

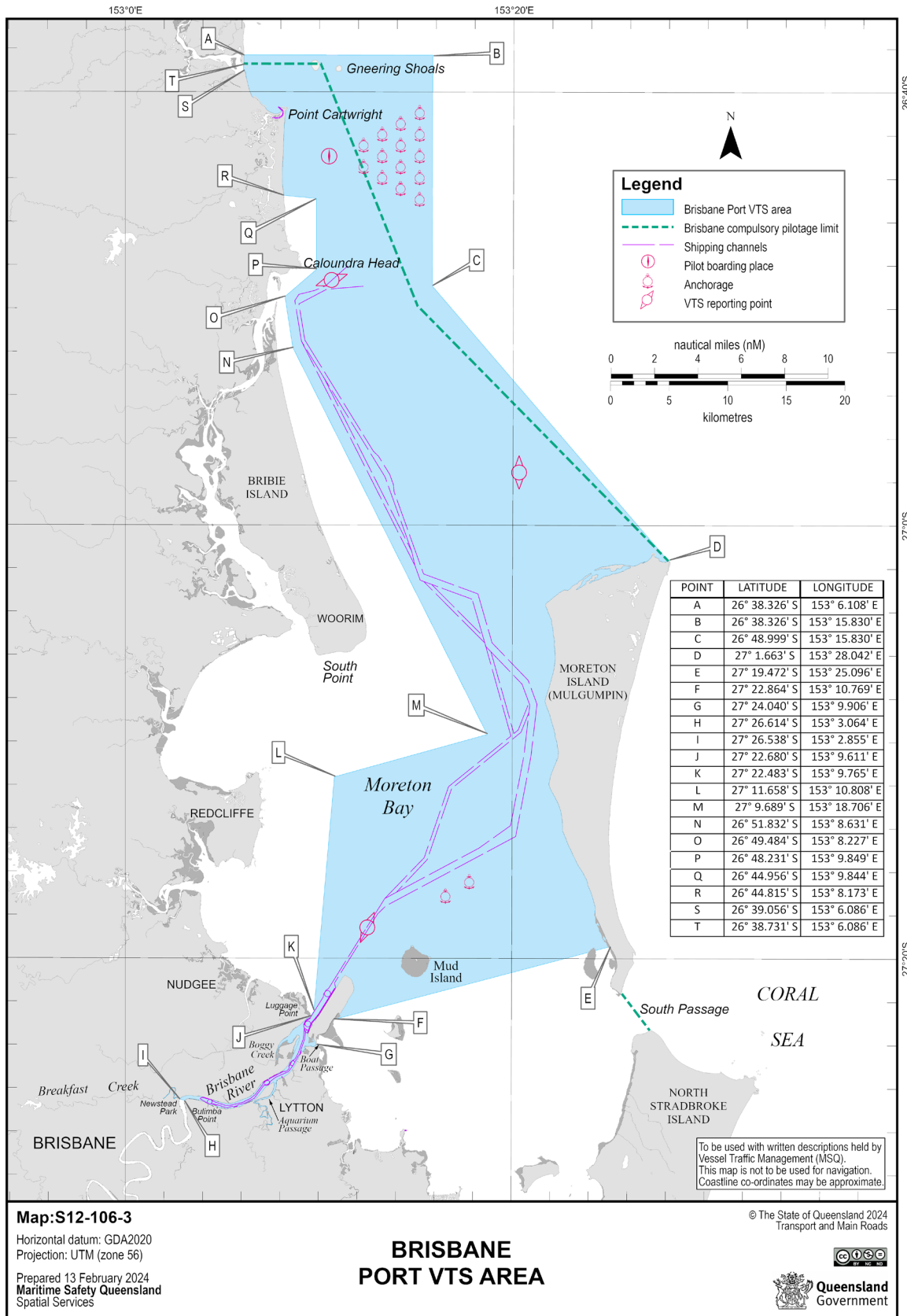
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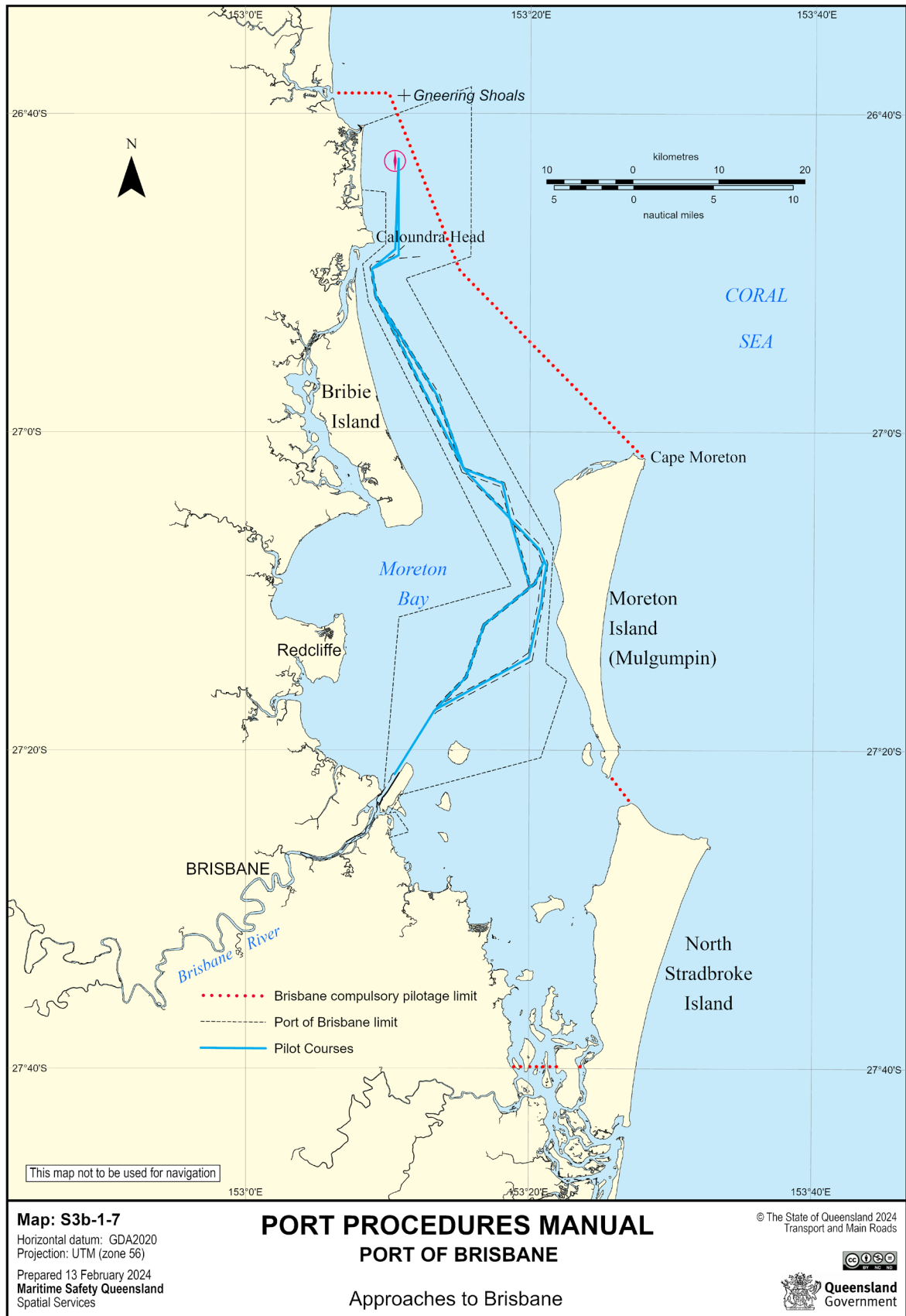
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# 15.1 Brisbane Port, Pilotage and VTS Limits

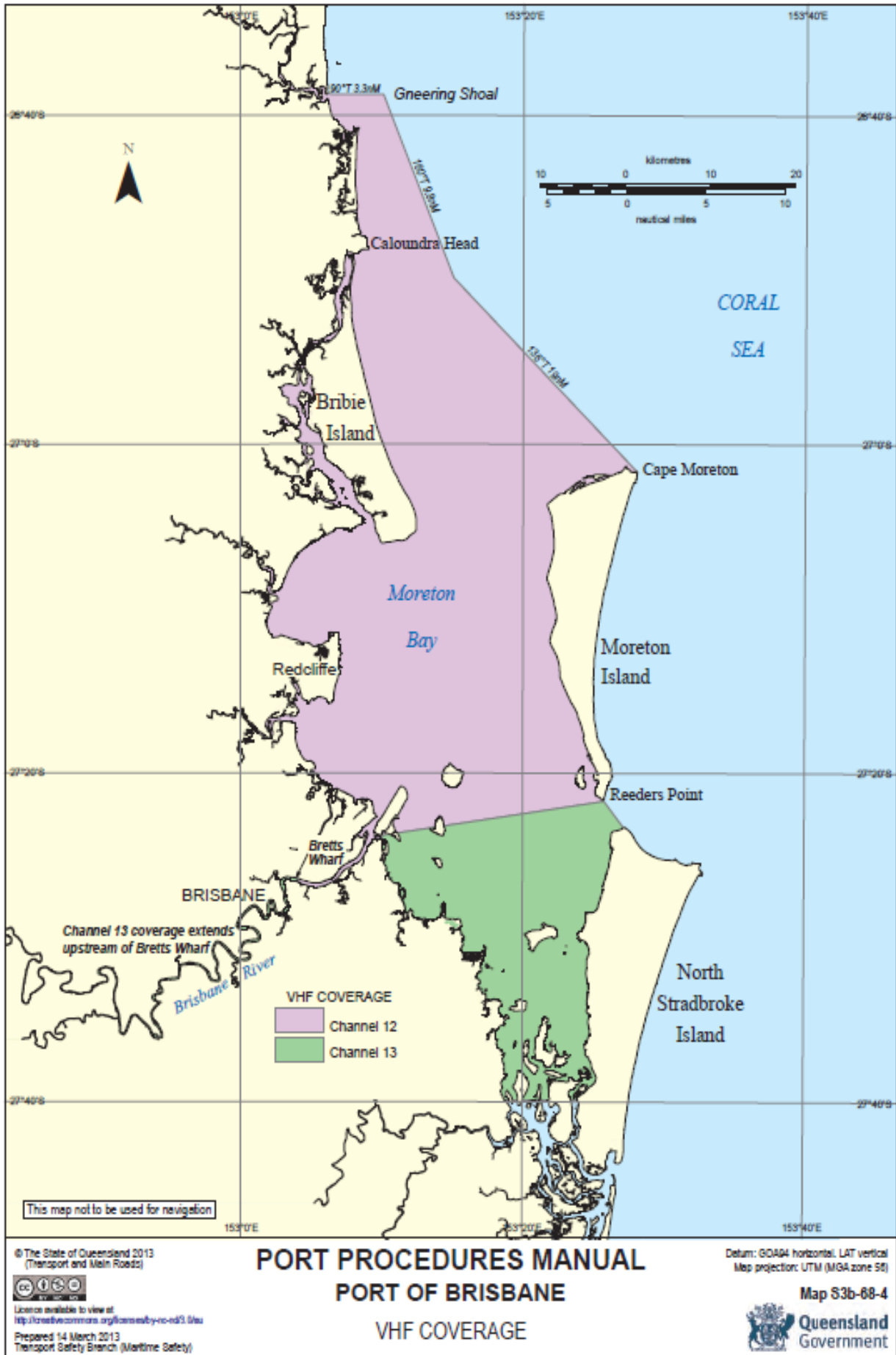
## 15.1.1 Brisbane VTS Area



## 15.1.2 Brisbane Port and Pilotage Limits

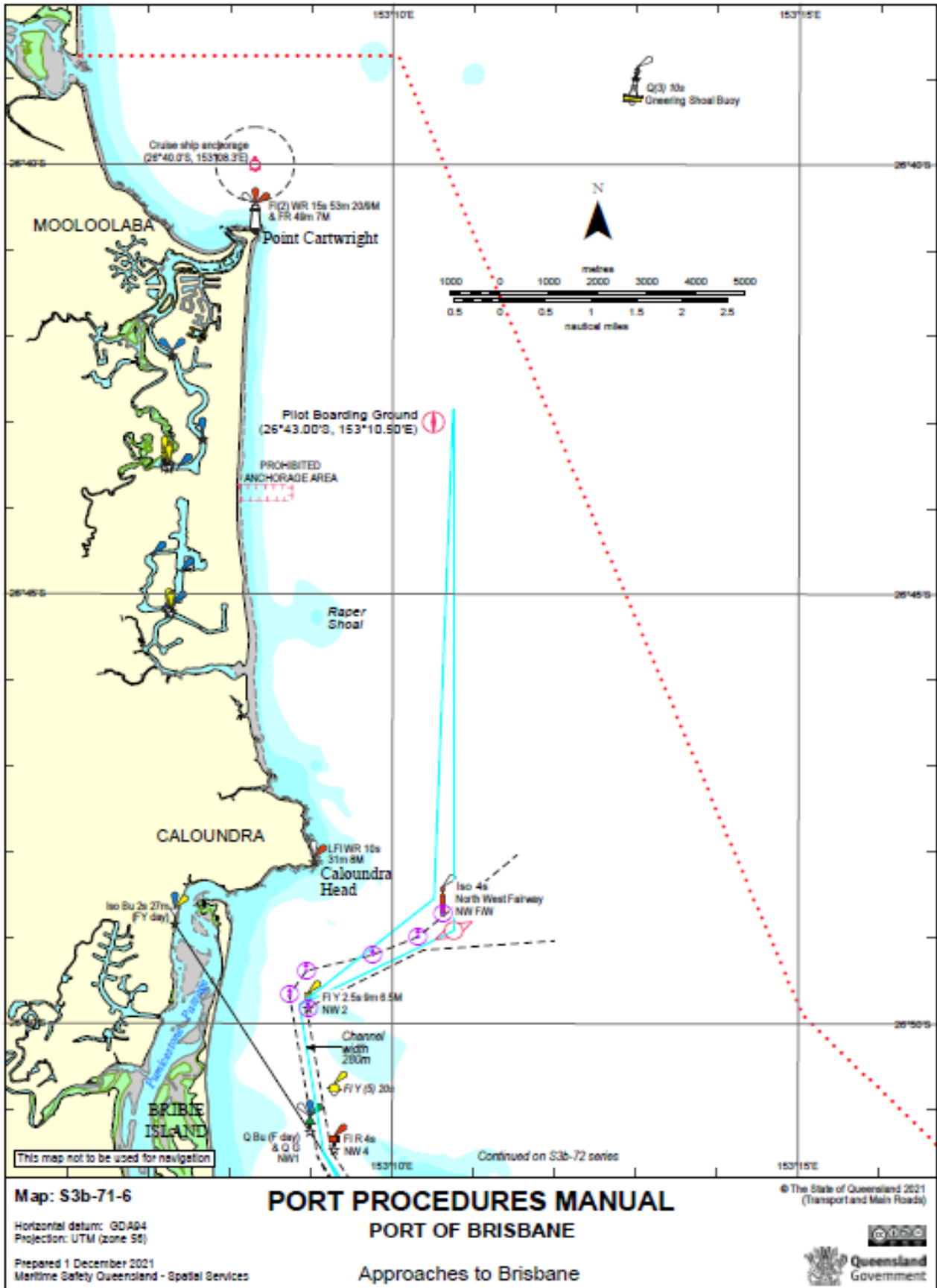


### 15.1.3 Brisbane VHF Coverage

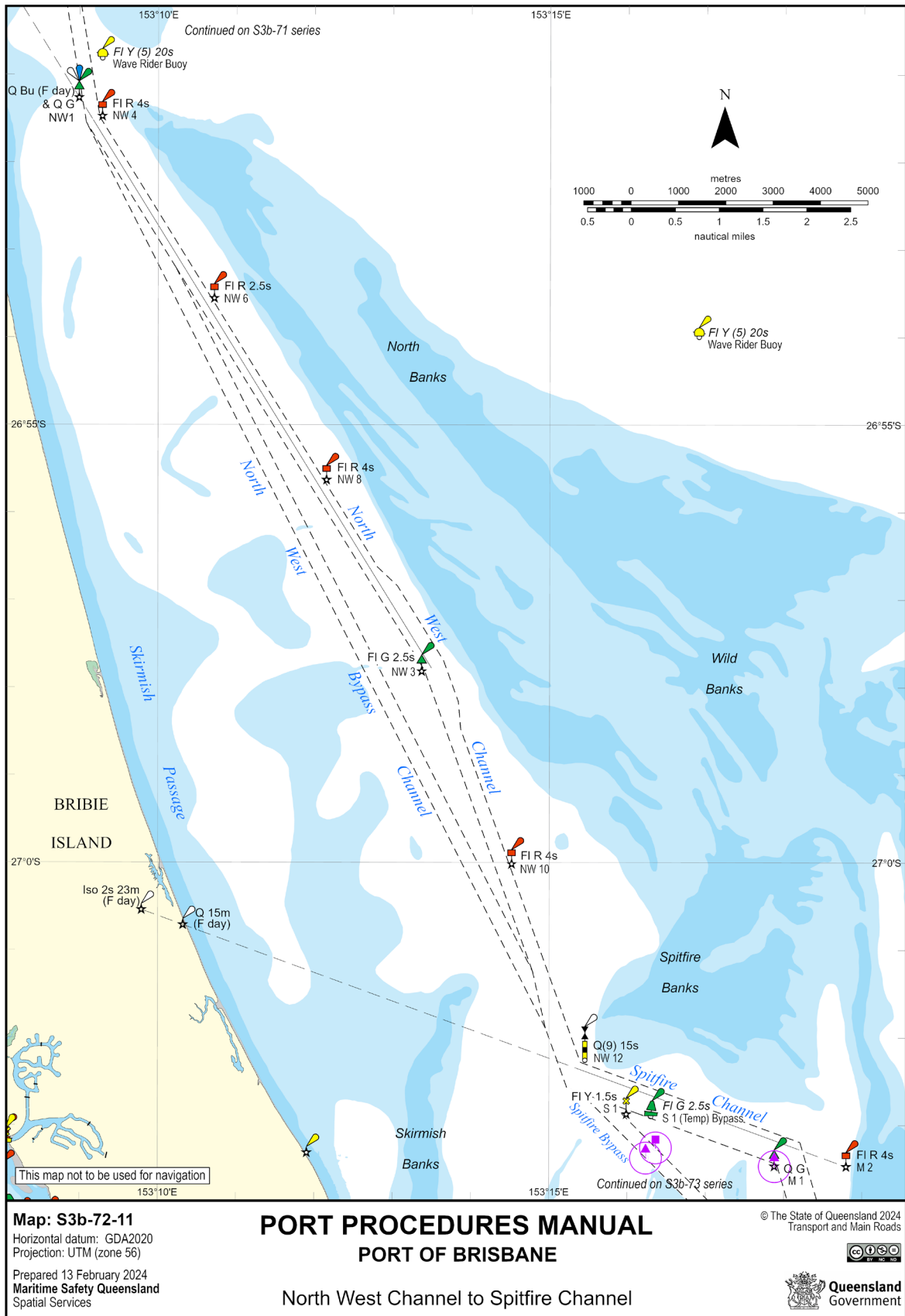


## 15.2 Chartlets – Main Shipping Channels

### 15.2.1 Pilot Boarding Ground and Fairway Approach



## 15.2.2 North West Channel to Spitfire Channel



**Map: S3b-72-11**  
 Horizontal datum: GDA2020  
 Projection: UTM (zone 56)  
 Prepared 13 February 2024  
 Maritime Safety Queensland  
 Spatial Services

### PORT PROCEDURES MANUAL PORT OF BRISBANE

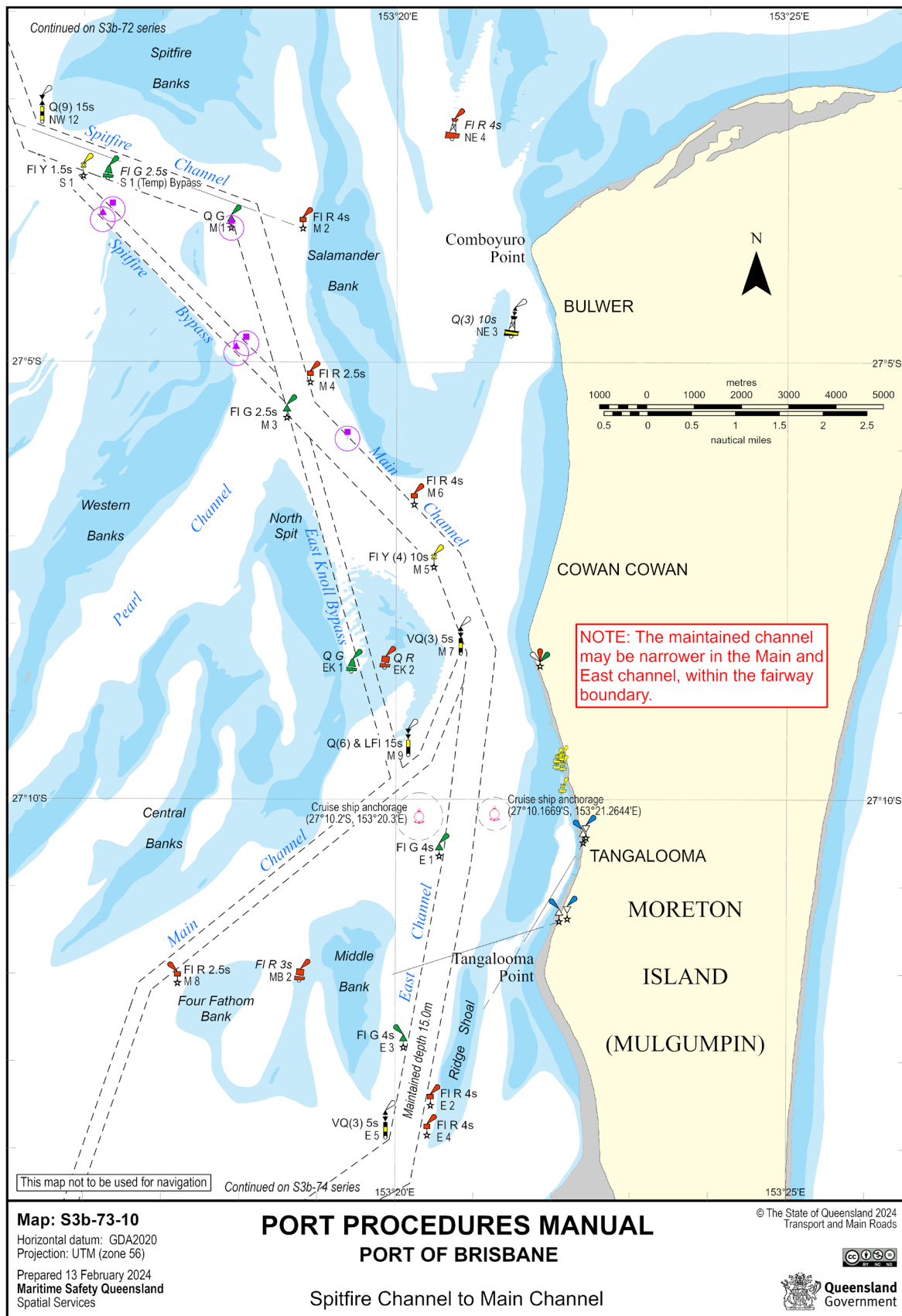
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 Transport and Main Roads



#### North West Channel to Spitfire Channel

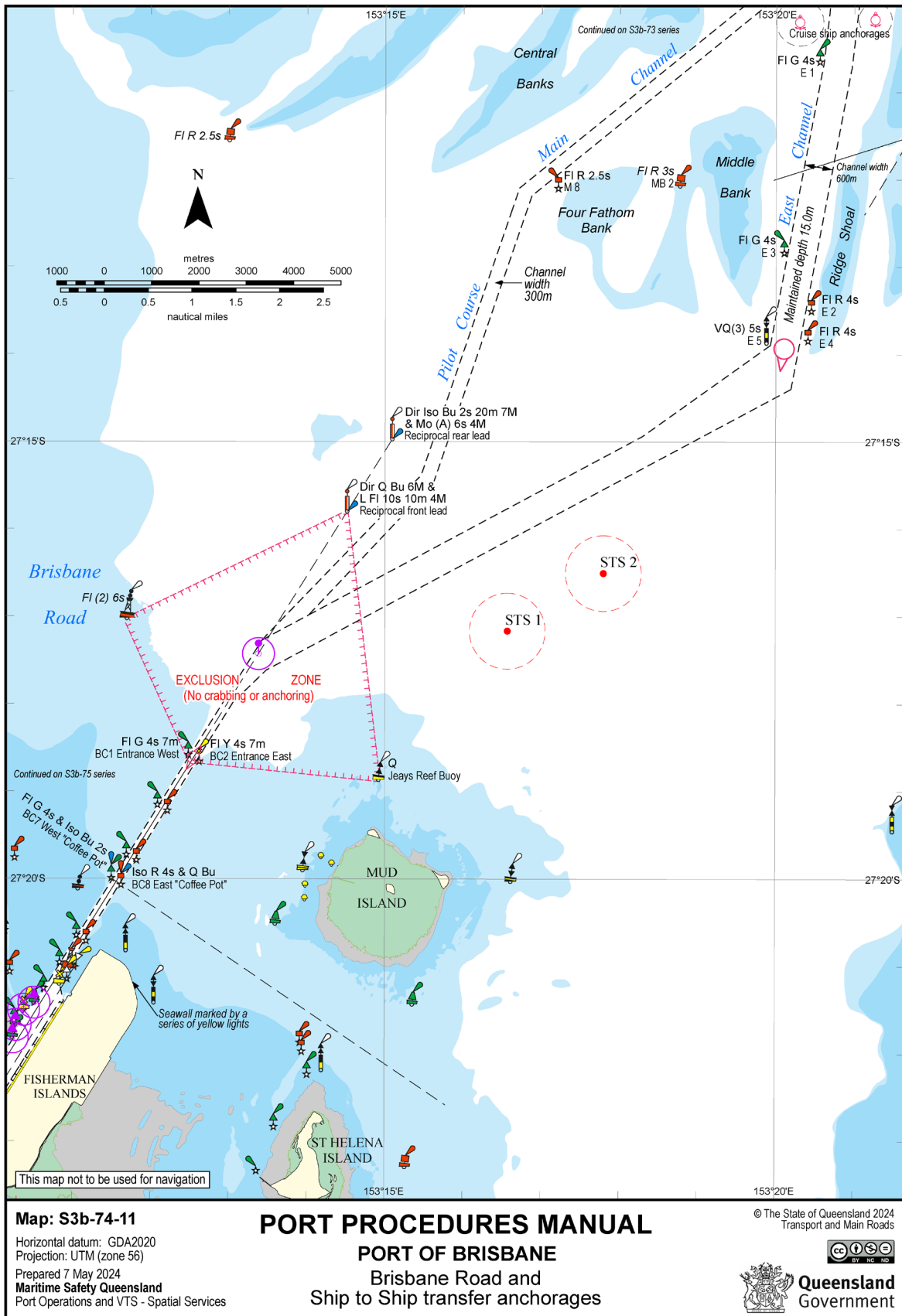


## 15.2.3 Spitfire Channel to Main Channel





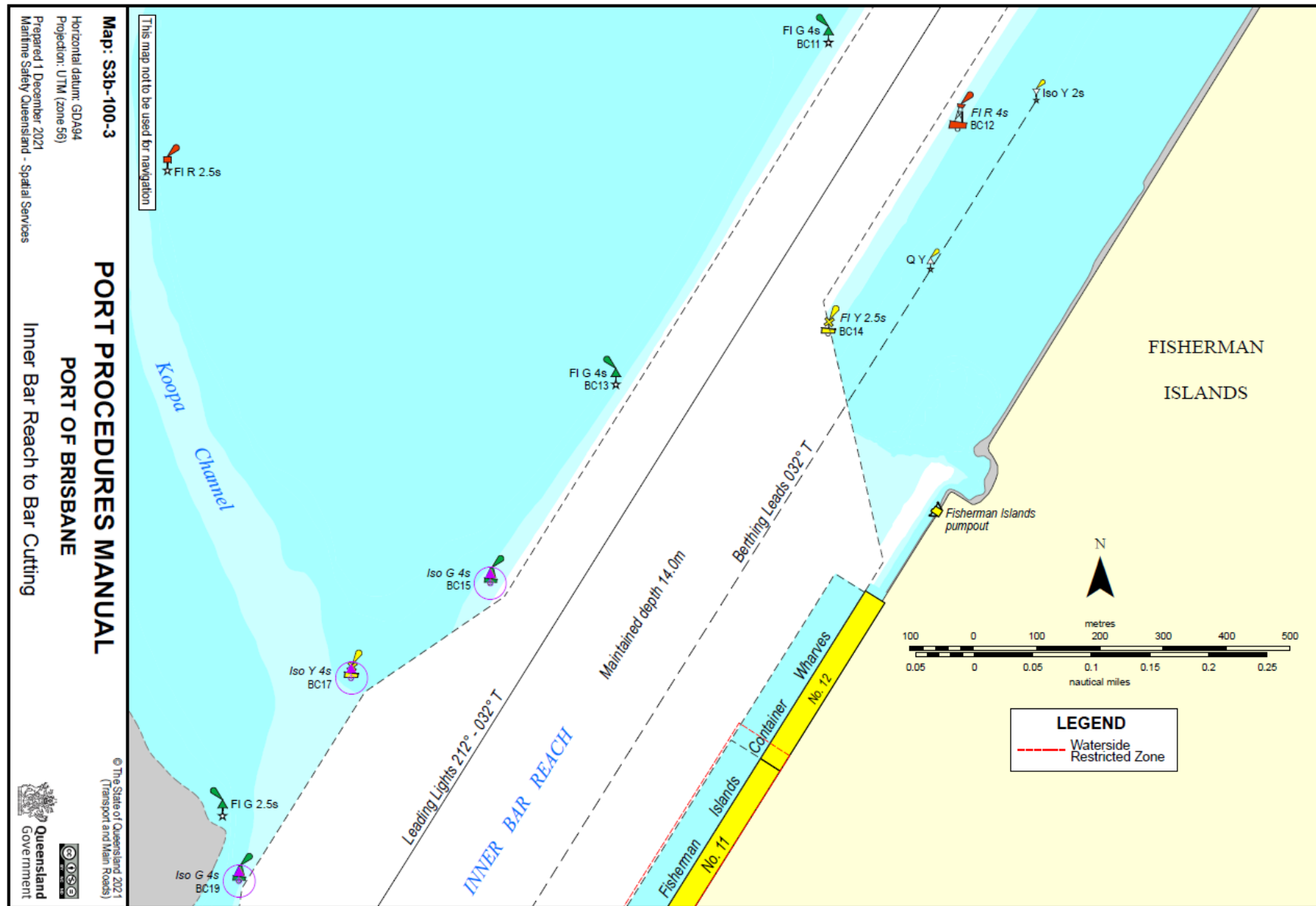
# 15.2.4 Brisbane Roads and Ship to Ship transfer anchorages



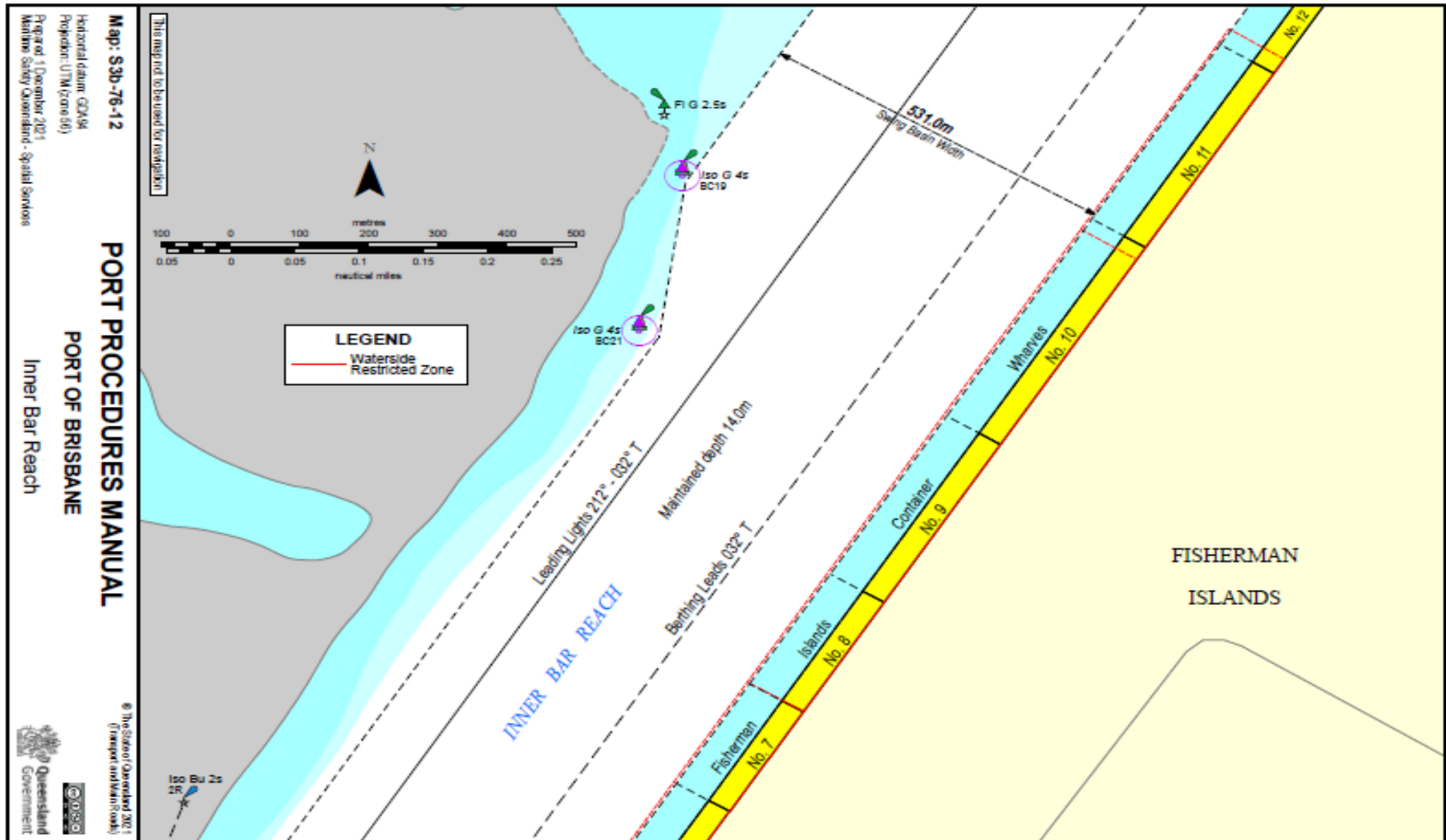
## 15.2.5 Bar Cutting



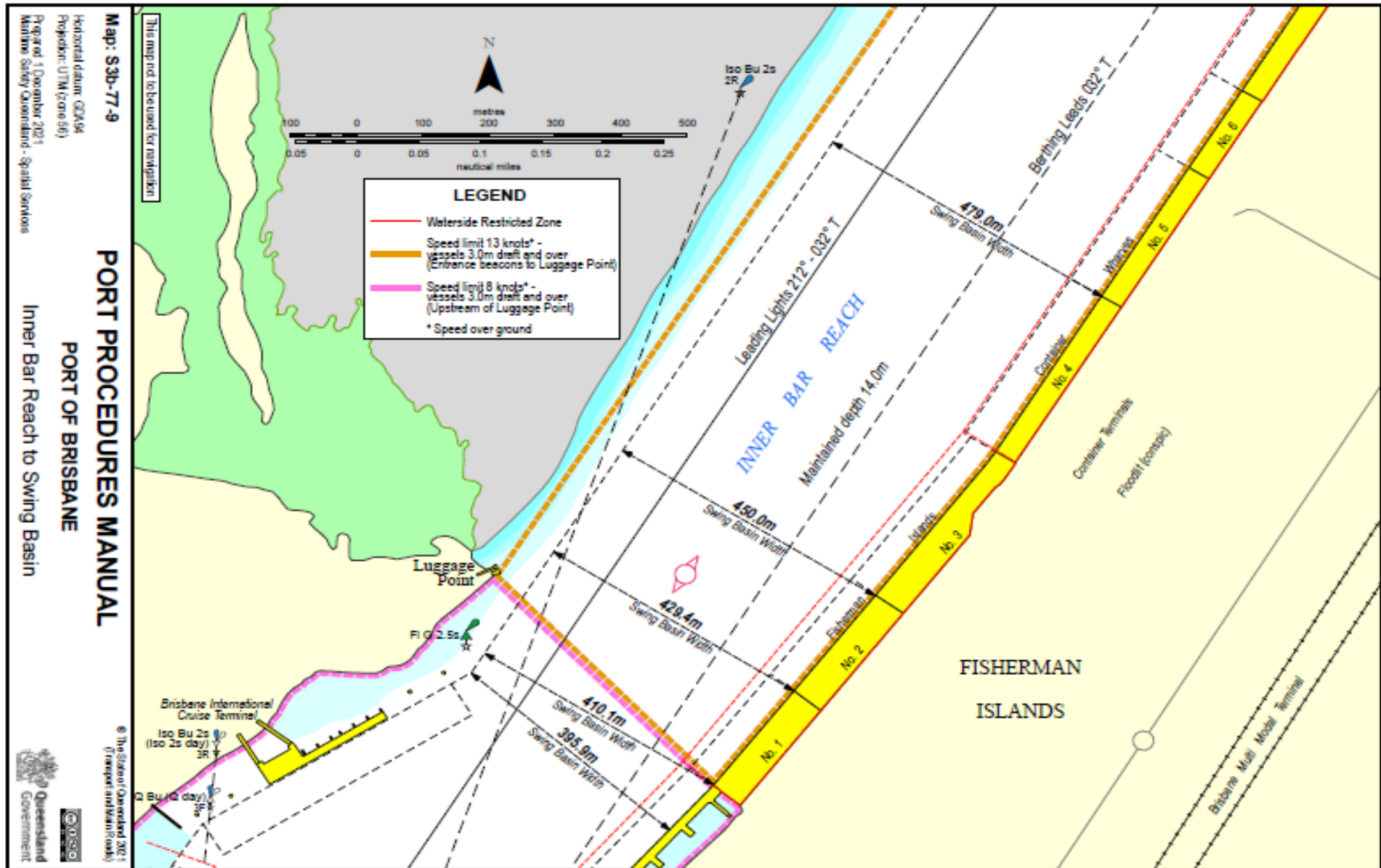
## 15.2.6 Outer Bar to Inner Bar Reach



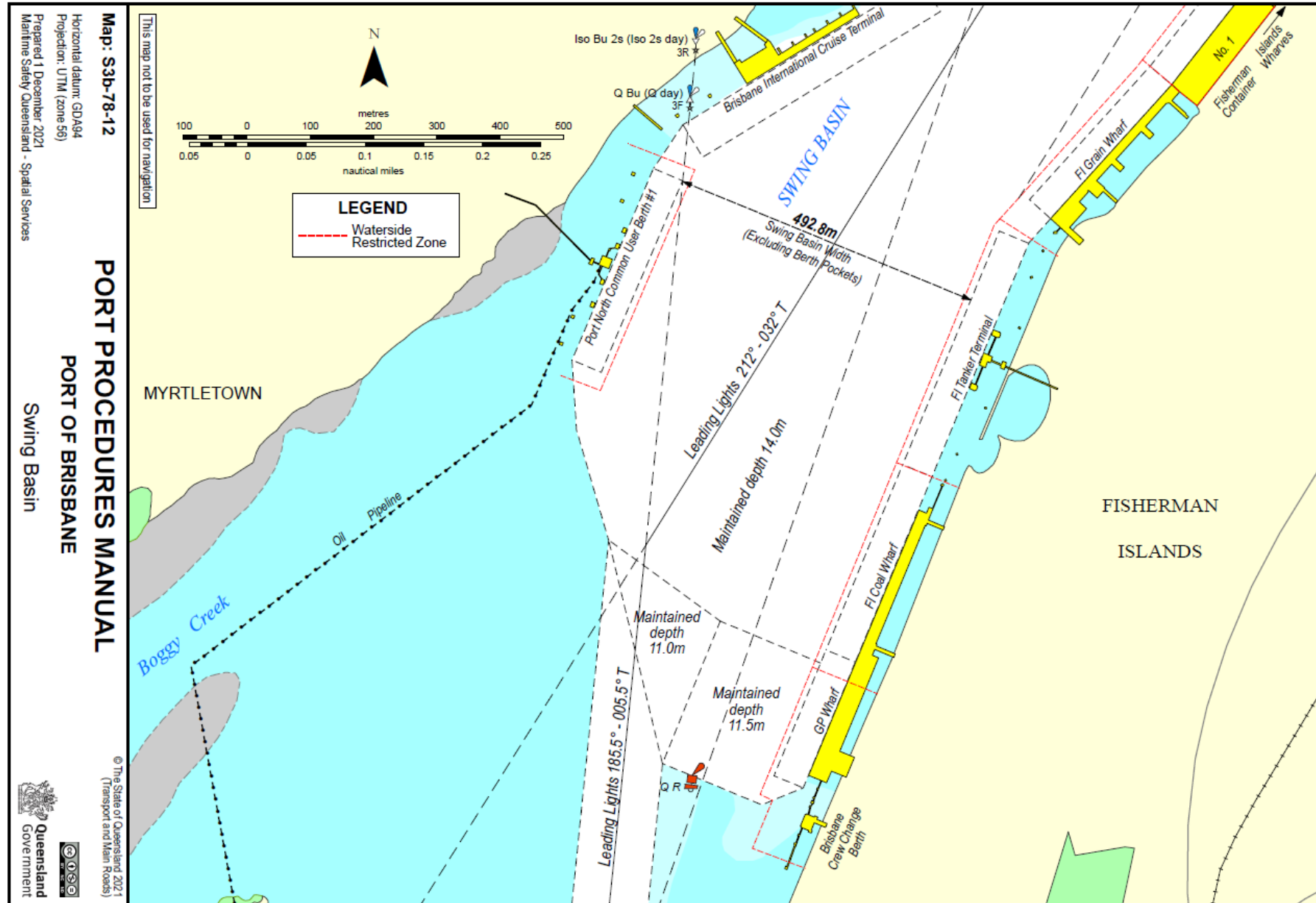
## 15.2.7 Inner Bar Reach



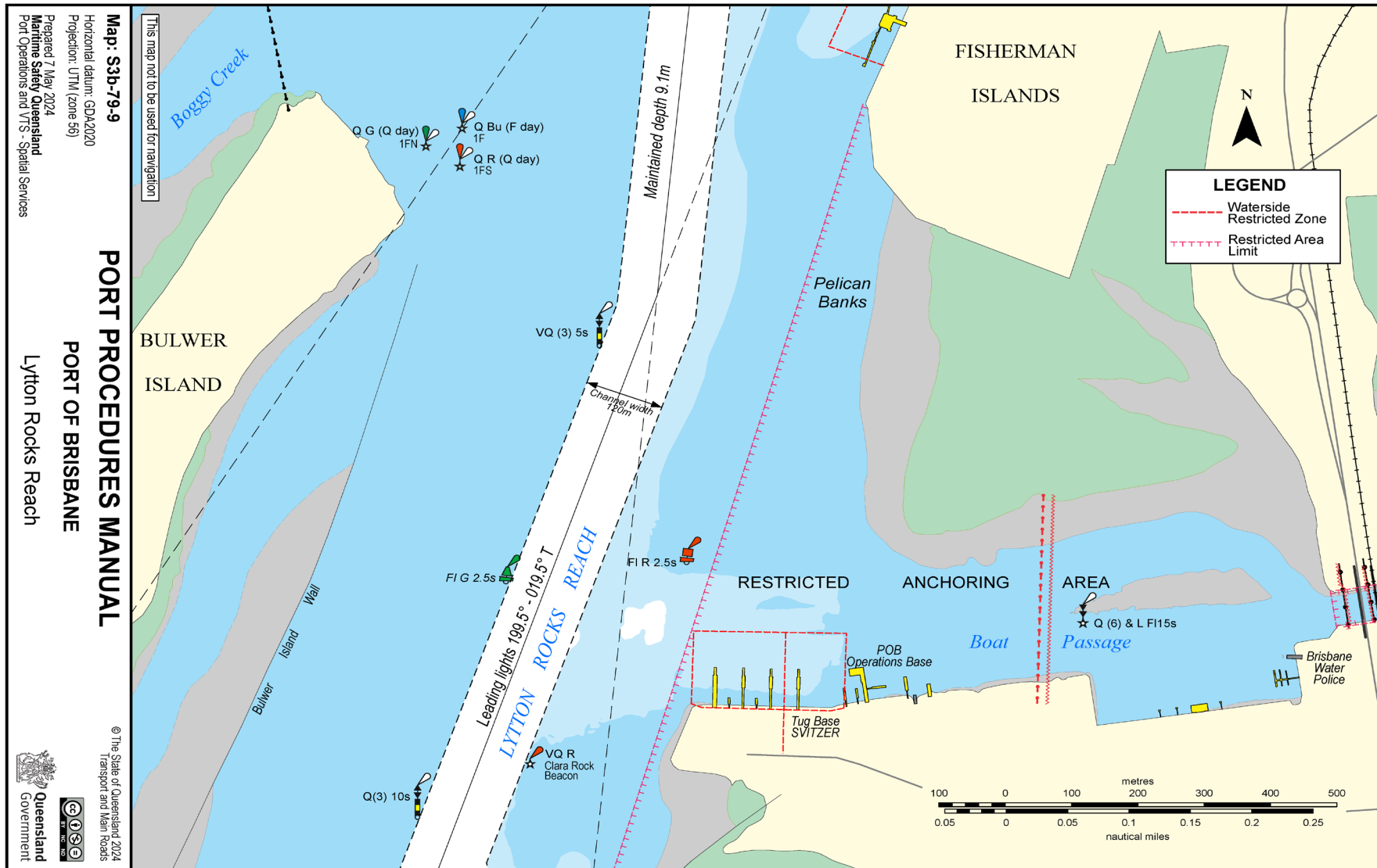
## 15.2.8 Inner Bar Reach to Swing Basin



## 15.2.9 Fisherman Islands Swing Basin



# 15.2.10 Lytton Rocks Reach



This map not to be used for navigation

Map: S3b-79-9  
 Horizontal datum: GDA2020  
 Projection: UTM (zone 56)

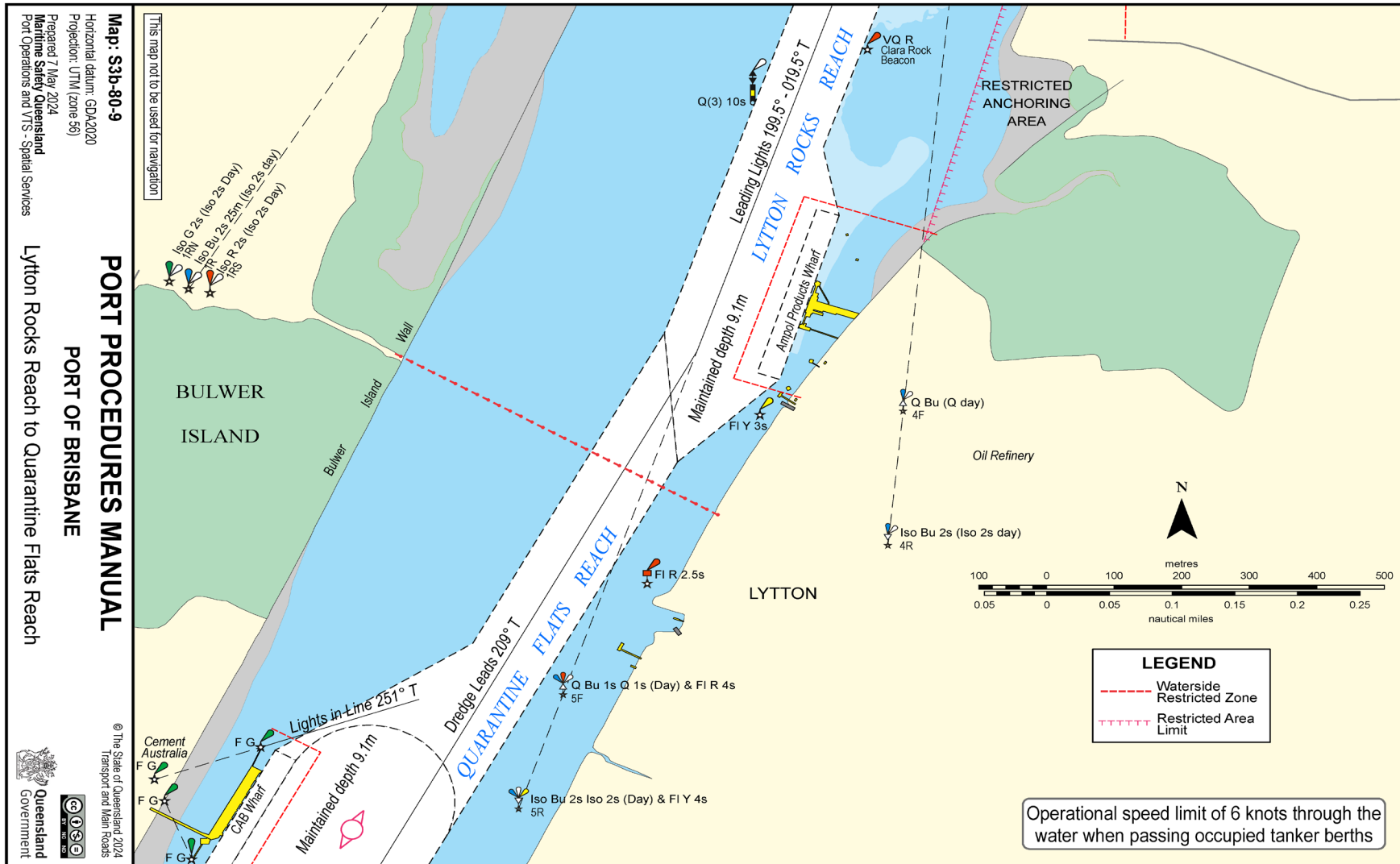
Prepared 7 May 2024  
 Maritime Safety Queensland  
 Port Operations and VTS - Spatial Services

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**PORT OF BRISBANE**  
 Lytton Rocks Reach

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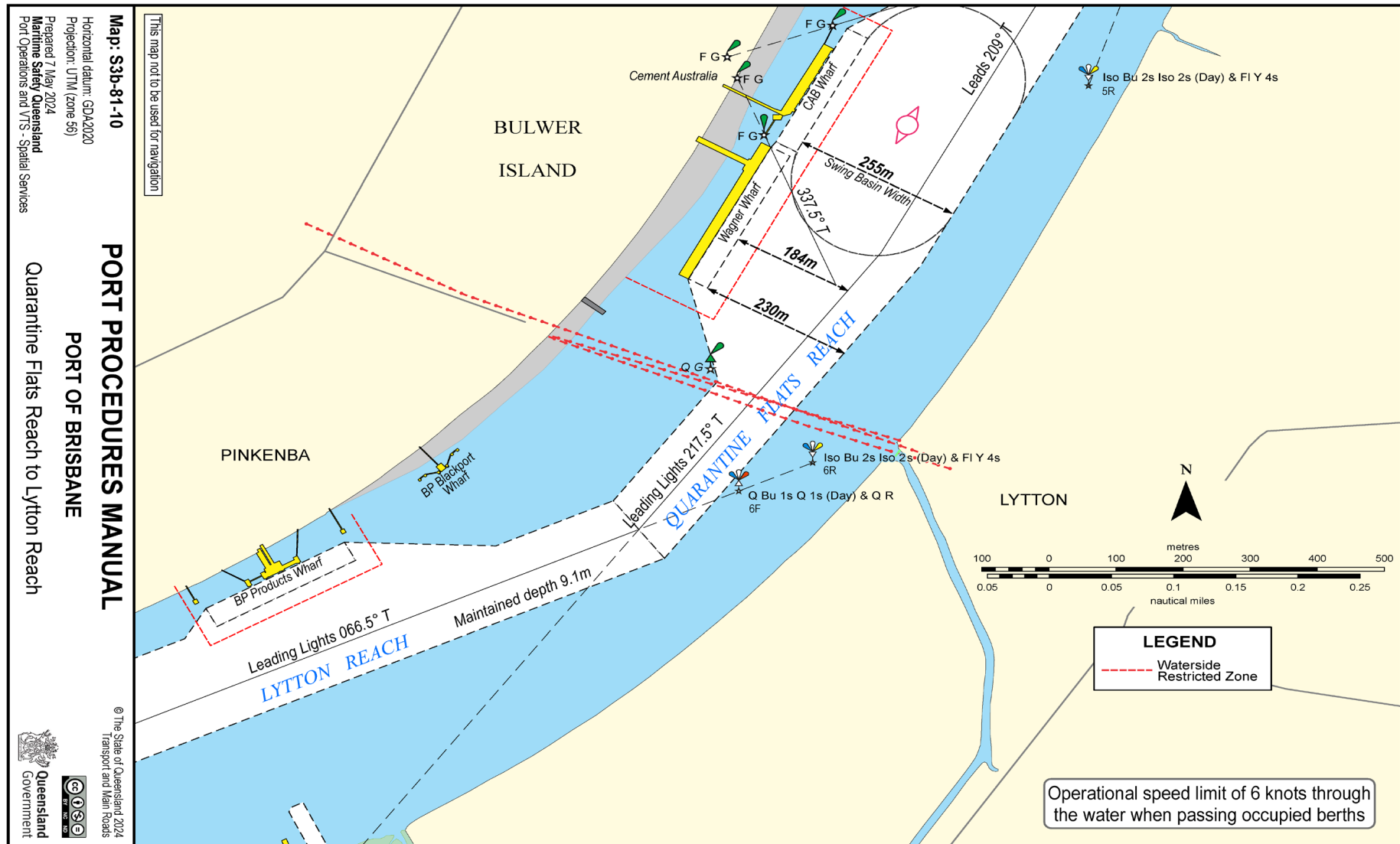
Queensland Government

# 15.2.11 Lytton Rocks Reach to Quarantine Flats Reach

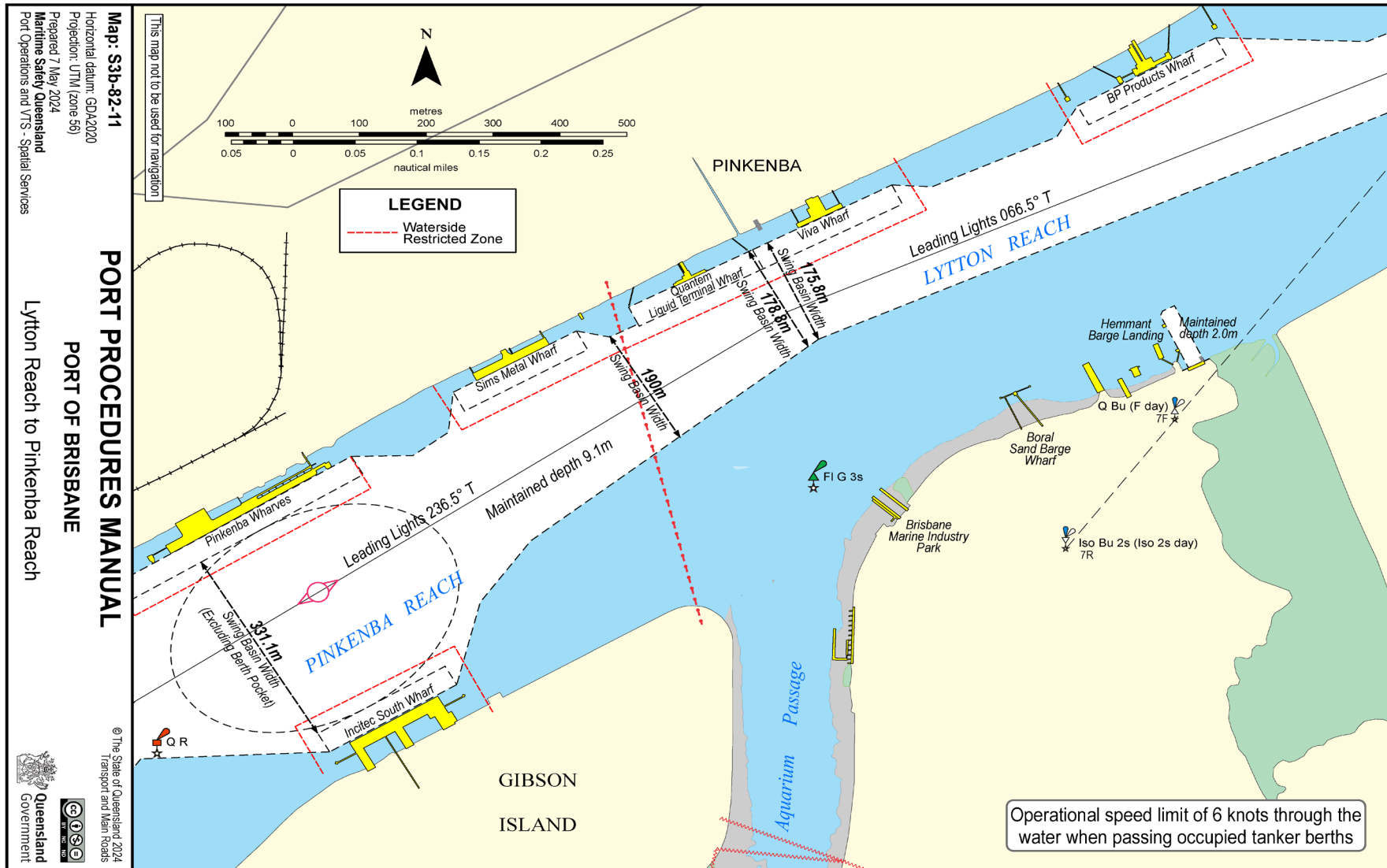




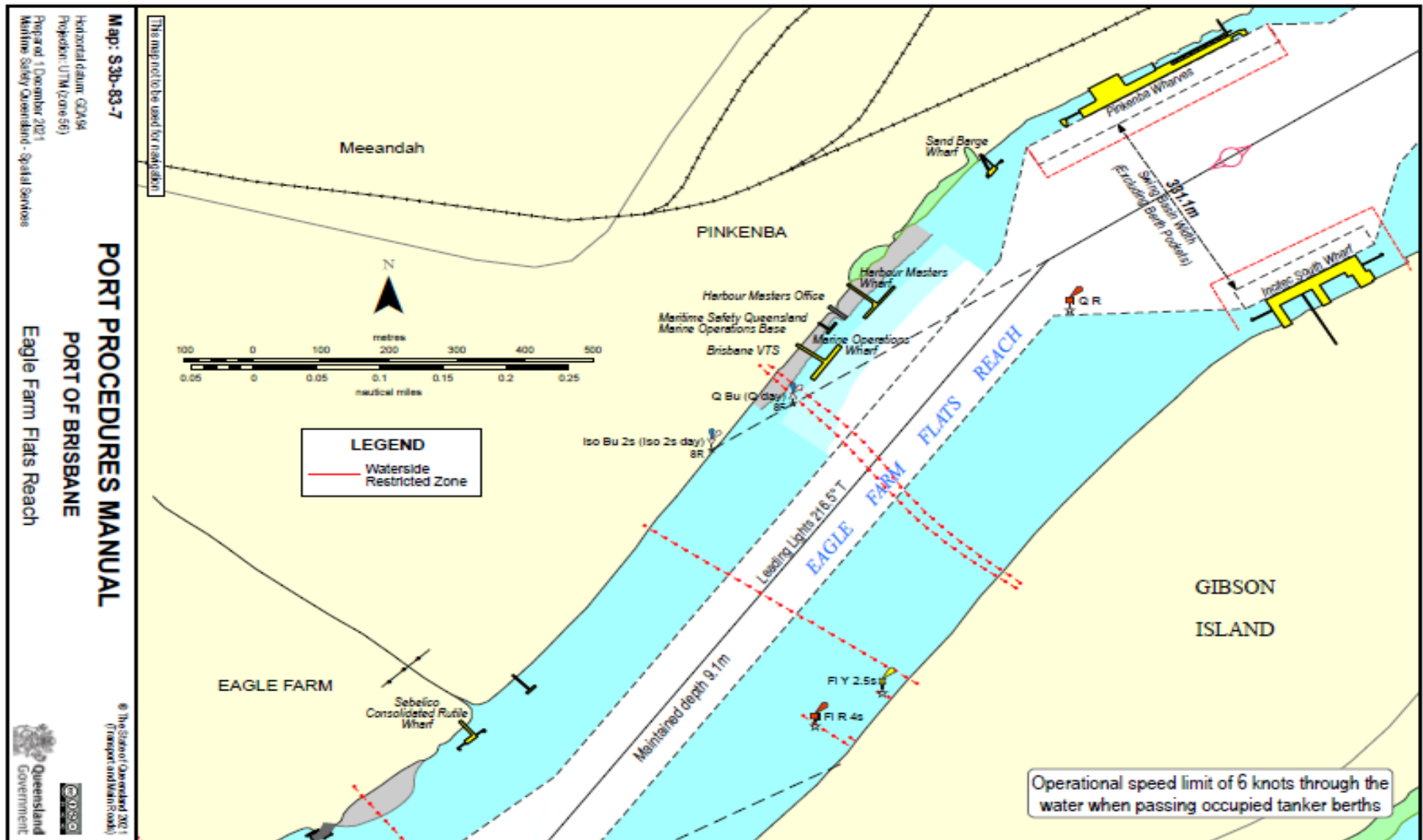
## 15.2.12 Quarantine Flats Reach to Lytton Reach



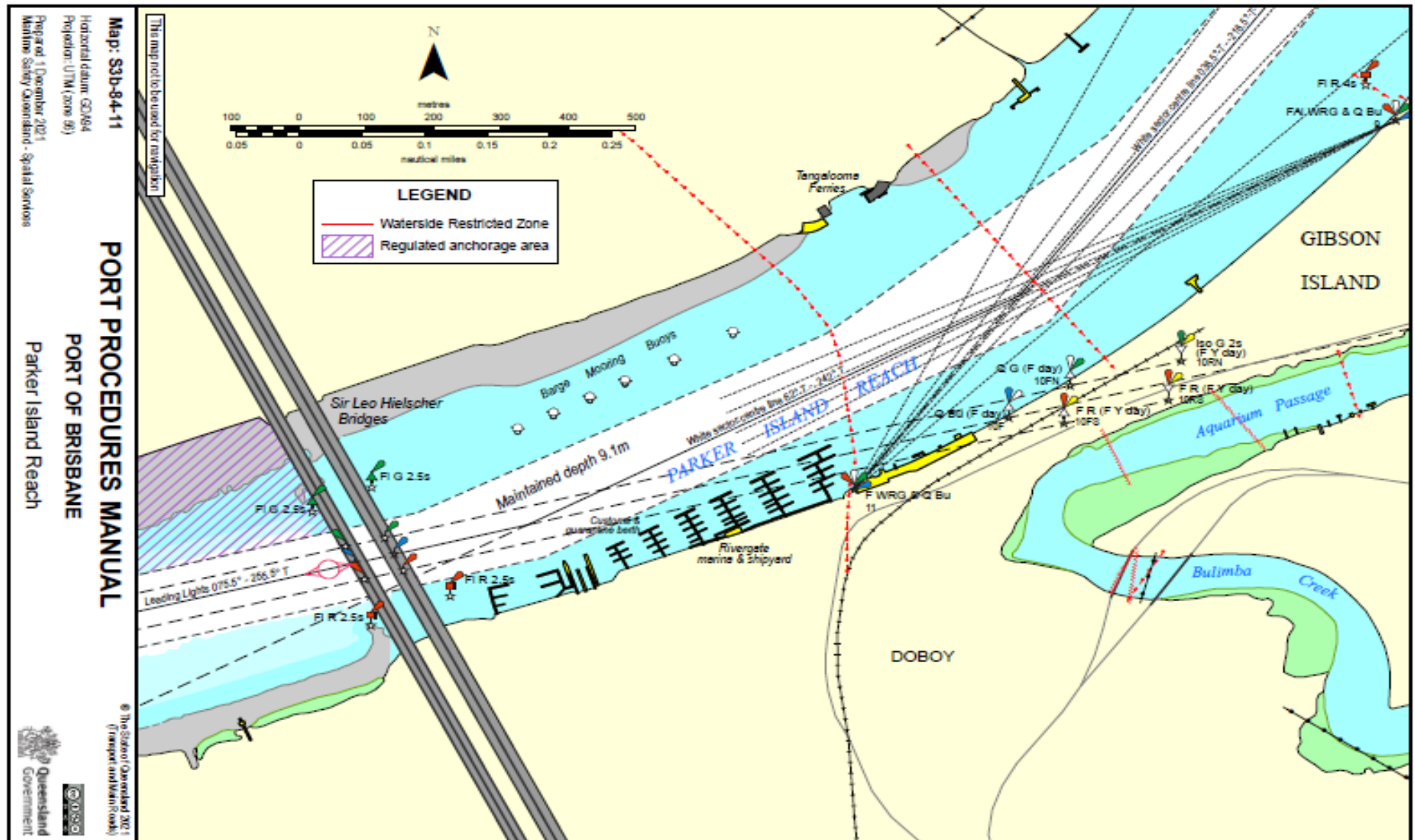
## 15.2.13 Lytton Reach to Pinkenba Reach



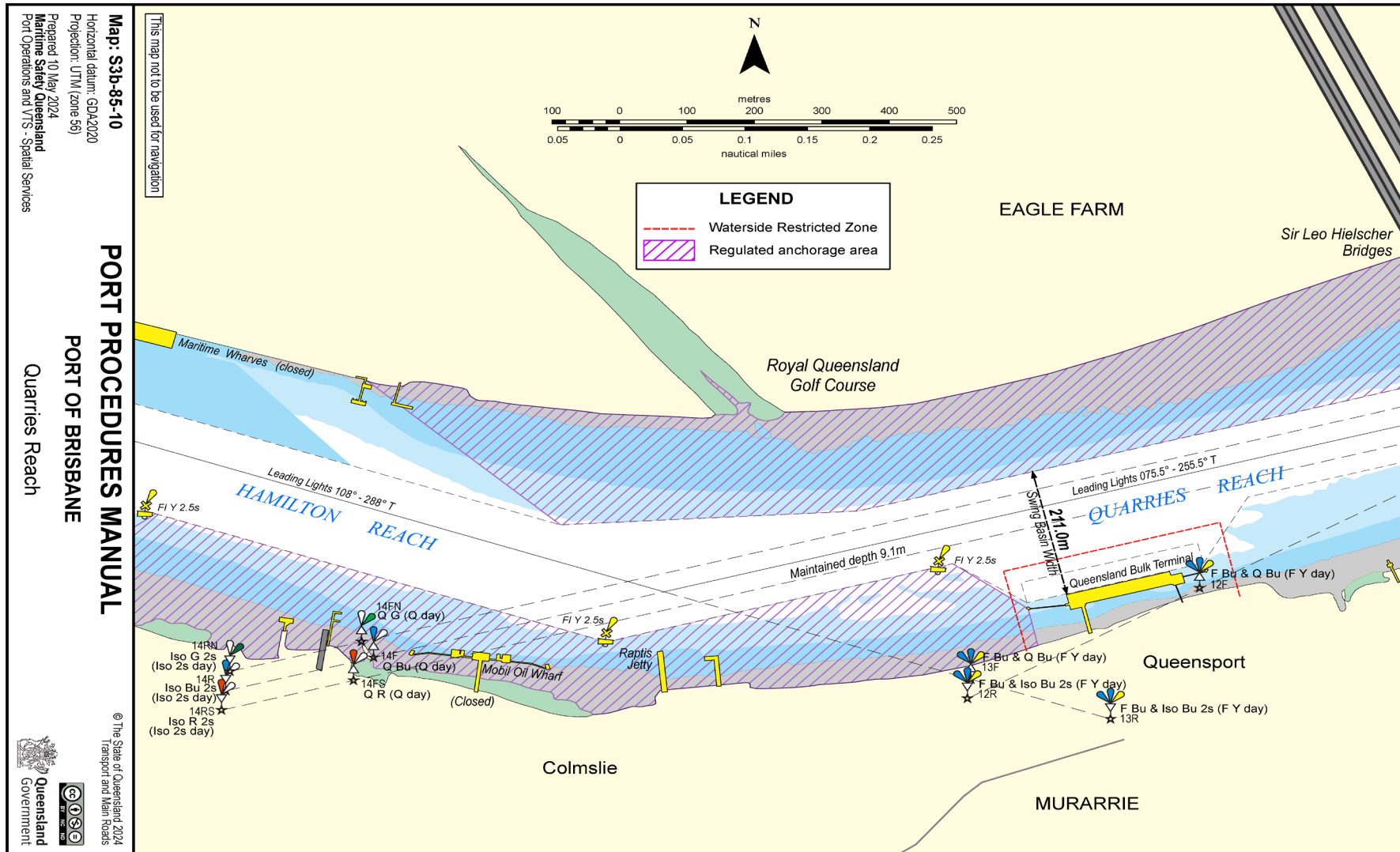
## 15.2.14 Eagle Farm Flats Reach



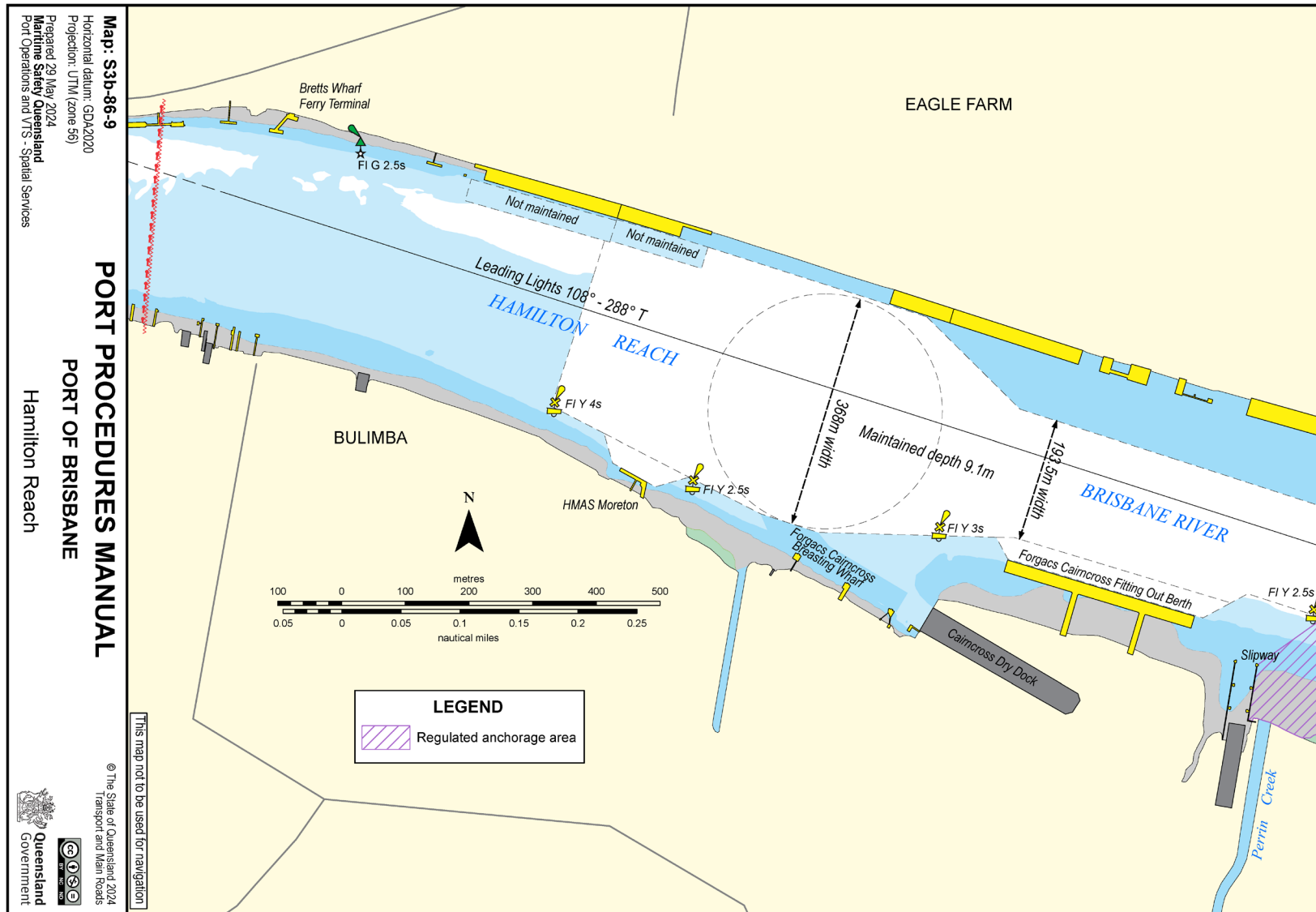
## 15.2.15 Parker Island Reach



# 15.2.16 Quarries Reach



## 15.2.17 Hamilton Reach



## 15.3 Wharf and berth information

Wharf / berth name latitude & longitude	Distance from Entrance Beacon (Nautical Miles)	Wharf owner* operator #	* Length of berth # length of wharf H height above LAT (m)	Berth pocket Design width & depth at LAT (m)	Services E = electricity DO = diesel oil FO = fuel oil T = telephone W = water	Usage (Refer to Port of Brisbane Shipping Handbook for details of cargo equipment and facilities)
Fishermans Islands No 12 27° 21.50' S 153° 10.82' E	3.25	* PBPL #Hutchison Ports BCT	* 310m # 310m H 6.05	55m 14.0m	E -T - W	Containers
Fishermans Islands No 11 27° 21.64' S 153° 10.72' E	3.43	* PBPL #Hutchison Ports BCT	* 350m # 350m H 6.05m	55m 14.0	E -T - W	Containers
Fishermans Islands No 10 27° 21.82' S 153° 10.60' E	3.63	* PBPL # Patrick Terminal	* 395.5m # 395.5m H 5.70 – 6.05m	55m 14.0m	E -T - W	Containers
Fishermans Islands No 9 27° 21.98' S 153° 10.48' E	3.82	* PBPL # Patrick Terminal	* 317.2m # 317.2m H 5.07 - 5.70m	55m 14.0m	E -T - W	Containers
Fishermans Islands No 8 27° 22.11' S 153° 10.39' E	3.96	* PBPL # Patrick Terminal	* 220.3m # 220.3m H 4.65– 5.07m	55m 14.0m	E -T - W	Containers
Fishermans Islands No 7 27° 22.20' S 153° 10.33' E	4.08	* PBPL # DP World Brisbane	* 200m # 200m H 4.23 – 4.65m	55m 14.0m	E -T - W	Containers
Fishermans Islands No 6 27° 22.28' S 153° 10.27' E	4.17	* PBPL # DP World Brisbane	* 150m # 150m H 4.00 - 4.23m	55m 14.0m	E - W	Containers
Fishermans Islands No 5 27° 22.38' S 153° 10.21' E	4.28	* PBPL # DP World Brisbane	* 250m # 250m H 4.00m	55m 14.0m	E - W	Containers
Fishermans Islands No 4 27° 22.50' S 153° 10.11' E	4.43	* PBPL # DP World Brisbane	* 301.5m # 301.5m H 4.00m	55m 14.0m	E -T - W	Containers,
Fishermans Islands No 3 27° 22.64' S 153° 10.02' E	4.59	* PBPL # AAT	* 298.7m # 298.7m H 4.00m	45m 14.0m	E -T - W	Containers, Ro/Ro, motor vehicles and general cargo
Fishermans Islands No 2 27° 22.74' S 153° 09.92' E	4.72	* PBPL # AAT	* 200m # 200m H 4.00m	45m 14.0m	E -T - W	Containers, Ro/Ro, motor vehicles and general cargo
Fishermans Islands No 1 27° 22.83' S 153° 09.85' E	4.83	* PBPL # AAT	* 197m #197m H 4.00m	45m 14.0m	E -W	Containers, Ro/Ro, motor vehicles and general cargo

Wharf / berth name latitude & longitude	Distance from Entrance Beacon (Nautical Miles)	Wharf owner* operator #	* Length of berth # length of wharf H height above LAT (m)	Berth pocket Design width & depth at LAT (m)	Services E = electricity DO = diesel oil FO = fuel oil T = telephone W = water	Usage (Refer to Port of Brisbane Shipping Handbook for details of cargo equipment and facilities)
Fishermans Islands Grain 27° 22.93' S 153° 09.75' E	5.0	* PBPL # Graincorp	* 285m # 285m H 4.00m	45m 14.0m	E -T - W	Grain, woodchip, cotton seed and motor vehicles
Fishermans Islands Tanker Terminal 27° 23.11' S 153° 09.63' E	5.2	PBPL	* 400m # 100.2m dolphins to dolphins H 5.3m	50m 14.3m	E -FO - W	Crude and product oil discharge
Brisbane International Cruise Terminal 27° 22.85' S 153° 09.46' E	5.2	PBPL	*440m #208m H 4.25m	60m 14.0m		Passenger Vessels
Port North Common User Berth #1 27° 23.02' S 153° 09.28' E	5.3	*PBPL #ATOM	* 329m # 135.7m dolphins to dolphins H 5.64m	50m 14.3m	W	Crude oil discharge, load/discharg e petroleum products
Fishermans Islands Coal 27° 23.29' S 153° 09.55' E	5.4	* PBPL # Queensland Bulk Handling	*317m #240m H 4.00m	50m 14.0m	E -T - W	Bulk coal, bulk clinker, gypsum slag
Fishermans Islands General Purpose 27° 23.42' S 153° 09.48' E	5.5	* PBPL	* 215m #213m H 4.00m	50m 11.5m	E - W	Dry bulk and break bulk
Ampol Products Wharf 27° 24.39' S 153° 09.09' E	6.6	Ampol Refineries Ltd	* 285m # 82.2m dolphins to dolphins H 4.98	35m 10.3m	DO – FO - E - W	Petroleum Products
Cement Australia Wharf 27° 24.84' S 153° 08.57' E	7.2	Cement Australia Ltd	* 220m # 128m H 5.0m	35m 9.7m	E -T - W	Bulk clinker, fly ash, gypsum
Wagners Wharf 27° 24.97' S 153° 08.49' E	7.3	Wagners Holding Company Ltd	* 254.8m # 254.8m H 5.75m	32m 10.3m		Bulk clinker, fly ash, gypsum
BP Products Wharf 27° 25.29' S 153° 08.09' E	7.9	*BP Oil Australia #ATOM	* 235m # 89.5m dolphins to dolphins H 5.18m	35m 10.9m	DO - W	Petroleum Products and discharge LPG
Hemmant Barge Landing	81		Barge landing	35m		Small ship facility
Viva Energy Wharf	8.2	Viva Energy	* 234m	35m	E	Petroleum



Wharf / berth name latitude & longitude	Distance from Entrance Beacon (Nautical Miles)	Wharf owner* operator #	* Length of berth # length of wharf H height above LAT (m)	Berth pocket Design width & depth at LAT (m)	Services E = electricity DO = diesel oil FO = fuel oil T = telephone W = water	Usage (Refer to Port of Brisbane Shipping Handbook for details of cargo equipment and facilities)
27° 25.42' S 153° 07.80' E		Australia	# 75.2m H 5.18m	10.9m		Products
Quantem Liquids Terminal 27° 25.48' S 153° 07.68' E	8.3	Quantem	* 208m # 55m H 5.18m	35m 10.5m	W	Bulk flammable liquids
SIMS Metal Wharf 27° 25.55' S 153° 07.52' E	8.5	SIMS Metal Ltd	* 210m #123.5m dolphin to dolphin H 4.47m	35m 10.0m	E - W	Bulk liquid and dry bulk fertiliser
Incitec South Wharf 27° 25.87' S 153° 07.41' E	8.7	Incitec Ltd	* 220m # 152.2m H 4.57m	35m 10.4m	E - T - W	Bulk liquid and dry bulk cargoes,
Pinkenba Wharf 27° 25.69' S 153° 07.26' E	8.7	*#PBPL # Graincorp # Puma Energy	* 407m # 314m dolphin to dolphin H 5.18m	10.4m	E - T - W	Dry bulk, general, petroleum products
Pacific Tug Base	9.6	Pacific Tug Group				Small ship facility
Bhagwan	9.8	Bhagwan Marine PTY LTD				Small ship facility
Queensland Bulk Terminal 27° 26.89' S 153° 05.71' E	10.6	Wilmar Gavilon	* 270m # 158m H 5.0m	35m 10.0m	E - T - W	Bulk cargoes
Forgacs Cairncross Fitting Out Wharf 27° 26.80' S 153° 04.64' E	11.5	LendLease	* 320m H 5.4m	Consult VTS for latest depth	E -T - W	Ship repair
Hamilton 4 Wharf 27° 26.59' S 153° 04.54' E (closed)	11.7	*EDQ #QUBE Logistics	* 240m # 240m H 5.18m	35m 10.3m	E -T - W	General Cargo, Containers, Bulk Cargo
Brisbane Cruise Terminal (Portside) Hamilton 1 Wharf 27° 26.47' S 153° 04.10' E	12.1	Brisbane Cruise Terminal	* 387m # 237m H 5.18m	35m 8.8m	E -T - W	Passenger vessels

**Table 21 – Wharf and Berth Information**

## 15.4 Swing basin and swing areas Brisbane River

Area	Minimum depth	Minimum diameter	Without berth pocket	With berth pocket	Include opposite berth	Maximum LOA	
<b>Hamilton Reach Swing Basin</b>	<b>9·1</b>	<b>368</b>	<b>230</b>	-			
Fitting Out Berth	9·1	252·6	158	180	202		
Queensland Bulk Terminal	9·1	211·0	–	132			
<b>Pinkenba Swing Basin</b>	<b>9·1</b>	<b>331·1</b>	<b>207</b>	<b>229</b>	-		
Incitec South	9·1	331·1	207	229	-		
SIMS Metal	9·1	234·6	–	147			
Quantem Liquids Terminal	9·1	178·8	–	112			
Viva	9·1	175·8	–	110			
BP Products	9·1	196·9	–	123			
<b>Cement Australia Swing Basin†</b>	<b>9·1</b>	<b>255·1</b>	<b>166</b>	<b>186</b>			
Wagnert†	9·1	230·0	-	166			
Ampol Products	9·1	183·7		115			
<b>Fisherman Islands Swing Basin</b>	<b>14·0</b>	<b>492·8</b>	<b>308††</b>	-	-		
Fisherman Islands Grain Terminal	14·0	395·9	–	247			
Fisherman Islands No 1	14·0	410·1		256			
Fisherman Islands No 2	14·0	429·4		268			
Fisherman Islands No 3	14·0	450·0	–	281			
Fisherman Islands No 4	14·0	479·0	–	300			
Fisherman Islands No 5	14·0	479·0	–	300			
Fisherman Islands No 6	14·0	479·0	–	300			
Fisherman Islands No 7	14·0	479·0	–	300			
Fisherman Islands No 8	14·0	479·0	–	300			
Fisherman Islands No 9	14·0	479·0		300			
<b>Koopa Swing Basin</b>	<b>14·0</b>	<b>531m</b>	<b>350</b>	-	-		
Fisherman Islands No 10	14·0	479·0		300			
Fisherman Islands No 11	14·0	479·0		300			
Fisherman Islands No 12	14·0	479·0		300			

Table 22 – Swing Basin and swing areas Brisbane River

- \* Passenger vessels accepted to 270m LOA on a case by case basis providing no vessel beyond BCT and HAM4 berths.
- † This LOA will be determined on a case by case basis by the Regional Harbour Master.
- †† Due to high risk with NGF tanker alongside this LOA will be determined by the Regional Harbour Master on a case by case basis.
- # This LOA will require further investigation.

## 15.5 Air draft/bridge heights

Bridge/power lines	Height above highest astronomical tide (HAT)
Sir Leo Hielscher Bridges Known as <i>Gateway Bridge</i> (see note)	57.4 metres (centre) 54 metres (edge of navigation envelope)
Bulimba power lines	41.4 metres
Story Bridge	30 metres
Kangaroo Point Green Bridge	12.3 metres
Captain Cook Bridge	12.7 metres
Goodwill Bridge	13.25 metres
Neville Bonner Bridge	11.8 metres
Victoria Bridge	11.4 metres
Kurilpa Bridge	11.4 metres
William Jolly Bridge	12 metres
Merivale Railway Bridge	11.5 metres
GoBetween Bridge (Hale Street)	11.4 metres

Table 23 – Air draft/bridge heights

### 15.5.1 Sir Leo Hielscher Bridges

Vessels with an air draft >48 metres are required to obtain permission from the Regional Harbour Master. Vessels with air drafts between 53.5 metre and 56.4 metre will be subject to tidal and transit restrictions.

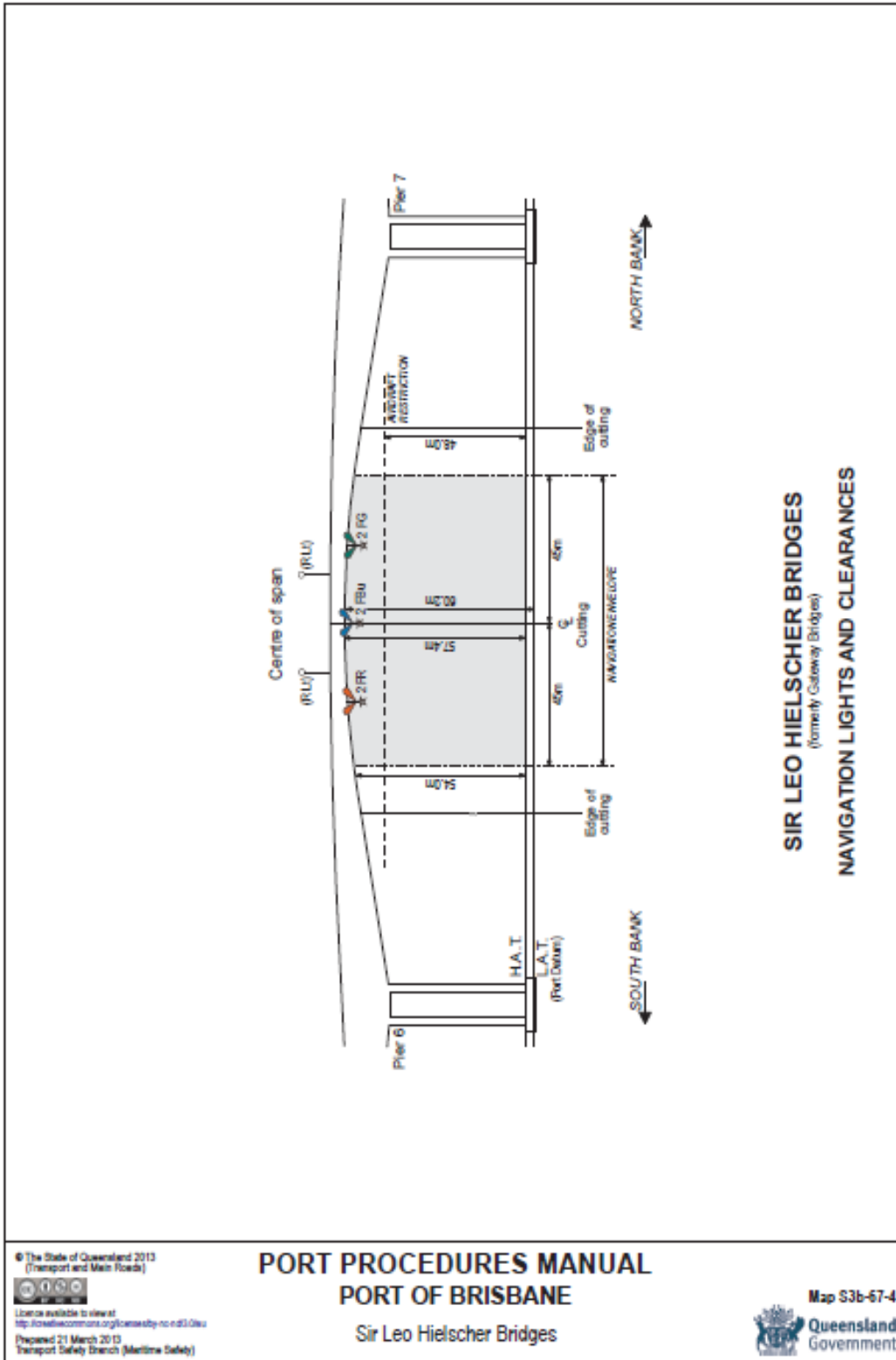
### 15.5.2 Bulimba power lines

The height under the Energex wires at Bulimba is 47.9 metres less the electricity authority safety allowance of 4.6 metres. Masters of ships with air draft >38 metres must obtain written permission from the Manager (Vessel Traffic Services) before proceeding.

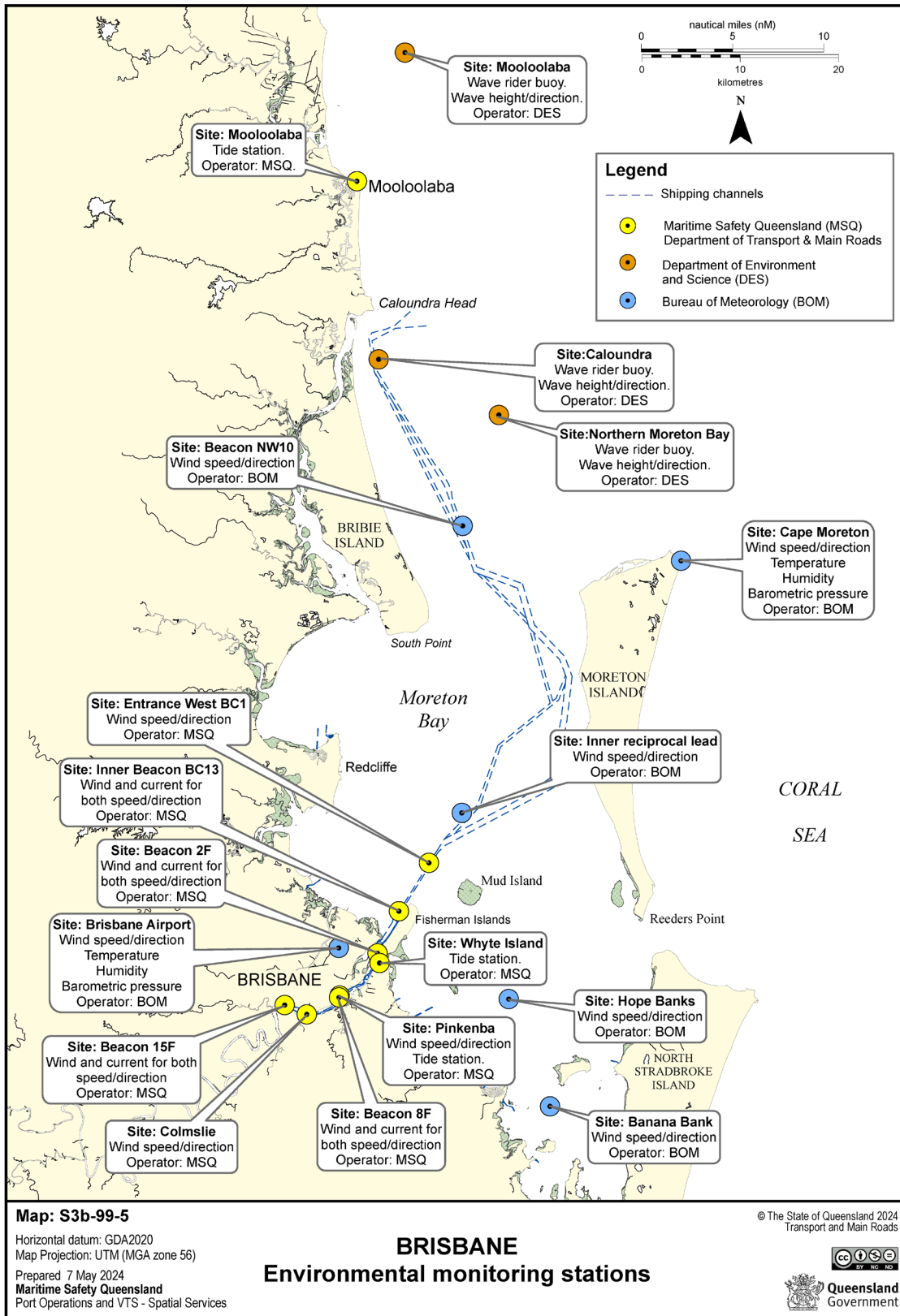
### 15.5.3 Story Bridge

Vessels with an air draft >28 metres are required to obtain permission from the Regional Harbour Master.

### 15.5.4 Sir Leo Hielscher Bridges – Navigational Lights & Clearances



# 15.6 Weather Stations



## 15.7 Static Under Keel Clearances Requirements

### 15.7.1 Moreton Bay and Brisbane River

Channel	North West			North West Bypass	Spitfire		Spitfire Bypass	East		East Knoll Bypass	Main M9-M8	Bar Cutting	River
	NW Fwy	NW 2-3	NW 3-12		NW 12	M2		E1	E5			EBCN	Above Pelican Banks
Depth @ LAT	15.0 <sup>1</sup>	15.0	15.0	9.2	15.0 <sub>2</sub>	15.0 <sub>2</sub>	12.0	15.0	15.0 <sub>3</sub>	6.0	10.0	14.0	9.10
UKC	1.8	2.30	2.1	1.6	1.5	1.5	1.4	1.5	1.5	1.4	1.8	1.46	0.60

<sup>1</sup> NW Channel depth 15 metres – width 280 metres

<sup>2</sup> Spitfire Channel depth 15 metres – width 600 metres

<sup>3</sup> Western half of the East Channel depth 15 metres – width 300 metres

Table 24 – UKC Moreton Bay and Brisbane River

### 15.7.2 Tides – UKC required for Brisbane River

Draft	UKC	Tide height required	Draft	UKC	Tide height required	Draft	UKC	Tide height required
8.50	0.60	0.00	9.74	0.61	1.25	10.20	0.81	1.91
8.60	0.60	0.10	9.78	0.62	1.30	10.24	0.82	1.96
8.70	0.60	0.20	9.82	0.64	1.36	10.28	0.82	2.00
8.80	0.60	0.30	9.86	0.66	1.42	10.32	0.83	2.05
8.90	0.60	0.40	9.89	0.68	1.47	10.36	0.84	2.10
9.00	0.60	0.50	9.91	0.69	1.50	10.41	0.85	2.16
9.10	0.60	0.60	9.94	0.72	1.56	10.45	0.86	2.21
9.20	0.60	0.70	9.97	0.72	1.59	10.49	0.87	2.26
9.30	0.60	0.80	10.01	0.74	1.65	10.53	0.87	2.30
9.40	0.60	0.90	10.05	0.75	1.70	10.57	0.88	2.35
9.50	0.60	1.00	10.09	0.77	1.76	10.61	0.89	2.40
9.60	0.60	1.10	10.12	0.78	1.80	10.65	0.91	2.46
9.70	0.60	1.20	10.16	0.79	1.85	10.69	0.91	2.50

**UKC required – all berths – 0-30 metre**

Note – Valid NCOS windows override SUKC requirements

Table 25 – Tides UKC for Brisbane River

## 15.8 Wind Limits

### 15.8.1 How to use the Table

1. This table is to be read in conjunction with Section 5 and Section 8 of the Port Procedures Manual. Where there is a discrepancy or conflict between the table below and respective PPM section, the PPM section takes precedence, with any issue highlighted to the RHM at the earliest opportunity.
2. When reading the table, the follow colours and outcomes are listed below.

	Standard operating parameters
	Heightened Risk with additional assessment required
	Movement not normally conducted – refer to VTS/DHM

3. To ensure a balanced and supportive approach to assessment for areas of heightened risk, the following responsibilities are outlined.
  - a) For scheduling purposes, VTS is responsible for assessment, using the BOM forecast, in conjunction with the agent and supported by the RHM.
  - b) For pilotage planning and execution process, based on the BoM Forecast and real-time weather, the Pilot and Master are responsible for assessment and supported by VTS/RHM
4. When conducting the additional assessment for heightened risk, the following should be considered.
  - a) Environmental Conditions: wind gusts vs steady value / current strength and direction
  - b) Vessel Characteristics: Propulsion, steering and thruster system characteristics / Mooring and anchoring systems / Defects, crew competency
  - c) Port Resources: Towage resources
  - d) Manoeuvre Characteristics: Windage / loaded condition / berthing direction / draft / UKC / size of vessel relative to available manoeuvring space
  - e) Commercial / operational considerations

## 15.8.2 Below Pelican Banks, including Fisherman Island Precinct

Vessel	Wind Range Steady	Tugs	Remarks
All vessels <105m	->20	0	
	20 ->	1	No BT substitution
	35+		
All vessels 105- 150m	->20	1	Efficient BT can substitute for tug
	20 ->	2	No BT substitution
	35+		
Container and General Purpose Vessels 150-300m	->20	2	Efficient BT can substitute for tug if: <80K displacement, 12m daft, 280m LOA
	25 ->	2	No BT substitution
	35+		
Container 300-350m	20	2 / 3 (swing)	Swing at slack water Max 1 kt current for favourable direction berthing / unberthing. No BT substitution
Tankers and Bulk carriers 200m +	->20	2 / 3	No BT substitution Berthing direction - loaded condition and current dependant (normally swing in lighter condition). Suez Max / UKC restricted to berth at slack water.
	20 ->	2 / 3	
	30+		
Tankers and Bulk carriers 150 -200m	-> 20	2	Efficient BT can substitute for tug
	20 ->	2	
	30+		
Vehicle carriers	->20	2	Efficient BT can substitute for tug >230m Min 1500HP BT
	20 ->	2	No BT substitution
	30+		



Cruise Ships (with enhanced manoeuvring systems)	->25	+308m swing at KSB or HU arrival 1 tug (unless both tanker berths unoccupied and can swing at FISB 2 tugs) <308m swinging at FISB minimum 1 tug All sizes – no tug for HD departure
	25 ->	Assessment of manoeuvring systems (Azipod vs twin screw and so on), Consider benefit of additional tug vs environmental conditions
	35+	

**Table 26 – Wind Limits Below Pelican Banks, including Fisherman Island Precinct**

### 15.8.2.1 FI – relevant wind sources

1. Inner Bar, FISB and KSB - BC13 and 2F.
2. Entrance Channel - BC13 and BC1.
3. Planning of towage allocation / BT Replacement - BOM Moreton Bay forecast / wind maps and NCOS FI Wind (high res).

## 15.8.3 Above Pelican Banks

Vessel	Wind Range Steady	Tugs	Remarks
All vessels <105m	->20	0	
	20 ->	1	No BT substitution
	30+		
All vessels 105-150m	->20	1	Efficient BT can substitute for tug
	20 ->	2	No BT substitution
	30+		
All vessels 150 -200m	->20	2	
	20 ->	2	No BT substitution
	30+		
Vehicle carriers / high windage (limited to 200m LOA)	->15	2*	No BT substitution
	20 ->	2*	
	25+		
Bulk carriers / tankers 200-230m (LR1 to Pinkenba and Panamax to QBT)	->15	2/3*	No BT substitution QBT – HDI and swing at Hamilton - Depart daylight and slack water at Pelican Banks. PNK – HUI at slack water - Depart slack water 3 tugs if draft exceeds 10.0m
	20 ->	2 / 3*	(* 2 Tugs must escort from / to Luggage Point) Gusts not to exceed 25 knots
	25+		

Table 27 – Wind Limits Above Pelican Banks

### 15.8.3.1 Upstream of FI – relevant wind sources

1. Downstream of Gateway – Pinkenba and 2F.
2. Upstream of Gateway – Colmslie, Pinkenba and 2F.
3. Planning of towage allocation / BT Replacement - BOM Moreton Bay forecast / wind maps and NCOS FI Wind (high res).

### 15.8.3.2 Berth Specific Operational Limitations

1. AMPOL Products – Refer to PPM 5.9.1 for berthing direction, current and draft manoeuvring restrictions.
2. WAGNER – Refer to PPM 5.9.2 for berthing direction, current and draft manoeuvring restrictions.

# 15.9 Vessel Traffic Management Forms

## 15.9.1 VTIS A1 – Booking Form

[Link to fillable PDF](#)



**Queensland  
Government**

### Booking Request

<b>Port code</b>	<b>Port name</b>
<input type="text"/>	<input type="text"/>

#### Arrival

<b>Ship's name</b>	<b>LOA</b>	<b>Voyage number</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Please choose from the following:

Is a Pilot required?

Do you have a Pilot exempt certificate?  Please complete Exempt Master and Exempt Master's name below

<b>IMO number</b>	<b>Exempt Master</b>	<b>Exempt Master's name</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Invoicing body</b>	<b>Agency</b>	<b>Agent</b>	<b>Contact</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Reason for visit</b>	<b>Ship's defects</b>
<input type="text"/>	<input type="text"/>

<b>ISPS Code - security level</b>	<b>ISSC number provided to ACS</b>
<input type="text"/>	<input type="text"/>

<b>Last port</b>	<b>Next port</b>
<input type="text"/>	<input type="text"/>

<b>Berth code</b>	<b>Direction</b>	<b>Pilot on arrival</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

**Pilot Boarding Ground**

<b>Date</b>	<b>Time</b>
<input type="text"/>	<input type="text"/>

<b>Pilot to board:</b>	<b>ETA berth:</b>		
<b>Date</b>	<b>Date</b>	<b>Time</b>	<b>Time</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Tug(s) request number</b>	<b>Thrusters:</b>	<b>Bow</b>	<b>Stern</b>	<b>Dual</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Tug company**

<b>Draft Fwd</b>	<b>Draft Aft</b>	<b>Air Draft</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

**Linesmen request:**

**Company name**

<b>Launch request number</b>	<b>Company name</b>
<input type="text"/>	<input type="text"/>

Dangerous Goods: Yes  No

Tanker NGF:  Tanker GF:

**Departure**

ETD:  
 Berth code      Direction      Date      Time  
         /  /    

Please choose from the following:

Is a Pilot required?

Do you have a Pilot exempt certificate?  Please complete Exempt Master and Exempt Master's name below

Exempt Master    Exempt Master's name  
   

Tug(s) request number    Tug company  
   

Draft Fwd      Draft Aft      Air Draft  
       

Launch request number    Company name  
   

Dangerous Goods: Yes  No

Tanker NGF:    Tanker GF:  
   

**Permit(s)**

	Date/Time from:	Date/Time to:
Hot work:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Immobilise:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Overside work:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Boat drills:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Tank wash:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Engine trials:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>
Bulk liquid transfer:	<input type="text"/> / <input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/>

Agent only checklist:

VTIS A1    VTIS A2    VTIS A3    GF Certificate  
           

Agent's signature

## 15.9.2 VTIS A2 Vessel details form VTIS A2 – Booking form (Removals)

[Link](#) to fillable PDF



Queensland  
Government

### Booking Request (Removals)

#### Removal

Ship's name		Agency	Contact
<input type="text"/>		<input type="text"/>	<input type="text"/>
Exempt Master	Exempt Master's name		
<input type="text"/>	<input type="text"/>		
From berth	Direction	Date	Time
<input type="text"/>	<input type="text"/>	<input type="text" value="/"/>	<input type="text" value="/"/>
To berth	Direction	Date	Time
<input type="text"/>	<input type="text"/>	<input type="text" value="/"/>	<input type="text" value="/"/>
Tugs from:		Tugs to:	
Number	Company	Number	Company
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Lines launch from/to:		Company	
<input type="text"/>	/	<input type="text"/>	<input type="text"/>
Departure Draft:			
Fwd	Aft	Airdraft	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Tanker status	Dangerous goods	Thrusters available	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

#### Removal

From berth	Direction	Date	Time
<input type="text"/>	<input type="text"/>	<input type="text" value="/"/>	<input type="text" value="/"/>
To berth	Direction	Date	Time
<input type="text"/>	<input type="text"/>	<input type="text" value="/"/>	<input type="text" value="/"/>
Tugs from:		Tugs to:	
Number	Company	Number	Company
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Lines launch from/to:		Company	
<input type="text"/>	/	<input type="text"/>	<input type="text"/>
Departure Draft:			
Fwd	Aft	Airdraft	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Tanker status	Dangerous goods	Thrusters available	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Agent's signature			
<input type="text"/>			

# 15.9.3 VTIS A3 Vessel Details Form

[Link to fillable PDF](#) – Please return to [VTSBrisbane@msq.qld.gov.au](mailto:VTSBrisbane@msq.qld.gov.au)



**Queensland  
Government**

## Vessel Details

<b>Port Code</b>		<b>Port Name</b>	
<input type="text"/>		<input type="text"/>	
<b>Ship's name</b>		<b>Agency</b>	<b>Agent</b>
<input type="text"/>		ISS	<input type="text"/>
<b>IMO/Lloyd's number</b>		<b>Call sign</b>	
<input type="text"/>		<input type="text"/>	
<b>Principal agent</b>		<b>MMSI number</b>	
<input type="text"/>		<input type="text"/>	
<b>Ship type</b>		<b>Flag</b>	
<input type="text"/>		<input type="text"/>	
<b>GRT</b>	<b>NRT</b>	<b>DWT</b>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>LOA</b>	<b>Beam</b>	<b>LBPP</b>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Summer draft</b>	<b>Sea speed</b>	<b>Bow to bridge</b>	<b>Bow to manifold</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Thrusters</b>			
<input type="text"/> -TBC kW			
<b>Previous name</b>		<b>Other changes</b>	
<input type="text"/>		<input type="text"/>	
<b>Remarks</b>			
<input type="text"/>			

Please email completed form to your regional VTS.

# 15.9.4 VTIS A4 Form – Tug and Tow Advice

[Link to fillable PDF](#)



**Queensland  
Government**

## VTS Tug and Tow Booking Request

Port name

### Arrival

Ship's name	LOA	Voyage number	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
IMO Number	Exempt Master		
<input type="text"/>	<input type="text"/>		
Invoicing body	Contact details	Ship's defects	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Pilot to board:		ETA berth:	
Date	Time	Date	Time
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Last port	Next port		
<input type="text"/>	<input type="text"/>		
Berth code	Direction		
<input type="text"/>	<input type="text"/>		
Draft Fwd	Draft Aft		
<input type="text"/>	<input type="text"/>		
Support Tug(s) Request number	Tug company		
<input type="text"/>	<input type="text"/>		
Dangerous Goods: Yes <input type="checkbox"/> No <input type="checkbox"/>			

### Departure

ETD:			
Date	Time	Berth code	Voyage number
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Exempt Master	Contact details		
<input type="text"/>	<input type="text"/>		
Support Tug(s) Request number	Tug company		
<input type="text"/>	<input type="text"/>		
Draft Fwd	Draft Aft		
<input type="text"/>	<input type="text"/>		
Dangerous Goods: Yes <input type="checkbox"/> No <input type="checkbox"/>			

### Barge details

Name		
<input type="text"/>		
LOA	Beam	Type
<input type="text"/>	<input type="text"/>	<input type="text"/>
Draft Fwd	Draft Aft	
<input type="text"/>	<input type="text"/>	
Length of tow:		
Sea	Shortened up	
<input type="text"/>	<input type="text"/>	

continued page 2... Page 1 of 2 LTBR Forms Area Form F5363 CFD V01 Mar 2023

Remarks

--

**Other information**




# 15.9.5 UKC® Vessel particulars request

[Link](#) to fillable PDF



## NCOS Vessel Particulars

It is requested the master of this vessel completes this form with the following information basis the vessel's deep arrival/ departure at Brisbane.

Once this information is received we will forward this to the Harbour Master to assess and calculate your berthing/ sailing window.

Thank you for your co-operation.

Name of vessel	IMO	
<input type="text"/>	<input type="text"/>	
<b>Hull type:</b>		
Bulk carrier <input type="checkbox"/> Tanker <input type="checkbox"/> Container <input type="checkbox"/>		
Beam	LBP	
<input type="text"/> m	<input type="text"/> m	
LOA		
<input type="text"/> m		
Owner/Line	Summer Draft	
<input type="text"/>	<input type="text"/>	
DWT for transit	Displacement for transit	
<input type="text"/> t	<input type="text"/>	
<b>Draft:</b>		
Fore	Mid	Aft
<input type="text"/> m	<input type="text"/> m	<input type="text"/> m
<b>GM:</b>		with corrected figure applied
Centre of Gravity to Metacentre	Solid, GM(s)	Corrected GM(f)
	<input type="text"/> m	<input type="text"/> m
<b>KG:</b>	<b>KM:</b>	
Keel to Centre of Gravity	Keel to Metacentre	
<input type="text"/> m	<input type="text"/> m	

## 15.9.6 Gas Free Status Declaration

[Link to fillable PDF](#)



Queensland  
Government

### Gas Free Status Declaration

Declaration required prior to acknowledgement of 'Gas Free' status

**Master to declare**

Has your ship any flammable liquid or gas cargo on board in bulk?

Yes  No

Have your empty cargo tanks been washed, vented and inspected for flammable residue?

Yes  No

Are your slop tank/s, pump room/s, and cargo pipe/s free of flammable residue?

Yes  No

Is your combustible gas indicator working and calibrated correctly?

Yes  No

Has the atmosphere in each pump room, cargo tank or residue space been tested with a combustible gas indicator and a zero reading obtained?

Yes  No

Can the atmosphere in each pump room, cargo tank or residue space be maintained with a zero gas reading?

Yes  No

Have you a current 'International Safety Guide for Oil Tankers and Terminals' (ISGOTT) manual on board?

Yes  No

Master/Agent's Name

Master/Agent's Signature

Date

Ship's Stamp

**Privacy Statement:** The Department of Transport and Main Roads is collecting the information on this form under the provisions of the Transport Operations (Marine Safety) Act 1994. The department may disclose this information to authorised departmental officers and officers of Queensland port authorities. Your personal information will not be disclosed to a third party without your consent unless required or authorised to do so by law.

TRB Forms Area Form F5202 CFD V01 Oct 2017

Master / Agent

To be lodged to the VTS Centre at least 48 hours prior to ship's ETA pilotage area.

## 15.9.7 'Permission to Immobilise Main Engines' – Sample

Applications for approval by the Regional Harbour Master must be submitted via the [QSHIPS](#) programme.

Port of Brisbane



### Immobilise Engines

Ship Name:	MV QSHIPS II	IMO:	9000111	Call Sign:	ICANCU
Agency:	Maritime Safety Queensland (Brisbane)	Agent:	James Dean		
Location:	Fisherman Island No 10 (Berth)	Start:	05/12/2014 15:00	End:	05/12/2014 22:00
Permit Issued:	05/12/2014	By:	System Administrator	Permit#:	3749

Activity description:

1. The ship's crew is required to call Brisbane VTS on VHF Channel 12 prior to the commencement of and following the completion of the engine(s) immobilisation.
2. The ship is to fly signal flags "R" over "Y"
3. The master of the ship complies with the berth operators requirements.
4. The ship's moorings are to be tended at all times.
5. The engine(s) are to be mobilised at least one (1) hour prior to the scheduled departure of the ship.
6. The engine(s) may only be immobilised during favourable weather conditions.
7. Vessel at anchorage, anchored position is to be monitored at all times.
8. Monitor the weather conditions.

Local weather forecasts and marine warnings can be obtained at any time from the following numbers:

SE Queensland Marine Forecast 1300 360 428  
Marine Warnings 1300 360 427

## 15.9.8 'Notification to Conduct Lifeboat Drills' – Sample

This activity is subject to approval by ABF, with notification to the Regional Harbour Master via the [QSHIPS](#) programme.

Port of Brisbane



### Lifeboat Drills

Ship Name:	MV QSHIPS II	IMO:	9000111	Call Sign:	ICANCU
Agency:	Maritime Safety Queensland (Brisbane)	Agent:	James Dean		
Location:	Fisherman Island No 10 (Berth)	Start:	05/12/2014 14:00	End:	05/12/2014 15:00
Permit Issued:	05/12/2014	By:	System Administrator	Permit#:	3747

Activity description:

1. Maritime Safety Queensland acknowledges the request for this activity to occur however it is the responsibility of the ship's agent to obtain the necessary approvals from the Australian Customs Service before the activity can proceed.

2. Application to the Australian Customs Service must be lodged on FORM 44 which is available on their website via the below address:

<http://www.customs.gov.au/site/page4288.asp>

3. The ship is to contact Brisbane VTS on VHF channel 12 prior to the commencement of the drill and at the completion of the drill once the lifeboat is secured back on board.

4. Any conditions imposed by the Australian Customs Service are adhered to.

## 15.9.9 'Permission to hold Main Engine Trials' - Sample

Applications for approval by the Regional Harbour Master must be submitted via the [QSHIPS](#) programme.

Port of Brisbane



### Main Engine Trials

Ship Name:	MV QSHIPS II	IMO:	9000111	Call Sign:	ICANCU
Agency:	Maritime Safety Queensland (Brisbane)			Agent:	James Dean
Location:	Fisherman Island No 10 (Berth)	Start:	05/12/2014 10:00	End:	05/12/2014 12:00
Permit Issued:	05/12/2014	By:	System Administrator	Permit#:	3746

Activity description:

1. The ship's crew is required to call Brisbane VTS on VHF Channel 12 prior to the commencement of and following the completion of the activity.
2. The ship is to fly signal flags "R" over "Y".
3. All cargo work is to cease.
4. All moorings are to be tended and manned.
5. The gangway is to be raised and manned.
6. The ship is to have personnel on the wharf to tend lines if required.
7. The activity is conducted in favourable weather conditions.
8. Ship/s berthed ahead/astern are to be advised of the activity.

## 15.9.10 'Notification to tank/crude oil wash' – Sample

This activity is subject to approval by PBPL, with notification to the Regional Harbour Master via the [QSHIPS](#) programme.

Port of Brisbane



### Tank Wash

Ship Name:	MV QSHIPS II	IMO:	9000111	Call Sign:	ICANCU
Agency:	Maritime Safety Queensland (Brisbane)	Agent:	James Dean		
Location:	Caltex Fisherman Island (Berth)	Start:	04/12/2014 23:00	End:	05/12/2014 11:00
Permit Issued:	05/12/2014	By:	System Administrator	Permit#:	3745

Activity description:

Open Sea Valves: No

1. Maritime Safety Queensland acknowledges the request for this activity to occur however it is the responsibility of the ship's agent to obtain the necessary approvals from the Port of Brisbane Pty Ltd (PBPL) before it can proceed.
2. Australian Standard AS 3846-2005 (attention is drawn to paragraph 8.2.9) and ISGOTT requirements are complied with.
3. All requirements stated in the PBPL permit for the activity and the requirements of the berth operator are adhered to.
4. The ship's master is aware of and understands the safety requirements and procedures contained in the PBPL Port Notice with regard to the opening of sea valves. This may be accessed online via the web address below:  
<http://www.portbris.com.au/ShippingOperations/PortNotices>
6. The ship is required to call Brisbane VTS on VHF Channel 12 prior to the commencement of and following the completion of the tank wash activity.

# 15.9.11 'Gateway Bridge Clearance form' – Sample

Applications for approval by the Regional Harbour Master must be submitted via the [QSHIPS](#) programme.

Port of Brisbane



## Gateway Bridge Clearance permit

### Ship Info

Name:	MV QSHIPS II	IMO:	9000111	Call Sign:	ICANCU
DWT:	40248	LOA:	176	BEAM:	31

### Permit Info:

Issued:	11/12/2014 10:18	By:	System Administrator	#:	2905
---------	------------------	-----	----------------------	----	------

### General Info:

ETA:	25/12/2014 14:00	ETD:	25/12/2014 10:00
Managing Body:	Maritime Safety Queensland (Brisbane)		
Agent:	James Dean		
Address:			

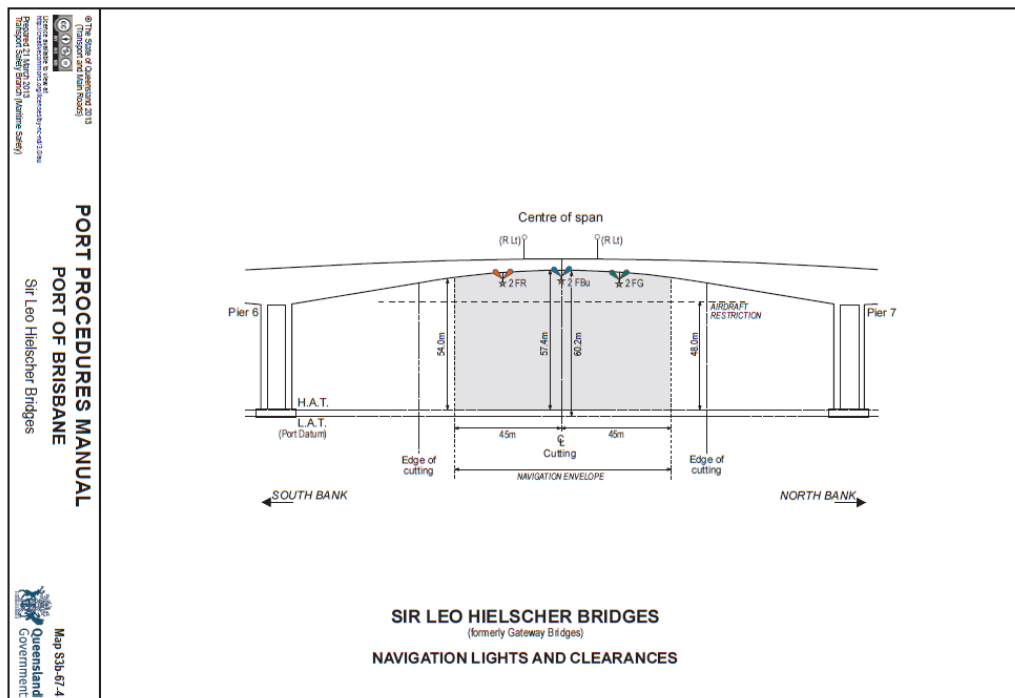
### Movement description

Arrive to: Brisbane Cruise Terminal [at: Dec 25 2014 2:00PM]

The ship is permitted to transit the Gateway Bridge to and from "Brisbane Cruise Terminal" under the following conditions:  
Air draft not to exceed 48 metres.

It is the responsibility of the ship's agent to ensure the Master and marine pilot are aware of the conditions imposed in this permit.

(Note - this permit is issued for the arrival movement but the prescribed conditions are also valid for the departure movement).



# 15.10 Navigation Data

## 15.10.1 Moreton Bay Distance Tables

EB	Moreton Bay Distance Tables Via East Channel															BG	
E5	8.40	E5															
E3	9.50	1.10	E3														
E1	11.74	3.34	2.24	E1													
M7	14.09	5.69	4.59	2.35	M7												
M5	15.29	6.89	5.79	3.55	1.20	M5											
M4	17.81	9.41	8.31	6.07	3.72	2.52	M4										
M1	20.11	11.71	10.61	8.37	6.02	4.82	2.30	M1									
NW12	22.46	14.06	12.96	10.72	8.37	7.17	4.65	2.35	NW12								
NW10	24.91	16.51	15.41	13.17	10.82	9.62	7.19	4.80	2.45	NW10							
NW3	27.41	19.01	17.91	15.67	13.32	12.12	9.60	7.30	4.95	2.50	NW3						
NW8	29.76	21.36	20.26	18.02	15.67	14.47	11.95	9.65	7.30	4.85	2.35	NW8					
NW6	32.21	23.81	22.71	20.47	18.12	16.92	14.40	12.10	9.75	7.30	4.80	2.45	NW6				
NW4	34.61	26.21	25.11	22.87	20.52	19.32	16.80	14.50	12.15	9.70	7.20	4.85	2.40	NW4			
NW2	36.32	27.92	26.82	24.58	22.23	21.03	18.51	16.21	13.86	11.41	8.91	6.56	4.11	1.71	NW2		
FWBY	38.52	30.12	29.02	26.78	24.43	23.23	20.71	18.41	16.06	13.61	11.11	8.76	6.31	3.91	2.20	FWBY	
BG	44.52	35.12	35.02	32.78	32.78	29.23	26.71	24.41	22.06	19.61	17.11	14.76	12.31	9.91	8.20	6.00	BG

### Via Main Channel

EB	Via Main Channel				
Rr/Ld	4.25	Rr/Ld			
M8	7.75	3.50	M8		
M9	11.36	7.10	3.60	M9	
M7	12.90	8.65	5.15	1.55	M7
M5	14.10	9.85	6.35	2.75	1.20 M5

### Via East Knoll ByPass

EB	Via East Knoll ByPass				
Rr/Ld	4.25	Rr/Ld			
M8	7.75	3.50	M8		
M9	11.05	6.80	3.30	M9	
EK2	12.15	7.90	4.40	1.10	EK2
M5	13.25	9.00	5.50	2.20	1.10 M5

EB – BG via East Channel = 44.52  
 EB – BG via Main Channel = 43.33  
 EB – BG via East Knoll Bypass = 42.11



## 15.10.2 Moreton Bay steaming times

Leg	Distance	Speed in knots						
		8	10	12	14	16	18	20
PBG–FWBY	6	45	36	30	26	22	20	18
FWBY–NW2	2.2	17	13	11	9	8	7	6
NW2–NW4	1.71	13	10	9	7	6	6	5
NW4–NW6	2.4	18	14	12	10	9	8	7
NW6–NW8	2.45	18	15	12	10	9	8	7
NW8–NW3	2.35	18	14	12	10	9	8	7
NW3–NW10	2.50	19	15	13	11	9	8	8
NW10–NW12	2.45	18	15	12	11	9	8	7
NW Bypass	12.2	92	73	61	52	46	41	37
NW12–M1	2.35	18	14	12	10	9	8	7
M1–M4	2.30	17	14	12	10	9	8	7
Spitfire Bypass	4.37	33	26	22	19	16	15	13
M4–M5	2.52	19	15	13	11	9	8	8
M5–M7	1.20	9	7	6	5	5	4	4
M7–E1 (TLMA)	2.35	18	14	12	10	9	8	7
E1–E3	2.24	17	13	11	10	8	7	7
E3–E5	1.10	8	7	6	5	4	4	3
EAST E5–EB	8.82	66	53	44	38	33	29	26
M7–M9	1.55	11	9	8	7	6	5	5
M9–M8	3.60	27	22	18	15	14	12	11
M8–Rr/Ld	3.50	26	21	18	15	13	12	11
Rr/Ld–EB	4.40	33	26	22	19	17	15	13
M4–EK2	2.93	8	7	5	5	4	4	3
EK2–M9	1.10	8	7	5	5	4	4	3
<b>Route 1 - PBG to EB via FWY (sth), NW, Spitfire, Main and East (Draft +10m)</b>	47.44	5 <sup>h</sup> 55 <sup>m</sup>	4 <sup>h</sup> 44 <sup>m</sup>	3 <sup>h</sup> 57 <sup>m</sup>	3 <sup>h</sup> 23 <sup>m</sup>	2 <sup>h</sup> 57 <sup>m</sup>	2 <sup>h</sup> 38 <sup>m</sup>	2 <sup>h</sup> 22 <sup>m</sup>
<b>Route 2 - PBG to EB via FWY(nth), NW, Spitfire, Main and East (Draft 8-10m)</b>	46.06	5 <sup>h</sup> 45 <sup>m</sup>	4 <sup>h</sup> 36 <sup>m</sup>	3 <sup>h</sup> 50 <sup>m</sup>	3 <sup>h</sup> 17 <sup>m</sup>	2 <sup>h</sup> 52 <sup>m</sup>	2 <sup>h</sup> 33 <sup>m</sup>	2 <sup>h</sup> 18 <sup>m</sup>
<b>Route 3 - PBG to EB via FWY(nth), NW Bypass, Spitfire Bypass and Main (Draft 5-8m)</b>	43.25	5 <sup>h</sup> 24 <sup>m</sup>	4 <sup>h</sup> 19 <sup>m</sup>	3 <sup>h</sup> 36 <sup>m</sup>	3 <sup>h</sup> 05 <sup>m</sup>	2 <sup>h</sup> 42 <sup>m</sup>	2 <sup>h</sup> 24 <sup>m</sup>	2 <sup>h</sup> 10 <sup>m</sup>
<b>Route 5 - PBG to EB via FWY(nth), NW Bypass, Spitfire Bypass and East Knoll Bypass (Draft &lt;5m)</b>	42.01	5 <sup>h</sup> 15 <sup>m</sup>	4 <sup>h</sup> 12 <sup>m</sup>	3 <sup>h</sup> 30 <sup>m</sup>	3 <sup>h</sup> 00 <sup>m</sup>	2 <sup>h</sup> 37 <sup>m</sup>	2 <sup>h</sup> 20 <sup>m</sup>	2 <sup>h</sup> 06 <sup>m</sup>

**Table 28 – Moreton Bay steaming times**

## 15.10.3 Pilotage – Brisbane River removal distances

The table below shows removal distances in nautical miles from Outer Bar Reach Entrance Beacons to berth/anchorage. Distances to BR<sup>A</sup> anchorage to be taken from the Outer Bar Beacons to the actual anchorage position at the time

To calculate distances between berths, deduct smaller from larger figure.

Position	QSHIPS Code	Distance
Ship to Ship Transfer #2	STS2	5.30
Ship to Ship Transfer #1	STS1	4.80
Entrance Beacons	EB	0
Fisherman Island Pump Out	FIPO	2.84
Fishermans Island 12	FI12	3.25
Fishermans Island 11	FI11	3.43
Koopa Swing Basin	KSB	3.56
Fishermans Island 10	FI10	3.63
Fishermans Island 9	FI9	3.82
Fishermans Island 8	FI8	3.96
Fishermans Island 7	FI7	4.08
Fishermans Island 6	FI6	4.17
Fishermans Island 5	FI5	4.28
Fishermans Island 4	FI4	4.43
Fishermans Island 3	FI3	4.59
Fishermans Island 2	FI2	4.72
Fishermans Island 1	FI1	4.83
Fishermans Island Grain Terminal	FIGR	5.00
Brisbane Int Cruise Terminal	BICT	5.05
Fishermans Island Tanker	FITA	5.20
Port North Common User Berth 1	PNCUB1	5.30
Fisherman Island Swing Basin	FISB	5.30
Fishermans Island Coal	FIC	5.40
Fishermans Island GP Berth	FIGP	5.50
Brisbane Crew Change Berth	BCCB	5.67
Whyte Island Tug Base	WITB	6.40
Ampol Products	AMPR	6.60
Cement Australia	CAB	7.20
Cement Australia Swing Basin	CSB	7.20

Position	QSHIPS Code	Distance
Wagner	WAG	7.36
BP Bunker Berth	BPBB	7.73
BP Products	BPPR	7.90
Hemmant Barge Landing	HBL	8.10
Boral	BORL	8.20
Viva Energy	VIVA	8.20
Quantem Liquid Terminal	QLT	8.30
Aquarium Boat Passage	ABP	8.36
Brisbane Ship Lifts (The Yard)	BSL	8.38
SIMS Metal	SIMS	8.50
Incitec South	INCS	8.70
Pinkenba 1	PNK1	8.80
Pinkenba 2	PNK2	8.80
Pinkenba Swing Basin	PSB	8.80
Maritime Safety Queensland	MSQ	9.01
Queensport	QNPT	9.85
Pacific Tug Base	PTB	9.71
Bhaqwan Marine Base	BMB	9.83
Holt Street	HOLT ST	9.85
Rivergate Marina	RYM	10.08
Queensland Bulk Terminal	QBT	10.63
Raptis	RAP	10.99
Austral (Brisbane Service Centre)	BSE	11.43
Hamilton Swing Basin	HSB	11.8
HMAS Moreton	BNWF	11.96
Riverside (Newstead)	RTB	14.4
Dockside Marine	DSM	16.6
Town Reach	CITY	18.14
SouthBank	CITY	19.06

**Table 29 – Brisbane River removal distances**

## 15.10.4 Passage Planning

Passage through Moreton Bay, from the Pilot Boarding Ground to the Entrance Beacons (Beacons BC1 and BC2), can take a number of different routes.

The available depth of water varies across numerous channels, with a summary provided below.

Channel	Design Depth	North Entry	South Entry	Remarks
Fairway	15.0m	Fairway Beacon 26°48.8501'S 153°10.7759'E	NW Front Lead 26°51.5515'S 153°09.1943'E	Port Approaches
North West Channel	15.0m	NW Front Lead 26°51.5515'S 153°09.1943'E	Beacon NW12 27°02.4445'S 153°15.3421'E	Primary Deepwater Route
North West Bypass Channel	9.2m	NW Front Lead 26°51.5515'S 153°09.1943'E	Beacon NW12 27°02.4445'S 153°15.3421'E	Secondary Route Bypass channel for shallow draft vessels. Infrequently surveyed
Spitfire Channel	15.0m	Beacon NW12 27°02.4445'S 153°15.3421'E	Beacon M1 27°03.3352'S 153°18.0588'E	Primary Deepwater Route
Main Channel (Primary)	15.0m	Beacon M1 27°03.3352'S 153°18.0588'E	Beacon M7 27°08.3052'S 153°21.0775'E	Primary Deepwater Route
Spitfire Bypass Channel	12.0m	Beacon S1 27°02.9606'S 153°15.8825'E	Beacon M3 27°05.5706'S 153°18.7952'E	Secondary Route Bypass channel for shallow draft vessels. Infrequently surveyed
Main Channel (Secondary)	10.0m	Beacon M9 27°10.0092'S 153°19.8135'E	Beacon M8 27°12.0342'S 153°16.6618'E	Secondary Route Bypass channel for shallow draft vessels. Infrequently surveyed
East Knoll Bypass Channel	6.0m	Beacon M4-M6 (AIS) 27°06.0608'S 153°19.3414'E	Beacon M9 27°10.0092'S 153°19.8135'E	Secondary Route Bypass channel for shallow draft vessels. Infrequently surveyed
North East Channel	3.0m	Buoy NE2 26°57.0500'S 153°20.2250'E	Beacon M7 27°08.3052'S 153°21.0775'E	Entry with local knowledge only
East Channel	15.0m	Beacon M7 27°08.3052'S 153°21.0775'E	Beacon E5 27°13.8940'S 153°20.1438'E	Primary Deepwater Route

Brisbane Roads	14.7m	Beacon E5 27°13.8940'S 153°20.1438'E	Beacon BC1 27°18.6195'S 153°12.5493'E	Primary Deepwater Route
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**Table 30 – Passage Planning**

The actual depth of channels can differ due to changes in the environmental conditions. Channels are regularly surveyed, though at different frequencies, depending on use. VTS can be contacted for the most up to date information or the Port of Brisbane for specific survey data.

It is the responsibility of the Master to ensure that the vessel is safe navigationally, including the use of the appropriate channels for their vessels draft.

## 15.10.5 Port Evacuation Guideline

### 15.10.5.1 Aim

It is acknowledged that every event is different including the weather, types of vessels alongside, berths occupied, available resources and time available. The aim of this document is to provide operational level guidance in planning the evacuation and subsequent recovery of Port of Brisbane to the Regional Harbour Master and wider port stakeholder network.

The purpose of any port evacuation is to protect safety of life, critical infrastructure and environment. This in turn will support ongoing wider community recovery operations following the event.

### 15.10.5.2 Limitations

These guidelines are solely focused on large vessel operations which require external support, such as towage and pilotage to safely conduct departures. It does not cover the evacuation of smaller domestic commercial vessels or recreational craft for which the master remains responsible.

### 15.10.5.3 Supported and Supporting Documents

This document was developed based on the historical experience gained across floods that have affected Port of Brisbane, operational procedures for the safe movement of vessels and limitations of critical infrastructure where available. This includes ongoing use of simulation, including dedicated sessions throughout 2022.

In the wider context of port activities, users are encouraged to review the Extreme Weather Event (EWE) plan (<https://www.msq.qld.gov.au/safety/preparing-for-severe-weather>) and their own procedures for vessel/terminal operations.

### 15.10.5.4 General Considerations – Information Sources

A variety of information sources are always available, which should be read collectively to provide a fused picture of how the overall event is likely to unfold, acknowledging the there is always a degree of uncertainty.

### 15.10.5.5 Bureau of Meteorology (BoM)

Maritime Safety Queensland (MSQ) and the wider Department of Transport and Main Roads (DTMR) maintain several key connection points with the BoM.

Forecasts and models are available at [www.bom.gov.au](http://www.bom.gov.au).

There is a dedicated BoM forecaster available to the Regional Harbour Master at the State Disaster Coordination Centre (SDCC) to assist for bespoke forecast.

### 15.10.5.6 SEQWater

Once the flood operations centre is activated by SEQWater they will publish twice daily, both the outflow model data from the dam if releases are underway as well as a SITREP. These reports are received by VTS and forwarded on to the management team for review.

### 15.10.5.7 Queensland Disaster Management Arrangements

Whilst MSQ maintains a close relationship across all three levels of the QDMA, information can be sourced through both the Brisbane DDMG and the SDCC.

### 15.10.5.8 MSQ Sensor Suite

MSQ has a variety of sensors that can be accessed real-time as well as inputting into the wider port weather forecast targeting port operation through the Non-linear Channel Optimisation Software (NCOS).

- VTS Weather
- NCOS

Appendix A below and the PPISM for Brisbane detail the location of key weather sensors across the port.

### 15.10.5.9 Port Flood Models

With SEAPORT OPX, who developed NCOS, there is a series of flood simulations based on inflow rates covering a 12-hour tidal cycle. Animations are available across the upper, mid and lower port areas for spring and neap tides.

Simulation identifier	Total inflows upstream of tidal limit [m <sup>3</sup> /s]	Total inflows into estuary [m <sup>3</sup> /s]
Sim 1	0	0
Sim 2	500	750
Sim 3	1,000	1,500
Sim 4	2,000	3,000
Sim 5	3,000	4,500
Sim 6	4,000	6,000
Sim 7	5,000	7,500

**Figure 3** NCOS Modelled Flows

The corresponding files for each simulation at the HW+4hr have been uploaded to SmartShip to assist manoeuvre testing and development.

### 15.10.5.10 Historical Assimilation of Simulations

Sim 7 – equates to conditions on 28 February 2022 (Peak of 2022 flood)

Sim 5 – equates to conditions on 3 March 2022 (resumption of limited movements at FI 2022 flood)

Sim 3&4 - equate to conditions on 17 May (May 2022 rain event and dam releases)

### 15.10.5.11 General Considerations – Decision Points

When deciding to evacuate the Port of Brisbane, either partially or completely, the following lists some key planning considerations which when assessed against the forecast will develop key decision points.

Port evacuation

- River flow now and over the next 24hrs, specific to berths and channels

- Overall weather considerations – refer PPM Section 15.8 for wind limits
- What ships are alongside – where, berth direction, swing basins, windage, draft
- Mooring arrangements and capacity of wharf infrastructure\*
- Available resources – pilots, tugs, lines launches, mooring gangs
- Presence of debris
- Certainty of available survey data

Providing conditions and timeliness of forecasts allow, it is expected that the port evacuation will commence in preparation and prior to the onset of extreme weather.

Vessel arrivals are to cease (above / below Pelican Banks as appropriate) prior to, and in anticipation of commencing a port evacuation.

#### **15.10.5.12 Notes on wharf infrastructure**

- Wharf infrastructure is generally designed to meet AS1170 (2002) - Region B Cat 2. The newer wharves at Fisherman Island are built to withstand higher forces than some of the aging infrastructure located above Pelican Banks
- Designed maximum operational wind values (average) vary between 40 to 60 knots, combined with longitudinal current speeds of between 3 to 5 knots.
- These wharf design limits should not be relied upon as an evacuation threshold. Previous incidents demonstrate that a vessel's mooring system is more likely to fail before the wharf design limits are reached and the wharf design limits generally exceed the environmental limits for safe manoeuvring.

#### **15.10.5.13 Current and wind Limitations**

Flood current simulations have been conducted using a minimum of 25 knots of wind, from various unfavourable directions. Refer to PPM Section 15.8 for the standard operational wind limits.

Departures from AMPR have been simulated to the equivalent current in the NCOS model SIM 4 at HW + 4hrs

Departures from QBT have been simulated to the equivalent current in the NCOS model SIM 4 at HW + 4hrs

Departures from WAG have been simulated to the equivalent current in the NCOS model SIM 5 at HW + 4hrs

Swings at Pinkenba have been simulated to the equivalent current in the NCOS model SIM 5 at HW + 4hrs

Departures and Arrivals from FITA have been tested prior to the development of the NCOS models. Current limitations were developed in the simulator on a simplified current model equating to 3.5 knots, approximated to SIM 6 at HW + 4hrs

+300m Departures and swinging at Koopa have been tested prior to the development of the NCOS models. Current limitations were developed in the simulator on a simplified current model equating to 3.5 knots, approximated to SIM 7 at HW + 4hrs

### **15.10.5.14 Vessel Preparedness**

As soon as practicable and if not already ordered as part of earlier preparations, each vessel being prepared for evacuation should be directed to prepare to get underway. This should include the following;

- Cease cargo operations, especially if loading.
- Bridge to be crewed and VHF channel 12 monitored
- Bring Main Engine online ready for manoeuvring including the likely use of increased speed and rapid engine orders. All auxiliary engines available for maximum power generation.
- Bow and Stern Thrusters, if fitted, ready for immediate use.
- Mooring lines to remain in place, with additional lines run if required, actively monitored and prepared for departure. Anchors ready for letting go, or recovery if deployed to the seabed.
- All pre-departure system checks complete
- Any defects reported to VTS via VHF and agent.

### **15.10.5.15 Sequence of Events**

#### **15.10.5.16 Above Pelican Banks**

1. Cease Arrivals, Vessels secure cargo operations and prepare for departure.
2. Vessels at AMPR should be cleared first. This will reduce the risk of berth surge and potentially breakaway from passing vessels, which can be expected to pass at higher speeds, above normal operational limitation of 6 knots through the water, to maintain steerage.
3. Vessels above the Gateway Bridge (QBT) should follow in the second tranche to protect critical infrastructure, including the Gateway Bridge.
4. Vessels at Pinkenba and Incitec South should be in the third tranche, especially if there are vessels further downstream that require to swing as Pinkenba is the widest of the river swing basins.
  - a. As of January 2023, Incitec South is undergoing remediation. Removal of vessels from this berth should be considered in the second tranche unless an earlier opportunity presents.
5. Vessels at SIMS Metal downstream to Cement Australia would be in the final tranche.

#### **15.10.5.17 Below Pelican Banks**

1. Cease Arrivals, Vessels secure cargo operations and prepare for departure.
2. Vessel head-up that can only swing at either Koopa or Fisherman Island Swing Basin in particular tankers from Ports North 1 and Fisherman Island Tanker terminal to support future recovery operations.
3. Vessel subject to tidal windows which may also have high windage
4. +300m Container Ships if head down.



5. The final tranche would be all other vessels head-up or head down. Vessels head-up have previously remained at these berths in flood conditions with minimal movement providing moorings are adequate.

#### **15.10.5.18 On-water Support Activities**

In the event that the decision is made to evacuate, the following on-water activities may be considered;

- Utilising a smaller tug or workboat, positioned upstream of the movement to monitor debris and provide a level of protection whilst critical manoeuvres are underway;
- Inspection of the river from the target vessel downstream using MSQ workboat to locate debris already downstream as well as assessing approximate surface (freshes) currents; and
- If possible, consider the use of the deployable current meter if timing and resources are available.

#### **15.10.5.19 Manoeuvring Considerations**

A number of simulations have been conducted at SmartShip to develop manoeuvring envelopes in collaboration with Poseidon Sea Pilots and Svitzer. Outlined below is both general information as well as targeted manoeuvre information.

Note: These are not a replacement for the pilotage service providers own manoeuvring instructions within the Pilotage Operations Safety Management System but focused on supporting whole of port activities.

#### **15.10.5.20 General Considerations**

Additional tugs, beyond those allocated in the PPM, will be required. Bow and stern thruster replacement should be avoided due to the risk of debris.

- In general, three tugs are for most manoeuvres, including all above Pelican Banks;
- Smaller vessels, less than 300m and head down at Fisherman Island may only require two tugs; and
- For +300m container ships below and tankers Pelican Banks, four tugs should be assigned if swinging.

When positioning tugs simulation has proved that it is advantageous for vessels berthed head down to have the third tug lifting upstream whilst engine revolutions are built up.

That once clear of the berth either or both the tugs forward and aft may need to come in and push to hold the vessel whilst headway is increased.

Pilot assignment is critical. Where possible, a level 1 pilot who has undertaken flood simulations (either development or emergency drill training) should be assigned regardless of vessel class. A second assisting pilot, licensed for the class of vessel, should also be assigned.

Additional lines launches and mooring gang members should be considered to aid in a quicker let go operation.

#### **15.10.5.21 Specific Berth and Swing Basin Information**

Further information to support specific manoeuvres, based on simulation at SmartShip, is held by MSQ and Poseidon Sea Pilots;

- AMPR Departure;
- QBT Departure;
- Pinkenba Swing;
- Wagner Departure;
- +300m Container Ship Swing; and
- FITA Departure and Arrival.

### 15.10.5.22 Port Recovery

Outlined below are a number of key considerations when re-opening the port. A stakeholder working group will be brought together to assimilate information related to supply chain, port resourcing, environmental and hydrographic conditions to support informed decision making for prolonged events. This will initially consist of representatives from PBPL, Towage Operator, Pilot Service Provider and MSQ.

Wider stakeholder communication will be maintained through VTS to terminals and agents. This should include current and forecasted operational limitations, recovery priorities and environmental conditions.

### 15.10.5.23 Reopening of the port

The Pilotage area will not be re-opened until the RHM is satisfied that all risks have been assessed, and the Pilotage area is safe for vessels to re-enter or exit.

Brisbane VTS centre will coordinate the safe movement of vessels following the opening of the Pilotage area in accordance with normal practice. Berths will be re-opened and operations resumed when structural assessments by asset owners (if required) have been completed and wind and sea conditions are within operational limits.

RHM, in conjunction with PBPL and pilotage provider will decide how and when port will reopen. VTS will provide details to stakeholders.

### 15.10.5.24 Operational Limitations

Outlined below are some general considerations for developing operational limitations when reopening the port. Limitations may need to be applied separately across the three port zones, above the Gateway Bridge, below the Gateway Bridge to Pelican Banks and below Pelican Banks.

Risk	Controls
Floating Debris	Daylight operations Deployment of overwatch vessel upstream of movement Nil Bow/Stern Thruster tug replacement Tug escort in river and Entrance Channel

Risk	Controls
Strong Ebb Current	HU berth arrivals Swing and departure timed for mid-flood tide Passing vessels alongside as wide as possible Additional Tugs Nil Bow/Stern Thruster tug replacement Tug escort in river and Entrance Channel
Effects of interaction	Increase separation between passing vessels Increase separation distance between berthed vessels Increase UKC allowance at berth Avoid adjacent berthing ahead on mid ebb tide Warning vessels at adjacent berths – engines and thruster at immediate readiness, mooring stations manned Push up tug for berthed vessel when adjacent berthing ahead Advise terminals to consider risks to cargo operations
Unusual Currents	Additional Tugs Daylight operations Nil Bow/Stern Thruster tug replacement
Siltation	Utilise SUKC rules instead of NCOS Increase UKC allowances in river Post Flood survey of berths, channels and swing basins
Potential submerged debris	Nil Bow/Stern Thruster tug replacement Post Flood survey of berths, channels and swing basins Tug escort in river and Entrance Channel
Reduced Swing or Channel Basin Dimensions	Reduce LOA limitations Increase UKC allowances in river