network.
Infrastru	ucture and Services Provision		
PO15	Land is adequately serviced by reticulated infrastructure, such as water supply, sewage disposal, streets lighting, telecommunications and energy. Infrastructure is appropriately maintained.	A015.1	All land is provided with: • reticulated water; • sewerage; • drainage; • energy; • telecommunications; and • gas service where required.
PO16	Site design and layout included provisions for additional infrastructure to facilitate future telecommunications services.	AO16.1	Conduits are provided to enable the future provisions of fibre-optic cabling and other 'smart wiring'.
PO17	<ul> <li>Frontage of the site provides the following at an appropriate standard:</li> <li>high quality paved roadway;</li> <li>kerb-channel;</li> <li>safe, high quality crossings over channels and walkways;</li> <li>provision, alteration and upgrading of public utilities:</li> <li>effective drainage;</li> <li>landscaping and/or street trees and furniture; and</li> <li>appropriate conduits for provision of required street lighting systems and traffic signals.</li> </ul>	A017.1	<ul> <li>The following are provided or already exist at the frontage of the site:</li> <li>kerb and channel;</li> <li>construction of a carriageway with sufficient width to accommodate the land use and associated activities;</li> <li>forming and grading walkways;</li> <li>reconstruction of any damage to, public walkway and kerb and channel;</li> <li>drainage works;</li> <li>installation of electrical conduits;</li> <li>construction of, and required alterations to, public utility mains, services or installations;</li> <li>landscaping and/or street trees and furniture; and</li> <li>1.2 metre concrete footpath along full frontage of the site.</li> </ul>
PO18	Development provides appropriate storage and collection areas, which do not adversely affect the amenity of the site, for services visiting the site, such as:	A018.1	Appropriately located waste-storage areas, which meet the needs of regularity of visits to the site, are incorporated into the site layout and building design.
	<ul> <li>rubbish collection; and</li> <li>trade –waste removal.</li> </ul>	AO18.2	Waste storage areas are screened from public view by dense landscaping at least two (2) metres wide, fencing or buildings are located a minimum of five (5) metres from a road frontage.
PO19	Fire hydrants and boosters are in locations that enable the provision of water and pressure for use by the Queensland Fire and Rescue Service.	AO19.1	Fire hydrants are provided in accordance with Queensland Fire and Rescue Service standards.



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME		
Outdoo	r Lighting				
PO20	<ul> <li>All lighting is to:</li> <li>facilitate a safe and secure working environment;</li> <li>be energy efficient;</li> <li>not have an adverse impact on navigation; and</li> <li>not result in adverse impact on any person, activity or surrounding environment.</li> </ul>	AO20.1	Lighting structures are of a sufficient height to provide enhanced safety and security of an area. All outdoor lighting areas are to be lit to a standard appropriate to allow for a safe night time working environment. To ensure that outdoor lighting minimises light spillage and adverse impacts on environment, either directly or by reflection, light shades and other devices to control and manage light are used to reduce light spillage affecting sensitive places, environments, uses or areas. Lighting is to be projected no further than 5° from horizontal. Technical parameters, design, installation, operation and maintenance of outdoor lighting comply with the requirements of Australian Standard on the AS4282 Control of the Obtrusive Effects of outdoor Lighting. Energy efficient lighting technologies are adopted.		
Stormw	ater				
PO21	Stormwater drainage from the site is at approved locations and is of an acceptable quality and volume to prevent harmful impacts on receiving waters.	A021.1 A021.2	Development includes stormwater quality improvement devices optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).		
			including the maintenance and re-establishment of native vegetation in drainage riparian and foreshore areas.		
		AO21.3	Development includes, where possible, the retention of natural drainage patterns.		
		AO21.4	Development includes stabilisation of exposed surfaces through sediment fencing, erosion protection (matting or vegetation), vegetation buffers or retention, temporary sediment basins or other controls as appropriate.		
		AO21.5	Compliance with Stormwater Guideline.		
Landsca	aping				
PO22	<ul> <li>Landscaping is:</li> <li>of a high quality that focuses on all road and other public space frontages to enhance the overall amenity of the streetscape and soften the visual impact of the land use;</li> </ul>	AO22.1	<ul> <li>On site landscaping is provided along the full length of the principal road frontage of the site, apart from vehicle access points, as follows:</li> <li>5m along arterial road; or</li> <li>3m along other roads.</li> </ul>		
	<ul> <li>is maintained to a high level;</li> <li>is designed to require limited watering and maintenance; and</li> </ul>	AO22.2	Premises provide shade trees in diamond shaped openings in surface car parking areas at a minimum rate of 1 shade tree per 6 car parking spaces.		

	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
	<ul> <li>is integrated with the site's stormwater management system and provision of:         <ul> <li>staff recreation areas; and</li> <li>screening of air conditioning plant and rubbish collection areas.</li> </ul> </li> </ul>	AO22.3	Compliance with Landscaping Guideline.
Fencing			
PO23	Fencing is provided to ensure public safety with regard to potential hazards and storage of hazardous goods.	AO23.1	Activities undertaken on site that may pose a direct physical hazard or potential hazard to the public are fenced and security gated so that access is denied.
			Storage areas are reasonably secured from general access.
PO24	All fencing is of a design that provides maximum security and/or separation without adversely affecting overall amenity and streetscape quality.	AO24.1	The minimum standard for access control security fencing is 1.8 metre high, black PVC, plastic coated, chain wire mesh fence with black posts.
			Any fencing other than chain wire mesh requires prior approval of GPC.
			<ul> <li>Fencing needs to be :</li> <li>constructed of a durable material that does not create glare and is not brightly coloured;</li> <li>compatible with buildings on site and in the area; and</li> <li>permeable along road frontages, where casual surveillance is necessary.</li> </ul>
PO25	Fencing in the Gladstone Marina Locality must adequately screen activities and secure the premises.	AO25	Where required by GPC, activities are required to install white colour-bond fencing to a height of 1.8m.
Adverti	sing Signage		
PO26	Signage on or associated with new buildings does not detract from public safety or the amenity of the natural or built environment.	AO26.2	<ul> <li>Advertising signs are limited to:</li> <li>1 per site; and</li> <li>does not impact on vehicle lines of sight.</li> </ul>
		AO26.2	Advertising signs do not protrude above the roof line of existing buildings, and in all situations do not exceed 8 metres in height.
		AO26.3	Content of signage exhibits a direct correlation to a business, operation or activity at the marina.
Sustain	able Design		
PO27	Site layout and design features incorporate sustainable design, operation and management features.	A027.1	<ul> <li>Site and building design and layout incorporate passive and active sustainable development through use of a cleaner production and eco efficiency approaches, including</li> <li>(i) Energy efficiency e.g.: Reduction in energy consumption, through design that considers items such as natural ventilation, process heat gains/losses and potential for energy use, natural light usage, transport and site vehicle movement requirements;</li> </ul>



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME
			<ul> <li>(ii.) Water usage efficiency e.g.: Improvement in water use efficiency through design that considers items such as process water reuse, storm water capture and reuse (segregation clean water from any pollutants), improved site processes to reduce requirement for water use;</li> <li>(iii.) Waste management / minimisation e.g.: Improvement in waste management and resource use efficient through design that considers effective capture segregation/separation of wastes, material reuse and recycling, minimisation or process wastes.</li> </ul>
		A027.2	Site layout incorporates the use of water sensitive urban design elements to effectively manage and treat storm water before release to the GPC drainage system e.g.: sediment basins; bioretention swales / basins; sand filters; other swale or buffer systems; rainwater tanks; and ponds or constructed wetlands where appropriate.
Commu	inity Safety		
PO28	All premises are designed to achieve safety for property, staff and customers by ensuring that:	AO28.1	No acceptable outcome specified
	<ul> <li>buildings are sited, orientated and designed to maximise casual surveillance of public spaces and designed to avoid opportunities for personal concealment;</li> </ul>		
	<ul> <li>(ii) enteries to building area exposed to the main street frontage and are clearly delineated;</li> </ul>		
	<ul> <li>(iii) general public parking areas are clearly designated, well-lit and have clearly-defined access points;</li> </ul>		
	<ul> <li>(iv) premises are well-lit to encourage informal surveillance with well- placed, low wattage light to minimise 'blind spots'; and</li> </ul>		
	<ul> <li>(v) building identification is prominent, clearly identifiable at night and large enough to be read from vehicles in the street.</li> </ul>		
Outdoo	r Dining Areas		
PO28	Outdoor dining areas located within a public space are appropriately designed and located such that:	AO28.1	No acceptable outcome specified
	<ul> <li>Pedestrian movement at all times is safe, free of congestion and offering the most direct route with adequate</li> </ul>		



	PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME	
	protection from weather;			
	<ul><li>(ii) the comfort, safety and free movement of patrons is provided;</li></ul>			
	<ul> <li>(iii) appropriate public amenities are available where 20 or more patrons are accommodated;;</li> </ul>			
	<ul> <li>(iv) free access to adjoining premises is provided such that the operations of adjoining premises are not adversely affected; and</li> </ul>			
	<ul><li>(v) the extent of seating is appropriate to the character and amenity levels of the location.</li></ul>			
Shade S	tructures			
AO29	Any shade structure or device located within a public space is to be:	AO29.1	The shade structure provides a minimum clearance height of 2.7 m for all pedestrian and patron circulation areas.	
	(i) Compatible with the streetscape character; and			
	(ii) constructed to ensure the safety of pedestrians.			
Tenure				
PO30	The proponent has been granted tenure for the proposed use by GPC.	AO30.1	No acceptable outcome is specified.	

## **Buffer Code**

## Purpose

The purpose of the Buffer Code is to ensure that the following overall outcomes are achieved:

- (a) Existing and future port and related development is protected from encroaching sensitive receptors;
- (b) Potentially incompatible land uses are separated from port and related development as part of the port's impact mitigation strategy; and
- (c) Areas of high ecological value are recognised and protected where possible as part of the port's impact mitigation strategy.

The purpose of the code will be achieved through compliance with the assessment criteria provided below.

## Application

The Buffer Code applies to the following Land Use Plan Precincts and Localities:

Localities	Precincts
Port Central	Buffer
RG Tanna Coal Terminal	Buffer
Hanson Road	Buffer

## Assessment Criteria

PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME		
Develo	pment Protection			
PO1	Development of potential sensitive receptors are to be avoided to protect existing or future Port and related development	A01.1	No acceptable outcome is specified.	
Incomp	patible Land Uses			
PO2	Port and related development that may have adverse impacts upon nearest sensitive receptors are to be avoided.	AO2.1	No acceptable outcome is specified.	
PO3	Activities/development that may be incompatible with nearby port and related development are to be avoided.	AO3.1	No acceptable outcome is specified.	
Ecolog	ical Values			
PO4	Where ecological values are identified these values are to be protected whenever possible.	AO4.1	No acceptable outcome is specified.	
Restric	ted Development			
PO5	Building and other infrastructure development for the purpose of light industry and commercial or port development is restricted to that development that is deemed necessary and appropriate by the GPC.	AO5.1	No acceptable outcome is specified.	



PERFORMANCE OUTCOME		ACCEPTABLE OUTCOME	
Stormw	ater		
PO6	Stormwater drainage from the site is at approved locations and is of an acceptable quality and volume to prevent harmful impacts on receiving waters.	AO6.1	Development includes stormwater quality improvement devices optimise the interception and removal of water borne pollutants (i.e. contaminant control measures to remove waste from stormwater).
		AO6.2	Development includes velocity reduction measures including the maintenance and re-establishment of native vegetation in drainage riparian and foreshore areas.
		AO6.3	Development includes, where possible, the retention of natural drainage patterns.
		AO6.4	Development includes stabilisation of exposed surfaces through sediment fencing, erosion protection (matting or vegetation), vegetation buffers or retention, temporary sediment basins or other controls as appropriate.
		AO6.5	Compliance with Stormwater Guideline.
Commu	inity Safety		
P07	Any development to enhance public access, including, but not limited to, parking areas, walkways, recreational facilities etc. must be designed to achieve safety for property, staff and the community.	A07.1	No acceptable outcome is specified.



# PART B – GUIDELINES

The Guidelines are non-statutory documents that further support the LUP 2012. The guidelines outline port-specific information that will facilitate a proponent's efforts to address the planning, construction and operational requirements of GPC. The guidelines provide proponents with the technical information necessary to address the performance outcomes and acceptable outcomes within the codes.

The guidelines should be read in conjunction with the codes and the LUP 2012.

To ensure the guidelines contain the most up to date information and requirements, the document is subject to change.

Guidelines are provided for the following aspects of development:

- (a) Car Parking & Access;
- (b) Landscaping;
- (c) Stormwater Management ;
- (d) Environmental Management Plans;
- (e) Gladstone Marina Building; and
- (f) Gladstone Regional Council Consultation.



## **Car Parking & Access Guideline**

This policy contains the required rates of vehicle parking and design and construction standards for vehicle parking, access and manoeuvring areas for all land uses on port land.

### **CAR PARKING**

A sufficient number of car parking spaces and service vehicle loading bays are to be provided to accommodate the amount and type of traffic expected to be generated by the use.

(i) The minimum number of on-site car parking spaces is to comply with Table 1 – Vehicle Parking Rates;

and

(ii) When viewed from the principal street frontage, car parking areas and other hardstand areas are to account for less than 50% of the site's frontage.

#### Transport, Access, and Servicing Requirements

The following details the required standards for the provision of access and servicing requirements for parking:

- (i) Two per cent of the number of vehicle parking spaces required are provided as marked and signed areas for motor cycles, with a minimum of 1 space, each measuring 2.5 m by 1.35 m.
- (ii) Commercial development over 500 m<sup>2</sup> GFA are to provide and maintain dedicated facilities for the parking of push bikes suitable for securing a bike in an upright position at a rate of two push bikes per 500 m<sup>2</sup> GFA, or part thereof, within 30 m walking distance of a pedestrian entry to the building.
- (iii) Commercial developments over 2500 m<sup>2</sup> GFA to provide a dedicated rank for one taxi rank for each 2500 m<sup>2</sup> GFA within 30 m walking distance of a pedestrian entry to the building.
- (iv) Commercial developments over 4000 m<sup>2</sup> GFA provide a bus set down shelter with seats for one bus for each 4000 m<sup>2</sup>, within 50 m walking distance of a pedestrian entry to the building and public phone.
- (v) Equitable parking access for vehicle occupants with disabilities is to be provided at a rate of 1 space per 100 ordinary parking spaces, or 1 space per 4,500m2 GFA for a business, or 1 space per 300m2 GFA for a restaurant.

#### ACCESS

Access to industrial development is designed and constructed with safe ingress and egress of vehicles to the site.

Access to industrial sites is required as follows:

- (i) a vehicle access point is at least 10 metres to an intersecting street when the driveway is on the same side of the street; and
- (ii) a minimum sight distance of 110 metres is provided in either direction to an access point.

Internal driveways must have sufficient width to adequately cater for the nature of the traffic envisaged.

Internal driveway widths are:

- (i) 6 metres for commercial/light industry; and
- (ii) 9 metres for major industry/port development.

The following Table 1 lists the required rates of vehicle parking to be provided for purposes of development.

## Table 1 Vehicle Parking Rates

Use/purpose	Minimum car parking requirement (Unless otherwise provided for in a Locality Code)	Additional standards
Accommodation	1 space per Department; plus	
Building	1 space per 2 Departments for visitors.	
Advertising sign	No spaces required.	
Brothel	2 spaces per employee	
Bulk Store	1 space per 100 m <sup>2</sup> GFA.	Heavy vehicles must be able to be accommodated and turned on site.
Caretaker's Residence	1 space adjacent to the residence	
Commercial premises	1 space per 30 m2 GFA	Commercial premises
Community Facilities	1 space per 50 m2 of GFA	Community Facilities
Concrete Batching Plant	2 visitor spaces	Concrete Batching Plant
1 space per employee; plus		1 space per employee; plus
Contractor's Depot	2 visitor spaces.	Contractor's Depot
1 space per employee; plus	Loading and unloading areas provided on site.	1 space per employee; plus
Commercial premises	1 space per 30 m2 GFA	Commercial premises
Educational establishment	1 space per 2 staff for Primary Schools1.5 spaces per 2 staff for other uses	
Estate Sales Office	2 spaces	Estate Sales Office
Extractive Industry	1 space per 2 employees;	
	plus 2 visitor spaces.	
Food Premises	1 space per 15 m <sup>2</sup> . GFA	For any drive-through facility, queuing space, clear of the road reserve, for 10 vehicles being served or awaiting service.
Fuel Depot	1 space per employee; plus	Heavy vehicles must be able to
	2 visitor spaces	be accommodated and turned on site.
Indoor Entertainment	1 space per 20 m <sup>2</sup> GFA; or	Whichever is the greatest.
	1 space per 5 spectators able to be seated; or	
	4 spaces per court or lane.	
Local Industry	1 space per 50 m <sup>2</sup> GFA for the first 500 m <sup>2;</sup> plus	Heavy vehicles must be able to
	1 space per 100 m <sup>2</sup> GFA thereafter.	be accommodated and turned on site.
Machinery and Transport Depot	1 space per 50 m2 GFA	Heavy vehicles must be able to be accommodated and turned on site.

**Notes** GFA = Gross Floor Area m<sup>2</sup> = square metres



Use/purpose	Minimum car parking requirement (Unless otherwise provided for in a Locality Code)	Additional standards
Major Industry	1 space per employee	Based on maximum employees per shift
Major Infrastructure	1 space per employee plus 1 space for maintenance vehicle (excluding transmission lines, pipelines, etc).	
Marina	1 space per 50 m <sup>2</sup> GFA; plus	Heavy vehicles must be able to be accommodated and turned on site.
	1 space per berth or mooring facility available.	
Noxious, Offensive or Hazardous Industry	1 space per employee	Based on maximum number of employees per shift
Office	1 space per 30 m <sup>2</sup> GFA	
Park	No spaces required.	
Port Facilities	1 space per employee	Based on maximum number of employees per shift
		Heavy vehicles must be able to be accommodated and turned on site.
Public Purpose	1 space per 50 m <sup>2</sup> of GFA; otherwise sufficient spaces to accommodate the amount of vehicular traffic likely to be generated by the particular use in accordance with a traffic management plan.	
Service Trade	1 space per 30 m <sup>2</sup> GFA	
Shop	1 space per 20 m <sup>2</sup> GFA for the first 700 m <sup>2</sup> GFA; plus 1 space per 15 m <sup>2</sup> GFA thereafter.	Heavy vehicles must be able to be accommodated and turned on site when shop has more than 1000 m <sup>2</sup> GFA
Storage Depot	1 space per 50 m <sup>2</sup> of storage area	*Heavy vehicles must be able to be accommodated and turned on site.
Telecommunications Facilities	1 space for maintenance purposes to be available on the site, adjoining land or street reserve.	
Temporary use	Spaces available in accordance with the requirements listed in this table for the use proposed.	
Warehouse	1 space per 100 m <sup>2</sup> GFA	Heavy vehicles must be able to be accommodated and turned on site.
Waterfront Industry	1 space per 50 m <sup>2</sup> of GFA	Heavy vehicles must be able to be accommodated and turned on site.



#### Parking and Access Design Standards

The following lists the required design and construction standards car parking, access and manoeuvring areas for purposes of development.

- (i) The dimensions and areas of car parking spaces meet the design requirements of Australian Standards AS 2890.1 1993 and AS 2890.2 2002 or as amended from time to time.
- (ii) All premises (except dwelling houses, duplex Departments) enable vehicles to enter and leave the site in a forward direction such that circulation areas, turning areas and circulation driveways comply with Australian Standards AS 2890.1 1993 and AS 2890.2 2002, as amended from time to time.
- (iii) Open car parking spaces where possible are to be designed and constructed to facilitate stormwater infiltration on-site. This may be achieved through being surfaced with resilient paving materials and are designed to accommodate stormwater infiltration.
- (iv) Bicycle facilities and on street parking complies with AS 2890.3 1993 Bicycle Parking Facilities and AS 2890.5 On Street Parking.



## Landscaping Guideline

## SOFT LANDSCAPE DESIGN

#### Introduction

Properly designed and constructed soft landscape treatments such as shrub beds, tree planting and grassing can create interesting places in the Landscape. As these elements generally require ongoing maintenance throughout the entire life of the landscape, their design should be carefully considered to ensure that they serve their intended purposes including:

- providing solar screening around buildings,
- providing amenity and distinct landscape character,
- creating interest and visual stimulation,
- · defining boundaries between two or more facilities, and/or
- screening of undesirable objects or unattractive activities.

#### Design to reduce maintenance

There is no such thing as a maintenance free landscape, however proper planning can keep maintenance to a minimum. Aim to achieve minimum maintenance by using the following guidelines:

- ensuring that shrub beds and grassed areas have adequate surface drainage,
- make sure trees in lawn areas are placed so that mowing around them is not impeded,
- plant trees and shrubs in beds with a minimum 100 mm depth of mulch,
- do not provide more plants than may be required so that plants don't need to be thinned out as they mature,
- choose plants that are long lived, hardy and require minimal maintenance,
- · design paths and paving to accommodate desire lines, and/or
- allow for adequate preparation of soil for planting and grassing.

#### Soils

Soil selection for plants is an important factor when designing for soft landscape elements. The selection of soil can mean the difference between a poorly performing landscape and a thriving landscape. In many areas, the existing soil cannot provide trees and shrubs with sufficient nutrients and water penetration for their survival. In these cases soil needs to be improved or soil imported to supplement the existing site soil. Within the Port area, 100mm of good soil is required for turf for best results. Gardens will require a minimum of 200mm for good soil for best performance of plantings.

Sub grade soil is of stone clay type with higher than normal salt levels. To improve the sub-grade it is recommended to add gypsum then lightly rip the sub-grade which will allow topsoil to key into the sub-grade for better drainage. Gypsum will help open the clay soil up and assist with the salt problem.



## Selection of species

The following tree, shrub, and ornamental grasses are recommended for use in the landscape or plants already used elsewhere in the Port landscape. Design should also consider the site conditions, maintenance requirements and design intent when selecting species.

Botanical Name	Common Name
Acalypha	
Acacia fimbriata	Brisbane wattle
Acacia podalyriifolia	Silver Wattle
Araucaria columnaris	Cook Pine
Banksia integrifolia	Coastal Banksia
Banksia robur	Swamp Banksia
Baeckea virgata	
Breynia oblongifolia	Coffee bush
Callistemon species	
Casuarina equisitfolia	Beach she oak
Crinum pedunculatum	Swamp lily
CupanioAOis anacardioides	Tuckeroo
Corymbia citriodora	Lemon Scented Gum
Corymbia tessellaris	Moreton Bay Ash
Dianella caerulea	
Dianella variegated	
Dietes bicolor	
Eugenia reinwardtiana	Beach Cherry
Ficus microcarpa hillii	
Ficus platypoda	Rock fig
Flindersia australis	Crows Ash
Harpullia pendula	Tulipwood
Hibbertia scandens	Snake Vine
Hymenocallis littoralis	Spider Lilly
Hibiscus tiliaceus	Cottonwood
Livistonia decipiens	Cabbage Palm
Lonicera japonica	Japanese Honeysuckle
Macaranga tanarius	

## **Recommended Plant Species List**



Botanical Name	Common Name	
Melaleuca leucadendron "Broadleaf"	Weeping Paperbark	
Melaleuca quinquenervia		
Melaleuca viridifolia	Board-leaved tea tree	
Myoporum ellipticum		
Metrosideros thomasii	New Zealand Christmas Tree	
Metrosideros 'Fiji fire'		
Pandanus pedunculatus		
Peltophorum pterocarpum	Yellow Poincana	
Pleiogynium timorense	Burdekin plum	
Pittosporum rhombifolium		
Phyllanthus minutifolius		
Rhaphiolepis intermedia	Indian Hawthorn	
Strelitzia reginae		
Syzygium paniculata		
Syzygium leuhmannii		
Terminalia cattopa	Indian Armond	
TristanioAOis laurina	Water Gum	
Trachelospermum jasminoides	Star jasmine	

Alternative species to that listed can be made by submiting the following information to GPC's Landscaping and Revegetation Supervisor, Graham Gambie for review.

- Botanical name
- Common name
- Plant type (tree, shrub, ground cover, grass, climber)
- Typical height and width
- Description (shape, growth habit, foliage, flowers, fruit, nuts, bark)
- Environment required and tolerance (drainage, wind, frost, drought, sun,
- shade, salt)
- Maintenance requirements (pruning, irrigation, common pests or diseases)
- Landscape uses/advantages
- Does the plant have prickles?
- Does the plant have messy fruit?
- Does the plant have invasive roots?
- Are any parts of the plant poisonous?
- Is the plant related to a species on the QLD weeds list? If so, what characteristics of this plant make it less likely to be a potential weed?

Photographs of the plant would also be helpful.

## **Public safety**

When designing soft landscape treatments for public spaces the following principles help improve public safety:

- Locate trees so that minimum clearance requirements from services and sight lines are maintained.
- Locate trees so that they do not conflict with existing or proposed buildings.
- Not using shrubs with sharp or spiky foliage in areas such as pathways where they may cause injuries.
- Ensuring that the design of planting does not restrict or interfere with access.
- Designing shrub beds or pathways so that they do not form a complete screen or enclosure where pedestrians may feel vulnerable.

#### **Mulching materials**

The type of mulching material to be used for planting areas should be selected on the basis of its general purpose and location of the bed within the environment. When applying mulch to newly constructed shrub beds, it should be applied so its settled depth is 100 mm. This will prevent most seed germination in the soil. Fine mulch should not be used as it is prone to being either blown or washed away and decompose too rapidly.

#### Pine chip

This mulch can be used to cover both non-irrigated and irrigated planting areas and can be used in almost any location. It is especially useful on sloping sites as the mulch binds to itself and in park areas and near buildings because it will not cause damage when thrown.

#### Hardwood Chip

As with Pine chip can be used to cover both non-irrigated and irrigated planting areas and can be used in almost any location. It is especially useful on sloping sites as the mulch binds to itself and in park areas and near buildings because it will not cause damage when thrown. Hardwood chip appearance is much more appealing than pine chip and relatively high cost.

## Pine bark

Pine bark is more expensive than woodchip and comes in a variety of sizes. Its attractive appearance suits its use in prestige areas. As larger pieces can be thrown or moved onto pathways, only screened material 1–2.5 cm should be used as a mulch over shrub beds.

#### Stones/pebbles

Stones and pebbles provide a suitable and attractive alternative to traditional mulch along watercourse plantings such as floodway's. This type of mulch should not be used close to buildings where there is a possibility of rocks being thrown through windows or spread by mowers.

## Protecting existing trees

Damage to existing trees during development typically occurs through physical and chemical injury and through changes in drainage. This may be caused through:

- level changes excavation severs roots and filling causes suffocation of the feeder roots
- trenching for underground services, kerbs and gutters and footings, which severs roots, affecting both the stability and nutrient intake of the tree
- drainage changes causes drought or water logging of the root zone
- compaction causes physical damage to roots and prevents air and water reaching the roots
- chemicals including engine oil leaks, hydraulic fluid and a wide range of chemicals that are taken up by the tree roots
- physical injury wounding affects tree health and can facilitate the entry of disease and decay.



#### **Trees and services**

There is potential for conflict between trees and infrastructure such as powerlines, water pipes, street lights, paving, kerbs and signs. The design and location of services must be coordinated with the design process at an early state to minimise conflict. In developing a landscape design, an awareness of the location of existing services is essential.

Conflicts may result in:

- increased maintenance costs
- reduced longevity of the trees and loss of aesthetic value
- reduced public safety.

Beneath power lines, plant only trees that will not encroach upon the acceptable safe distance from the power lines when mature. If your tree will grow to 5 m, it should be planted 5 m away from the power pole. If it will grow to 10 m, it should be 10 m away from the pole.

A clear line of sight must be provided to signs, lights and driveways. Low branching or weeping species should not be selected for use near these items.

Where possible, trees should be planted the maximum distance available away from kerbs, driveways and footpaths to reduce root interference. A one metre minimum clearance (for desirable deep or fine rooted smaller trees), A clear line of sight must be provided.

Species selection for use near buildings is important; consider the mature size of the tree. If adjacent green space is available then planting trees close to buildings should be avoided.

Trees with vigorous root systems are able to penetrate and interfere with underground services such as stormwater and sewer mains, and underground cabling such as telephone and electricity lines. Species selection is therefore just as important. Select trees that do not have vigorous root systems within service easements.



## **Stormwater Management Guideline**

## Purpose

The purpose of this guideline is to achieve acceptable levels of stormwater run-off quality and quantity by applying water sensitive design principles in development proposals to maintain and enhance the environmental values of waterways and catchments.

The guideline identifies many issues that will require detailed design of systems to mitigate the impacts of development on flooding, water quality and drainage. The detailed design of the drainage network and stormwater quality best management practices will be required in a Site Based Stormwater Management Plan. Such a plan provides site specific details and highly detailed information on how stormwater will be managed on site and any impacts this may have both on and off site.

## Application

A Site Based Stormwater Management Plan is required as part of the Environmental Management Plan for all development applications. However, Site Based Stormwater Management Plans with high levels of detailed design will usually be required as part of an operational works application, a port application or as a condition of approval.

## **Assessment Criteria**

	Performance Outcome		Acceptable Outcome
PO1	<ul> <li>Planning must provide for the integrated management of stormwater in order to:</li> <li>Minimise flooding;</li> </ul>	AO1.1	Compliance with this Guideline and Referenced Standards.
	<ul> <li>Protect and enhance environmental values of receiving waters;</li> <li>Maximise the use of water sensitive design principles;</li> <li>Maximise the use of natural waterway corridors and natural channel design principles;</li> <li>Maximise community benefit; and</li> <li>Minimise public safety risk.</li> </ul>	AO1.2	<ul> <li>A Site Based Stormwater Management Plan (SBSMP) is prepared for major and minor stormwater management measures. The SBSMP must provide the following where applicable:</li> <li>An underground and/or open drain/overland flow-path network maximising the use of natural channel design and water sensitive urban design principles;</li> <li>Make provision for detention/retention storage basins;</li> <li>An erosion and sediment control program;</li> <li>Retention of natural waterway corridors;</li> <li>Public safety factors and risk management measures; and</li> <li>An acceptable level of flood immunity.</li> </ul>
		AO1.3	Compliance with relevant government legislation policies and plans.
PO2	The development or site works must not adversely impact on drainage or flooding of land that is upstream, downstream or adjacent to the site.	AO2.1	There is no increase in flood level or flood duration on upstream, downstream or adjacent sites. Compliance can be demonstrated by the submission of a hydraulic and hydrology report (as part of a SBSMP) identifying potential flooding impacts on upstream,



			downstream or adjacent sites.
PO3	The drainage network must provide capacity to safely convey stormwater run-off resulting from relevant design storm events taking into account increased run-off from roof drainage.	AO3.1	The design demonstrates that a drainage network will be provided that will comply with the Referenced Standards.
PO4	Any channel works that are part of the development, major drainage works or flood mitigation works must maintain or enhance the environmental values of the waterway corridor or drainage corridor.	AO4.1	Design and construction of channel works incorporate water sensitive design and natural channel design features which will comply with the Referenced Standards.
PO5	Erosion treatment works along waterway banks and associated drainage structures must maintain or enhance the environmental values of the waterway.	AO5.1	Design and construction of erosion treatment features incorporate natural channel design features which will comply with the Referenced Standards.
PO6	PO6 Environmental values and water quality objectives of receiving waters within or downstream of the development are protected or enhanced.	AO6.1	Relevant water quality objectives for receiving waters are identified and site specific discharge standards met. All development complies with the Referenced Standards and any relevant legislative requirement.
		AO6.2	Where stormwater treatment is required to meet site specific discharge standards or legislative requirements, such treatment must occur within the boundaries of the development site, unless otherwise approved.
	AO6.3	The design provides for stormwater quality best management practices that are sufficient to treat the target pollutants and will comply with the Referenced Standards.	
		AO6.4	All stormwater infrastructure is designed, constructed and maintained in accordance with the Referenced Standards.
PO7	Release of sediment laden stormwater is minimised.	AO7.1	All development complies with the Referenced Standards and any relevant legislative requirements including, but not limited to, the <i>Environmental Protection Policy (Water) (Qld)</i> .

## **Stormwater Guideline Definitions**

**Detention/retention storage basin** means a storage pond, basin or tank used to reduce and attenuate the peak discharge and/or sediment load within a drainage system.

**Environmental values** means the actual or potential function carried out by the water body. For more information on environmental values, refer to the Environmental Protection Policy (Water).

**Flood** means the temporary inundation of land by expanses of water that overtop the natural or artificial banks of a watercourse or drain.

Floodable land means land affected by one of the following flood sources:

- Calliope River;
- Localised overland flow paths;
- Designed open channels;
- Localised flooding;
- Storm tide surge.

Land disturbing development means any carrying out of building work, plumbing or drainage work, operational work or port application work where there is potential for accelerated erosion from wind or water and/or the discharge of sediment to drains or waterways.

Localised flooding includes localised overland flow paths and localised ponding.

Localised overland flow paths are drainage lines that convey stormwater runoff, from any storm, before it enters a creek or waterway network. Overland flow paths, in general, are not part of river, creek or waterway flooding and by nature are dry except during storm events.

**Major drainage system** means part of a drainage system in a catchment which is desined to convey major design storms, eg 50 year ARI and 100 year ARI events. The system may comprise open space, floodway channels, road reserves, pavement expanses, overland flow paths and detention basins.

**Minor drainage system** means part of a drainage system in a catchment that controls flows from the minor design storm eg 2 year ARI and 10 year ARI events. The system usually comprises kerbs and channels, roadside channels, gully inlet pits, underground pipes, junction pits, manholes and outlets.

**Natural channel design** means the basic principles of natural channel design are to maintain the hydraulic conveyance requirements of engineered or natural channels, while improving environmental values.

**Receiving waters** means a body of water (including a wetland) within or downstream of the development that has environmental values. This does not include structures provided for the purpose of stormwater management that have no other statutory functions eg recreation.

#### Referenced Standards means the following standards:

- Australian Runoff Quality A guide to Water Sensitive Urban Design (Engineers Australia, National Committee for Water Engineering).
- Australian Rainfall and Runoff (Engineers Australia, National Committee for Water Engineering);
- Natural Channel Design Guidelines (Brisbane City Council); and the
- Queensland Urban Drainage Manual (Department of Environment and Resource Management).

**Site Based Stormwater Management Plan** means a plan that identifies potential on and off site (upstream, downstream and adjacent properties) impacts associated with stormwater for a development. The SBSMP also identifies the range of stormwater management strategies and actions for water quality and environmental issues.

**Water quality objectives** means measurable long term goals for the quality of receiving water. For more information on water quality objectives, refer to the Environmental Protection Policy (Water).

Water sensitive design principles means those principles detailed by the Referenced Standards.

Port of Townsville (2010)



## **Environmental Management Plan Guideline**

## Introduction

This document is intended to assist Port operators and/or contractors identify the basic requirements that need to be considered when preparing Construction and Operational Environmental Management Plans (EMP) for activities within the Port of Gladstone.

The size, complexity and issues associated with the project will guide the requirements of the EMP. Straightforward small projects will require a simple document while larger projects, or those with specific environmental risks, will require a more comprehensive approach. EMP should be developed by experienced persons and it may be necessary to engage a consultant to assist in more complex matters. Depending on the nature of construction and operation of the proposed development, technical information may need to be provided. Specialised consultants may need to be engaged to prepare this information. It is strongly suggested that the contractor engaged to perform the works is significantly involved in the development of the documents, particularly the Construction EMP.

The preferred style of document is a basic information source that can be readily accessed and understood by all employees. It should be as straightforward as possible and contain only information of direct relevance to the project.

It is recommended that anyone requiring or preparing an EMP consult with GPC's Environment Department. This will allow timely assessment of the EMP and prevent submission of unnecessary information. The Proponent is at all times solely responsible for the full and complete implementation of the Construction and/or Operational EMP. The Proponent will at all times be liable for all penalties, costs and expenses which may be incurred in respect of offences committed or alleged to have been

committed under the provisions of any relevant Environmental Protection legislation.

## **Environmentally Relevant Activities (ERAs)**

Some proposed activities to be undertaken on port land may constitute an ERA as identified by Schedule 2 of the *Environmental Protection Regulation 2008 (Qld)*. It is the sole responsibility of the Proponent to investigate whether an application may be required to the Department of Environment and Resource Management (DERM, formerly EPA) for an ERA.

Where development involves an ERA, assessment and approval of the EMP will be undertaken by either DERM or local council (for devolved ERAs) as part of the development approval process. If an ERA is triggered a specific format may need to be followed for a submitted EMP. If this is the case, Proponents should follow the structured formatting required by DERM or the local council for submission to the Corporation.

## **Construction EMP**

A Construction EMP is a practical and achievable plan to minimise environmental impacts during the construction phase by any personnel on site (including, but not limited to, the contractor and all subcontractors).

The Construction EMP must be site specific and clearly state the measures that will be employed on the site to minimise any adverse environmental impact. All activities are expected to be undertaken in accordance with the relevant Federal, State and Local Government regulations.

Ideally, a site-specific Construction EMP will be submitted with the Development Application, however, where contractors have not been appointed at the time of submitting the Development Application, the requirement for a Construction EMP will be a condition of the development approval. In this case the document will need to be lodged at least two (2) weeks prior to the

planned construction commencement date and approved prior to any works starting on the site. No construction activities can commence on port lands until GPC has approved a Construction EMP. Furthermore no work can commence on site until the 'pre-start inspection' has been undertaken or appropriate agreement has been reached with GPC's Environmental Department.



Appendix 1 provides a checklist of issues which need to be addressed in a Construction EMP. It should be noted that the issues listed in the checklist are not intended to be an exhaustive list and Proponents are required to investigate and address all environmental issues that may be relevant to their development.

The Construction EMP is a dynamic document, which may be subject to change or modification as a result of site development, changes on the site, or occurrence of a non compliant event. This allows better environmental outcomes to be achieved throughout the process. The Corporation needs to be consulted on any changes to an accepted EMP.

## Construction EMP Checklist

A Construction EMP should include the following information:

#### 1.0 Introduction

- 1.1 Overview of the works
- 1.2 Scope of the works
- 1.3 Layout of the works (including the size and location of the site)
- 1.4 Address and real property description of the site
- 1.5 Details of the developer/contractor, and any other key grouAO or individuals who may be associated with the works
- 1.6 Proposed start and finish dates, and specification of an approximate date for any key events (e.g. material excavation begins, or test phase entered into)
- 1.7 Details of the type and duration of the construction phase

#### 2.0 Site Plan

- 2.1 Detail the location of developments on the site (buildings etc.)
- 2.2 Detail the location of natural features (waterways, sensitive vegetation etc.)
- 2.3 Detail environmental control measures (sediment and erosion controls etc.)
- 2.4 Detail the location of stormwater infrastructure to be installed (e.g. pipe work, GPTs etc.)
- 2.5 Details as to review and update methodology of the site plan as work progresses
- 2.6 Copy of Site Plan attached to the Construction EMP

#### **3.0 Environmental Issues**

- 3.1 Erosion and sediment control
  - 3.1.1 Detailed plan showing the site layout and various erosion and sediment control devices
  - 3.1.2 Detail stormwater discharge points
  - 3.1.3 Detail access and egress location for vehicles (including control measures e.g. shakedown pads)
  - 3.1.4 Detail stormwater retention and ponding areas with capacity and overflow points identified
  - 3.1.5 Detail any up/down stream diversions from contaminated, storage and activity areas
  - 3.1.6 Detail measures to manage run-off from cleaning, washdown and servicing area with potential for contaminants to enter stormwater system
  - 3.1.7 Detail installation and maintenance programs for stormwater control measures, such as oil separators, silt,

rubbish trap, gross pollutant trap and stormwater diversion systems

- 3.1.8 Detail any wastewater recycling / re-use systems
- 3.1.9 Detail emergency response (devices (e.g. spill kits etc.)
- 3.1.10 Detail appropriate sedimentation control measures.
- 3.2 Water conservation
- 3.3 Air quality management
- 3.4 Noise management
- 3.5 Land contamination



- 3.6 Acid sulphate soil management
  - 3.6.1 Management plan prepared in accordance with the Corporation's Acid Sulphate Soil Guideline and State

Planning Policy 2/02 Guideline – Planning and Management Development involving Acid Sulphate Soils

- 3.7 Waste management
- 3.8 Cultural heritage
- 3.9 Flora and fauna
  - 3.9.1 Detail any (on / off site) proposed vegetation removal
  - 3.9.2 Detail the method of removal and measures for erosion and sedimentation control
  - 3.9.3 Detail ongoing measures to avoid affecting (on / off site) vegetation
- 3.10 Water management
  - 3.10.1 Detail how much water will be used during the works
  - 3.10.2 Detail what water will be used for (e.g. dust suppression, compaction etc.)
  - 3.10.3 Detail what alternate supplies to potable water can be used (e.g. recycled waters, marine water or harvested stormwater)
- 3.11 Hours of work
- 3.12 Access to the site
- 3.13 Storage of fuel and other hazardous goods
- 3.14 Fuelling and maintenance of vehicles and equipment
- 3.15 Disposal of waste (including fuel, oil, chemicals, points and sewage)
  - 3.15.1 Litter and waste from construction phase to be regularly cleaned from the site and disposed of off site in accordance with regulatory requirements and to the satisfaction of the Corporation
  - 3.15.2 Proof of appropriate disposal to be supplied by the contractor or operator prior to activities commencing
  - 3.15.3 Litter and waste to be contained on-site until disposed
  - 3.15.4 Litter and waste to be prevented from escaping off the site into adjacent areas, neighbouring properties and waterways.
- 3.16 Water quality and surface water runoff

3.16.1 Detail measures to prevent adverse effects on existing water quality

- 3.17 Contaminated water
- 3.18 Handling and reporting environmental incidents

3.18.1 Detail process for handling, recording and reporting environmental incidents.

#### 4.0 Project Management and Contacts

- 4.1 Detail the roles and responsibilities of the responsible employees (e.g. Project Manager, Site Superintendant, Project Engineer etc.) involved in the implementation of the Construction EMP
- 4.2 Provide contact details for the responsible employees

#### 5.0 Monitoring and Reporting

5.1 Detail the key elements to be monitored and reported on over the duration of the project

#### 6.0 Site Environment Induction

6.1 Detail site induction process and how it will be managed

## 7.0 Sustainability

- 7.1 Water consumption
  - 7.1.1 Detail measures to reduce the consumption of potable water used
  - 7.1.2 Detail measures to mange and monitor water usage and leaks

## 7.2 Waste management

- 7.2.1 Details measures to minimise the generation of waste
- 7.2.2 Detail measures to facilitate recycling
- 7.3 Energy management
  - 7.3.1 Detail measures to manage the use and reduce the consumption of energy
- 7.4 Fuel
  - 7.4.1 Detail measures to reduce greenhouse gas emissions from operational vehicles and equipment.

### **Operational EMP**

An Operational EMP is focussed on sound environmental management practices, which will be undertaken to minimise adverse impacts on the environment through normal operation of the facility. In addition, an Operational EMP identifies what measures will be in place or are actioned to manage any incidents and emergencies that may occur during operation of a facility.

The Operational EMP must clearly state the measures that will be employed on the site to minimise any adverse environmental impact. All activities are expected to be undertaken in accordance with the relevant Federal, State and Local Government regulations.

The Operational EMP must be reviewed every three (3) years and GPC needs to be consulted on any changes to the accepted Operational EMP. When reviewed Proponents should ensure that the Operational EMP continues to comply with GPC's Environmental Management Plan Guideline (as in place at the time of review).

A checklist of issues is provided below which need to be addressed in an Operational EMP. It should be noted that the issues listed in the checklist are not intended to be an exhaustive list and Proponents are required to investigate and address all environmental issues that may be relevant to their operation.

## **Operational EMP Checklist**

An Operational EMP should include the following information:

#### **1.0 Introduction**

- 1.1 Details of activities undertaken on site
- 1.2 Address and real property description of the site
- 1.3 Detail processes being undertaken and any emissions associated with the activities
- 1.4 Detail any nearby activities or environmental attributes relevant to the activities undertaken
- 1.5 Detail an assessment of risks associated with the operation and measures that have been implemented to minimise the risks

## 2.0 Site Plan

- 2.1 Detail the location of buildings, structures, drains and other site features
- 2.2 Detail the location of all existing and proposed discharge and emission points to the environment, including where air, noise, liquids, wastewater, dust, smoke, vapours and any other contaminants are emitted
- 2.3 Copy of Site Plan attached to the Operational EMP

## 3.0 Environmental Issues

- 3.1 Erosion and sediment control
  - 3.1.1 Detailed plan showing the site layout and various erosion and sediment control devices
  - 3.1.2 Detail stormwater discharge points
  - 3.1.3 Detail access and egress location for vehicles (including control measures e.g. shakedown pads)
  - 3.1.4 Detail stormwater retention and ponding areas with capacity and overflow points identified
  - 3.1.5 Detail any up/down stream diversions from contaminated, storage and activity areas
  - 3.1.6 Detail measures to manage run-off from cleaning, washdown and servicing area with potential for contaminants to enter stormwater system
  - 3.1.7 Detail installation and maintenance programs for stormwater control measures, such as



- oil separators, silt, rubbish trap, gross pollutant trap and stormwater diversion systems
- 3.1.8 Detail any wastewater recycling / re-use systems
- 3.1.9 Detail emergency response (devices (e.g. spill kits etc.)
- 3.1.10 Detail appropriate sedimentation control measures
- 3.2 Water conservation
- 3.3 Air quality management
- 3.4 Noise management
- 3.5 Land contamination
- 3.6 Acid sulphate soil management
  - 3.6.1 Management plan prepared in accordance with the Corporation's Acid Sulphate Soil Guideline and State Planning Policy 2/02 Guideline – Planning and Management Development involving Acid Sulphate Soils
- 3.7 Waste management
- 3.8 Cultural heritage
- 3.9 Flora and fauna
  - 3.9.1 Detail any (on / off site) proposed vegetation removal
  - 3.9.2 Detail the method of removal and measures for erosion and sedimentation control
  - 3.9.3 Detail ongoing measures to avoid affecting (on / off site) vegetation
- 3.10 Water management
  - 3.10.1 Detail how much water will be used during the works
  - 3.10.2 Detail what water will be used for (e.g. dust suppression, compaction etc.)
  - 3.10.3 Detail what alternate supplies to potable water can be used (e.g. recycled waters, marine water or harvested stormwater)
- 3.11 Hours of work
- 3.12 Access to the site
- 3.13 Storage of fuel and other hazardous goods
- 3.14 Fuelling and maintenance of vehicles and equipment
- 3.15 Disposal of waste (including fuel, oil, chemicals, points and sewage)
  - 3.15.1 Litter and waste from construction phase to be regularly cleaned from the site and disposed of off site in accordance with regulatory requirements and to the satisfaction of the Corporation
  - 3.15.2 Proof of appropriate disposal to be supplied by the contractor or operator prior to activities commencing
  - 3.15.3 Litter and waste to be contained on-site until disposed
  - 3.15.4 Litter and waste to be prevented from escaping off the site into adjacent areas, neighbouring properties and waterways.
- 3.16 Water quality and surface water runoff
  - 3.16.1 Detail measures to prevent adverse effects on existing water quality
- 3.17 Contaminated water
- 3.18 Handling and reporting environmental incidents
  - 3.18.1 Detail process for handling, recording and reporting environmental incidents

#### 4.0 Project Management and Contacts

- 4.1 Identify the people (and provide their contact details, including after hours) responsible for:
  - implementation of and management of the Operational EMP;
    - receiving the reports of monitoring, remedial action, environmental complaints and emergencies;
    - ensuring that measures / action plans are implemented;
    - verification, reporting and auditing of such measures / actions.



#### 5.0 Monitoring and Reporting

- 5.1 Detail measure to monitor the environmental aspects and/or effects resulting from the operation of the site.
- 5.2 Detail record keeping process for monitoring results

#### **6.0 Environmental Complaints**

6.1 Detail measures on how environmental complaints to the operation are managed

#### 7.0 Environmental Incidents

7.1 Detail how environmental incidents are recorded and managed

#### 8.0 Site Environment Induction

8.1 Detail site induction process and how it will be managed

#### 9.0 Auditing

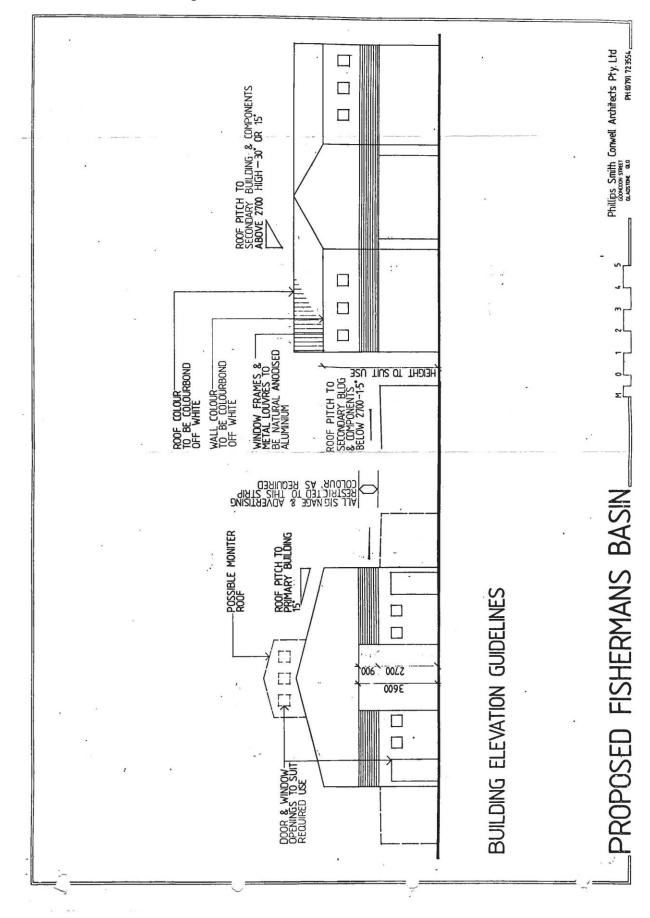
- 9.1 Detail the implementation of the Operational EMP and how it will be monitored for compliance
- 9.2 Detail review process of the Operational EMP

#### 10.0 Sustainability

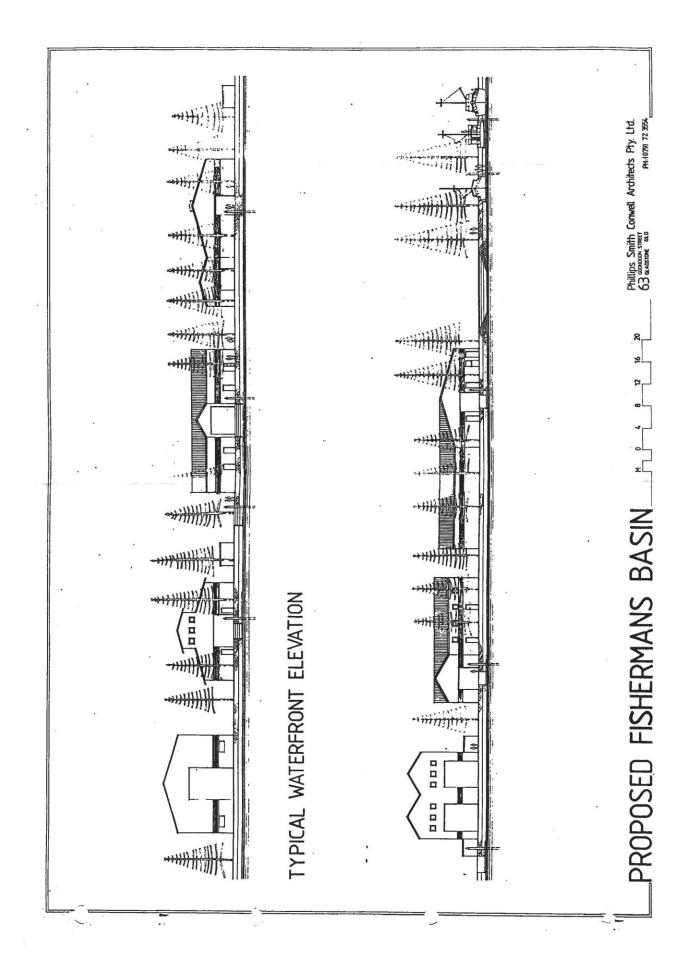
- 10.1 Water consumption
  - 10.1.1 Detail measures to reduce the consumption of potable water used
  - 10.1.2 Detail measures to mange and monitor water usage and leaks
  - 10.1.3 Detail measures to reduce the quantity of potable water used for landscape irrigation
  - 10.1.4 Detail measures to treat water on-site and reuse the treated water
- 10.2 Waste management
  - 10.2.1 Details measures to minimise the generation of waste
  - 10.2.2 Detail measures to facilitate recycling
- 10.3 Energy management
  - 10.3.1 Detail measures to manage the use and reduce the consumption of energy
  - 10.3.2 Detail measures to source energy from renewable sources
- 10.4 Fuel
  - 10.4.1 Detail measures to reduce greenhouse gas emissions from operational vehicles and equipment.

Port of Townsville (2010)

## **Gladstone Marina Building Guideline**









## **Gladstone Regional Council Consultation Guideline**

## Introduction

This guideline documents the GPC's commitment to ongoing consultation with the Gladstone Regional Council (GRC) in relation to development on Port Land. Development of particular interest to GRC includes:

- Development within Strategic Port Lands that share boundaries with land within GRC jurisdiction;
- Development on Strategic Port Lands that may impact upon land within GRC jurisdiction for example from, dust, noise, vehicle type/traffic intensity change etc; and
- Development that may impact upon GRC infrastructure eg stormwater, sewer, roads etc.

## Consultation

Consultation can take place on a number of levels and in a variety of ways. Consultation already takes place both formally and informally. However, GPC commits to the following minimum consultation as follows:

- GPC CEO will continue to meet with the GRC CEO every 6 months to exchange briefings.
- GPC Planning Officers will:
  - Formally refer all relevant development applications to GRC as Concurrence Agency, Advice Agency or Third Party Advice Agency via the existing IDAS system.
  - Informally consult the Planning Department and/or Infrastructure Department of the GRC regarding the developments potential impacts to council services.

Informal consultation will occur via email using a "Consultation Form" providing relevant details (Table 1). GRC will return the form with comments in the event the GRC identifies issues that warrant further investigation. GPC will provide information or meet with GRC as required.

GPC will maintain a register of all development informally referred to GRC's Strategic Planning Department.





## **CONSULTATION FORM**

## PROPOSED DEVELOPMENT ON GPC LAND

This form notifies Gladstone Regional Council Planning Department and Infrastructure Department of a proposed development on GPC Strategic Port Land and provides the opportunity for GRC to comment or seek further consultation. This is not an IDAS referral. IDAS referrals will be made separately in accordance with normal IDAS procedures.

Date of Consultation by GPC:	_ Date Returned by GRC:			
Name of Proponent:				
Development Application No.:				
Location of Development: Locality:	Lot/Plan:			
Type of Development:				
Reason for consultation:				
GRC comment required by://				
GRC comment/query:				
Gladstone Ports Corporation Completed By:	Gladstone Regional Council Completed By:			
Date:	Date:			



# REFERENCES

Gladstone Regional Council (2006) The Gladstone Plan, Gladstone Regional Council, Gladstone Queensland Port of Townsville (2010) Draft Planning Codes & Guidelines, Port of Townsville, Townsville, Queensland.









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