

## 5. Port Infrastructure

### 5.1 Gladstone berth information

Table 7 Gladstone berth information

Berth	Design depth	Ht above LAT	Air draft at LAT	Swing basin	Max LOA X max beam	Dist. to FWY BUOY (nm)	Max Displacement	Further Information Located at:
Boyne Smelter (BSW)	15.00	6.10	27.10	580 x 15.8	230 x 33	13.7	75,000	Arr/Dep: 5.1.1 Pilot: 8.1 Towage: 9.1.2
South Trees East NGF >63°C	12.8	6.0	18.9	540 x 12.8 (East) / 605 x 12.8 (West)	265 x max 27.4 to outboard coaming. None for tankers	14.2	110,000	Arr/Dep: 5.1.2 Pilot: 8.1 Towage: 9.1.2
South Trees West	12.8	6.0	16.4	605 x 12.8	265 x max 27.4 to outboard coaming	13.3	110,000	Arr/Dep: 5.1.3 Pilot: 8.1 Towage: 9.1.2
South Trees anchorage #1	15.8							5.3.2
South Trees anchorage #1.5 (Emergency Anchorage)	16.5							5.3.2
South Trees anchorage #2	14.3							5.3.2
South Trees anchorage #3	11.4				180m			5.3.2
Quoin Channel anchorage #1	7.3				180m			5.3.2
Quoin Channel	7.6				160m			5.3.2

Berth	Design depth	Ht above LAT	Air draft at LAT	Swing basin	Max LOA X max beam	Dist. to FWY BUOY (nm)	Max Displacement	Further Information Located at:
anchorage #2								
Barney Point (BPT)	15.0	6.1	17.7	490 x 9.7	270 x 45	16.7	140,000	Arr/Dep: 5.1.4 Pilot: 8.1 Towage: 9.1.2
Auckland Point #1	11.3	5.6	15.8	530 x 11.3	238 x 32	17.0	45,000	Arr/Dep: 5.1.5 Pilot: 8.1 Towage: 9.1.2
Auckland Point #2	11.3	5.6	17.5	523x 11.3	198	17.0	32,000	Arr/Dep: 5.1.6 Pilot: 8.1 Towage: 9.1.2
Auckland Point #3 NGF	11.3	5.6	N/A	440 x 11.3	220 x 32 (185 for tankers)	NA	55,000	Arr/Dep: 5.1.7 Pilot: 8.1 Towage: 9.1.2
Auckland Point #4	11.4	5.6	N/A	440 x 11.3	200x32.2	16.7	85,000	Arr/Dep: 5.1.8 Pilot: 8.1 Towage: 9.1.2
Clinton Coal #1 (CCF1)	18.8	12.3	18.5	660 x 10.6 (SE end)	315 x 55	18.5	140,000	Arr/Dep: 5.1.9 Pilot: 8.1 Towage: 9.1.2
Clinton Coal #2 (CCF2)	18.8	12.3	18.5	660 x 10.4	315 x 55	18.5	140,000	Arr/Dep: 5.1.9 Pilot: 8.1 Towage: 9.1.2
Clinton Coal #3 (CCF3)	18.8	12.3	18.5	600 x 10.4	315 x 55	18.5	140,000	Arr/Dep: 5.1.9 Pilot: 8.1 Towage: 9.1.2
Clinton Coal #4 (CCF4)	18.8	12.3	18.5	600 x 10.4	315 x 55	18.5	140,000	Arr/Dep: 5.1.9 Pilot: 8.1 Towage: 9.1.2
Wiggin Island Coal Export Terminal (WICET)	18.8	11.75	21.0	11.7	320 x 50.1	19.7	140,000/ **191,000	Arr/Dep: 5.1.10 Pilot: 8.1 Towage: 9.1.2

Berth	Design depth	Ht above LAT	Air draft at LAT	Swing basin	Max LOA X max beam	Dist. to FWY BUOY (nm)	Max Displacement	Further Information Located at:
Fisherman's Landing No 1 (Rio Tinto)	12.9	8.3	29.5	370 x 10.6	235x43	22.2	104,250	Arr/Dep: 5.1.11 Pilot: 8.1 Towage: 9.1.2
Fisherman's Landing No 2 (Rio Tinto)	12.9	8.3	29.5	370 x 10.6	235 x 43	22.2	90,000	Arr/Dep: 5.1.12 Pilot: 8.1 Towage: 9.1.2
Fisherman's Landing No 4 (Cement Australia) NGF	11.2	6.5	20.5	350 x 9.0	190	22.1	31,000	Arr/Dep: 5.1.13 Pilot: 8.1 Towage: 9.1.2
Fisherman's Landing No 5 (NGF)	11.2	7.1	N/A	370 x 9.0	185 x 32 (Caustic ships 183.5 x 32)	22.2	44,000	Arr/Dep: 5.1.14 Pilot: 8.1 Towage: 9.1.2
APLNG	13.0		NA	600 x 13	315M X 55	22.15	143,000	Arr/Dep: 5.1.15 Pilot: 8.1 Towage: 9.1.2
QCLNG	14.0	9.9	NA	600 x 13	315M X 55	20.97	146,950	Arr/Dep: 5.1.15 Pilot: 8.1 Towage: 9.1.2
GLNG	13.0	14.1	NA	600 x 13	315M x 55	20.46	153,000	Arr/Dep: 5.1.15 Pilot: 8.1 Towage: 9.1.2

\*\* Whilst the displacement limit for WICET wharf is 140,000 tonnes, it is noted that the berth facility can handle vessels up to 191,000 tonnes in an emergency situation.

### 5.1.1 Boyne Smelter

Owned by the Gladstone Ports Corporation and operated by Boyne Smelters Ltd, the principal cargoes are aluminium ingots, petroleum coke, general cargo and liquid pitch. The berth is serviced by a gantry to load pet coke at approx. 400 tonnes per

hour. The maximum air draft for the gantry at LAT is 27.1 metres and swing basin depth 15.8 metres. Approximate time from Fairway to berth is 1 ¾ hours.

### **Arrivals**

- Vessels can berth either side to but must stem the tide on berthing;
- To berth at or after the tide vessel will be programmed to pass the Fairway Buoy 1.5 hours before slack water;
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### **Departures**

- Vessels may sail at any stage of the tide.

### **Passing**

If a passing situation is required and the outbound vessel is PST (head in) the inbound vessel will be programmed to pass the Fairway Buoy 45 minutes before the ETD of the outbound vessel. If the outbound vessel is SST (head out) the inbound vessel will be programmed to pass the Fairway Buoy 60 minutes before the ETD of the outbound vessel. This also applies if vessels are departing South Trees East or South Trees West. Ships can sail on either tide whether head in or head out.

(Pilotage –Boyne and South Trees Wharves)

## **5.1.2 South Trees East**

Owned and operated by Queensland Alumina Ltd, the principal cargoes are alumina and caustic soda. The berth is serviced by a gantry to load alumina at approximately 1200 tonnes per hour (maximum air draft 18.9 metres at LAT) and 350millimetre lines for the discharge of fuel oil (flash point >63°C) and caustic soda solution; swing basin depth 12.8 metres. Approximate time from Fairway to berth is 1 ½ hours.

### **Arrivals**

- Vessel must be programmed to berth on low water slack or flood tide only;
- Entry time must not be earlier than one hour before commencement of flood tide;
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### **Departures**

- If berthed starboard side to, from LW slack to 15 minutes before high water;
- Vessels berthed port side to (bauxite ships) can sail at any stage of flood or ebb tide.

### **Passing**

If a passing situation is required and the outbound vessel is PST (head in) the inbound vessel will be programmed to pass the Fairway Buoy 30 minutes before the

ETD of the outbound vessel. If the outbound vessel is SST (head out) the inbound vessel will be programmed to pass the Fairway Buoy 45 minutes before the ETD of the outbound vessel; (Pilotage –Boyne and South Trees Wharves).

### **5.1.3 South Trees West**

Owned and operated by Queensland Alumina Ltd, the principal cargo handled is bauxite. The berth is serviced by two gantries with clam shell grabs to discharge bauxite at approx. 2300 tonnes per hour. Maximum air draft at LAT is 16.4 metres, swing basin depth 12.8 metres. Approximate time from Fairway to berth is 1½ hours.

#### **Arrivals**

- Vessel should be programmed to berth on slack water;
- Entry time for slack water berthing must be either, 2 ½ hours before LW or two hours before HW;
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

Bauxite vessels may berth at other times providing that:

- When berthing on flood tide the tidal velocity is not to exceed 1.5 knots;
- When Ebb tide berthing the tidal velocity is not to exceed 2.0 knots;
- No berthing on the flood or ebb tide if wind strength exceeds 25 knots from northern quadrants.

#### **Departures**

- Vessels may sail at any time on either tide;

#### **Passing**

Inbound vessel to pass Fairway Buoy 30 minutes prior to departure of outbound vessel.

#### **Removals**

Bauxite vessels that are doing a ‘dead ship’ removal from South Trees West to South Trees East and vice versa will always employ three tugs (Pilotage –Boyne and South Trees Wharves).

### **5.1.4 Barney Point**

Owned and operated by Gladstone Ports Corporation. The principal cargoes handled are coal and magnesite. The berth is serviced by one traveling gantry loading at a rate of approx. 1800 tonnes per hour; maximum air draft above LAT 17.7 metres. Swing basin depth 11.5 metres. Approximate time from Fairway to berth is 1¾ hours.

#### **Vessel Interaction Mitigation**

Barney Point is subject to interaction from deep draft departures. Requirements for vessels berthed alongside Barney Point when all of the following conditions are met:

- a) Vessel passing Barney Point Wharf is >14.0M draft
- b) Vessel at Barney Point Wharf is >13.5M deepest draft
- c) Length Overall of vessel at Barney Point is >225M
- d) Beam of vessel at Barney Point Wharf is  $\geq$ 32.26M

The requirements to be implemented when all of the above conditions are met are:

- a) Pilot will be on board 30 minutes prior to the vessel passing
- b) Tug/s will be ready to engage 30 minutes prior to the vessel passing and remain reading until the passing vessel has passed and is clear,
- c) The vessels crew must tension lines and put them on the brake 30 minutes prior to the vessel passing and be clear of the deck 10 minutes prior to vessel passing, and
- d) Gangway must be raised until the vessel has passed and is clear

(Barney Point Wharf Passing Vessel Interaction Prevention)

### **Arrivals**

- Post Panamax - Vessel should be programmed to berth at low water slack and during the flood tide. Earliest entry time 1¼ hours before LW up until 1¾ hours before HW;
- Capesize – Earliest entry time 1 ¼ before LW up to 2 ½ hours before HW;
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres; and
- All vessels are to maintain a minimum of 1 metre UKC while alongside.

There is a strong flood off the eastern end of this berth; a good breast line each end to the back of the wharf is required. After a vessel is secured alongside at Barney Point Wharf, the starboard anchor is to be lowered to 1 shackle on deck with the anchor resting on the bottom. The anchor is to remain lowered until the pilot boards for departure.

Cape size vessels are subject to the following restrictions:

- Maximum vessel length 270 metres;
- Vessel may only berth in ballast condition, part loaded is not acceptable;
- Vessels may only part load to a max draft of 12.5 m at this berth.

### **Departures**

- Vessels may sail only on the flood tide up to HW-15 minutes.

### **Passing**

Inbound vessel to pass Fairway Buoy 30 minutes prior to departure of outbound vessel ([Appendix Pilotage – Barney Point Wharf](#)).

## 5.1.5 Auckland Point No 1

Owned and operated by Gladstone Ports Corporation. The principal cargoes handled are magnesia, calcite and break bulk. This wharf also accepts passenger vessels.

The berth is serviced by two mobile gantries for loading calcite with a combined loading rate of approximately 1600 tonnes per hour. One gantry is used for magnesia at 400 tonnes per hour. The maximum air draft above LAT is 15.8 metres. Swing basin depth 11.3 metres. Approximate time from Fairway to berth is two hours.

### Arrivals

- Vessel should be programmed to stem the tide on arrival.
- When berthing starboard side to, earliest entry 2 hrs before LW until 2 hrs before HW.
- When berthing port side to, earliest entry 2 hrs before HW until 2 hrs before LW.
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### Departures

- Vessels may sail on any tide (see [Tug requirements guidelines](#)).

### Passing

Inbound vessel to pass Fairway Buoy 15 minutes prior to departure of outbound vessel (Appendix).

## 5.1.6 Auckland Point No 2

Owned by Gladstone Ports Corporation and operated by Grain Corp. The principal cargo handled is grain.

The berth is serviced by a 400 tonnes per hour portable ship loader and a 1200 tonnes per hour traveling gantry. Maximum air draft for berthing is 22.0 metres above LAT and 17.5m during loading operations. Swing basin depth 11.3 metres. Approximate time Fairway to berth is two hours.

### Arrivals

- Vessel should be programmed to stem the tide on arrival.
- When berthing starboard side to, earliest entry 2 hrs before LW slack to 2 hrs before HW;
- When berthing port side to, earliest entry 2 hrs before HW slack until 2 hrs before LW; and
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### Departures

- Vessels may sail on any tide (see [Tug requirements guidelines](#)).

## Passing

Inbound vessel to pass Fairway Buoy 15 minutes prior to departure of outbound vessel (Appendix).

### 5.1.7 Auckland Point No 3

Owned by Gladstone Ports Corporation and is a multi-user berth. The principal cargoes handled are petroleum products, LP Gas, caustic soda and general cargo. The berth is serviced by two petroleum cargo lines with a capacity of 400 tonnes per hour each.

Approximate time from Fairway to berth is two hours, swing basin depth 11.3 metres.

A 30 metre exclusion zone is established around all tankers carrying dangerous cargo.

#### Arrivals

- Vessel should be programmed to stem the tide on arrival.
- When berthing starboard side to, earliest entry 2 hrs before LW slack to 2 hrs before HW.
- When berthing port side to, earliest entry 2 hrs before HW slack to 2 hrs before LW.
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

#### Departures

- Vessels may sail on any tide however extra tugs may need to be employed if vessel is not stemming the tide (see [Tug requirements guidelines](#) 9.1.2).

## Passing

Inbound vessel to pass Fairway Buoy 15 minutes prior to departure of outbound vessel.

### 5.1.8 Auckland Point No 4

Owned by Gladstone Ports Corporation and is a multi-user berth. The principal cargoes handled are general cargo, containers, gypsum, magnetite and scrap metal.

Approximate time from Fairway to berth is two hours, swing basin depth 11.3 metres.

#### Arrivals

- Vessel should be programmed to stem the tide on arrival;
- When berthing starboard side to, earliest entry 2 hrs before LW slack to 2 hrs before HW;
- When berthing port side to, earliest entry 2 hrs before HW slack to 2 hrs before LW; and

- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### **Departures**

- Vessels may sail on any tide (see [Tug requirements guidelines](#) 9.1.2).

### **Passing**

Inbound vessel to pass Fairway Buoy 15 minutes prior to departure of outbound vessel.

## **5.1.9 Clinton Coal Facility No 1, No 2, No 3 and No 4**

Owned and operated by Gladstone Ports Corporation. The cargo handled is coal. The berths are serviced by three gantries with a loading rate of approx. 6000 tonnes per hour each. Maximum air draft of 18.5metres above Chart Datum (LAT) required upon commencement of loading and maintained during loading. Approximate time from Fairway to berth is 2½ hours, depth of swing basin is 11.1 metres.

Tides at these berths generally turn 15 minutes after the predicted times of high and low water at Auckland Point (See standard Port Tides).

Masters of vessels berthed at Clinton Coal Facility must adhere to the below requirements:

- Follow the directions of the Wharf Supervisors with respect to mooring lines;
- Ensure their vessel is hard against fenders when a deep draft vessel from WICET or CCF1 is passing CCF2, 3 or 4; and
- Maintain a continuous watch on VHF channel 13.

### **Arrivals**

All arrivals may be scheduled for flood tide arrivals, or Panamax vessels (max 230m x 33m) only for ebb tide arrivals

- Flood tide entry time will be from 1.5 hours before LW until 2.5 hours before HW.
- Ebb tide entry time (Panamax only) will be during neap tides from 1 hour before HW until 3 hours before LW. Daylight only from A7 beacon inwards, current velocity <2 knots at C3 beacon and wind <15knots at CCF if from NW'ly to NE'ly. Three 70 tonne tugs will be required.
- If the inbound vessel which is in ballast condition is using the CCF Bypass Channel (maximum size 240 m x 40 m x 9 m draft) vessel must be programmed to enter 1½ hours before the departing vessel's ETD.
- Vessels to 230m x 32.3m may transit without separate tugs unless the departing vessel is at CCF4 (must have separate tugs in this case)
- If departing vessel is at CCF4 and inbound vessel is using the Bypass Channel then separate tugs are also required.

- If not using the bypass, then entry will be at the same time as the departing vessel's ETD.
- If the vessel is planned for a 'Main channel hot changeover' (LOA >240m x 40m x 9m), ballast vessels only, daylight only, not scheduled during strong wind warning forecast (wind exceeding 25kts). Manoeuvre restricted to CCF3 and CCF4 for departing vessels only. Inbound vessel will require separate tugs to departing vessels from CCF3 and CCF4. Arriving vessel can go to any berth, not just ones being vacated by the departing vessels at CCF3 and CCF4. Programmed to enter earliest LW-1:00 to HW-3:00 hours. An escort tug will be required from A5 and A6.
- If the vessel is planned to 'anchor behind' (max size <240 m) she will be programmed to enter 2¼ hours prior to the sailing vessel's ETD. Two tugs are required to assist for all vessels, Deep draft vessels shall not be considered for anchoring behind.
- Cape size vessel's max arrival displacement is not to exceed 140,000 tonnes.
- Vessel's arriving with a displacement >100,000 tonnes must have a minimum UKC of 2.00 m in the swing basin and must enter the swing basin no earlier than HW – one hour.
- Two mooring launches are required.
- All Panamax size vessels or larger to use four headlines, two breast lines and two spring lines fore, and four stern lines, two breast lines and two spring lines aft of the vessel.
- All Handysize/Handymax size vessels to use three headlines, two breast lines and two spring lines fore, and three stern lines, two breast lines and two spring lines aft of the vessel.

## Departures

Vessels may sail on a flood or ebb tide. For flood tide departures the earliest departure from CCF berths is LW + ¼ hour (Appendix Pilotage – Auckland Point Wharves)

Separation between vessels on departure shall be 30 minutes and one hour for Cape Size and maximum draft vessels.

- In case of two deep drafted departures from adjacent berths, the seaward vessel must depart first. (Note – this is not applicable to vessels berthed at CCF4 due to its position in relation to the main channel). If the inshore vessel departs first, then the seaward vessel must:
  - a) limit its mean draft to not more than 15 metres unless approved by the RHM in exceptional circumstances
  - b) ensure her maximum draft does not exceed 16 metres.

- c) Ebb tide departures permitted on Panamax and Post Panamax Vessels at CCF2 and CCF3 under certain conditions.

Ebb tide departures will only be from CCF2, CCF3 and CCF4. Tidal flow limited up to 1.5kts. Normal RGT precautions remain in respect of adjacent vessels. The following ebb tide conditions are in place:

- Maximum 230m x 33m with maximum draft 14.5 metres;
- 3 tugs required for departure;
- 1 pilot is required;
- Movement is not limited to daylight only; and
- SWL of bits and bollards form to be supplied to the RHM.

### **5.1.10 Wiggins Island Coal Export Terminal (WICET)**

Owned and operated by a consortium of eight Australian and international resources companies. The principal cargo handled is coal. The berth is serviced by one gantry with a maximum loading rate of 8250 TPH (average of 4,000 – 7,000 TPH).

Maximum air draft of 21.0 metres above Chart Datum (LAT) required upon commencement of loading and maintained during loading.

Approximate time from Fairway to berth is 2.5 hours, depth of swing basin is 12.0 metres.

Tides at this berth generally turn 20 minutes after the tide table time.

#### **Arrivals**

- Vessels must be programmed to berth starboard side to on the flood tide or slack water.
- Entry time for Panamax will be from 1.5 hours before LW until 2 ¾ hours before HW
- Entry time for Cape size will be from 1 hour before LW until 2 ¾ hours before HW
- Entry time for vessels with displacement >100kt will be 3 hours before HW only
- For scheduled passing between beacons G1 and G4 entry will be at 1.0 hour after the departing vessel's ETD to allow passing in the Gatcombe Bypass Channel
- Maximum displacement is not to exceed 140,000 tonnes.
- Vessels arriving with a displacement >100,000 tonnes must have a minimum UKC of 2.00m in the swing basin and must enter the swing basin no earlier than HW – one hour.
- Two mooring launches required, and mooring lines must be synthetic or similar floating type. Wire mooring lines are not acceptable

- All Panamax size vessels or larger to use four headlines, two breast lines and two spring lines fore, and four stern lines, two breast lines and two spring lines aft of the vessel.
- All Handysize/Handymax size vessels to use three headlines, two breast lines and two spring lines fore, and three stern lines, two breast lines and two spring lines aft of the vessel.

### **Departures**

- Vessels may only sail on the flood tide. The earliest departure is LW + 1 hour until 1 ¾ hours before HW ([Pilotage - Wiggins Island Coal Export Terminal](#))
- For Panamax vessels using CCF Bypass earliest departure is LW +1hour until 1 ¼ hours before HW
- Separation between vessels on departure shall be 30 minutes and 1 hour for Cape Size and maximum draft vessels.

### **5.1.11 Fisherman's Landing No 1 (Bauxite)**

Owned and operated by Rio Tinto Alcan (Yarwun) and is also a multi-user berth. The principal cargoes handled are bauxite, alumina and caustic soda. The berth is serviced by two travelling unloading gantries with a clam shell grab, average handling rate 1250 tonnes per hour each, a travelling gantry loader at 1200 tonnes per hour and a 200 millimetre line for caustic soda at 1000 tonnes per hour. Maximum air draft above LAT is 29.5 metres. Approximate steaming time from Fairway to berth is 2¾ hours.

Note: HW is approximately 30 minutes after Gladstone and LW 40 minutes after Gladstone.

### **Arrivals**

- Vessels should be programmed to berth on the ebb tide only
- Earliest entry time is 3 hours before HW up to 1 hr before HW with daylight only from WICET.

### **Departures**

- Vessels can depart at any state of the tide.
- Vessels can use the Clinton Bypass Channel subject to draft and UKC restrictions.
- Tugs to remain alongside until the end of the Targinie Channel.

### **Passing**

Vessels should be programmed to berth on the ebb tide only and enter 45 minutes after the departing ship.

### 5.1.12 Fisherman's Landing No 2 (Rio Tinto)

Owned and operated by Rio Tinto Alcan (Yarwun) and is also a multi-user berth. The principal cargoes handled are bauxite, alumina and caustic soda. The berth is serviced by one travelling unloading gantry with a clam shell grab, average handling rate 1250 tonnes per hour, a travelling gantry loader at 1200 tonnes per hour and a 200 millimetre line for caustic soda at 1000 tonnes per hour. Maximum air draft above LAT is 29.5 metres. Approximate steaming time from Fairway to berth is 2¾ hours.

Note: HW is approximately 30 minutes after Gladstone and LW 40 minutes after Gladstone.

#### Arrivals

- Vessel should be programmed to stem the tide on arrival.
- Vessels loading alumina generally berth starboard side to. Loaded bauxite and laden Cabo Class vessels berth port side to and their optimum entry time is 2 hours before HW Gladstone. Chemical tankers berth either side to.
- When berthing starboard side to, earliest entry two hours before LW to 2¾ hours before HW.
- When berthing port side to, earliest entry 2 hours before HW until 2¾ hours before LW (consult the Regional Harbour Master for latest entry time on spring ebb tides).
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

#### Departures

- Vessels may sail on either tide see [Tug requirements guidelines](#) 9.1.2).
- Caustic vessels PST- part loaded to sail no earlier than LW to HW-30mins
- Alumina vessels >10m draft to sail from LW to HW-30mins
- Handimax alumina vessels must have sufficient UKC over the 9.0 metres swing basin when departing on the ebb tide with a tidal range not exceeding 2.5 metres.

#### Passing

Vessel should be programmed to stem the tide on arrival and enter 30 minutes after the ETD of a departing vessel; (appendix [Pilotage – Fishermans Landing Wharves](#)).

### 5.1.13 Fisherman's Landing No 4 (Cement Australia)

Owned by Gladstone Ports Corporation and is a multi-user berth. The principal cargoes handled are cement clinker, cement, fly ash, caustic soda and limestone.

Note: HW is approximately 30 minutes after Gladstone and LW 40 minutes after Gladstone.

Dry cargo vessels generally berth starboard side to. Chemical tankers berth either side to.

Approximate time from Fairway to berth is 2½ hours.

### **Arrivals**

- Vessel should be programmed to stem the tide on arrival.
- When berthing starboard side to, earliest entry 2 hours before LW to 2¾ hours before HW.
- When berthing port side to, earliest entry 1½ hrs before HW until 2¾ hrs before LW.
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

### **Departures**

- Vessels may sail on either tide (see [Tug requirements guidelines](#) 9.1.2) unless head out SST with a draft over 10m in which case earliest departure is LW to 30mins before HW.

### **Passing**

Vessel should be programmed to stem the tide on arrival and enter 30 minutes after the ETD of a departing vessel, or 40 minutes if swinging (Appendix [Pilotage – Fishermans Landing Wharves](#)).

## **5.1.14 Fisherman's Landing No 5 (Bulk Liquids Berth)**

Owned by Gladstone Ports Corporation and is a multi-product berth. The principal cargo handled is liquid ammonia. The berth is serviced by one x SVT hydraulically operated loading arm. Please note that HW is approximately 30 minutes after Gladstone and LW 40 minutes after Gladstone.

Approximate time from Fairway to berth is 2¾ hours.

### **Arrivals**

- Vessel should be programmed to stem the tide on arrival.
- When berthing starboard side to, earliest entry 2 hrs before LW to 2¾ hrs before HW.
- When berthing port side to, earliest entry 1½ hrs before HW until 2¾ hrs before LW; (consult the Regional Harbour Master for latest entry time on spring ebb tides).
- Loaded tankers normally berth port side to and swing on departure in ballast condition.
- Two mooring launches are required if vessel is >150 metres LOA and one for vessels <150 metres.

- Maximum LOA is 185 metres. Vessels with a greater LOA must have approval from the RHM to berth.

### **Departures**

- Vessels may sail on either tide unless LOA is greater than 200 metres in which case sailing time is from 30 minutes before LW.
- Vessels can depart anytime on a flood tide if the tidal range is <2.5m

### **Passing**

Vessel should be programmed to stem the tide on arrival and enter 30 minutes after the ETD of a departing vessel, or 45 minutes if swinging; (appendix [Pilotage – Fishermans Landing Wharves](#)).

## **5.1.15 APLNG, QCLNG, GLNG**

These operating parameters have been developed and refined based on extensive on water transits of the Port and navigation simulations with LNG carriers up to 220 000 m<sup>3</sup> with laden drafts up to 12.20m and arrival drafts to 11 m. Maximum LOA is 315 m by a beam of 55 m. LNG vessels will have an International Association of Classification Societies, (IACS) Cap 2 classification for vessel 20 years and older. LNG vessels will submit a Vessel Questionnaire to Gladstone VTS prior to arrival and once approved by the Regional Harbour Master, the vessel will be allowed to enter the Port. (Appendix –[Vessel Questionnaire](#)). Approximate time from fairway to berth is 3hours 15 minutes.

### **Arrivals**

- Vessels for the QGC and GLNG Terminals may arrive and depart on all states of the tide
- Vessels for the APLNG Terminal may enter Port from High Water +2:00 to HW +2:15 due to safety concerns imposed by swing basin design limitations and the need to arrive off the terminal at the swing basin at slack water.
- Vessels will be programmed to enter Port on the ebb tide
- Entry will be at HW +2 hours (APLNG HW+2:15 hours) unless approved by the Regional Harbour Master if circumstances dictate otherwise.

### **Departures**

- LNG vessels shall be classified similar to Panamax class in that the draft of the vessel and the escort tug assistance allows for the option of safely aborting the transit at a number of alternative locations therefore a 30 minute separation.

### **Passing**

- APLNG vessels should enter 45 mins after the ETD of a departing vessel
- GLNG and QCLNG vessels should enter 30 mins after the ETD of a departing vessel

- Passing of an LNG vessel with another LNG vessel is allowed
- Passing of an LNG vessel with vessel carrying dangerous goods will be assessed by the RHM on a case by case basis.
- Passing of LNG vessel with a deep draft vessel is allowable.
- Passing of a cruise vessel will be assessed by the RHM on a case by case basis.

## **5.2 Shore-based cranes, gantries, portainers and bulk loaders – guidelines**

Incorrectly positioned cargo handling equipment presents a serious risk of damage to the equipment and ships arriving to and departing from the berths. Cranes, gantries, portainers and bulk loaders should be in their designated positions at least one hour prior to the arrival of a ship at the berth and must be in the required position prior to letting go.

All cranes should be positioned not less than 20 metres clear ahead or astern of the ship. If the crane is to be positioned adjacent to the ship, then it should be not less than 40 metres aft from the bow or 40 metres fwd of the bridge position.

Wharf operators are to be aware of these requirements and masters should check that shore gantries do not prevent the positioning of their gangway after arrival at the berth.

## **5.3 Anchorage Areas**

### **5.3.1 External Anchorages**

Vessels arriving off the port of Gladstone will be assigned a designated anchorage position by VTS, whilst awaiting berthing instructions. These anchorages are shown on the appropriate charts and are identified by either northern or eastern and a numeral.

Anchoring is prohibited on the line of the leads and the surrounding area for a distance of 3 miles from the entrance to Wild Cattle Cutting Channel as depicted on chart AUS 246.

### **5.3.2 Internal Anchorages**

The following safe anchorages are available inside the harbour. Bearings and distances given are from South Trees front lead in position, latitude 23°-52'S, longitude 151°-19.7' E approximately. South Trees No.1.5 is the designated emergency anchorage.

**Table 8 Internal anchorages**

Anchorage	Bearing (deg T)	Distance (n.m.)	Depth	Maximum draft	Maximum LOA
South Trees No.1	100°	1.3	15.8m	14.0m	No bunkering
South Trees No.2	041.5°	0.68	14.3m	12.2m	240m (max wind 25knots)
South Trees No.3	355°	1.0	11.4m	10.0m	180m (max wind 25nots)
South Trees No.1.5 (Emergency Anchorage)	084°	0.9	16.5m	14.0	No bunkering
Quoin Channel No 1	337°	1.8	7.3m	6.3m	180m
Quoin Channel No 2	326°	2.42	7.6m	6.0m	150m

Deep laden ships and any ship with a draft of 9 metres or more at any of the above anchorages shall, when the predicted high water figure is 4.0 metres or more, have their main engine in such a state of readiness that it will be available in 30 minutes. In the event of a forecast strong wind warning (that is winds in excess of 22 knots), or on the advice of the harbour master, the engines should be brought to a condition of instant readiness and, at the earliest safe opportunity, the anchor should be paid out to a minimum of seven shackles in the water.

The attention of masters is also drawn to (see Work Permits), which requires prior permission from the harbour master for the immobilisation of propelling machinery and immediate notification in the event of immobilisation as a result of any breakdown or failure of the propelling machinery. Immobilisation of main engines at anchorages within the harbour will not be condoned except under special circumstances as decreed by the Regional Harbour Master.

The following restrictions apply to the size of vessels using these anchorages

Loaded vessels in excess of 130 metres LOA anchor ebb tide only and enter no earlier than 1 hour before high water and sail no earlier than 1 hour after low water. May only anchor on flood tide with tug assist.

- Part loaded vessels in excess of 160 metres LOA and draft of 9.00 metres must stem the tide arriving and departing the anchorages
- Loaded vessels with a draft in excess of 12.20 metres must utilise the services of a tug
- Loaded cape size vessels are not acceptable
- Part loaded cape size vessels will be considered on merits

- South Trees Anchorage #2, and 3 may be used for bunkering vessels so long as the maximum draft for each anchorage is not exceeded, wind speed not to exceed 25knots and no deep draft vessels are programmed for departure, or LNG vessels are scheduled to pass during bunkering operations.
- The time from the Fairway to ST^ #1 is approx. 1.5 hours and 1.8 hours to ST^ #3. For a passing situation the inbound vessel should be programmed to enter one hour prior to the departure of the outbound vessel.
- Loaded vessels anchoring for bunkering operations should preferably anchor on the ebb tide utilising the maximum ebb tide available and the departure programmed for no earlier than one hour after low water.
- Due consideration must be given to vessels swinging when positioned at the South Trees anchorages.

At times, ships will anchor upstream of their berth to await berth vacancy and/or tug availability. Vessels up to Panamax size (maximum LOA 240 metres) in ballast will generally be accepted for anchor behind manoeuvres at Clinton. All vessels conducting an anchor behind at Clinton will require one tug to assist swinging.

### 5.3.3 Prohibited anchorage

Ships are prohibited from anchoring in an area off the entrance beacons of Wild Cattle Cutting bordered by the following positions:

23° 50.8'S	151° 31.1'E
23° 51.45'S	151°32.4'E
23° 52.18'S	151° 33.18'E
23° 53.32'S	151° 33.7'E
23° 53.55'S	151° 30.1'E
23° 54.28'S	151° 30.9'E

Ships awaiting a pilot will be allocated an anchorage by VTS.

## 5.4 Navigation Aids and Leading Lights

### 5.4.1 Curtis Channel

**Table 9 Lighthouse and leading lights (Curtis Channel)**

Name	Position		Characteristic
Cape Capricorn	23° 29.2'S	151° 14.1' E.	Fl.WR5s 93m 17/14M (on the summit of Cape Capricorn)
North Point	23° 45.4'S	151° 20'E	Fl.(4)WR.15s,17m 7M

East Point	23° 52'S	151° 23.4'E.	Fl.10s,47m 18M
Clews Point	24° 0.2'S	151° 44.5'E.	Fl.WR. 1.5s,38m 8/5M
Bustard Head	24° 01.5'S	151° 45.8'E.	Fl.(2)10s, 102m 19 M & F.R.104m 13M

## 5.4.2 Gladstone Harbour

**Table 10 Lighthouse and leading lights (Gladstone Harbour)**

Name			Characteristic
Wild Cattle Cutting Code ("Alpha")	Front lead	Both fixed white by day	-Dir Q.19m, (Dir F.day)
	Rear lead		-Dir Iso 2s.44m, (Dir F.day)
Boyne Cutting	Front lead	Solar – Qk Fl by Day (White)	- Qk Fl. Bu. 20m 12M – (Qk Fl W day) 1.0sec
	Rear lead	Solar – Iso Fl by Day (White)	- Iso Bu. 37m 14M – (Iso W day) 2.0 sec
Golding Cutting (Arrival)	Front lead	Solar power Mains power	Dir F Bu .7m (Dir F. day) & Fl.R.4s
	Rear lead		Dir F.Bu. (Dir F.day)
Golding Cutting- Reciprocal Code ("Bravo")	Front lead	Solar – Fixed by day	Dir Q.6m (Dir F. day) & Fl(2)4s,
	Rear lead		Dir Iso.2s .18m (Dir F. day) & Fl(2)6s
South Channel Bypass	Front lead	Solar – Fixed by day	G2 Dir.Q.& Fl.Y.4s
	Rear lead		Geoff Price Beacon Dir Iso.2s &FL.R.4s
Gatcombe Channel Code ("Charlie")	Front lead	Solar – Fixed by day	Dir Q.6m (Dir F. day)
	Rear lead		Dir Iso.2s.16m (Dir F. day)
Auckland Channel	Front lead	Both mains power (Reg Tanna facility)	Dir F.Bu. 55m (F.Y. day)
	Rear lead		Dir F.Bu. 70m (F.Y. day)
Auckland Channel Reciprocal	Front lead	Solar – fixed by day	Dir Iso.4s 6m (Dir F. day) Dir Q. 21m (Dir F. day)

Name			Characteristic
Code ('Delta')	Intermediate Lead Rear lead		Dir Iso.4s 39m (Dir F. day)
Clinton Channel (Barney Point)	Front lead Rear lead	Both mains power	Dir F Bu (Dir F. day) Dir F Bu (Dir F. day)
Clinton Bypass (Departure) Code ("Echo")	Front lead Rear lead	Solar – fixed by day	Dir F.R (Dir F. day) & FI(2).6s Dir F.R (Dir F. day) & Q
Clinton Bypass Inner (Arrival) Code ("Foxtrot")	Front lead Rear lead	Solar - fixed by day	Dir Q Bu (Dir F. day) & FI.G.4s Dir Iso Bu 2s (Dir F. day) & FI.6s
Clinton Swing Basin Code ('Golf')	Front lead Rear lead	Solar – fixed by day	Dir Q Bu. (Dir F. day) & FI(2)4s Dir Iso Bu.2s (Dir F. day) & FI(2)8s
Targinie Channel (Fishermans Landing end) Code ('India')	Front lead Rear lead	Solar – fixed by day	Dir Q.Bu (Dir F.day) Dir Iso.Bu.2s (Dir F.day)
Targinie Channel Code ('Hotel')	Front lead Rear lead	Solar – fixed by day	Dir Q (Dir F.day) & FI.Y.2.5s Dir Iso.2s. (Dir F.day) & FI(2)6s
Fishermans Landing Wharfs No 2 & 4	Approach Front lead Approach Rear lead	Both mains power	F.G. (F.Y Day) F.G. (F.Y Day)
Jacobs Channel Departure	Front lead Rear lead	Solar – fixed by day	Dir Q.Bu (Dir F day) & FI Y 6s Dir Iso Bu 2s (Dir F day)
Jacobs Channel Arrival	Front lead Rear lead	Solar – fixed by day	Dir Q.Bu (Dir F day) & FI (2) 5s Dir Iso Bu 2s (Dir F day) & VQ(9) 10s

## 5.5 Buoys/beacons within Gladstone Harbour and Approaches

### 5.5.1 Wild Cattle Cutting

Table 11 Buoys/beacons (Wild Cattle Cutting)

NAVIGATIONAL AID	TYPE	CHARACTERISTIC
Fairway	By	L.Fl.10s
WaveRider Special Buoy	By	Fl.(5) Y 20s
S1	Bn	Fl G 2s
S2	Bn	Fl R 2s
S3,S5,S7	Bn	Fl G 4s
S4,S6,S8,S10	Bn	Fl R 4s
S9	Bn	Q.Y.

### 5.5.2 Boyne Cutting

Table 12 Buoys/beacons (Boyne Cutting)

Navigational aid	Type	Characteristic
S11, S13	Bn	Fl G 4s
S12, S14	Bn	Fl R 4s

### 5.5.3 Golding Cutting

Table 13 Buoys/beacons (Golding Cutting)

Navigational aid	Type	Characteristic
S15	Bn	Q.Y.
S17,S19,S21,S23,S25,S27,S29	Bn	Fl G 4s
S16,S18,S20,S22,S26,S28	Bn	Fl R 4s
S31	Bn	Fl Y 4s

## 5.5.4 South Channel Bypass

Table 14 Buoys/beacons (South Channel Bypass)

Navigational aid	Type	Characteristic
SB18, SB22, SB26	Bn	Fl Y 4s

## 5.5.5 Gatcombe Channel

Table 15 Buoys/beacons (Gatcombe Channel)

Navigational aid	Type	Characteristic
E3	Bn	Fl G 4s
G1	BY	Fl G 4s
G2	Bn	Fl Y 4s
Geoff Price Beacon	Bn	Fl R 4s
G4	BY	Fl Y 4s
Manning Reef	Bn	Fl 2.5s
Bushy Islet	Bn	Fl.4s

## 5.5.6 Quoin Channel

Table 16 Buoys/beacons (Quoin Channel) Auckland Channel

Navigational aid	Type	Characteristic
Q1	Bn	Fl G 2.5s
Q2	Bn	Fl Y 2.5s
Q3	Bn	Fl G 4s
Q4	Bn	Fl R 4s
Q5	Bn	Fl G 2.5s
Q6	Bn	Fl R 2.5s

## 5.5.7 Auckland Channel

Table 17 Buoys/beacons (Auckland Channel)

Navigational aid	Type	Characteristic
A1, A3	Bn	Fl G 4s
A5	By	Fl G 4s
A2, A4	Bn	Fl R 4s
A6	BY	Fl R 4s
A7	Bn	Fl Y 4s
A8 (CCDF PEL sector light)	BY	Fl R 4s

## 5.5.8 Clinton Channel

Table 18 Buoys/beacons (Clinton Channel)

Navigational aid	Type	Characteristic
A8 / CCDF PEL sector light	PEL	W.R.G
Grain Corp Silo	PEL	W.R.G

## 5.5.9 Clinton Bypass

Table 19 Buoys/beacons (Clinton Bypass)

Navigational aid	Type	Characteristic
CB1, CB3	Bn	Fl G 4s
CB2, CB4	Bn	Fl R 4s
CB6	Bn	Fl VQ (9) W 10s

## 5.5.10 WICET

Table 20 Buoys/beacons Wiggins Island Coal Export Terminal (WICET)

Navigational aid	Type	Characteristic
W2, W4, W6, W8, W10	Bn	Fl R 4s

## 5.5.11 Jacobs Channel

Table 21 Buoys/beacons (Jacobs Channel)

Navigational aid	Type	Characteristic
JC1, JC3	Bn	Fl G 2.5s
Outfall	Bn	Fl Y 2.5s
JC5, JC13, JC15	Bn	Fl G 2.5s
JC2, JC4, JC8, JC14, JC16	Bn	Fl R 2.5s
JC6, JC7, JC9, JC10, JC11, JC12, JC18	BY	Fl Y 2.5s
JC21, JC23, JC25, JC27, JC30, JC37	BY	Fl Y 2.5s
JC17, JC19, JC29, JC31, JC33, JC35	BY	Fl G 2.5s

## 5.5.12 Targinie Channel

Table 22 Buoys/beacons (Targinie Channel)

Navigational aid	Type	Characteristic
T1, T5, T7	Bn	Fl G 4s
T3	By	Fl Y 4s
T4, T6, T8	Bn	Fl.R.4s
T10, T12	BY	Fl.R.4s
TSB1, TSB3, TSB5, TSB7	By	Fl Y 4s

## 5.5.13 East Channel

The East Channel is not surveyed or dredged regularly. As such it is not recommended for use by other than shallow draft ships. Extreme caution must be exercised when transiting this channel and should only be navigated by vessels having local knowledge.

For a list of applicable charts (see 4.6 Charts and Books).

Defects and/or changes to navigation aids will be promulgated in the Notices to Mariners (see 4.7.1 Notices to Mariners).