



Oil Spill Contingency Plan

Great Yarmouth

Peel Ports Great Yarmouth
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Ver 11

February 2023

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Distribution List	
Company	Copy Number
Great Yarmouth Harbour Office	1 (Hard copy)
Great Yarmouth Port Director	2 (Hard copy)
Great Yarmouth Port Marine Services / GPCC	3 (Digital copy)
Great Yarmouth QSSHE Manager	4 (Digital copy)
Norfolk County Council	5 (Digital copy)
Great Yarmouth Borough Council	6 (Digital copy)
ASCO Great Yarmouth Marine Base	7 (Digital copy)
MCA CPSO	8 (Digital copy)
MRCC Humber	9 (Digital copy)
Natural England	10 (Digital copy)
Environment Agency	11 (Digital copy)
Marine Management Organisation	12 (Digital copy)
Ambipar Response	13 (Digital copy)
Broads Authority	14 (Digital copy)
Perenco	15 (Digital copy)

The National Contingency Plan can be located via:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408385/140829-NCP-Final.pdf

Revision Page: Issued February 2023				
Section No.	Remove Pages	Insert Pages	Date Amended	Copy No.
Entire Plan	n/a	New	January 2001	1
Entire Plan	All	All	September 2006	2
Entire Plan	5	5	November 2006	2
Entire Plan	All	All	February 2007	2
Entire Plan	6, 60, 62	6, 60, 62	July 2007	2
Entire Plan	All	All	July 2008	3
Entire Plan	6, 60, 61, 62, 63	6, 60, 61, 62, 63	January 2009	3
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Entire Plan	All	All	August 2011	4
Entire Plan	60	60	October 2011	4
Entire Plan	58	58	February 2013	4
Entire Plan	58	58	February 2014	4
Entire Plan	All	All	June 2014	5
Entire Plan	All	All	June 2014 (26 th)	6
Entire Plan	57, 58, 59	57, 58, 59	April 2015 (9 th)	6
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Entire Plan	All	All	July 2015	7
Entire Plan	All	All	July 2016	8
Entire Plan	1, 4, 7	1, 4, 7	May 2019	9
Entire Plan	All	All	July 2021	10
Entire Plan	NIL	37, 47, 48, 49, 59, 60, 91, 92	February 2023	11

MCA Approval

Thank you for your finalised OPRC Plan and for all your efforts in its revision. I can now confirm that the plan you have provided complies with the obligations under The Merchant Shipping (Oil Pollution Preparedness, Response and Cooperation Convention) Regulations 1998. The plan's next 5 yearly revision is due to be completed no later than **2nd September 2026**. Our records have been updated.

Please take this email as confirmation that the MCA has approved the Great Yarmouth OPRC Plan

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Statements from Consultees

Statement for MCA – Marine Management Organisation

I confirm that Peel Ports Great Yarmouth Oil Spill Contingency Plan gives a realistic assessment of the perceived risk of oil pollution and the response strategy required for the area covered by this plan.

Signed:

C. Williams

Name & Position: Callum Williams – Marine Conservation Manager

Representing: Marine Management Organisation – Marine Conservation Team

Date: 19 August 2021

Statement for MCA – Norfolk County Council

I confirm that Peel Ports Great Yarmouth Oil Spill Contingency Plan gives a realistic assessment of the perceived risk of oil pollution and the response strategy required for the area covered by this plan.

Signed:

Derek Sim.....

Name & Position: Derek Dim – Resilience Officer

Representing: Norfolk County Council - Community & Environmental Services

Date: August 2021

Statement for GYBC – Great Yarmouth Borough Council

I confirm that Peel Ports Great Yarmouth Oil Spill Contingency Plan gives a realistic assessment of the perceived risk of oil pollution and the response strategy required for the area covered by this plan.

Signed: Alan Goulder

Name & Position: Resilience Officer

Representing: Environmental Services – Great Yarmouth Borough Council

Date: August 2021

Statement for MCA – Natural England

I confirm that Peel Ports Great Yarmouth Oil Spill Contingency Plan gives a realistic assessment of the perceived risk of oil pollution and the response strategy required for the area covered by this plan.

Signed: *Fiona Tibbitt.....*

Name & Position: Fiona Tibbit – Marine Lead Advisor

Representing: Natural England

Date: August 2021

Other consultees

Feedback was received from:

The Environmental Agency

No comments on the document - certificate was not produced.

Broads Authority

No comments on the document - certificate was not produced.

Glossary	
AR	Ambipar Response
BAOAC	Bonn Agreement Oil Appearance Code
BPEO	Best Practical Environmental Option
CCA	Civil Contingencies Act
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CG	Coastguard
CPSO	Counter Pollution and Salvage Officer
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
EA	Environment Agency
EG	Environment Group
HFO	Heavy Fuel Oil
HMCG	Her Majesty's Coastguard
HMR&C	Her Majesty's Revenue and Customs
HNS	Hazardous and Noxious Substances
HWS	High Water Springs
IC	Incident Commander
IFCA	Inshore Fisheries and Conservation Authority
IMO	International Maritime Organisation
ITOPF	International Tanker Owners Pollution Federation
JNCC	Joint Nature Conservation Committee
JRCC	Joint Rescue Coordination Centre
LA	Local Authority
LFO	Light Fuel Oil
LRF	Local Resilience Forum
LWS	Low Water Springs
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MFO	Medium Fuel Oil
MGO	Marine Gas Oil
MMO	Marine Management Organisation
MOM	Marine Operations Manager
MRCC	Marine Rescue Coordination Centre
NCP	National Contingency Plan

NE	Natural England
OPRC	Oil Pollution Preparedness Response and Co-operation Convention
OSC	On Scene Commander
OSCP	Oil Spill Contingency Plan
OSMT	Oil Spill Management Team
PHE	Public Health England
POB	Persons On Board
POLREP	Pollution Report Form
PoR	Place of Refuge
PPGY	Peel Ports Great Yarmouth
RCG	Response Co-ordinating Group
SAC	Special Area of Conservation
SCG	Strategic Co-ordinating Group
SCI	Site of Community Importance
SCU	Salvage Control Unit
SMAC	Strategic Media Advisory Cell
SMMO	Senior Manager Marine Operations
SOSREP	Secretary of State Representative
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STAC	Science and Technical Advice Cell
STOp	Scientific, Technical and Operational advice notes
TCG	Tactical Co-ordinating Group
UKBAP	United Kingdom Biodiversity Action Plan
UKPIA	United Kingdom Petroleum Industry Association

Part 1 - Strategy

Section 1. Introduction & Policy

1.1 Purpose of Plan

This Oil Spill Contingency Plan is designed to guide the Peel Ports Great Yarmouth (PPGY) response personnel through the processes required to manage an oil spill originating from operations within or approaching their Port under their jurisdiction.

The requirement to have an Oil Spill Contingency Plan for Harbours, Ports and Oil Handling Terminals around UK waters has been formalised by the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998, which implement the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC, 1990). This Convention, adopted by the International Maritime Organisation (IMO) is aimed to “mitigate the consequences of major oil pollution incidents involving, in particular, ships, offshore units, sea ports and oil handling facilities”.

The competent national authority designated to oversee all matters pertaining to the OPRC convention under the Merchant Shipping Act 1995 as amended by the Merchant Shipping and Maritime Security Act 1997 is the Maritime and Coastguard Agency (MCA).

This Plan has been prepared in accordance with the ‘Oil Spill Contingency Plan Guidelines for Ports, Harbours & Oil Handling Facilities’ issued by the Maritime and Coastguard Agency which is responsible for applying the regulations to all Harbours, Ports and Oil handling facilities in the UK.

1.2 Document Control & Plan Revision

The Great Yarmouth Oil Spill Contingency Plan is a controlled document. All document holders, detailed in the distribution list, are assigned a specific copy number. Any changes to the situation at the Port, changes to be made to the plan or any other updates will be issued as amendments to all holders of the Plan within 3 months of such change. Irrespective, the plan will be revised on an annual basis so as to incorporate changes occurring during the year plus lessons learned from the annual exercise. This document has an approved life span of 5 years from the date of approval by MCA and it shall be submitted in its entirety for re-approval before its expiry date (i.e. during year five). The MOM will be responsible for maintenance and plan review in accordance with the legislative requirement.

This document is compiled in consultation with the following statutory bodies and authorities:

- Environment Agency (EA)
- Natural England (NE)
- Marine Management Organisation (MMO)
- Norfolk County Council
- Great Yarmouth Borough Council

1.3 Use of Plan

This Plan is specifically for operations within the Port of Great Yarmouth, and the associated pilotage area, for all vessels entering the Port’s boundary (figures 1 and 2). The Plan is designed to initiate an appropriate oil spill response in the event of an incident. It details a tiered response strategy that is in accordance with UK legislative

requirements and considers the spill risk associated with the operation; the nature of the hydrocarbons that could be spilt; the prevailing meteorological and hydrographic conditions and the environmental sensitivity of the surrounding areas.

1.4 Area of Operation

Figure 1: Great Yarmouth Seaward Jurisdiction Limit

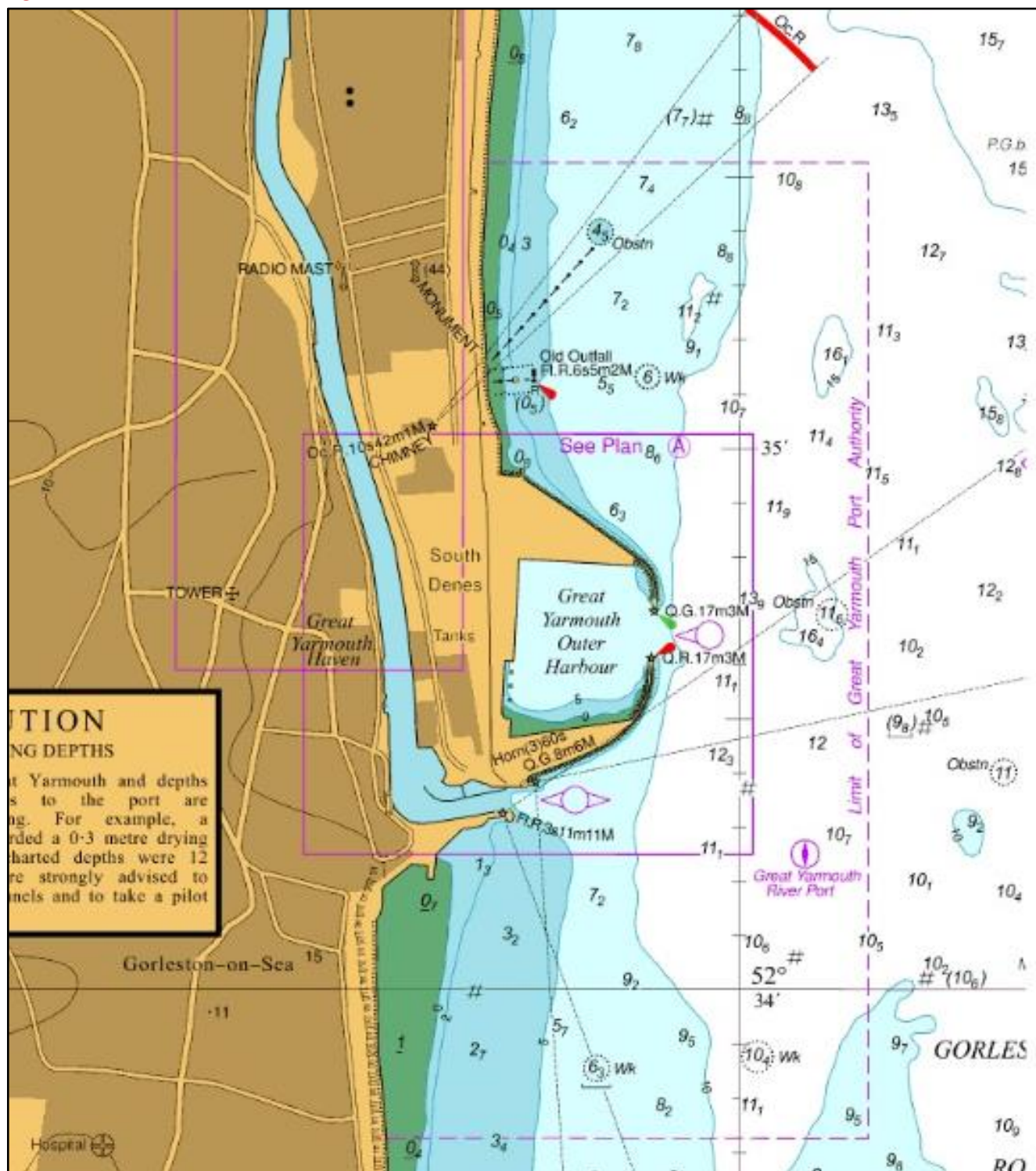
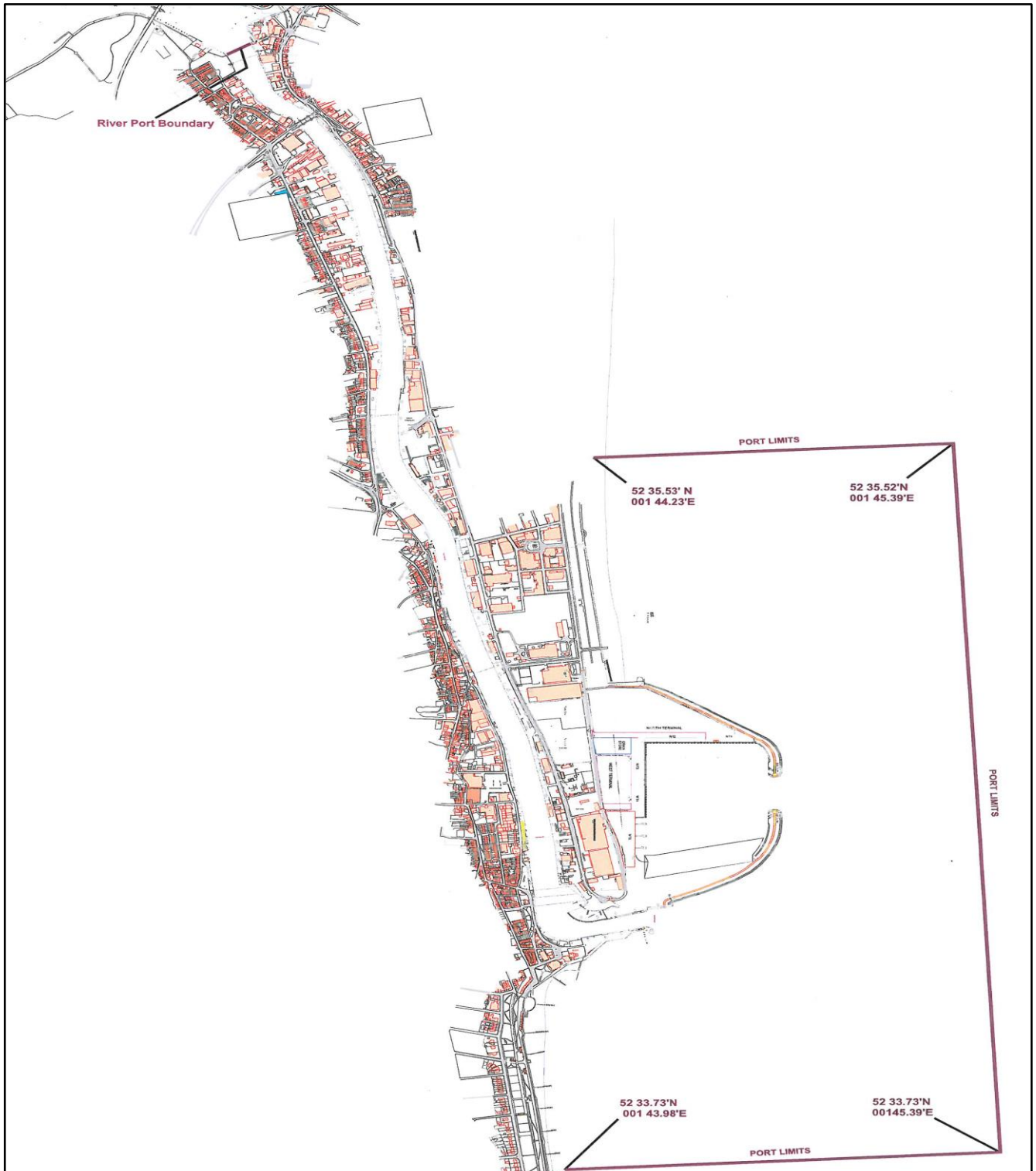


Figure 2: Great Yarmouth Port Limits

Port limits commence:

- **To seaward** at the point where latitude 52 degrees 35.5 minutes North meets the level of high water to the point where it meets longitude 01 degrees 45.5 minutes East. Thence southerly to latitude 52 degrees 33.7 minutes North, thence West to a point where it meets the level of high water
- **To landward** the limits include the River Yare to a position just south of the confluence with the River Bure at positions TG 5196 0789

1.5 Identification of the Roles & Responsibilities of Parties Associated with this Plan

Within the UK there is an adopted structure and procedure for response to marine oil spills, which clearly defines the roles and responsibilities of industry, UK Government (including environmental agencies) and Maritime Authorities. Each statutory body has a designated area of jurisdiction within zones extending from the High Water Mark to 200nm or the UK Territorial Limit.

Table 1: Statutory Jurisdiction

Authority	Jurisdiction						
	HWS	LWS	1nm	3nm	6nm	12nm	200nm
Ports	All operations within Port limits						
Local ¹		Oil spill response out of Port limits					
MCA	Oil spill response, monitoring, advice						
MCA (HMCG)	Search and Rescue						
NE/JNCC ²	Conservation of the natural heritage						
MMO ³	Marine environment and fisheries protection						
EA ⁴	Water quality						
HMR&C	Import duty						

Local Authority¹ Has a duty of care (under the CCA, 2004) to prepare and implement an oil spill contingency plan for response to oil spillage on the coastline from HWS to LWS including out of port limits.

NE / JNCC² Natural England requires to be notified up to 12nm. JNCC's remit extends from 12nm to 200nm.

MMO³ Approves dispersants and their use in shallow water and advise on their use in deeper waters – e.g. at least 1 nm beyond the 20 metre contours.

EA⁴ Requires to be notified on water quality issues up to 3nm.

Roles and Responsibilities of Concerned Authorities

The roles and responsibilities of all authorities requiring notification in the event of a spill and the appropriate paths of communication to be followed in the event of a spill are shown in Section 3.7 of this Plan. In the event of oil spill incident, PPGY will be responsible for the overall co-ordination of spill response within the area of jurisdiction.

Vessels in Transit

The statutory duty for reporting and dealing with pollution from any vessel en route to Great Yarmouth, prior to entering Port limits or pilotage area lies with the Master and vessel owners. After commencing pilotage to Great Yarmouth through the designated area of jurisdiction covered by this Plan, reporting and response to any pollution incident will be co-ordinated through the PPGY Oil Spill Contingency Plan.

1.6 Scope of Plan

This plan has been compiled to cover the response to any spillage caused by or during operations associated with safe passage to or from Great Yarmouth and within its jurisdiction (including the Outer Harbour).

The scope of the plan covers response to all the "Essential Elements" contained within the MCA Oil Spill Contingency Guidelines for Ports, Harbours & Oil Handling Facilities.

The Plan describes the Tier 1 response available at the Port relevant to the perceived risk through normal operations as well as a mechanism for calling upon Tier 2 or 3 responses in the event of an abnormal incident or major accident requiring the Port's involvement. A definition of the tiered levels used in this Port is shown below and the process of response escalation is described in Section 1.9 with notifications in Part 2 Section 6.1.

Table 2: Tiered Response Definitions

Response Tier	Definition
Contained Operational Spills	These are spills, which are contained on the vessel or Portside and do not enter the water.
Tier 1	Small operational spills that may occur within a location as a result of daily activities. The level at which events can be controlled using on site resources. A Tier 1 spill is not likely to require recourse to intervention by resources out with the Port, an external incident response organisation or external authorities, except for purposes of notification.
Tier 2	Medium sized spills within the Port, that will be handled by Port personnel and a nominated contractor or other external assistance as nominated within this plan. A Tier 2 incident may involve local government. Oil spill response to be co-ordinated via the Port or local authority.
Tier 3	Larger spills or a loss of containment incident that will require full involvement of other authorities and possible mobilisation of Tier 3 and national stockpiles. A Tier 3 incident is beyond the capabilities of both local and regional resources. NB: <i>A Marine Rescue Coordination Centre (MRCC) will be established to coordinate operations, following the agreement of the local authority and / or PPGY and the Maritime Coastguard Agency (MCA), and a Tier 3 spill declared.</i>

1.7 Risk Assessment

A risk assessment to meet with OPRC Contingency Planning requirements for Ports & Terminals has been completed on the basis of a format previously agreed with MCA.

Scope of Assessment

This assessment covers operations where vessels and users are under the jurisdiction of PPGY. Great Yarmouth is the major commercial port serving East Anglia. The River Port is the major marine support centre for the Southern North Sea oil and gas industry. The port consists of one specialist oil supply base, extensive multi-user quays and ample berthing. Comprehensive facilities are available for handling all types of general cargo including minerals, fertilisers, aggregates, forestry products, grain and dry or liquid bulks. There is also a wharf set aside for fishing vessels. The port has a throughput of circa 1 million tonnes per annum. The port receives diesel, MGO and kerosene with a cumulative tonnage of 170,000 tonnes per annum, involving some 56 tanker deliveries. No heavy fuel oil or crudes are handled at the port as cargo.

The Outer Harbour is constructed on the seaward side of the South Denes peninsula and opened in 2009. This deep-water port offers berths with depths up to 11m. The harbour supports handling grain, offshore Oil and Gas including decommissioning, Offshore Renewables and aggregate cargoes in addition to other project and general cargoes. Some ship to ship bunkering of IFO is expected to take place in the Outer Harbour although the frequency is unknown. Bunker operations for LNG are under review but not yet proposed. Bunkers maybe supplied from bunker vessels or road tankers.

Pilotage

Pilotage is compulsory for vessels over 40 meters in length; exemptions are given to frequent port users. All tankers are required to report their operational condition in accordance with Marine Statutory Regulations (Schedule 2) and M1630; this is normally done via the ship's agent. The Master of an incoming vessel is given full instructions by Port Marine Services prior to entering port limits; this includes any navigational information and confirmation of tidal conditions. All tankers over 40 meters are required to take a pilot if the Master does not hold a Pilotage Exemption Certificate. Vessel passage is arranged by consultation between the Master and the pilot after the pilot has boarded the vessel, and before entering the Port. If the vessel does not require a pilot or the vessel's Master holds a Pilotage Exemption Certificate they must, still, contact Local Port Services before entering the Port.

Passage Restrictions to Safe Berth

Weather conditions, operational control or tidal constraints may restrict vessel entry to the port. A local Port Service provides navigation advice and supports the Harbour Office to regulate all vessel movements; there is a traffic information light system at both entrances covered by CCTV. Vessels normally using the River Port would have dimensions of, length 100m, beam 20m and draught 6m. However, subject to consultation with the SMMO, vessels may have any one of the following maximum dimensions, length 135m, beam 30m and draught 6.2m. The Outer Harbour can provide safe access for vessels up to 220m in length and draughts up to 10m. River berths within the port consist of sheet steel piling with timber and tyre fenders. Outer Harbour berths are sheet piling with cone and low friction pad landing surfaces or Yokohama fenders.

Factors and Assessment

This risk assessment is designed to identify potential oil sources, the size of potential spills and to estimate the probability of events that may result in a release of oil into the marine environment. The result will be a targeted, specific investigation which will identify areas of unacceptable risk and potential mitigation methods.

Each principle hazard has been identified and graded with respect to the severity and consequences, considering the initial concern, cause and consequence. The Port's Marine Management Team, led by the SMMO, compiled a list of risk control measures currently in use. The majority of control measures apply to more than one risk and several risk control measures were applicable to a large number of risks, from this a control strength was derived and graded as below:

Table 3: Control Strength

1	Inadequate	Controls do not treat the risk as intended
2	Adequate	Controls shortfall which do not affect the level of residual risk
3	Optimal	Controls work as intended
4	Excessive	Controls exceed the level required

In order to assess the consequence, and subsequent overall risk acceptance criteria of a spill, it is important to identify the oil containing systems associated with Port operations. All oil containing systems (source) connected with the harbour operations, with potential for initiating events that could result in an accidental spillage and the potential maximum volume that could be released were identified and examined. Probability and consequence are then combined in a risk matrix model to ascertain overall risk acceptance criteria.

The frequency of a specific type of incident can be expressed as probability and when classified into criteria should provide an indication as to the most commonly occurring events. Control measures can reduce the probability of an event occurring. Therefore, the full range of control measures implemented by PPGY to

minimise the risk of an oil spill event have been considered before applying specific probability criteria. The following tables (Table 4 and 5) describe the probability and consequence ratings used in this risk assessment.

Table 4: Probability of Scenario Occurrence

Level	Frequency Description
1	Rare This will probably never happen/recur
2	Unlikely Do not expect it to happen/recur but it is possible it may do so
3	Possible Might happen or recur occasionally
4	Likely Will probably happen/recur but it is not a persisting issue
5	Almost Certain Will undoubtedly happen/recur, possibly frequently

Table 5: Consequences

Level	Consequence	Description
1	Negligible	Small area of sheen <10m ² Small gas release No clean up required No action by workforce
2	Minor	Area of metallic appearance <50m ² Tier 2 called out, no action Terminal workforce in containment area onsite
3	Moderate	Discontinuous true colour >50m ² Tier 2 called out, up to one day clean up Terminal workforce in containment area offsite
4	Major	Serious pollution (IMO): Tier 2 called out Up to 3 days clean up Local evacuation
5	Catastrophic	Serious pollution (IMO): Tier 3 called out Up to 7 days clean up Large scale evacuation

Probability and consequence can be multiplied to produce an overall risk rating. This can then be applied to specific scenarios in order to prioritise potential control measures and risk minimisation procedures. The following table (table 6) determines the overall level of risk. In principle, all risks should be within the insignificant to minor categories. Moderate risks and above will require attention and improvement plans to reduce the risk.

Table 6: Overall Level of Risk

Probability	Consequence				
	Catastrophic (5)	Major (4)	Moderate (3)	Minor (2)	Negligible (1)
Almost certain (5)	Very high (25)	Very high (20)	High (15)	High (10)	Low (5)
Likely (4)	Very high (20)	High (16)	High (12)	High (8)	Low (4)
Possible (3)	High (15)	High (12)	High (9)	Low (6)	Very low (3)
Unlikely (2)	High (10)	High (8)	Low (6)	Low (4)	Very low (2)
Rare (1)	Low (5)	Low (4)	Very low (3)	Very low (2)	Very low (1)

When potential hazards and the probability of their occurrence have been established the oil type and fate of the oil must be considered to evaluate the consequence hydrocarbons may have upon the resources within the marine environment and to establish the area of potential impact. It should be remembered that although the level of risk of an incident occurring may be low, the level of impact on the natural heritage can potentially be high (high volume or increased toxicity of the fuel etc.). The consequence each identified hazard is evaluated using the level of risk and the impact. Should the biological impact be rated high, the risk overall will have a higher rating.

Table 7: Actions to Mitigate Risk Based on the Risk Score

Risk Score	1-3 Very Low	4-6 Low	7-19 High	20-25 Very High
Actions to Mitigate Risk	Review periodically	Assessed as low as reasonably practicable. Manage and review	Additional controls required	Intolerable, immediate action to be taken

Hydrocarbons are broadly grouped into four categories: group I oils such as diesels are non-persistent and will tend to dissipate completely within a few days. Group II and III oils are more persistent and tend to form emulsions. Group IV oils are very persistent due to the lack of volatile constituents and will remain in the environment indefinitely (ITOPF 2006/2007).

Oils in the Port of Great Yarmouth include non-persistent gas oil which will evaporate and spread quickly although some marine diesels may be more persistent due to their residual fractions. Non-persistent oils are effectively untreatable although they may be contained, and agitation may assist their evaporation. Persistent oils would respond more readily to chemical dispersal, containment and physical recovery.

The volume and type of hydrocarbons released will determine the consequence for low to high probabilities. The consequence for all low to high probabilities will be mild to severe unless proven otherwise.

Risk: Berthing Operations

At the River Port, all berths are alongside quays parallel to the water flow. Berths at the Outer Harbour are arranged within a square around the breakwaters. Berths are alongside the quay structures except WT5 which consists of three dolphins.

Tugs of 13T to 50T bollard pull and above are available under arrangement with a local tug company. The Harbour Office will be able to advise on availability and call-out times for these tugs. Additional tugs are available on request or oil industry related vessels may be used in some cases.

Risk: Collision and Grounding Failure

River Port: Collision is considered to be low risk due to restrictions on vessel movements, the control exercised by Harbour Office, advice from LPS, and vessel manoeuvrability. Grounding must be considered a risk due to the tight angled turn required at the entrance to the Port, though major damage is unlikely due to the seabed being soft sand and silt. The size and type of vessel using the Port is such that the result of collision or grounding damage to the largest cargo tank, taking into consideration the hydrostatic pressure is calculated to be 80 tonnes of MGO.

Outer Harbour: Collision is considered to be low risk once the vessel is in the Outer Harbour due to control exercised by Port Marine Services and the availability of tugs for larger, less manoeuvrable vessels. The approach to the breakwaters is affected by the North/South tidal flow past the entrance. Guidelines are in place to restrict arrival of larger vessels to around the slack water periods thus reducing the risk of contact with the breakwaters. Typical bunker vessels in the Outer Harbour have a predicted maximum potential outflow from a damaged cargo tank of 76.5 cbm as determined by the equations set in regulation 25 of Marpol Annex 1. Typical transfer rates are 150 cbm per hour with a shutdown time of 6 seconds. A catastrophic hose failure would therefore result in an escape of 0.25 cbm of oil. Most vessels currently using the Outer Harbour arrive with about 100T F.O. and 50T MGO bunkers. These figures will increase if there is an increase in the size of vessels visiting the Port.

Risk: Cargo Discharge Failure

River Port: All oil cargo transfer operations are carried out at the ASCO Marine Base. ASCO has a contingent capability with attendant tank farm Gas House Quay; they both lie within the river port area. The maximum size of vessel that discharges at the base is about 4,000 DET the maximum single delivery being 2,700 tonnes MGO. All vessels that are involved in oil transfer operations have been previously audited by ASCO ship auditing service. This process is based on risk assessment and ensures that the vessels being used by these companies are maintained and operated to the highest industry standards and as such the likelihood of operational failures is significantly reduced.

Tanker operations normally, are only carried out at the ASCO Marine Base where specialised discharge facilities are available. In total there are circa 57 tanker visits per annum (2020) discharging 41,000 tonnes Derv, 29,000 tonnes kerosene and 102,000 tonnes MGO. Discharge is by short flexible hose across the quayside to fixed connection, thence underground pipe to tank farm. A written ship/shore checklist is completed prior to discharge and communication is maintained between deck and shore during pumping. The operation is terminated if winds exceed 50 knots or at the discretion of either the Master or Shore Staff. Spill response equipment is always close at hand.

Outer Harbour: There are no facilities ashore for handling liquid cargo or bunkers. Bunkering of vessels is carried out by specialist ships trading in bunkers or from road tankers. These vessels are around 90m in length and constructed with double bottoms and double skin side tanks. They have a cargo capacity of circa 5,000m³ and are equipped with oil spill equipment including booms and appropriate fender arrangements.

Worst case loss of cargo tank would result in 80T MGO or IFO and for a road tanker would be 25T MGO.

Risk: Bunkering Operations

River Port: Vessel bunkering is considered an operation requiring additional controls. Port procedures require prior advice to and consent of the Harbour Office before commencement. Additional risk mitigations permanently are in place at Berths 12, (ASCO Marine Base). At this berth there are fixed fuelling points with underground pipes back to the tank farm. Bunkering from Shore Tank to ship is by short flexible hose and there is a written safety checklist. Communications are maintained between deck and shore throughout the operation.

Road tanker bunkering can be carried out at most other berths; when undertaken a checklist is completed and communications maintained. There is a thorough Code of Practice for 'Bunker and Oil Transfers' within Great Yarmouth.

Size of hose and contents liable to be lost in the event of a flexi-hose failure:

- Intake hose is 20cm x 9m with a volume of 283 litres;
- Discharge rate is 7,000 litres per minute.

Size of hose and contents liable to be lost in the event of a bunkering failure:

- Hoses used are 3" diameter and 10m long, average contents 46 litres;
- Loading rate is 1,200 litres per minute;
- Maximum amount due to overflow or failure during bunkering <400 litres.

Outer Harbour: There are no oil storage facilities in the Outer Harbour. Bunker operations take place occasionally where bunker vessels deliver fuel to ships using the Harbour. These are vessels dedicated to trading in this type of operation. Bunker delivery rates are up to 350m³/hr with expected shut off times of 30 seconds resulting in a spill of 3,000 litres. Vessels claim to be able to shut off operations quicker than this, but this is considering the worst case scenario. Checklists are exchanged between vessels and these are copied to Harbour Office/LPS prior to the start of transfer operations. Vessels are securely moored with appropriate fenders between the two hulls.

Size of hose and contents liable to be lost in the event of a bunkering failure:

- Hoses used are 6" diameter and 15m long, average contents 175 litres;
- Loading rate is 5,800 litres per minute;
- Maximum amount due to overflow or failure during bunkering 1,000 litres.

Risk: Companies Operating Within the Harbour Area

Within PPGY area of jurisdiction there are companies operating with potential to cause pollution. From related shore-based activities there is the hazard of pollution of waters, land and air. These companies are required to fulfil legislative criteria as well as having to produce their own risk assessments. Furthermore, companies operating within the Harbour area have to produce oil spillage response plans for a Tier 1 response. Any other Tier of spill will evoke the Great Yarmouth Plan with PPGY taking the lead for support from those companies.

Risk: Inherited Incident

The proximity of the North Sea and its associated vessel traffic means that a risk of oil pollution within the Port of Great Yarmouth could come from an incident occurring outside of the Port's jurisdictional waters (i.e. pollution that has been driven into the Port area by the wind and tide). This type of incident is difficult to plan for as there is little pre determination of the oil type, quantity or impact.

Risk: Other Sources of Potential Oil Spillage

- Oil may be discharged into the upper reaches of the Port from the rivers Yare, Bure or Waveney
- Spill during waste oil discharge. Waste oil is discharged by vessels under the Merchant Shipping (Port Waste Reception Facilities) Regulations 1997 (SI No 3018). There is a Port Waste Management Plan in operation
- Oil may be discharged into the harbour via surface water drainage system – especially during periods of heavy rainfall (incidents involving oil entering the harbour from a landward source would see the EA taking the lead role). See Appendix V – HSE Toolbox Talk: Drainage at Great Yarmouth and Appendix VI – Great Yarmouth Drains Surveys (River & Outer Harbour).

Table 8: Summary of Risk

Source land/ air/ marine	Hazard	Volume	Risk prior to control	Control measures	Consequence	Probability	Risk overall
Operational							
Marine	Berthing in River Port	Unknown	Low (6)	Port Marine Services. Berths parallel to the stream. High manoeuvrability of vessels. Assistance available. Visiting tankers fitted with bow thrusters. Radar. CCTV.	2	2	Low (4)
Marine	Berthing in Outer Harbour	Unknown	Low (6)	Port Marine Services. Bunker vessels are small for the harbour and manoeuvrable. Yokohama fenders normally deployed between bunker vessels. Negligible tidal flow. Radar. CCTV.	2	2	Low (4)
Marine	Collision and grounding failure in River Port	80 tonnes MGO	High (12)	Restrictions on vessel movements. Port Marine Services. Vessel manoeuvrability. Soft seabed.	3	2	Low (6)
Marine	Collision and grounding failure in Outer Harbour	100T F.O. 50T MGO	High (12)	Port Marine Services. Availability of tugs. Guidelines in place. Negligible tidal flow.	4	1	Low (4)
Marine	Cargo discharge failure (River Port)	2.5T MGO	High (9)	Ship auditing service. Specialised discharge facilities. Ship/shore checklist. Communications. Operations cease in poor weather conditions. Spill response equipment close to hand. Code of practice.	3	2	Low (6)
Marine	Bunkering failure in River Port	400 litres MGO	Low (6)	Written safety checklist. Communications. Code of practice.	2	2	Low (4)
Marine	Bunkering failure in Outer Harbour	3,000 litres MGO or IFO	High (12)	Written safety checklist. Communications. Code of practice. Vessels securely moored with appropriate fenders.	4	2	High (8)
Land/ Marine	Companies operating within the Harbour area	Unknown	High (9)	Legislative criteria. Individual risk assessments and spillage response plans.	3	2	Low (6)

Response Strategy

Small oil spills within the Port will be recovered using Tier 1 materials (namely sorbent equipment) and equipment held in stock by PPGY. In the event of a Tier 2 spill, this will be contained, recovered and disposed of by the nominated PPGY contractor, Ambipar who offer a <4.0hour response time in working hours and a <6.0hour response time out of working hours. Oily waste will be disposed of by a certified disposal route. Dispersants will not be used. Any spillage of the size nominated within this study would be recovered using sorbents or mechanical means where possible. Booming would be used where practicable in order to recover the oil.

Overall Conclusion

All vessel movements within the Port of Great Yarmouth are well managed by oversight of the Harbour Office/LPS and further controlled by Pilotage Directions. The majority of offshore vessels have bow and stern thrusters and are highly manoeuvrable. The tanker movements within Port limits are considered well controlled. Given the frequency of vessel movements, traffic density and the identified bunkering activity, Great Yarmouth must be seen as a medium risk port area. Bunkering failure in the Outer Harbour, although unlikely, provides the greatest consequence as it is possible for a spillage of 3,000 litres of IFO which would take longer than a day to clean up. The results of the risk assessments carried out shows that adequate measures are in place to reduce all risks to as low as reasonably practicable (table 7) and proper controls exist through set procedures; nevertheless, human error can occur during operations. Regular exercises and monitoring will help maintain the risk to the Port of Great Yarmouth to be as low as reasonably practicable.

Tiered response level is determined by:

- Tier 1, <100L
- Tier 2, >100L – 110T (or as deemed necessary by Harbour personnel)

Tier 3, the National Contingency Plan (NCP) does not quantify a Tier 3 in terms of amount of oil spilled as the classification is dependent on a number of factors. However, it is the most severe type of spill that cannot be contained with the resources of the Tier 2 Accredited contractor and requires substantial external resources to deal with them.

1.8 Environmental Sensitivities & Priorities for Protection

General strategy

On all occasions Natural England (NE) must be contacted if an incident were to occur. Where possible, considering safety and open water conditions, any floating oil on the water surface should either be allowed to degrade naturally or be removed physically – *no chemical dispersants are to be used.*

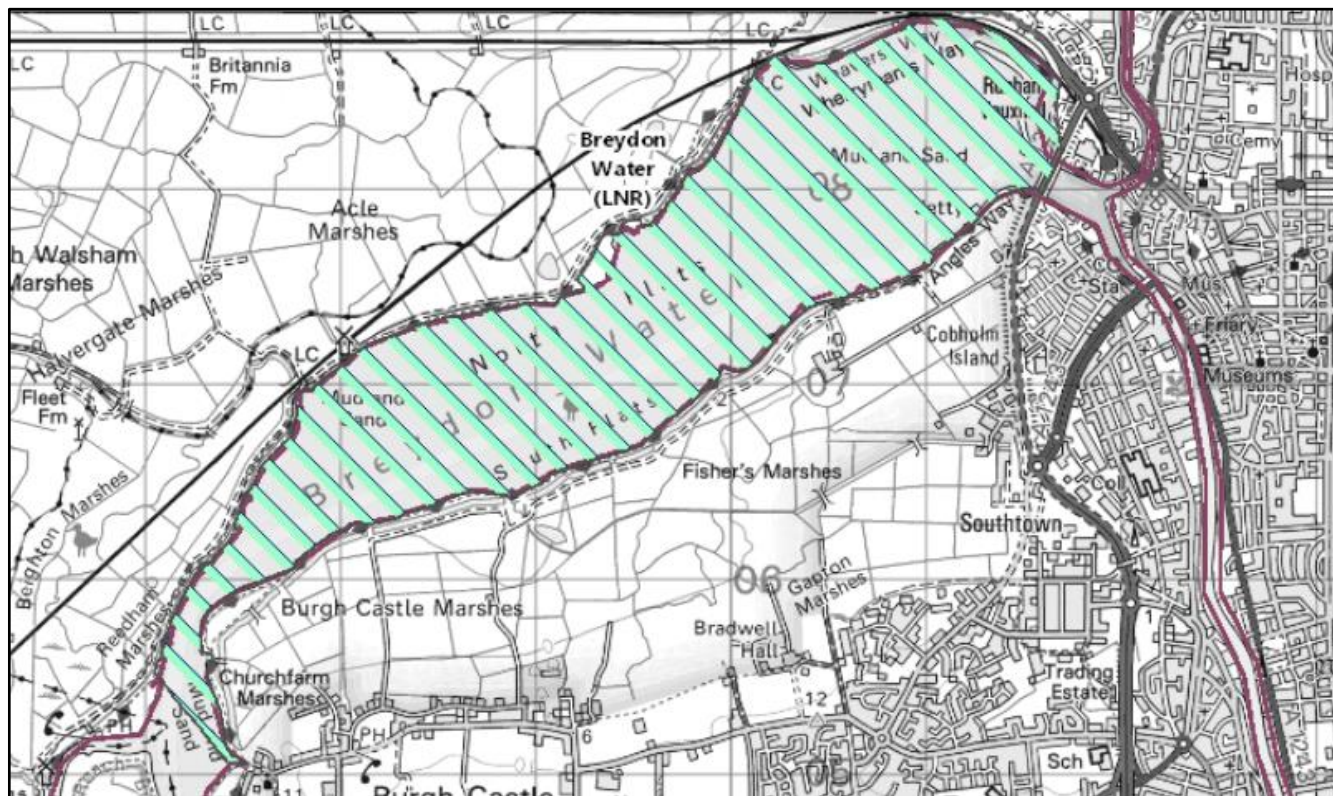
Note: The Marine and Coastal Access Act 2009 and the Marine Licensing (Exempted Activity) Order 2011, requires approval for the use of substances to treat oil on the surface of the sea. However, approval is not needed under this order for the use of equipment to control, contain or recover oil. This means that respondents do not need to approach MMO before the use of items of equipment like recoverable absorbent booms, absorbent rolls, absorbent tails and absorbent pads. Respondents do however need to ensure that they have MMO approval for the use of any items like loose absorbent granules, chips, moss, sawdust or chemicals which would be classified as substances rather than equipment if there is a possibility of these substances entering the marine environment.

Fisheries Information

There are no classified Bivalve Mollusc Harvesting Areas or Shellfish Waters in close proximity to PPGY's area of jurisdiction in accordance with Defra's Multi-Agency Geographic Information for the Countryside website.

Breydon Water (LNR, Ramsar, SSSI, SPA)

Figure 3: Breydon Water Sensitivity Map



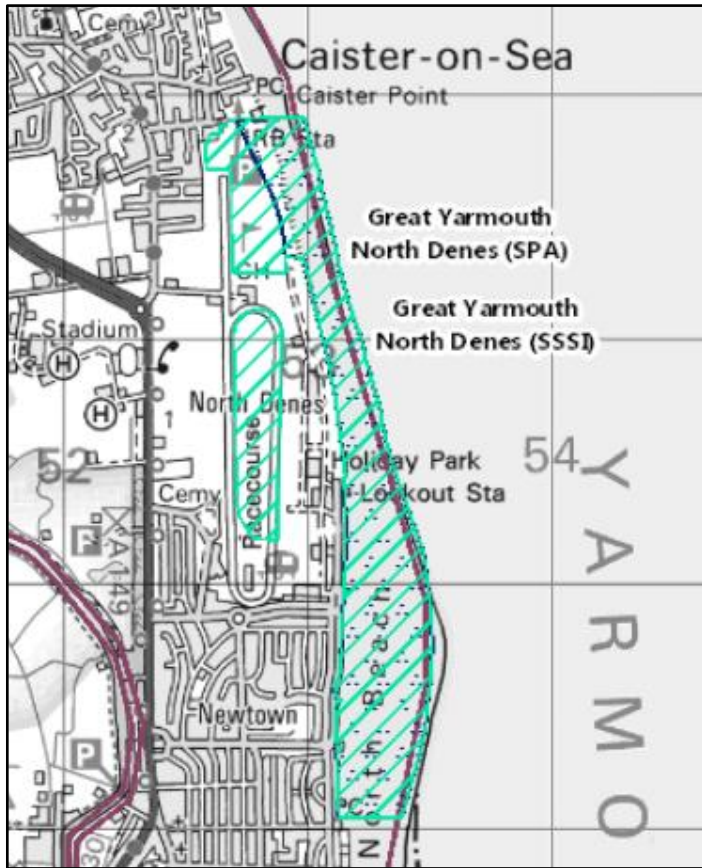
Breydon Water is a highly sensitive site and is one of the top ten estuaries for wintering birds in the UK; supporting a large number of birds over a relatively small area. These birds occur at high densities (in the high tide roost to the north of the bridge and port) in the area of the estuary closest to the port.

Inland tidal estuary with extensive areas of intertidal mud and small areas of salt marsh, reed beds and brackish water dykes. The site comprises the only intertidal flats on the east coast of Norfolk. These flats support growths of eelgrass and green algae, which, together with an abundant invertebrate fauna, attract large numbers of ducks and waders to feed in the estuary. There are nationally and internationally important wintering flocks of wildfowl and large flocks of waders, including several uncommon species. The salt marsh, reed beds and brackish water communities provide areas of considerable botanical interest. The invertebrate fauna is rich and includes one scarce species of snail.

Explore the possibility of using booms to prevent any oil from entering the estuary. If an incident occurs within the estuary, booms may be deployed nearer to the site. Any oil which becomes stranded within the site could be left to degrade naturally if recovery is not an option.

Great Yarmouth North Denes (SSSI, SPA)

Figure 4: Great Yarmouth North Denes Sensitivity Map



This site contains two component areas; the North Denes actively accreting low dune system and beach, together with the beach and fore dune ridge at Winterton-Horsey Dunes. The two component areas are linked due to high mobility of little terns, and to the dynamic nature of the beach shape which influences stability for breeding.

Winterton-Horsey Dunes (SAC, SSSI)

Figure 5: Winterton-Horsey Dunes Sensitivity Map



Sand foreshore backed by an extensive sand dune system. The site provides breeding and overwintering habitat for birds including a colony of little terns. The dune vegetation includes several rare and notable species, which includes an assemblage of bryophytes and lichens. The pools behind the dunes support a rare amphibian, which breeds within the site. Part of the site is important for its coastal physiographic features. This site has an important breeding population of grey seals over winter.

Oil which becomes stranded on the sandy beach should be cleared using mechanical methods of clean-up. Subsequent cleaning may be necessary using approved dispersants during the holiday season.

The Broads (SAC)

Figure 6: Map of the Broads

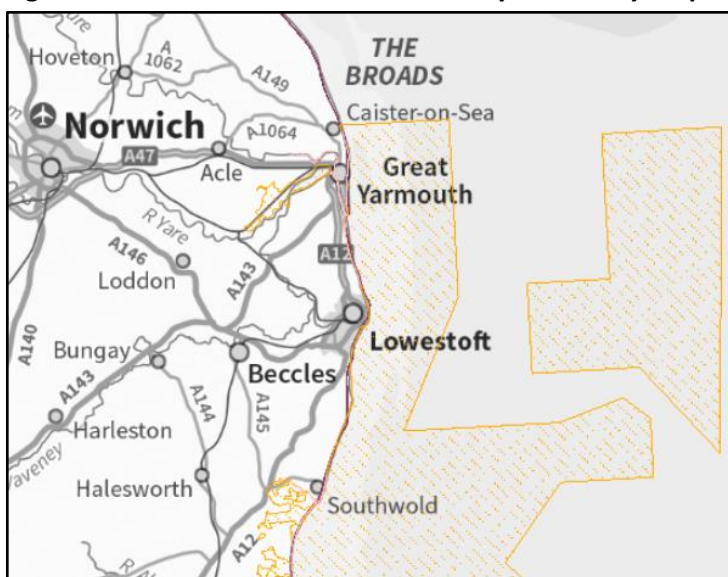


The area of the site covers 5889 ha with the closest area to PPGYs jurisdiction being near Reedham, to the west of Breydon Water.

The Broads comprise various habitats including inland water bodies, marsh, heath, grassland and woodland.

Outer Thames Estuary (SPA)

Figure 7: Extract of Outer Thames Estuary Sensitivity Map



This SPA was designated in August 2010 by the UK Government for wintering red-throated diver, its prey and associated habitats.

This site regularly supports more than 1% of the Great Britain breeding populations of three listed species in Annex 1 of the Birds Directive.

The Outer Thames Estuary SPA is being considered by Natural England for site extension. This extension will offer new protection for little and common tern foraging areas, enhancing the protection already afforded to their feeding and nesting areas in the adjacent coastal SPAs.

Southern North Sea

This site is an SNS SAC designated for Harbour Porpoise *Phocoena phocoena*:

<https://jncc.gov.uk/our-work/southern-north-sea-mpa/#:~:text=The%20Southern%20North%20Sea%20SAC%20lies%20along%20the,for%20the%20protection%20of%20harbour%20porpoise%20Phocoena%20phocoena>

Happisburgh, Hammond and Winterton

This site lies off the north east coast of Norfolk, containing a series of sandbanks. It is a designated site under the form of a SAC.

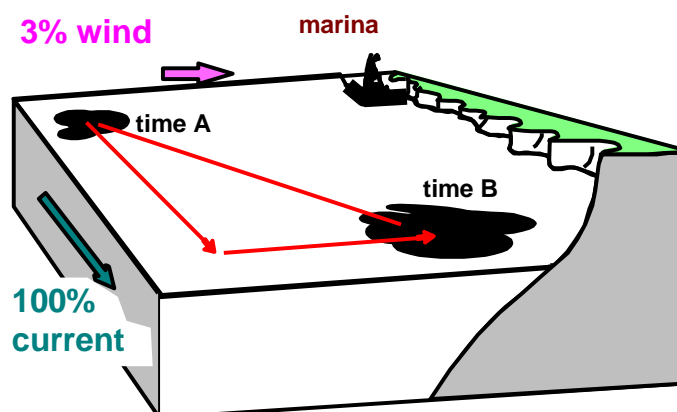
<https://jncc.gov.uk/our-work/haisborough-hammond-and-winterton-mpa/>

Orford Inshore Marine Conservation Zone (MCZ)

This site became an MCZ in May 2019. It has specific features within the area which are protected and, where necessary, regulators will manage marine activities.

<https://www.gov.uk/government/publications/marine-conservation-zones-orford-inshore>

Figure 8: Oil Movements on Sea Surface



In general terms, the Harbour Authority will attempt to stop any movement of oil from the point of spillage using the Tier 1 equipment available within this plan. If oil does spread and leaves the area of the Harbour Jurisdiction in any quantity that may impact a sensitive area, the spill shall be upgraded to Tier 2. The EA, NE and Local Council will be advised and the appropriate action taken as described within Part 2 of this plan.

The booming and collection of such oil after it leaves the area of the Harbour Jurisdiction will be dealt with as described within the Protection Strategy Plan for the surrounding area. The Harbour Authority will advise on the likely track of the spill and possible point of impact and the response will then become the joint responsibility of the Harbour Authority through its Tier 2 contractors, EA and the Local Authority response plan.

1.9 Categories of Incident

PPGY has in place a three tiered incident response system for oil spillage. The responsibility of escalating an incident from Tier 1 to Tier 2 lies with the SMMO or his deputy or appointed nominee.

Levels of Call-out

Tier 1 Spills

For minor spills, where the response is addressed within the Port area, operators will take the appropriate clean-up, informing the SMMO. The SMMO will monitor actions taken and ensure correct storage and legal disposal of waste arising. Since all oil spills, regardless of size, have to be reported to the Authorities, PPGY will always alert the MCA.

Tier 2 and Tier 3 Spills

For all spills of a higher level, PPGY (SMMO or nominated Deputy) will activate the response required according to this Plan. In the absence of the SMMO, the Port Director or Group SMMO should be advised.

1.10 Waste Disposal Operations

NB: Within this Plan waste oil refers to the disposal of oil which has been contained and recovered as the result of a spill or a pollution incident. The safe handling and disposal of recovered oil is governed by relevant sections in the following legislation:

1. Control of Pollution (Amendment) Act 1989,
2. The Environmental Protection Act 1990,
3. The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991,
4. Environmental Permitting Regulations 2010,
5. Landfill (England and Wales) Regulations 2002,
6. Hazardous Waste (England and Wales) Regulations 2005,
7. List of Wastes (England) Regulations (2005).

If oily waste material is produced as a result of a pollution incident then the polluting party (operator) has a duty of care to ensure that the waste is contained, handled, transported and ultimately disposed of in an appropriate manner. If the material is to be handled by contractors then the operator (to reduce liabilities to a minimum) has to ensure that each contractor has the relevant transportation registration and waste management licences, where applicable. In addition, HM Revenue and Customs must be notified if recovered oil is brought ashore by dedicated oil recovery vessels. Landing should not be hindered by the absence of an official from HM Revenue and Customs; however, the Operator should maintain a careful log on quantity and nature of the recovered oil. The options for waste disposal or treatment of material, be it oily liquids or oil solids are:

- a) Take to appropriate disposal sites;
- b) Temporary store, clean, stabilise and then recover or re-use;
- c) Temporary store and then take to appropriate disposal site for burial;
- d) Take to a refinery/incinerator (mainly for oily liquids only)

a) Direct to Appropriate Disposal Site

Environmental Permitting Regulations (EPR) 2010. There are only a few sites that are allowed to receive organic or chemically polluting materials (includes oily waste). There will be a charge levied by the site operator for depositing material at the site. In addition, there is a landfill tax/levy applied to all waste deposited in a landfill. Furthermore, waste oil is likely to be classified as Hazardous Waste and should be treated as such until otherwise determined. It would therefore be subject to the EPR 2010. Mixes of sand and oil/seawater etc. would probably be considered as Hazardous Waste if the percentage of carcinogenic compounds is above 0.1%. It is therefore likely that oily beach materials and oil/water liquids would have to be handled as Hazardous Waste.

The transportation of Hazardous Wastes generally requires that the EA be informed before the waste is removed. This is done by filling in parts A, B and D of a Hazardous Waste Consignment Note, available from the EA, which is sent to EA responsible for the receiving facility. This should be done at least three clear working days before the waste is to be moved. However, in the event of an 'emergency' EA may waive the requirement for pre-notification. The licensed waste carrier completes part C of the Consignment Note and takes it with the load to the receiving facility. The licensed operator of the receiving facility then signs the consignment note to say that they have accepted the load and that they are authorised to manage it properly.

The requirement for pre-notification generally does not apply to special waste from ships. Therefore, oil recovered at sea by a dedicated Oil Recovery Vessel could be discharged within a harbour to an appropriate waste reception facility without having to pre-notify EA. However, a consignment note will have to be supplied with each load sent for disposal.

To ensure that oily waste material is transported and disposed of in an appropriate manner, a licensed waste carrier and disposal company should be contracted. The Operator and Waste Disposal Company should then liaise with EA to confirm that the disposal route identified meets with their satisfaction.

Each of the following options for disposal will be subject to all the factors listed above.

b) Temporary Storage/Clean, Treat, Stabilise, Recover, Reuse

This option aims to store temporarily the material and then, slowly over the ensuing period, to clean it or stabilise it and then to recover or reuse it. In most cases this is the best practical environmental option (BPEO). It avoids the risk of changing what was a marine pollution into an inland surface pollution problem or groundwater pollution problem.

From temporary storage the contaminated material can be stabilised with cement, lime, clay, organic binders, asphalt and composting. The characteristic of each product needs to be considered when determining the ultimate disposal route or any perceived end use. It is important to note that the treatment of wastes also comes under the waste management licensing system. Therefore, any strategy to deal with the waste in this manner can only be developed through close liaison with the Local Authority concerned and EA. The latest guidance from the EA indicates that if proposed temporary storage sites are pre-identified, suitable and pre-agreed with EA, then they would not require licensing for the duration of the emergency.

Table 9: Storage Methods

Type of Oil/Waste	Storage Facility	Comments
Liquid	<i>Barges</i>	<i>Suitable for initial storage</i>
	<i>Road Tankers</i>	<i>Ideal for routing to final disposal site</i>
	<i>Pits</i>	<i>Must be lined with sand to protect essential heavy duty plastic liner</i>
	<i>Bunds</i>	<i>Cheaper than pits. Liners required</i>
Liquid/ solid mixture	<i>Pits</i>	<i>As above</i>
	<i>Bunds</i>	<i>As above</i>
	<i>Skips</i>	<i>Versatile, robust and cheap</i>
	<i>Oil Drums</i>	<i>Difficult to handle when full</i>
	<i>Plastic Containers</i>	<i>Quick deployment Useful for inaccessible areas</i>
	<i>Heavy Duty Plastic Bags</i>	<i>Ideal for manual clean up. Cheap & easy to deploy Can create disposal problems themselves</i>
Solids	<i>Hardstanding</i>	<i>Preferably use on sloping site with drainage</i>
	<i>Lorries</i>	<i>Restricted to solid debris Access problems may occur</i>

c) Temporary Storage and Appropriate Disposal Site for Burial

The reasons for constructing a temporary storage site are as follows:

1. There is no immediate disposal outlet for large quantities of oil/sand mixture or for oil/water mixtures and clean-up cannot be slowed or stopped.
2. The equipment used to clean beaches is usually labour intensive and therefore requires an immediate transfer area adjacent to the site to be provided.
3. The nature of the roads precludes high traffic densities.
4. The in-situ treatment of contaminated material is often preferable to removing large quantities of material from the shoreline.

In creating a temporary storage site, it is essential that consideration be given to the positioning of the sites to ensure that there will be no spread of pollution. A flat clear area needs to be set aside (car park or similar). Preparation should include the isolation of the area by blanking drains, stoppering outlets and laying impermeable membrane so as to provide laydown area for skips or suitable bunkering for waste containment. In addition, under the above legislation, the temporary storage site itself may require a Registered Exemption from Waste Management Licensing. Each site will have to be constructed in a specific manner. It is therefore essential that the construction of temporary storage sites be done through close liaison with the EA, NE if in or near a SSSI, and the Local Authority concerned.

d) Take to a Refinery/Incinerator (mainly for oily liquids only)

This material should be removed from site by a licensed waste handling company who will then arrange for its disposal in an appropriate manner. If there is suitable access, oily liquids produced from a shoreline clean-up operation can be removed from site by road tanker.

If the oily liquids are on-board a dedicated recovery vessel following an at sea containment and recovery operation then it can be transferred across the quay, at a suitable berth to a road tanker or other suitable waste reception facility. Alternatively, this waste can be fed directly into the reception facility at a marine terminal of an oil refinery. It is the responsibility of the Ships Master to ensure that this waste is disposed of appropriately. However, the Port Authority must confirm that any contractors have the necessary licenses to handle and dispose of the waste. The disposal route should also be agreed with EA to ensure it meets with their satisfaction.

Section 2. Training & Exercise Policy

2.1 Training Policy

In order to familiarise personnel in the use of this Oil Spill Contingency Plan and comply with MCA guidelines, Oil Spill Response training courses will be provided by accredited organisations for selected employees of PPGY and their contractors with an identified role within the plan. In addition, there will also be awareness briefings with other port users and the agencies who were involved in the consultation process.

Included within training delivery will be specific instruction on the use of the Tier 1 oil spill response equipment located at Great Yarmouth. This will be tested using those personnel who will be responsible for operating this equipment in the event of a spill. There is a minimum requirement of two staff to be trained to minimum level 4p to act as Incident Commanders and On Scene co-ordinators and six staff to be trained to minimum level 1P responders as necessary. This staff training will be maintained and renewed before the expiry date of three years. In order to meet the minimum levels as recommended in the MCA guidelines, the training and exercising of key personnel is detailed below.

Table 10: Training in the use of this Plan

Training in the use of this Plan				
Position	Awareness	Minimum hours	Ports and Harbours	Target audience
Supervisors and Operators	Use of Tier 1 sorbents and understanding contingency plans and operations	8	MCA 1p	First responder – port operatives
SMMO, Deputy SMMO	Ability to control and put a specific contingency plan into action as OSC	32	MCA 4p	Port Senior Staff
All personnel	Refresher	8	MCA R	Those who have undertaken training not more than 3 years previous
Port Director	Contingency plan familiarisation briefing Media Training	-	-	

2.2 Exercise Programme

To ensure that the Oil Spill Contingency Plan is understood by all those involved in its use, communications and practical exercises should be undertaken on an annual basis. This will be undertaken using those personnel who will be responsible for operating this equipment in the event of a spill, namely Port personnel and Tier 2 contractors.

A record of all personal training and exercises will be held by the Deputy SMMO.

Table 11: Exercise in the use of this Plan

Exercise type	Frequency
Notification & Mobilisation Exercises	Twice per year

Table-top Exercise (may incorporate mobilisation and deployment of local response equipment)	Once per year
Incident Management Exercise (IME) (will incorporate mobilisation and deployment of resources up to Tier 2 Level)	Once every 3 years

2.3 Forms to be completed – Post Exercise

Below is a post exercise / incident report form which should be completed and forwarded to CPSO and all relevant plan holders, each time an exercise is carried out. Similarly, if a real incident were to occur, details should be logged and copied to the MCA.

Post Exercise / Incident* Report			
Name of Port/Harbour/Oil handling facility:			
Tier level (1, 2 or 3):		Name exercise / incident:	
Names of any other participating ports, harbours or oil handling facilities if joint equipment deployment exercise / incident:			
Date of exercise / incident:		Time of exercise / incident:	
Location of exercise / incident:			
Name of exercise / incident co-ordinator:			
Name of personnel participating in exercise / incident and role played:		List of equipment deployed:	
Name of any other organisations or authorities participating in exercise / incident:			
Details of amendments to be made to the Contingency Plan resulting from this exercise / incident:			
<small>I can confirm that the details on this form provide a realistic summary of the exercise / incident. Any action points resulting from this exercise / incident have been dealt with accordingly, the relevant documents updated and copies provided to the appropriate bodies for their attention</small>			
Authorised by: (block capitals)		Position / job title:	
Signature:		Date:	

*Delete as appropriate

2.4 Forms to be completed on an Annual Basis

To ensure that MCA’s records remain up-to-date, Port authorities should complete an annual return of changes made (for example, exercise conducted, new personnel trained etc.). ‘Nil’ returns should also be submitted. Electronic copies of the following form can be obtained from the MCA.

Ports and Harbours Annual Return Form

Peel Ports Great Yarmouth		
Annual return for period:		to:
Plan approval date:	Plan re-approved by:	
Summary of exercise undertaken:		
<p><i>(NB: response to actual incidents which require activation of the plan should also be summarised here)</i></p>		
New pollution training undertaken:		
(signed)	(print)	(dated)

Section 3. Incident Response Organisation

3.1 Introduction

This plan has been compiled to cover the response to any spillage caused during operations within the jurisdiction of PPGY. Spills from shore side operations, vessels alongside in transit or passage. The Plan indicates the Tier 1 response available at the Port relevant to the perceived risk through normal operations as well as a mechanism for calling upon Tier 2 or Tier 3 responses in the event of an abnormal incident or major accident affecting the Port.

3.2 Responsibilities and Incident Control Arrangements

The Response Team will be led by the SMMO, or a Deputy (MOM). A Marine Response Centre will be established in the Harbour Office Emergency Incident Room, 1st Floor, Vanguard House, South Beach Parade, Great Yarmouth, NR30 3GY, for Tier 1 and Tier 2 spills.

SMMO

The SMMO or MOM will act as Incident Controller. The Duty Officer doing so until relieved.

The Response Team Members comprise of:

- SMMO, Incident Controller
- MOM, On-scene Commander
- Port Staff, responders

Environment Group

The purpose of the Norfolk and the Wash Standing Environment Group is to minimise the impact of a marine incident on the environment and public health. The type of event most likely to require the activation of an Environment Group would be a Tier 2 or 3 incident under the National Contingency Plan for Marine Incidents. The initial POLREP to the MCA would stimulate a request to form the Environment Group.

The Environment Group Marine Contingency Plan is due to be updated to include new boundary changes/names.

3.3 Dispersant Use

The use of chemical dispersant is not permitted within the area covered by this plan. Under The Marine and Coastal Access Act 2009 and the Marine Licensing (Exempted Activity) Order 2011, it is a legal requirement that oil treatment products may only be used in English or Welsh waters if they have been formally approved for this purpose by MMO. In addition, specific permission from MMO must be obtained before any such products are used in shallow waters - these are defined as any area of the sea which is less than 20 metres deep, or within one nautical mile of such an area.

3.4 Interfaces with other Contingency / Emergency Plans

This plan will be used in conjunction with PPGY's Port Emergency Plan and other adjoining plans. The other plans include NRF Coastal Pollution Plan. The Great Yarmouth Borough Council Plan is part of the Norfolk, Suffolk and the Wash Environment Group having their own Marine Pollution Contingency Plan. The Great Yarmouth Borough Council Plan is also part of the Norfolk County Council Plan. The Broads Authority have their own OSCP. Furthermore, PPGY have copies of ASCO's spill control plan.



3.5 The Role of the SOSREP

The Secretary of State's Representative's (SOSREP) role has been created as part of the Government's response to Lord Donaldson's Review of Salvage and Intervention and their command and control. The report identified that during salvage activities, ultimate control over all operations should become the responsibility of a single designated Secretary of State's Representative (SOSREP) for purposes of maritime salvage and intervention and that the SOSREP could not abdicate their responsibility. Whether or not he exercised any intervention powers at all SOSREP would be in no doubt what so ever that he was in charge and would be held responsible for the outcome of all plans and decisions. Put simply - to ignore a situation is not an option.

The powers of Intervention with which SOSREP is invested could indeed not be more far reaching. They are however presently wider for response to pollution than for safety. They provide that SOSREP can direct a person to take, or refrain from taking "any action of any kind whatsoever". Indeed, if SOSREP is not convinced that the person directed can, or will, take the action then SOSREP may take action - even if this includes the total destruction of a vessel. The legislation also creates criminal offences for noncompliance with a Direction. It should be noted that directions must be given to specified persons who are those being in charge of a vessel or a Port or Harbour Authority.

The UK has obligations under the Safety of Life at Sea Convention (SOLAS) to provide and shelter for maritime casualties which may require use of waters within a Port as a Place of Refuge (PoR). The Port may be called upon to provide a PoR to suitable craft. Pertinent information for vessels seeking a PoR may be found in Part 1, Section 1.7. It is here that information on size of vessels, including limits of draughts etc. may be found.

3.6 Internal Alerting and Call-out Procedures

An initial spill report will come in the first instance, during working hours, either to the Harbour Office or Local Port Services. Out of working hours reports are liable to come via MCA, Police, EA the public or pilots. The information received must be passed immediately to PPGY. The SMMO or Deputy will do his best to confirm the incident details and determine the level of clean-up operation necessary and the requirement as to whether to activate a Response Team. All calls and decisions made must be recorded and an oil spill report form in addition to an incident log sheet raised.

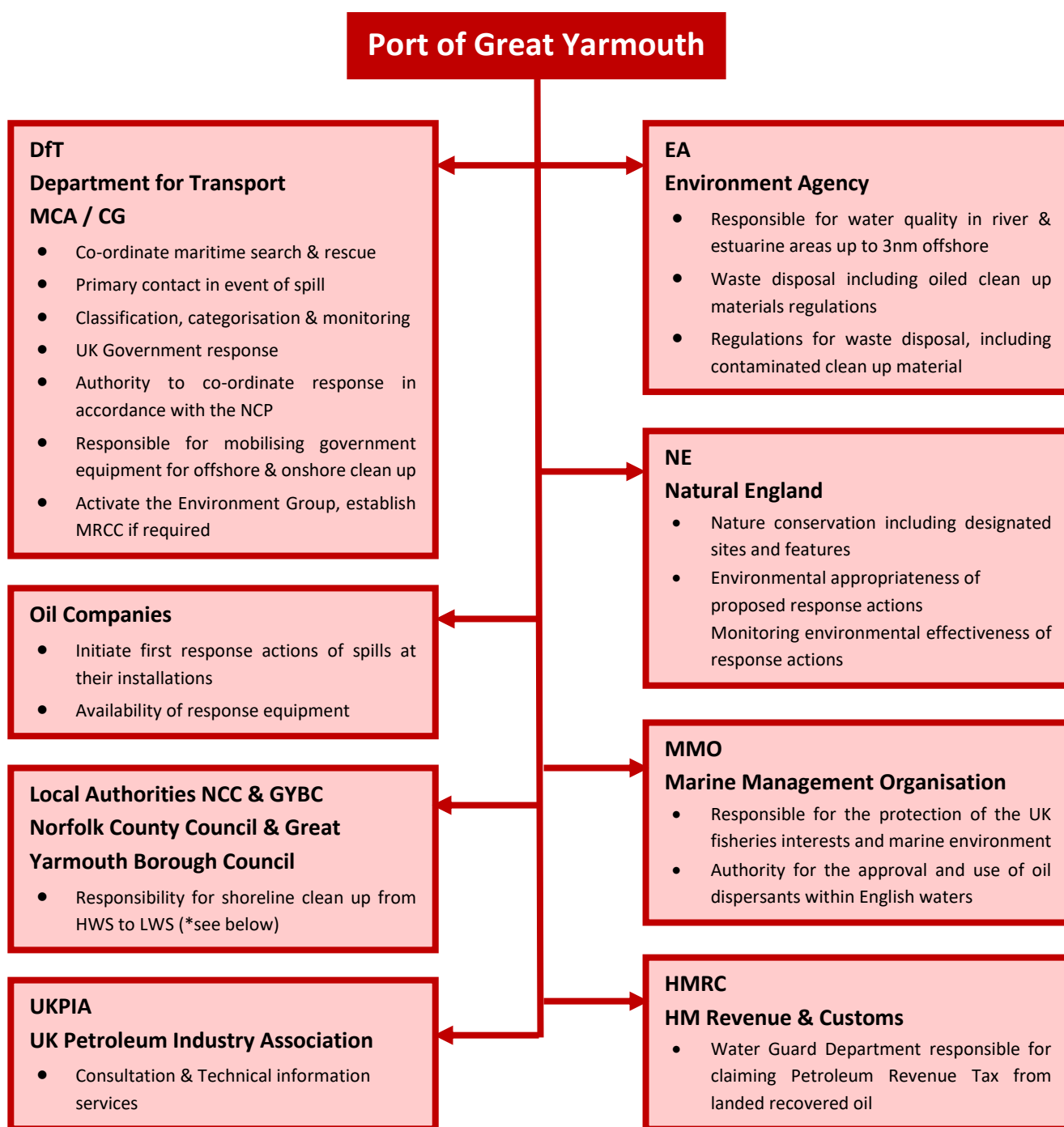
In the event of an incident requiring salvage operations the Secretary of State's Representative (SOSREP) will decide whether it is necessary to set up a Salvage Control Unit (SCU). If the size of the incident merits the establishment of a SCU, the SOSREP will travel to the scene at the appropriate time. Upon establishment of an SCU, PPGY will become an active member of the SCU team liaising with the SOSREP throughout the course of the incident. Members of the SCU are likely to include:

- SOSREP;
- the Salvage Manager from the salvage company appointed by the ship-owner;
- Port of Great Yarmouth, if the incident involves the Port or its services;
- a single representative nominated by agreement between the ship-owner and the insurers (for both the physical property and their liabilities);
- a CPSO;
- an Environmental Liaison Officer, nominated by the Chair of the Environment Group; and
- if SOSREP decides to appoint one, SOSREP's personal salvage advisor.

Under the OPRC 1990 the SOSREP has the powers to establish an environmental group where Appointed Environment Liaison Officers (ELOs) will provide environmental and public health advice to the response centres and the relevant authority.

3.7 Liaison Procedures with Other Agencies

Rapid passing of information to other affected agencies is essential for effective response. Shown below are agencies concerned and their roles.



*** Shoreline Clean-up Responsibilities (due to the updated NCP, September 2014)**

The responsibility for the clean-up of the shoreline lies with the District or Unitary Authority within whose boundary the pollution has landed (or foreshore owner). The Harbour Authority is responsible for clean up within its waters. Overall coordination of the incident is the responsibility of the County Oil Pollution Officer (COPO) in liaison with the affected district/unitary council, the Maritime and Coastguard Agency (MCA) and any other organisation required.

As per the arrangements in the updated National Contingency Plan, Civil Contingencies Act (CCA) coordination structures will be utilised. The response will be dependent on the category of incident, please see below:

Tier 1

- Response can be managed within the capability and resources of the local authority
- Local response plans will be utilised, and the lead responder identified
- Media will be handled locally with partner agencies and coordinated by the lead responder
- Local coordination group may be required, this would be a dynamic decision made at the time of the incident

Tier 2

- Tier 2 response plans would be required, and local plans would be utilised
- A Strategic Coordinating Group (SCG) would be convened in the response phase, the SCG would manage the strategic decisions required to bring the incident under control. The SCG may be supported during the response phase by a Tactical Coordinating Group (TCG) the TCG would deliver the work set by the SCG
- The SCG will include a Science and Technical Advice Cell (STAC)/Environment Group (EG) (note that STAC and EG will likely combine under the new arrangements) and Strategic Media Advisory Cell (SMAC)
- It is likely that for shoreline clean-up a Recovery Working Group (RWG) would be established to support the SCG in managing the clean-up, the SCG would hand over to a Recovery Coordinating Group (RCG) post response phase
- The RCG would manage the recovery and clean-up phase of the incident
- The Local Authority would not lead a Tier 2 incident in PPGY area but would request contact and to be kept informed about the incident and wider area issues. However, the Local Authority would liaise as a partner agency and take actions alongside the plan, using their own procedures in relevant areas of responsibility.

Tier 3

- Would be determined by the National Competent Authority
- All relevant category 1 responders would be involved

As with a Tier 2 incident an SCG/TCG/RWG structure would likely be employed with an RCG established post response

Section 4. Response Strategies

4.1 Health and Safety

It is essential that an effective health and safety management plan be maintained at all levels throughout oil spill clean-up operations.

Statutory Duties - Applicable Statutory Law and its Implications

The Health and Safety at Work Act 1974 places a clear duty on all employers and persons responsible for premises to ensure that the workplace is safe and in the case of the employer, to have a safe system of work. This duty is placed regardless of whether the workers are employees, sub-contract workers, temporary workers or self-employed persons.

Implementation of the Health and Safety at Work Regulations 1999 requires that all employers carry out suitable and sufficient Risk Assessments of all tasks to be undertaken in the workplace. Where five or more employees are employed then the Assessment is to be recorded and those at particular risk must be informed accordingly. These same regulations require that the employer executes a Safety Management System and that measurement of performance against standards is made. All employees must receive adequate training, information and supervision additionally, there is a requirement for all employees to receive suitable and sufficient health surveillance to ensure that they are fit to carry out the work and that the work and conditions do not cause them adverse effect.

The Provision and Use of Work Equipment Regulations 1998 requires that all equipment provided for use at work is safe and fit for purpose. The persons using the equipment must be adequately trained in its use and the operation must be properly supervised.

The Personal Protective Equipment Regulations 1992 requires that all equipment provided is fit for purpose and the persons using it are trained in its use and that all associated risks are recorded, controlled and pointed out to those affected.

The Manual Handling Regulations 1992 requires that all work where lifting, pulling and pushing is involved, is assessed and all risks to the health and safety of those involved are reduced to a level as low as reasonably practicable.

The Control of Substances Hazardous to Health Regulations 2002 requires that all substances to which a worker may be exposed, including dusts and gasses are properly assessed and the risks to health reduced to a safe and acceptable level.

Site Safety Plan

To achieve a Safe Operations, those in charge of the Response must follow those generalised parts of the Contingency Plan, which apply in all circumstances. Additionally, they must have available the means to prepare those elements of the Plan which are Site and Response Specific.

The Site Safety Plan is intended to prevent uncontrolled incidents occurring which may cause further damage to the environment or loss due to damage, injury or illness. The Site Safety Plan should comprise the following sections:

- a. Site Survey
- b. Operations Analysis
- c. Site Control
- d. Logistics and Supplies
- e. Personnel

Each Section should be addressed jointly and separately before work commences and the appropriate steps taken to ensure that requirements are adequately met.

a) Site Survey

A Site Survey Form should be available, which when followed correctly will add all of those site unique details which assist in the decision-making process and remind staff of essentials which might otherwise be omitted. The Site Survey should address the safety of those personnel taking part in the clean-up as well as those members of the public who may also be involved. The following list indicates a few of those subjects which, should be assessed and reported in the survey. The list is by no means exhaustive.

- Communications Requirements
- Exposure to Temperature
- Feasibility of handrails or ropes
- Hazards to the eyes
- Lack of or shelter from weather
- Lighting conditions
- Machinery usage
- Manoeuvrability
- Manual handling
- Pedestrian traffic
- Requirement to access confined spaces
- Sample collection
- Terrain surface and incline
- Vehicle traffic
- Visibility
- Water Hazards

b) Operations Analysis

Having surveyed the site and assessed the aspects which are influenced by the terrain, water conditions, and other pertinent factors. The on-scene commander will assess the way in which the operation is to be conducted. The intention to use the following facilities can be stated and the reasons for and priorities of each facility established.

- Booms and Skimmers
- Cranes
- Boats
- Breathing apparatus
- Detergents
- Forklifts
- Hoses and Pumps
- Low loaders
- Motor vehicles
- Raking and sweeping gear
- Winches

c) Site Control

It is essential that those in charge of the spill clean-up have control of the site as soon as possible and before any significant part of the clean-up operation begins. Access to the site must be restricted to those personnel who are essential to the clean-up operation. Arrangements must be made for the area to have a barrier, closed and policed such that no one can enter the work area without reporting to the site supervisor. No workers should be allowed on site until they have received the full vetting and briefing with respect to the Safety Assessment.

d) Logistics and Supplies

Specifically with respect to safety, it should be ensured that the appropriate equipment, materials and substances are available at the required times. Particular attention should be paid to the availability of the various sizes of protective clothing required. This sometimes cannot be established until the members of the workforce have been detailed and their individual roles and tasks decided.

Consideration must be given for a prolonged clean-up operation possibly stretching to 24 hours operations. In which case shelter, accommodation, feeding, refreshment, rest areas, sanitation and first aid, must be available. Where training has to be delivered prior to work commencing, the necessary instructors and equipment must be available before work commences. It is an error to allow experienced workers to commence work whilst others are waiting for training.

Protective Clothing. If the weather is at all inclement, the protective clothing issued to workers must be warm, water and chemical-proof. It should include coveralls, gloves, boots, eye protection and headgear. If the weather is warm, the use of the same protective clothing may be necessary, but the requirements for ventilation and cooling will be greater.

Personal Protective Equipment (PPE)

- Breathing Apparatus including Respirators
- Flotation Suits and Vests
- Gloves/Gauntlets
- Protective Clothing

- Goggles, Visors and Safety Glasses
- Hard Hats
- Insulated Clothing
- Reinforced Boots, Shoes and Gloves

First Aid. The Health and Safety (First Aid) Regulations 1981, together with the New Code of Practice on First Aid, lay down the requirements for trained first aiders and the equipment that must be provided. A foreshore clean-up is considered as a special circumstance and the appropriate extra provisions should be considered.

e) Personnel

Selection of personnel to carry out the clean-up must be dominated by safety considerations.

Safety on the Water

Agreements with the Coastguard should be reviewed and complied with in respect to water safety. If relevant, responders should be informed of any nearby vessels operating in their area together with all necessary detail. Work in line with the Port Marine Safety Code.

Protective Clothing. Workers operating from sea-going vessels should be equipped with harnesses built to BS 1397. They should, at all times, wear a self or automatic inflating lifejacket.

Safe Operations

Risk Assessment

Hazard Identification. The identification of all hazards at a worksite or spill location is a singular task that should be done by involvement of the people who are expected to carry out the work. The supervisor responsible for co-ordinating the risk assessment should ensure that all hazards are identified before the next step in the process is attempted. A hazard is an object, place, process or circumstance with the potential to do harm in the form of injury, damage, delay or pollution.

Decontamination

Conditions requiring decontamination

Where workers have been wearing waterproof and protective clothing, it is likely that the clothing will become contaminated by oil or chemicals that might have been used during the clean-up operation. The clothing needs to be cleaned to prevent further contamination. Facilities for such cleansing should be made available either near to rest or feeding areas or close by, but clear of the work site.

Personal hygiene practices on the job

Workers should be instructed on the dangers of ingesting hydrocarbons and chemicals through contact of contaminated equipment or clothing, such as gloves via the mouth and nose. Facilities for removing protective clothing and washing before consuming food or smoking should be made available.

Decontamination Area Drainage

The decontamination area where clothing and personal equipment is cleansed should be arranged so that cleansing water and contaminants are drained into tanks. Care should be taken to ensure that contaminated waste does not drain into either the normal drainage system or into the soil under the decontamination area.

Disposal of Contaminated Clothing

Clothing, which is not fully washable or capable of having all traces of contaminant removed, may need to be disposed of safely. Such clothing may comprise special or hazardous waste. If incineration facilities do not exist at the site, the clothing may need to be bagged in suitable containers, stored within an identified temporary holding area before discussing with the Local Authority a suitable disposal route.

4.2 Oil Spills

Introduction

An oil spill can occur almost anywhere - a leakage or accident during transportation or during use, which can affect many areas including sea, coastlines, ports, harbours and land.

Oil contains a variety of different types of hydrocarbons. The exact composition is dependent upon its origin. Oil may also contain a variety of impurities such as sulphur and nitrogen products. Generally, oil is of relatively low toxicity; however, this is dependent upon the properties of the source oil. The route of human exposure is via inhalation, skin absorption and potentially ingestion.

Oil when released in a spill will be subjected to various actions:

- Spreading
- Evaporation
- Oxidation
- Dissolution
- Emulsification
- Microbial degradation

The effect of all these actions is to reduce the original oil volume by evaporation but increase it by emulsification, also reduce its flammability and its toxicity. The rate of these actions is dependent upon the physical composition of the oil and environmental conditions prevailing at the time. Therefore, to be able to effectively combat a spill these factors must be known.

Response to Oil Spills

Oil spill within the Port area

Oil spilled within the Port area will be recovered wherever possible using Tier 1 equipment held by PPGY. Personnel should be trained to MCA level 1, if necessary, owners can mutually assist each other. In the event that a larger spill occurs it will be recovered and disposed of by the accredited contractor nominated in Section 10 who will be able to respond within 4-6 hours utilising equipment shown in Section 11. Waste arising will be legally carried for disposal by Ambipar. Consideration as to the effectiveness of the above will need to be considered and will depend on the tidal regime and the time of the spill.

Most small oil spills (gas oil) would likely be allowed to evaporate and disperse naturally. Where heavy concentrations were threatening a sensitive area, boats capable of sweeping the oil with booms will be mobilised if available to do so. In order to reduce the amount of oil liable to impact the dock or wider area, collection and

recovery would be undertaken. Any action taken would be with the advice of the relevant stakeholders in the plan (i.e. NE, EA).

Due to the high speeds of local currents, the consequential shoreline clean-up would be carried out mechanically with booms and skimmers. Deflection booms would be used to protect environmentally sensitive areas. Spills of IFO or HFO in the Outer Harbour would require active mechanical clean-up both on the water and shoreline. The port company has pilot boats and workboats available at all time to tend booms and participate in clean-up operations.

Oil spill sampling

Samples of the spilt oil should be taken as soon as possible before the oil has weathered. These samples may be required as evidence in legal proceedings. Guidance in the matter of collection samples is given in MCA STOP Notice 4/2001.

Oil quantity estimation guide

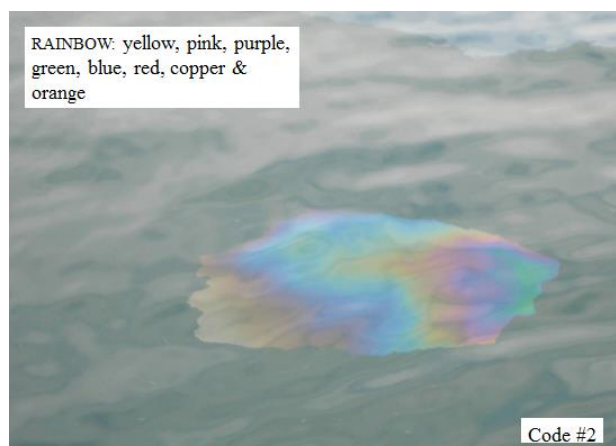
The quantity of spilt oil may be estimated using the following oil quantity table taken from the Bonn Agreement Oil Appearance Code (BAOAC). This should be used to estimate the amount of spilt product if direct information is not available. The table below details the BAOAC colours; calculation of the volume of spilt oil from the appearance of film on the water is as follows:

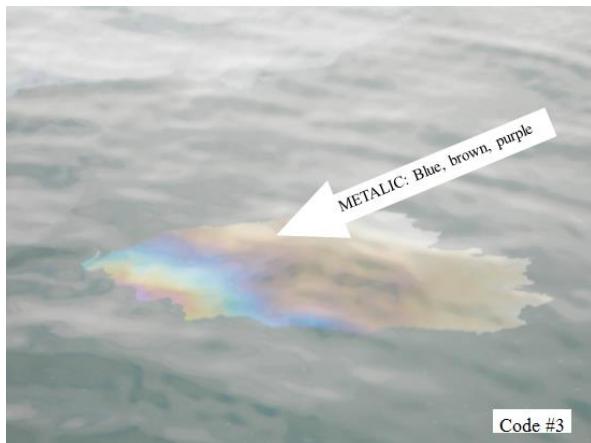
- a. Estimate total size of the area as a square/ rectangle in km
- b. Assess the area affected by the slick in km² calculated as a % of the total area
- c. Estimate the area covered by each colour, calculated as a % of the total area affected
- d. Multiply the area covered by each colour by the appropriate BAOAC
- e. Adding all of the colour figures will give the total quantity of oil in m³ within the slick

Table 12: Bonn Agreement Oil Appearance Code- Quantification by Colour

	Code	Appearance	Thickness layer (mm)	Litre per km ²
Optic range	1	Silver and grey	0.00004 – 0.0003	40 – 300
	2	Rainbow	0.0003 – 0.005	300 – 5,000
	3	Metallic	0.005 – 0.05	5,000 – 50,000
	4	Discontinuous true colour	0.05 – 0.2	50,000 – 200,000
	5	Continuous true colour	0.2 - >0.2	200,000 – >200,000

Table 13: Examples of Appearance Codes





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4.3 Disposal Plan

All waste arising from an oil spillage will be handled systematically and strictly in line with the current Regulations. Policy and instructions are identified in Section 1.9. A waste disposal action checklist is shown in Part 2 Section 8.3.

Within the resources of the Plan, initial holding and storage will be possible through use of portable storage tanks as listed in Part 3 Section 11 and thereafter the oil will be disposed of using a local licensed contractor.

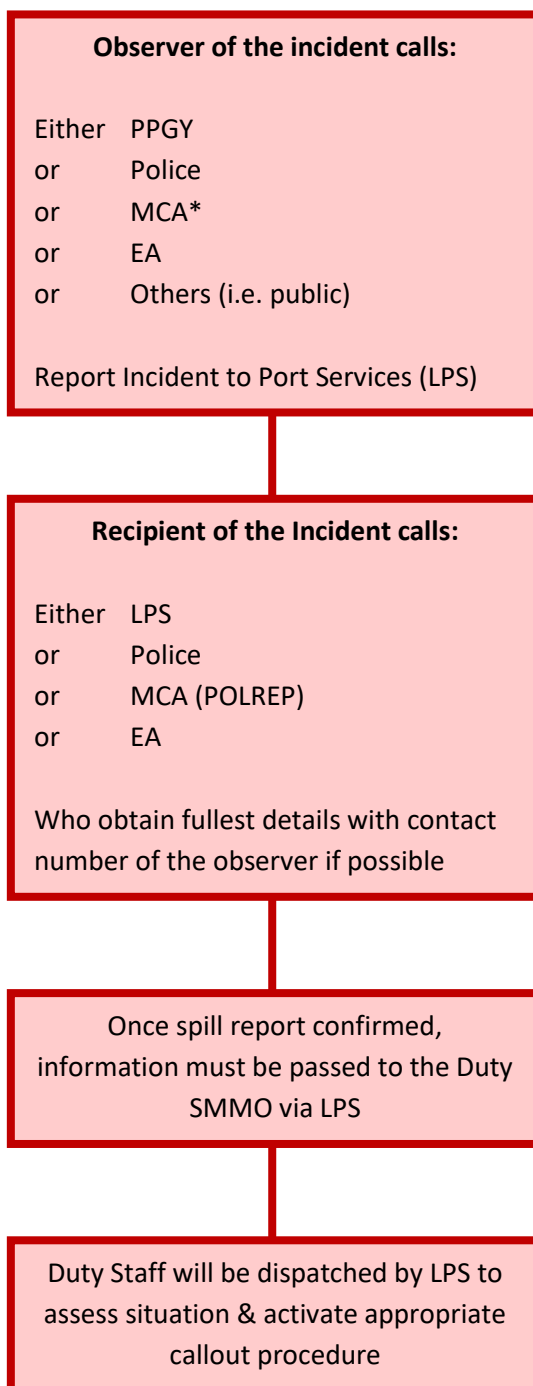
In the event of a Tier 2 or Tier 3 spill responses, the legal disposal of recovered oil will be undertaken, through a disposal route agreed with the EA, on behalf of PPGY. This will be managed by the Port’s nominated oil spill contractor (Ambipar) duly accredited to Level 3 under the EA / UK Spill Association.

Material Safety Data Sheets (MSDS) of common products encountered at PPGY are kept in the Harbour Office (i.e. MGO).

Part 2 – Actions & Operations

Section 5. Action Sheets

5.1 Observer of the Incident



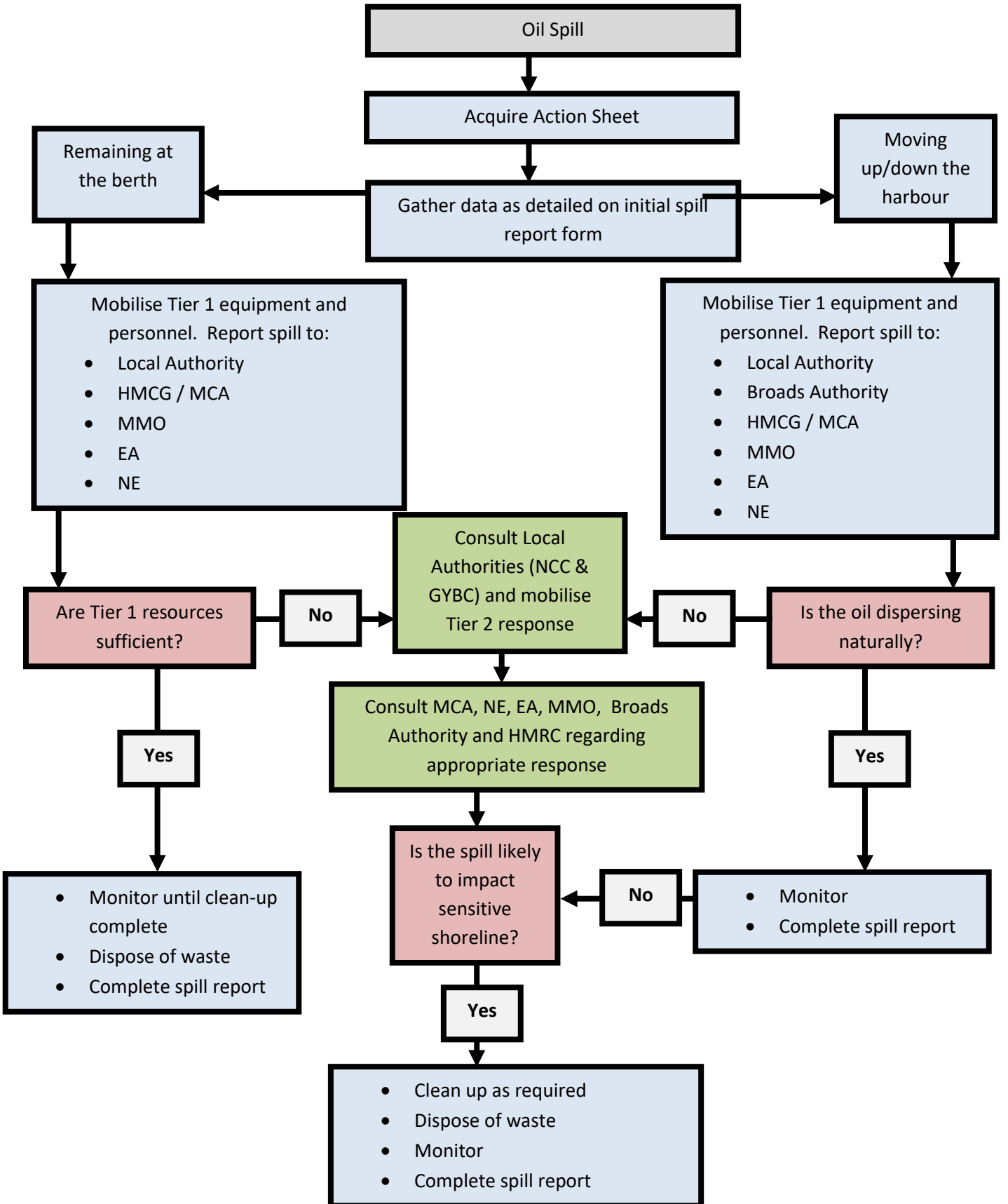
*MCA contact is HMCG MRCC Humber

5.2 Information to be obtained as Initial Spill Report (likely to be completed by LPS)

Date and Time:	
Name of person reporting incident:	
Call back number:	
Location of the Incident:	
Estimated quantity of spilled oil:	litres/tonnes
Type of oil spilled:	
Action taken to prevent further spillage:	
Other relevant information:	
Contact Address:	

5.3 Great Yarmouth Marine Manager(s)

Initial response upon notification of a spill



Action Sheet

In the event of a call out requirement, the following action sheets should be used as a check list to ensure proper cover of all aspects of response.

Duty Marine Manager		
No	Action	Refer to
1	Obtain all available information regarding the spillage and ensure that an Incident Log has been started.	Incident log sheet section 8.1 - 8.2
2	Go to spill site to confirm the spill quantity and determine the initial level of manpower and equipment resource mobilisation required.	Tiered response Section 4.2 & 11
3	Attempt to contain the oil and report to Port Staff as appropriate.	
4	Report the spill to Local Authorities, EA and NE (and other relevant organisations that may be affected).	
5	Contact CG / MCA to inform them of spill in accordance with the notification matrix and inform them that the POLREP will follow in due course.	Statutory notification section 6.1 & 8.1
6	Fill in the POLREP Report Form and forward to MCA for submission to statutory bodies.	POLREP Report form section 8.1
7	Call-out additional response personnel ensuring appropriate PPE is available.	
8	Ensure that a sample of spilt oil is taken, especially when the origin of the spill is unknown or legal proceedings are liable to be taken.	MCA STOP Notice 4/2001
9	Constantly monitor situation and obtain SITREPs from OSC.	
Tier 2 and 3 Incidents		
10	Inform Local Authorities, EA and NE of decision to mobilise Tier 2 response contractor.	
11	Set up Marine Response Centre (MRC) / Activation of the Strategic Co-ordinating Group and the Tactical Co-ordinating Group via the Local Authority. <i>N.B. An MRC would be set up by the MCA to deal with an oil spill which has occurred offshore, while the Strategic Co-ordinating groups would be set up to deal with an oil spill which has/may reach land.</i>	
12	Contact oil spill response contractor and agree primary level of response required.	Resources directory section 11
13	Start and maintain an accurate log of all communications with the oil spill response contractor.	
14	Establish communication link with the oil spill response contractor duty manager and issue a call back number.	
15	Determine extent of incident in terms of: <ul style="list-style-type: none"> • Casualties • Safety hazards • Damage to facilities • Pollution extent • Result of any action taken so far 	

16	Brief oil spill response contractor site supervisor of actions as appropriate.	
17	Establish review/planning meetings. Continue normal communications and ad-hoc reporting.	
18	When incident stood down, confirm incident closure with all agencies involved.	
19	Complete incident log and ensure receipt of report from response supervisor.	

Senior Manager Marine Operations		
No	Action	Refer to
1	Obtain briefing from Duty MMO with SITREP and then relocate to Port office if required.	
2	Where appropriate, advise the Port Director of developments.	
3	Assess incident in terms of people, environment, damage to facilities and disruption to business.	
4	Approve outline response strategy.	Response strategy section 4.2
5	Approve immediate and future contracted equipment requirements.	Tiered resources section 11
6	Liaise with Environment Group (if appropriate)	

Port Director		
No	Action	Refer to
1	Arrange initial Public Relations programme.	Utilise advice and initial statement section 9.1
2	Attend review meetings in the Marine Response Centre.	

Escalation of Response

In the event that a response escalates to Tier 2 or Tier 3, sufficient personnel must be mobilised to establish an incident centre and a room must be made available to meet with personnel from external agencies. The SMMO will retain the position of Incident Controller unless any change is agreed with the Government Agencies involved. If the response is likely to become protracted, the SMMO (or Deputy) must make arrangements for the incident centre to be managed and run according to the needs of the response team. This may entail providing catering and accommodation arrangements locally. In the event that outside contractors are employed to assist with the clean-up, due notice must be taken of the Health and Safety Policy contained in Section 4.1 of this Plan.

Section 6. Communications

6.1 Notification Matrix

Organisation	Oil spill tier			For contact numbers, see section 10 – Contact directory	
	1	2	3	Method	Remarks
PPGY	t	t	t	telephone	
MRCC Humber	t/e	t/e	t/e	telephone and email	Coastguard will require information on the oil spill report form in section 8.1. Confirm detail with email by completing POLREP proforma.
NE	t/e	t/e	t/e	telephone and email	Telephone all spills. Contact if spill exceeds one tonne.
EA	t	t	t	telephone	Contact if spill has originated from land based source
MMO	t	t	t	telephone	
Norfolk County Council	t	t	t	telephone	
Great Yarmouth Borough Council	t	t	t	telephone	
Broads Authority		t	t	telephone	
Ambipar Response		t	t	telephone	Contact the 24 hour contact number and ask for the Duty Manager.

t: notify immediately by telephone

e: notify immediately by email

 notify during normal working hours

Types of Shoreline (and environmental sensitivities index category)	Shoreline Clean-up Technical Decision Chart											
	Response Technique											
	Natural Recovery	Mechanical recovery using pumping and vacuum equipment	Mechanical recovery using beach cleaners	Mechanical recovery using plant machinery	High Volume Low Pressure cold water flushing	High Pressure Washing	Manual Clean-up	Surf Washing	Sorbents	Dispersant / Surface Cleaners	Protection booming and deflection / collection booming	Trilling / Harrowing / Ploughing
Exposed Rocky Shores (ESI 1A)	●	●	●	●	●	●	●	●	●	●	●	●
Exposed Solid Man-Made (ESI 1B)	●	●	●	●	●	●	●	●	●	●	●	●
Exposed rocky Cliffs with Boulder Talus Base	●	●	●	●	●	●	●	●	●	●	●	●
Exposed Rocky Platforms (ESI 2A)	●	●	●	●	●	●	●	●	●	●	●	●
Fine-Medium Sand Beaches (ESI 3A)	●	●	●	●	●	●	●	●	●	●	●	●
Scarps And Steep Slopes In Sand (ESI 3B)	●	●	●	●	●	●	●	●	●	●	●	●
Course Sand Beaches (ESI 4)	●	●	●	●	●	●	●	●	●	●	●	●
Mixed Sand And Gravel (ESI 5)	●	●	●	●	●	●	●	●	●	●	●	●
Gravel Beaches (ESI 6A)	●	●	●	●	●	●	●	●	●	●	●	●
Riprap Structures And Gravel Beaches (ESI 6B)	●	●	●	●	●	●	●	●	●	●	●	●
Exposed Tidal Flats (ESI 7)	●	●	●	●	●	●	●	●	●	●	●	●
Sheltered Scarps And Rocky Shores (ESI 8A)	●	●	●	●	●	●	●	●	●	●	●	●
Sheltered Solid Man-Made Structures (ESI 8B)	●	●	●	●	●	●	●	●	●	●	●	●
Sheltered Riprap (ESI 8C)	●	●	●	●	●	●	●	●	●	●	●	●
Sheltered Rocky Rubble Shores (ESI 8D)	●	●	●	●	●	●	●	●	●	●	●	●
Sheltered Tidal Flats (ESI 9A)	●	●	●	●	●	●	●	●	●	●	●	●
Vegetated Low Banks (ESI 9B)	●	●	●	●	●	●	●	●	●	●	●	●
Salt And Brackish Water Marshes (ESI 10A)	●	●	●	●	●	●	●	●	●	●	●	●
Freshwater Marshes (ESI 10B)	●	●	●	●	●	●	●	●	●	●	●	●
Mangroves (ESI 10D)	●	●	●	●	●	●	●	●	●	●	●	●

● Preferred

● Possible

● Avoid

6.2 Communication and Reporting

Reporting of Oil Pollution

It is essential that all spills are reported by whatever means as quickly as possible.

- a) Responsibility for reporting of oil pollution rests with the Master in all cases involving a vessel and with the berth Operator in the case of a berth or quayside incident. In cases involving a vessel alongside both parties are equally responsible.
- b) Any person either ashore or afloat, seeing oil pollution on the water within the Port Authority's jurisdiction or liable to pose a threat to it, should report it whether or not the source is known (section 5.1).
- c) The SMMO is responsible for ensuring mandatory notifications are made (section 3.6).

Communication

It is essential that all spills are reported, by whatever means, as quickly as possible. Responsibility for reporting oil pollution rests with the Master in all cases involving a berth operator in the case of a berth quayside incident. In cases involving a vessel alongside, both parties are equally responsible. Any person either ashore or afloat, seeing oil pollution on the water within the Harbours jurisdiction or liable to pose a threat to it, should report it whether or not the source is known.

Being a relatively small-scale operation, and with the limited number of persons involved, initial reports will be passed by telephone, primarily landline. Should personal mobile phones be used, consideration must be given to security level. In the event of escalation primary communications will be augmented with assistance from other agencies. In the event of a clean-up operation, a shift system will be instituted to ensure the main switchboard is manned on a 24 hour basis.

Records

It is essential that all events occurring during an incident are logged and recorded (sheet shown in Section 8.2). This will help if liability, compensation or reimbursement issues arise as a result of the incident. To achieve this, all key personnel should keep logs.

Entries in the log should detail as a minimum, events, actions taken, communications with outside Agencies, decision made and points relevant to the operation.

These logs should be forwarded to the PPGY SMMO once the incident has ended to form part of the final incident report and provide the basis for a "wash-up" meeting.

Section 7. Sensitivity Areas Response Information

7.1 General Information

Sensitive areas that should be considered in the clean-up operation include Breydon Water, North Denes SPA, Winterton-Horsey Dunes and the Outer Thames Estuary SPA. These are mentioned in detail within Section 1.8. Within these sensitive areas is a variety of rare fauna and flora of high importance locally and in some cases internationally.

Recommendations

Removal should particularly be attempted where this may significantly reduce the possibility of quantities of oil coming ashore on identified sensitive areas. Floating sorbents should be used where necessary to prevent oil coming ashore and to reduce the amount of oil on the water.

If oil comes ashore, it should generally be removed manually (not mechanically). It may have to be left to degrade naturally. If particularly sensitive areas are under threat, it is sometime possible to place booms in a strategically position to deflect the oil away from the area. If this strategy is employed, care should be taken on deciding where to place the booms and their configuration. Booming should only be undertaken by trained personnel, otherwise there is a grave risk that the boom will fail.

Table 14: Recommendations and Avoidances for Differing Shorelines

Type of Beach	Recommendations
<i>Sandy</i>	<i>Avoid over cleaning or removing more sand than necessary. Removal may increase beach erosion and increase disposal problems.</i>
<i>Pebble Shingle</i>	<i>Avoid spreading oil into unoiled, sensitive lower tidal zone. Avoid changing the beach profile. Avoid removing large volumes of substrate. Avoid pushing the oil further into the substrate. Avoid oiling adjacent habitat. Avoid physical disturbance to vegetated shingle ridges above high water mark. Restrict the number of access routes for machinery across the pebble shingle. Use appropriate matting where required (if designated feature seek advice from Natural England).</i>
<i>Rocky</i>	<i>Avoid excessive foot traffic on sensitive areas. Danger to manpower from tides, slips and falls. The use of heated or freshwater. Avoid washing the oil into the ecologically sensitive lower tidal zone. Avoid removing bedrocks.</i>
<i>Boulder</i>	<i>Avoid overloading plastic sacks, ensure bags are double thickness. Avoid the removal of the substrate. Avoid changing the beach profile. Avoid unnecessary disturbance to ecologically sensitive 'under boulder' communities.</i>

7.2 Tidal Data

In Yarmouth Roads, the flood tide run south, the ebb northwards. Outside of the entrance the flood stream runs south; past the Outer Harbour and past the River Entrance, then sweeps back running north-east past Gorleston Pier roundhead. The tide then meets the South Breakwater and splits. Part of the flow turns westward, entering the river. The remainder follows the South breakwater before re-joining the south going stream. The outgoing ebb tidal stream seawards from Brush Bend, a part of the ebb sweeps round to the south east before joining the north going stream rounding the south breakwater and passing the Outer Harbour entrance.

Slack water does not occur at the actual time of High Water or Low Water. In general, slack is about one and a half hours after High Water and about two hours after Low Water.

During, and after, heavy rain in the rivers catchment area, the rate of the outgoing stream is increased and can run continuously for 18 hours; the flood stream is correspondingly reduced.

The time of High Water at Burgh Castle and the Lower Bure moorings is circa one hour after High Water at the entrance.

In the Bure confluence area, the River Bure can continue to ebb whilst the tide is flooding in the River Yare.

<i>(To be given if the polluter cannot be identified and the spill is considered to be of recent origin)</i>	
I. Photographs taken: <i>(*delete as necessary)</i>	*yes / *no
Sample taken for analysis: <i>(*delete as necessary)</i>	*yes / *no
J. Remedial action taken / intended to deal with spill:	
K. Forecast of likely effect of pollution:	
<i>(e.g. arrival on coastline with estimated timing)</i>	
L. Names of those informed other than addresses:	
M. Any other relevant information:	
<i>(e.g. names of other witnesses, references to other instances of pollution pointing to source)</i>	
Part 2 – Supplementary information to be provided later <i>(this part may be disregarded when POLREPS are for UK internal distribution only)</i>	
N. Results of sample analysis:	
O. Results of photographic analysis:	
P. Results of supplementary inquiries:	
<i>(e.g. Inspection by surveyors, statements from ship’s personnel, etc. if applicable)</i>	
Q. Results of mathematical models:	

8.2 Incident Log Sheet

Incident Information							
Date:							
Incident Name:							
Date and Time Incident Occurred:							
Incident Location:							
Affected Asset/facility/vessel:							
Nature of Incident:							
Description of Incident:							
Status of Personnel:	POB:			Accounted for:			
	Unaccounted:		Injured:		NVS:		
Facility Evacuation:							
Status of Source:							
Pollution Product:							
Volume/Quantity Spilt:							
Quantity Still at Risk:							
Location/Weather Information							
Time:							
Weather:							
Sunrise:				Sunset:			
Low Tide:				High Tide:			

Section 9. 8.3 Incident Status Update

Incident Status Update		
Incident Name:		
Time of Last Update:		
Status of Source:		
Volume/Quantity of Pollutant Recovered:		
At Sea:		
Shoreline:		
Other:		
Impact to Shoreline:		
Location/s:	Estimated Volume/Quantity:	
Impact to Wildlife:		
Species:	Location:	Recovered:

Section 10. 8.4 Environmental and Socio-economic Considerations

Environmental and Socio-economic Considerations
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Name	Location	Considerations

8.3 Waste Disposal Action Checklist

Oily Waste Generated from a Shoreline Clean-up Operation

a) Direct Transportation to Appropriate Disposal Site for Burial

1. Identify suitably licensed waste carrier to remove material from site.
2. Confirm with waste carrier the disposal route and ultimate disposal site.
3. Liaise with EA to ensure that the disposal strategy is acceptable.
4. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

b) Temporary Storage / Clean, Treat, Stabilise, Recover, Reuse

1. Discuss requirement to establish temporary storage sites along the shoreline with EA, the Local Authority and the NE.
2. If agreed, identify temporary storage sites in close liaison with EA, NE and Local Authority.
3. Instruct Oil Spill Response Contractors to construct temporary storage sites. Area to be isolated, outlets and drains plugged, membrane laid, bunded area created, skips set or lagoons lined.
4. Identify suitably licensed waste carrier to remove material from site.
5. Confirm with waste carrier the disposal route and ultimate disposal site.
6. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

c) Temporary Storage and then to Appropriate Disposal Site for Burial

1. Discuss requirement to establish temporary storage sites along the shoreline with EA and the Local Authority.
2. If agreed, identify temporary storage sites in close liaison with EA and Local Authority.
3. Instruct Oil Spill Response Contractors to construct temporary storage sites. Area to be isolated, outlets and drains plugged, membrane laid, bunded area created, skips set or lagoons lined.
4. Identify suitably licensed waste carrier to remove material from site.
5. Confirm with waste carrier the disposal route and ultimate disposal site. Liaise with EA to ensure that the disposal strategy is acceptable.
6. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

d) Take to a Refinery/Incinerator (mainly for oily liquids only)

1. Identify suitably licensed waste carrier to remove material from site.
2. Identify suitable facility to receive waste.
3. Confirm with waste carrier the disposal route and ultimate disposal site.
4. Liaise with EA to ensure that the disposal strategy is acceptable.
5. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

Oily Liquids Recovered at Sea and Held on a Dedicated Oil Recovery Vessel

1. Notify HM Revenue and Customs that you intend to land recovered oil.
2. Identify suitable oil handling plant (refinery) to receive the waste.
3. If 2 is not available identify a harbour with a suitable berth for handling oils.
4. Identify a suitably licensed waste carrier to take the oily liquids off the vessel.
5. Confirm the disposal route with the waste carrier.
6. Notify Regulator and confirm that the identified disposal route meets with their satisfaction. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.
7. The removal of landed ships waste that is Hazardous Waste to:
 - a. conveyance for transport outside the harbour area.
 - b. reception facilities within the harbour area.
 - c. by pipeline to reception facilities outside the harbour All require to be consigned. However, there is no requirement to pre-notify these movements and consignment notes can be SC coded.
 - d. all oil wastes including fuels, mixtures, emulsification and spills are classed as Absolute Entries in terms of the regulations therefore there is no longer any percentage threshold of carcinogenic compounds; they are now Hazardous Waste regardless. All waste oils with the exception of edible oils are considered Hazardous Waste irrespective of their composition, biodegradability, synthetic nature or otherwise. There is no longer any threshold applicable to consider whether they are Hazardous Waste or not.

Notify Regulator and confirm that the identified disposal route meets with their satisfaction. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

Section 11. Press & Public Information

9.1 Press Statement

In the event of a pollution incident, it will be necessary for an efficient and comprehensive information service to be brought into action so as to:

- Deal professionally with the representatives of the media.
- Co-ordinate and release information to the general public regarding the pollution incident and the PPGY response to it.
- Keep staff and involved personnel informed of developments regarding the progress of the incident; in so far as it affects their responsibilities.
- Minimise the pressures on those directly concerned with combating the spill.

Responsibility for media relations needs to be clearly understood and who will be required to respond. The responsibility for designating a member of staff to brief the press and act as liaison officer is that of the Port Director. In the event of a major incident, the media response will be handled by Peel Ports nominated PR consultancy (The Big Partnership).

For guidance it would be expected as follows:

- Tier 1 spill – PPGY involvement only.
- Tier 2 spill – Local Authority and PPGY involvement (and potentially Broads Authority).
- Tier 3 spill – Activation of the Strategic Co-ordinating Groups with MCA Press Office staff in attendance.

It is essential that the media are provided with a “balanced” view of the incident and actions taken. Remarks like “No comment” only increase rumour and fuel unnecessary speculation. Below is the format of an Initial Press Statement that could be used by a responsible PPGY Manager pending full details becoming available and a press release issued. The responsible manager or his deputy will form part of the emergency response team and will provide information to the emergency response team leader on media issues associated with the response. In addition, the manager will arrange news conferences/interviews, prepare ongoing press releases and monitor inaccuracies that might be corrected in subsequent press releases.

Initial Press Statement

“Peel Ports Great Yarmouth can confirm that an incident has occurred (state where and give brief description) at approximately (give time)hours today.

Emergency response procedures have been initiated and relevant authorities (have been / are being) advised. All support services are being co-ordinated through the Port’s incident response team and every possible effort is being made both to minimise risk to personnel at the scene and to contain and mitigate any effects.

Further information will be released, (as it becomes available) at a press conference scheduled for time today.”

Part 3 – Data Directory

Section 12. Contact Directory

Company / body name	Contact	Telephone (office hours)	Telephone (out of hours)	Email
Peel Ports	Port Company Office Great Yarmouth	01493 335500	01493 335511	
	Public Relations	0151 600 5126	07784 235374 07736 298148	laura.berry@bigpartnership.co.uk chris.walker@bigpartnership.co.uk
	Sales and Marketing	0151 9496309	07436 539822	peelportsmarketing@peelports.com
	Farook Khan Legal Counsel	0151 9496029	07770 814541	farook.khan@peelports.com
MCA / HM Coastguard	MRCC Humber	01262 672317	01262 672317	Zone10@hmcg.gov.uk
	Southampton CPSO	07000 405415	07000 405415	
Ambipar 24 hour response	24 hr Emergency Number	01202 653558	07747562646	harrison.jolly@ambipar.com
Marine Management Organisation (MMO)	Spill Response Number DEFRA duty room (to be used during an incident if no reply from MMO)	0300 2002024	07770 977825 0345 0518486	dispersants@marinemangement.org.uk
Norfolk County Council	Emergency Resilience Team Duty Officer	07771 527243	07771 527 243	emergencyops@norfolk.gov.uk
ASCO		01493 848000	01493 848000	info@ascoworld.com
Broads Authority	Control Number	01603 756 056	01603 756 056	broads.control@broads-authority.gov.uk
	Linda Ibbitson-Elks Head of Safety Management	01603 756078		linda.ibbitson-elks@broads-authority.gov.uk

Great Yarmouth Borough Council	Environmental Health Council Main Switchboard James Wilson (Head of Environmental Services) Alan Goulder (Resilience Officer) Gizelle Britton (Commercial Manager)	01493 846478 01493 856100 01493 846852 01493 846218 01493 846413	01493 330369 (ask for duty EHO)	health@great-yarmouth.gov.uk (not monitored 24/7) james.wilson@great-yarmouth.gov.uk alan.goulder@norfolk.gov.uk gizelle.britton@great-yarmouth.gov.uk
Environmental Agency (EA)	Emergency Incident Hotline	0800 807060	0800 807060	incident_communication_service@environment-agency.gov.uk
HM Revenue & Customs (HMRC)	Main National Co-ordination Unit Advice Line	01224 84 4844	08707 853 600 08450 109 000 08702 403 738	
RSPCA			0300 1234999	
RSPB	Wildlife Enquiries Regional Office	01767 680551 01603 660066		
Eastern Inshore Fisheries & Conservation Authority (IFCA)		01553 775321 07385 769305	None	mail@eastern-ifca.gov.uk
Natural England	Marine Pollution	0300 060 1200	0300 060 1200	marine.incidents@naturalengland.org.uk
Waste Disposal Contractors	Local Fast C&L Waste Oil Collection Enviroco Waste Biffa Waste	01508 548 543 01493 442 056 01493 856 722 01215 051 616	07850 668 419	

	East Coast Waste	01493 653 600		
Emergency Services			999	

Section 13. Resources Directory

Tier 1 Peel Ports Great Yarmouth

Resources	
Pilot Station (Yellow Oil Spill Box Located Close to Workshop Door)	
50	Absorbent Pads
2	Bags of Absorbent Granules
10	Disposable Bags
10	Absorbent Mini Booms
At the Pilot Station (Store 'A' - Old Tug Store)	
20	Absorbent Booms (3m x 12.5 cm)
1	Absorbent Roll (1m x 50m)
1	Absorbent Roll (36cm x 36m)
5	Bags of Absorbent Granules
80	Disposable Bags
1	Drain Cover Kit
2	Clay Drain Mat (45cm x 65cm)
Pilot Station Response Kit (Inside Pilot Station Front Door)	
12	Absorbent Pads
2	Absorbent Booms
1	Disposable Bag
Vanguard House (20' Container at Rear of Warehouse managed by landside)	
200m	Oil Spill Boom (200mm dia)
60m	Oil Spill Boom (120mm dia)
1	Roll M-B 2002 (46m x 96cm)
1	Coil Rope (220m x 8mm)
4	Absorbent Pads
12	Bags of Absorbent Granules
50	Disposable Bags and Ties
10	Arcosorb Mini Booms
2	Shovels
2	Brooms
6	Sample Jars
6	Clay Drain Mats (45cm x 65cm)
2	Large Response Kit Containing:- <ul style="list-style-type: none"> • 2 Absorbent Mini Booms • 50 Pads • Boom (3m x 12cm)

Outer Harbour – Oil Spill Container	
600	Absorbent Pads
1	Plastic Shovel
6	Pairs Rubber Gloves
50	Disposable Bags
1	Coil Rope (220m x 8mm)
10	Bags of Absorbent Granules
1	Roll M-B 2002 (46m x 96cm)
20	Absorbent Mini Booms
2	Rubber Drain Covers
2	Oil Pom-Poms
3	Sample Jars
In addition, Response Kits are held in the following locations:	
<ul style="list-style-type: none"> • East Quay Fuel Tank • Each crane • Atlas Terminal Fuel Tank • Fuelling Bowser 	

ASCO

Resources held by ASCO at Marine Base (on quay during bunkering operations)	
On Road Loading Bays (Red Box)	
3	Barrels of Granules
220	Absorbent Pads
2	Plastic Shovels
4	Rubber Squeegee
3	Protection Mats
4	3m x 20cm absorbent booms
1	Apron
1	Broom
1	Pair of Rubber Gloves
On Quayside (Blue Box)	
5	9m x 20cm absorbent booms
8	3m x 10cm booms
Warehouse	
6	3m x 10cm booms
7	Boxes of 200 absorbent pads
4	Bags of Granules (+ 30 on order)

Tier 2

These resources will be available from Ambipar Response Limited, on a call out basis. During working hours, the reaction time to scene is <4.0hours, out of working hours the reaction time to scene is <6.0hours.

Tier 3

Tier 3 Response resources from the MCA. The response will be in accordance with the National Contingency Plan. Tier 1 and Tier 2 resources will be used where possible to protect environmentally sensitive areas while resources from other sources are made available.

During a protracted long running incident, the PPGY would coordinate a 6-8 hour shift rotation for their immediate staff and offer services on site such as kitchen, dining, various meeting rooms and local hotels and further dining facilities.

Section 14 - Ambipar High-level OSR inventory for South East and Barnsley Base (2023)

QTY	Detailed Description	Location
Recovery Devices		
2	Weir Skimmer	South East
1	Oleophilic Drum Skimmer	South East
1	Drum skimmer TDS 118 TDSH 11806177	Barnsley
1	Oleophilic T-disk skimmer	Barnsley
1	Weir LWS 50 with built in GTA 70 pump	Barnsley
1	Weir GT 185 built in pump	Barnsley
1	Mini max 12	Barnsley
1	Mini sea devil RS0001	Barnsley
1	Offshore GT185 Skimmer 19G0347	Barnsley
1	Oleophilic disk skimmer Kebab 600 electric	Barnsley
1	Delta head 04344/01/06	Barnsley
1	Delta head 251.02	Barnsley
1	Komara 20 oleophilic disk KI/0100/171	Barnsley
1	Komara 12K oleophilic disk 04330/01/05	Barnsley
1	Komara 12 oleophilic disk 04330-01-06	Barnsley
1	Dragonfly weir skimmer	Barnsley
1	Delta head with float	Barnsley
1	Delta head 04344/01/05	Barnsley
1	Helix brush skimmer	Barnsley
1	Hydraulic rope mop OM140	Barnsley
1	Stainless steel weir skimmer	Barnsley
1	Star disk heavy oil	Barnsley
Powerpacks		

1	Hydraulic Control Stand LCS-142-06	Barnsley
1	Hydraulic power pack P540-1231	Barnsley
1	Hydraulic GP-10 3cx1102108	Barnsley
1	Hydraulic GP-10 3cx1102103	Barnsley
1	Hydraulic power pack with built in spate 75c pump	Barnsley
1	Hydraulic power pack LPP-36D	Barnsley
1	PP25MK2 (helix)	Barnsley
Pumps		
1	Honda Diaphragm Pump	South East
1	Chemical screw pump 151B3037-2	Barnsley
1	Petrol water pump GCAAT-1752047	Barnsley
1	Petrol water pump GCBNT-1004486	Barnsley
1	Petrol water pump GCBNT-1004480	Barnsley
1	Trash pump T33940	Barnsley
1	Hydraulic PD 75 Spate pump TS/1237-153	Barnsley
1	Hydraulic PD 75 Spate pump 322 03	Barnsley
1	Puddle pump 16507338185	Barnsley
1	Air driven Wheldon pump V124424	Barnsley
Boom		
100m	Sea sentinel boom	South East
75m	Shore sealing boom	South East
100m	Fence boom	South East
75m	Troll Boom Solid Flotation	Barnsley
200m	Offshore boom reel + boom HSRL09001	Barnsley
150m	Boom reel + sea sentinel boom	Barnsley
150m	3 x storage boxes of fence boom	Barnsley
70m	Boom reel + tube and skirt boom	Barnsley
100m	Shore Sealing boom	Barnsley
150m	Boom reel + fence boom	Barnsley
200m	Hydraulic reel + sea sentinel boom	Barnsley
Temporary Waste Storage		
1	Fast Tank 5	South East
1	Fast Tank 2000	South East
1	Fast Tank Rapide	South East
1	Desmi Bund	South East
2	Floating Storage tanks (offshore) Ro-tank 10m3	Barnsley
5	Fast tank temp storage 2000	Barnsley
2	Fast Tank 5	Barnsley

3	Fast tank bund	Barnsley
1	Fast tank rapide	Barnsley
Sorbent (Oil/Chemical)		
30	3m x 20cm oil sorbent boom (Packs)	South East & Barnsley
8	Pom Poms sorbent (Packs)	South East & Barnsley
4	Oil pads (packs)	South East & Barnsley
18	Small oil roll	South East & Barnsley
12	Large oil roll	South East & Barnsley
50	Sorbent granules (oil/chemical)	South East & Barnsley
5	Small Chemical roll	South East & Barnsley
6	Chemical pads (Packs)	South East & Barnsley
3	7.5cm x 3m Chemical sock (Packs)	South East & Barnsley
5	3m x 20cm chemical sorbent boom (Packs)	South East & Barnsley
1	Oil pads (packs)	South East & Barnsley
1	3m x20cm oil sorbent boom (Packs)	South East & Barnsley
Assorted Ancillaries, PPE, Vehicles, Trailers and Decontamination Equipment.		

Appendix I: MCA STOp Notices

MCA Scientific, Technical and Operational (STOp) advice notes can be located via:

<https://www.gov.uk/government/publications/scientific-technical-and-operational-advice-notes-stop-notes>

APPENDICES

Appendix 1 – STOp 4/2001: Advice to Local Authorities on the Collection & Handling of Oil Samples

Scientific, Technical and Operational Advice Note

STOp4/2001 - Important

This STOp notice replaces STOp 2/98; please destroy your copy of STOp 2/98

Advice to Local Authorities on the Collection and Handling of Oil Samples

1. Background
2. Sampling from the sea and shoreline
3. Size of samples
4. Methods of collecting samples
5. Bottling, sealing, packaging and boxing of samples
6. Labelling and addressing of samples
7. Transportation of samples
8. Handling of samples for Bonn Agreement States

Appendices

Appendix A: Oil Pollution Sample – Standard Label

Appendix B: Collection of Sample – Standard Form

Note: This document should be read in conjunction with:

- STOp 1/2001 - The Environment Group and Maritime pollution response in the UK.
- STOp 2/2001 - The Establishment, Management Structure, Roles and Responsibilities of a Shoreline Response Centre during a Maritime Pollution Incident in the United Kingdom.
- The National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (NCP).

All extant MCA STOp notices may be found on the MCA web site: www.mcga.gov.uk and all enquiries regarding this and other MCA STOp notices should be directed to meor@mcga.gov.uk

1. Background

Where an oil pollution incident is thought to have arisen from an illegal operational discharge an effort should be made to collect a sample of the pollutant and, if possible, matching samples from the suspect ship or other source for analysis, comparison, and possible subsequent use in legal proceedings. Samples of the pollutant may need to be taken from the sea or coastline. When beach pollution has occurred, local authorities or HM Coastguard would usually take the necessary samples. For advice on sampling at sea, contact the Counter Pollution Branch of the Maritime and Coastguard Agency (MCA) on 02380 329483. This notice sets out the procedures to be followed when collecting and handling oil samples.

The MCA's Enforcement Unit will collect evidence concerning pollution incidents from shipping at sea, upon which a decision will be made as to prosecute or not. In England, Wales and Northern Ireland the MCA will

conduct prosecutions. In Scotland the case will be presented to the Procurator Fiscal for action. If samples are likely to be used in connection with legal proceedings, then the following procedures should be implemented:

In England and Wales

Although a single sealed sample of each type of pollutant is required by law, MCA would prefer three samples to be collected.

In Scotland

There is no longer a legal requirement for three sealed samples of each type of pollutant in Scotland but as in England MCA recommend three samples: one for analysis, a second to be handed to the owner or master of the suspect vessel for retention and any appropriate action, and the third for production in court, where the prosecution will be handled by the local Procurator Fiscal.

In Northern Ireland

Although the law in Northern Ireland concerning this matter is the same as that in England and Wales, the Director of Public Prosecutions, who is responsible for handling prosecutions in Northern Ireland, has asked that for the sake of safety, three sealed samples of each type of pollutant should be provided on the same basis as in Scotland.

Responsibility for the collection of oil samples in Northern Ireland rests with Environment and Heritage Service, Department of the Environment (Northern Ireland).

Samples will usually be requested by a scientist/mariner in the MCA's Counter Pollution Branch or one of the Principal Counter Pollution and Salvage Officers as part of the response to a reported incident. Once a sample has been taken, agreement must be obtained from the Counter Pollution Branch before it is analysed.

Please remember that analysis of samples will only be carried out and paid for by the MCA if authorised by the Counter Pollution Branch. Please note that organisations such as Ports and Harbours or the Environmental Regulator may be taking independent samples as part of their own individual responsibilities for oil spill response and pollution regulation. The analysis of the samples and the cost of analysis of such samples will be the responsibility of the organisation taking the sample and not the MCA.

2. Sampling from the sea and shoreline

When a large oil slick exists at sea or on a coastline, the number of samples that MCA may require is:

offshore spill - minimum of 1 sample / slick / day where possible,

onshore spill - representative samples from the shoreline, following discussion with Counter Pollution Branch.

Following an incident, attempts may be made to infer that not all the oil pollution came from one vessel, and that some of it may have come from other sources. Where therefore an oiled beach is being sampled, a careful and detailed examination of the beach should be made to determine the uniformity of the oil deposit and the extent to which it is polluted by more than one type of oil. In particular, if there are any tarry, semi-solid lumps or wet tarry patches, their presence should be recorded and some idea of their quantity and extent obtained. In

addition, samples of such pollution should be retained, and an attempt should be made to estimate costs expended on the clean-up of different oils.

In cases where samples have been taken at intervals along the beach, these should be clearly identified (see section 6 on labelling). It is desirable that samples of oil are taken in the area where the oil is first washed ashore. This is helpful since the fresher the oil the easier it is to identify by laboratory techniques.

3. Size of samples

Modern analytical methods mean that very little original pollutant is required to carry out most analyses. However, a larger sample is likely to be more representative. Detailed analyses are often hampered by either contamination or the loss of the oil's lighter fractions. A larger undisturbed sample may consist of a weathered oil crust covering a less weathered (holding a greater percentage of lighter fractions) and therefore more valuable sample. The recommended minimum quantities required for a detailed programme of analyses are:

- Un-weathered oils that are liquid and substantially free of water, 10ml
- Oil exposed to seas surface and forming water-in-oil emulsion "chocolate mousse", 10ml
- Over side water discharge where contravention of 100ppm or 15ppm is suspected, 1 litre of the discharge.
- Tarry lumps as found on beaches, 10 grams.

A sample should not be withheld because the recommended quantity cannot be obtained, since much smaller samples can give useful results. In cases of pollution within UK territorial waters, when it is only necessary to prove that some oil has been discharged, a relatively small sample may be acceptable. Larger samples may be useful to carry out a range of tests to determine the most appropriate response/clean-up strategy. MCA can advise when and why such an approach is desirable

4. Methods of collecting samples

When liquid samples are skimmed off the surface of the sea, care should be taken to ensure that the sample contains sufficient oil. Various techniques may be adopted to skim thin layers of oil from the waters' surface and consolidate using a bucket with a hole.

Care should be taken to minimise contamination of liquid samples by solid matter. Oil deposited on rocks or other impervious materials should be scraped off and placed directly into the sample container. Lumps of tarry or waxy pollutant should be placed directly into sample containers; no attempt should be made to heat or melt these samples to enable them to flow into a container. The sample container should be sealed as soon as possible to minimise evaporation of the higher fractions.

Oil adhering to seaweed, small pieces of wood, sand, plastic, material, cloth, vegetation or other debris should be dealt with by placing the complete specimen comprising oil and support material into the sample container.

5. Bottling, sealing, packaging and boxing of samples

All samples should be securely packed and sealed, using screw topped containers and UN approved fibreboard boxes to ensure safe carriage of the sample. These have been supplied to HM Coastguard Stations and MCA

- b. Description of sample
- c. Position from which sample was taken, grid reference if possible.
- d. Date and time of sampling.
- e. Purpose for which sample was taken.
- f. If known, suspected source, e.g. name of tanker or ship.
- g. Whether or not dispersants have been used and, if known, their type and make.
- h. Method of sampling (description of sampling device and any possible contamination).
- i. Name, address and contact details of person taking the samples and of anyone witnessing the taking of it.
- j. Wind direction and velocity.
- k. Air and water temperature.
- l. Sample descriptions, i.e. viscosity, colour and contaminants.
- m. Description of the oil spill, i.e. distribution and consistency.

An example of the recommended oil pollution sample standard label can be found in Appendix A. The recommended sample form is at Appendix B.

To assist with any subsequent investigations, it is important that a letter is sent to MCA quite independently of the sample (but a copy should be sent with the samples), setting out details 'a' to 'm' where available.

7. Transportation of samples

If a sample needs to be analysed, the Counter Pollution Branch will contact their contractor to arrange for the sample to be collected by courier and analysed.

Please ensure that samples are labelled correctly and securely packed in UN approved boxes to avoid breakage. It is important that the standard proforma described in section 6 should also be included with the sample along with all carriage documentation. To facilitate sample transportation, clear information on the number of samples to be collected, the location they need to be collected from and a contact name and phone number must be given to Counter Pollution Branch.

8. Handling of samples for Bonn Agreement States

In cases where samples are taken at the request of a contracting member of the Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil, the BONN Agreement, the Counter Pollution Branch would be the focal point for processing the samples for either analysis or onward transmission to the requesting member state. The results of such tests would not be made public until the contracting party involved was informed.

Appendix A – Oil Pollution Sample – Standard Label

OIL POLLUTION SAMPLE – STANDARD LABEL			
ID No.	Date/time	Location	Name and address of sampler
For continuity of evidence: Please complete clearly.			
Sample passed to:			
Date	Name	Address	Signature
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----

Appendix B – Oil Pollution Sample – Standard Form

Collection of oil samples - This form to be completed by person taking sample If in doubt please refer to MCA STOp Notice on sampling. Remember to complete sample jar label and sign.	
A	ID Number - YY/MM/DD - with initials of person taking sample
B	Sample description
C	Location of sample – OS Grid Ref or Lat/Long if possible
D	Date and time of sample collection
E	Purpose for which sample was taken
F	If known, suspected source
G	Were dispersants used?
H	Method of sampling (device?)
I	Name, address, e-mail address & Tel/No of person taking sample and any witnesses
If possible the following information would also be helpful	
J	Wind speed and direction
K	Air and Sea Temperature
L	Sample description, viscosity, colour, any contaminants?
M	Description of the oil spill, distribution and consistency
Original form to be kept with sample - please send copy of the form to the Counter Pollution Branch of the MCA - Bay 1/11, Spring Place, 105 Commercial Road, Southampton, SO15 1EG Tel:023 8032 9485	

Appendix 2 - MCA Exercise Guidelines

OPRC Plans – Exercises – MCA Guidance

The following provides guidance on planning and conducting exercises which have been designed to evaluate the contingency plan and include a degree of training for any personnel likely to be involved in an oil spill incident.

Each port / harbour / oil handling facility must participate in exercises in accordance with the provisions within their OPRC Compliant Oil Spill Contingency Plan.

The objectives of any exercise need to be pre-agreed, enabling the exercise planners to tailor the exercise to the needs of the players. For example, it may be desirable for different aspects of the plan to be exercised separately such as notifications or equipment mobilisation / deployment. A larger exercise, encompassing all aspects of the response, may not explore the detail of each of these individual themes but will help promote a wider understanding of the purpose and scope of the whole plan. Whatever the scale or type of exercise, the invited participation by the appropriate environmental and regulatory authorities, and others, will aid the collective understanding of the plan, to the benefit of all involved.

The following list gives examples of exercise types that can be undertaken.

Notification Exercise – announced or unannounced

Used to test alert and call-out procedures for response teams, test communication systems, availability of personnel, evaluate travel options and arrangements and test the transmission of information. Such an exercise can be used to check the validity of contact information within the plan and should be carried out at least twice per year.

Mobilisation Exercise

May be used to test the actual mobilisation times of individuals and contracted resources. Ideally mobilisation should be tested without prior warning, although the requirement for an unannounced callout will need to be balanced against the practical difficulties and financial penalties of doing so. Whilst this important aspect of the response may be exercised in isolation, it may be seen as beneficial to incorporate this as a specific objective within the scope of another of the framework exercises.

Desktop Exercise

Whilst the degree of complexity can be decided upon by the exercise coordinator, a table-top exercise can be used to test the emergency management knowledge and capability. It provides individual and also team training, enabling personnel to be familiarised with the various roles and responsibilities and identification of resources. A table-top exercise can also explore the interaction between the different parties involved, particularly by testing the principles of the response strategies. These exercises can be used to test coordination with local authorities and the emergency services. Some organisations, which have peripheral responsibilities, may be role-played. During this exercise the capability to respond to a tier 2 type spill and initiate the primary actions in the event of a Tier 3 response can be put to the test. As discussed above, it can be effective to combine this exercise with an equipment mobilisation / deployment exercise, but in any case, a table-top exercise of the incident management structure should be incorporated within the exercise programme at least annually.

Incident Management Exercise (require significant planning)

These exercises can test the capability of local teams to respond to tier 1, tier 2 and tier 3 type incidents, providing experience of local conditions and spill scenarios, enhancing individual skills and teamwork, integrating the roles of external bodies and organisations. **MCA considers that each port, harbour and oil handling facility must hold an Incident Management Exercise, incorporating equipment deployment to a Tier 2 level at least every three years**, following initial plan approval. This is likely to incorporate or be combined with a Tier 1 equipment deployment. Such exercises need, so far as possible, to involve actual involved organisations to represent a real emergency. However, if this cannot be achieved, role-playing personnel can be used to simulate roles and responsibilities.

A Balanced Programme of Exercises

Different types of exercises will test different facets of the plan whilst even the most ambitious Incident Management Exercise cannot be expected to test every aspect of the plan. Notification exercises, which are useful to update contact details within a plan, should be undertaken with greater frequency than equipment mobilisation exercises, for example. Before an exercise takes place, the appropriate authorities should be notified. This notification procedure should be formally documented, and a copy of this documentation held and logged within the port / harbour / oil handling facility.

A typical programme of exercise frequency is as follows:

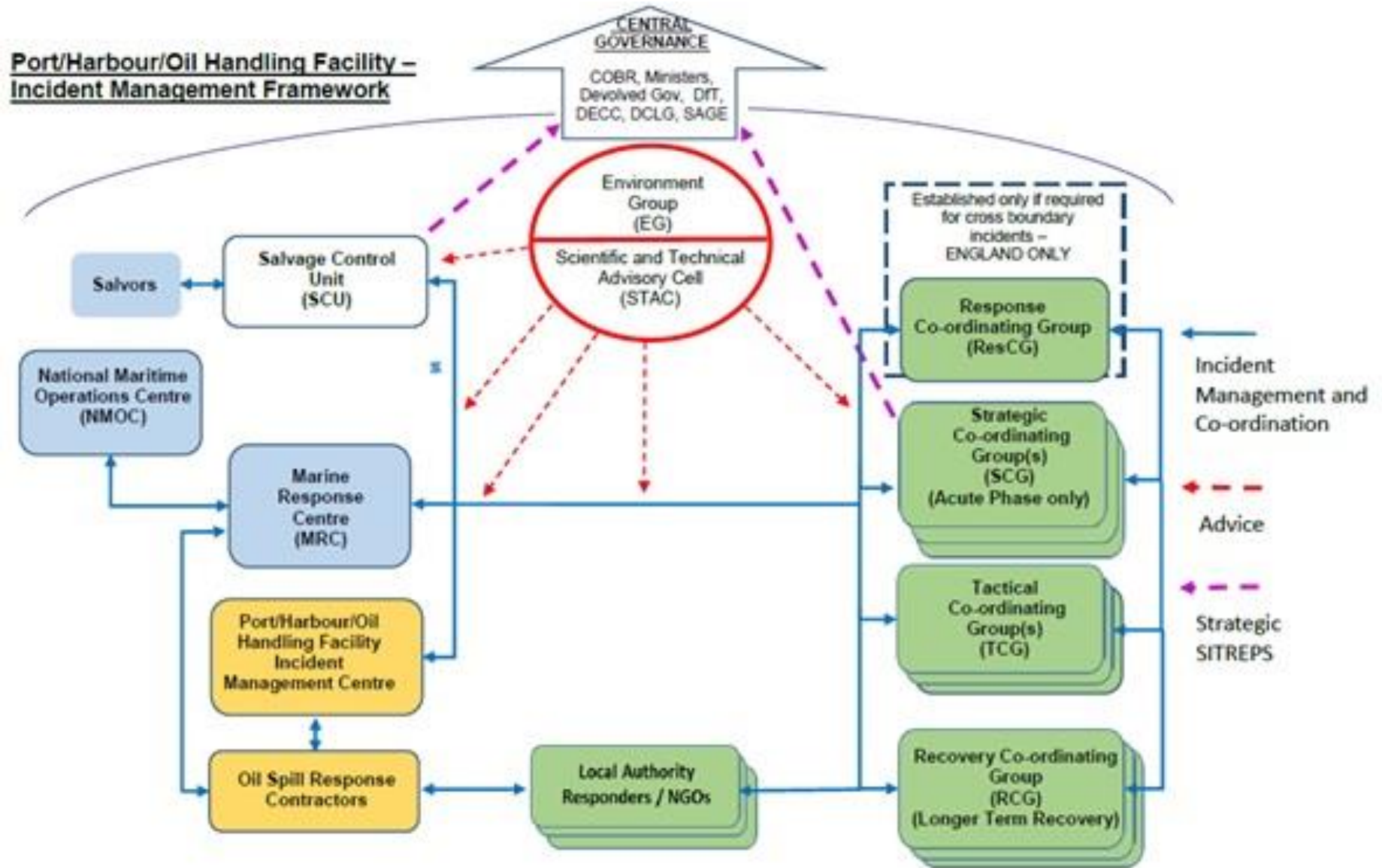
Exercise type	Frequency
Notification and mobilisation exercises	Twice per year
Table top exercise (may incorporate mobilisation and deployment of local response equipment)	Once per year
Incident management exercise (IME) (will incorporate mobilisation and deployment of resources up to Tier 2 level)	Once every 3 years
<i>In an instance where a port, harbour or oil handling facility considers this requirement to be unduly onerous on the basis of the risk assessment, they may submit an alternative exercise programme to the Regional CPSO for consideration and approval, on an individual basis. In some circumstances it may be permissible to undertake an Incident Management Exercise in the fourth year of the plan's five-year life-cycle providing for the 'lessons-learned' to be captured within the final plan review/update year.</i>	

Sharing of exercises

In a situation where a group of ports and harbours within a distinct geographic region and sharing the same Tier 2 contractor, there may be scope to undertake a joint exercise at one of the ports. Key individuals from nearby ports could be invited to observe or participate, thus gaining from the experience of the hosting port. In any case, each plan holder must host their own exercise involving mobilisation and deployment of their Tier 2 response, at least every three years.

A post exercise/incident form should be completed and forwarded to the Regional CPSO, and all relevant plan holders, each time an exercise is carried out.

Appendix 3 - NCP Port Incident Management Framework






Appendix 4 – PPGY Tidal Atlas

The following tables are indicative of tidal flow patterns at the entrances to Great Yarmouth harbour on spring tides. Mariners are warned to use these diagrams with caution as wind and other meteorological effects can effect tidal flow directions and rates. Flow directions on neaps are similar to the springs but are less well defined and can be more variable in nature.

Slack Water



Slack water time at change of tide can vary but in normal meteorological conditions these occur at approx 1 ½ hours after high water for high water slack and at 4 ½ hours before high water for low water slack.

Symbols on Tidal Flow Charts

-  Tidal flow arrow. (NB this indicates flow direction and not rate of tide)
-  Tidal flow rate recorded from flow meter.
-  Area of confused currents.

Tidal Flow Rates/Directions

On the tidal flow sheets the following tidal rates are depicted:

- a) Flow rates quoted on the flow sheets refer to spring tidal rates, neap rates will be appreciably less, (about 60%).
- b) Chart 1534 Tidal Diamond  at position 52° 35'.03'N, 01° 45'.89'E.
- c) The position of the tidal flow rate meter  at position 52° 34.76'N, 01° 44.9'E.



Contents

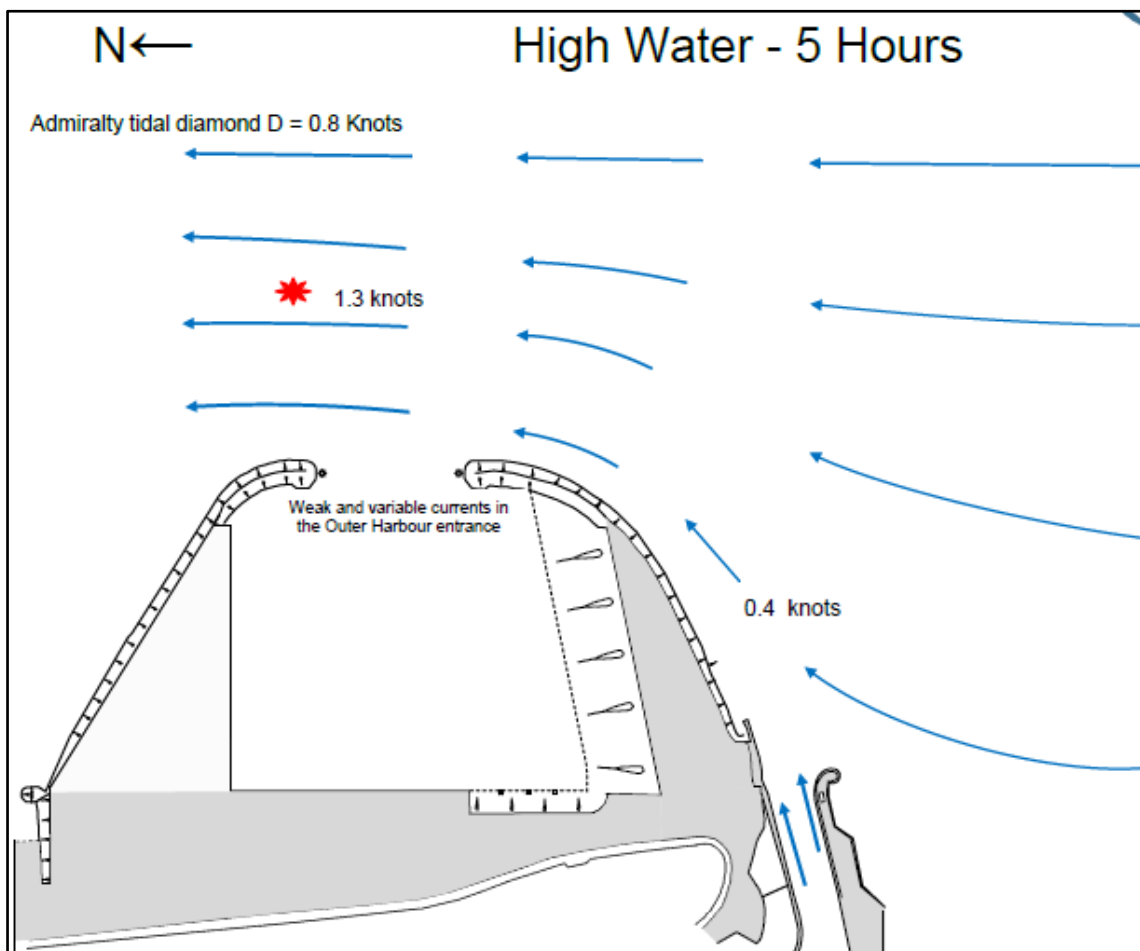
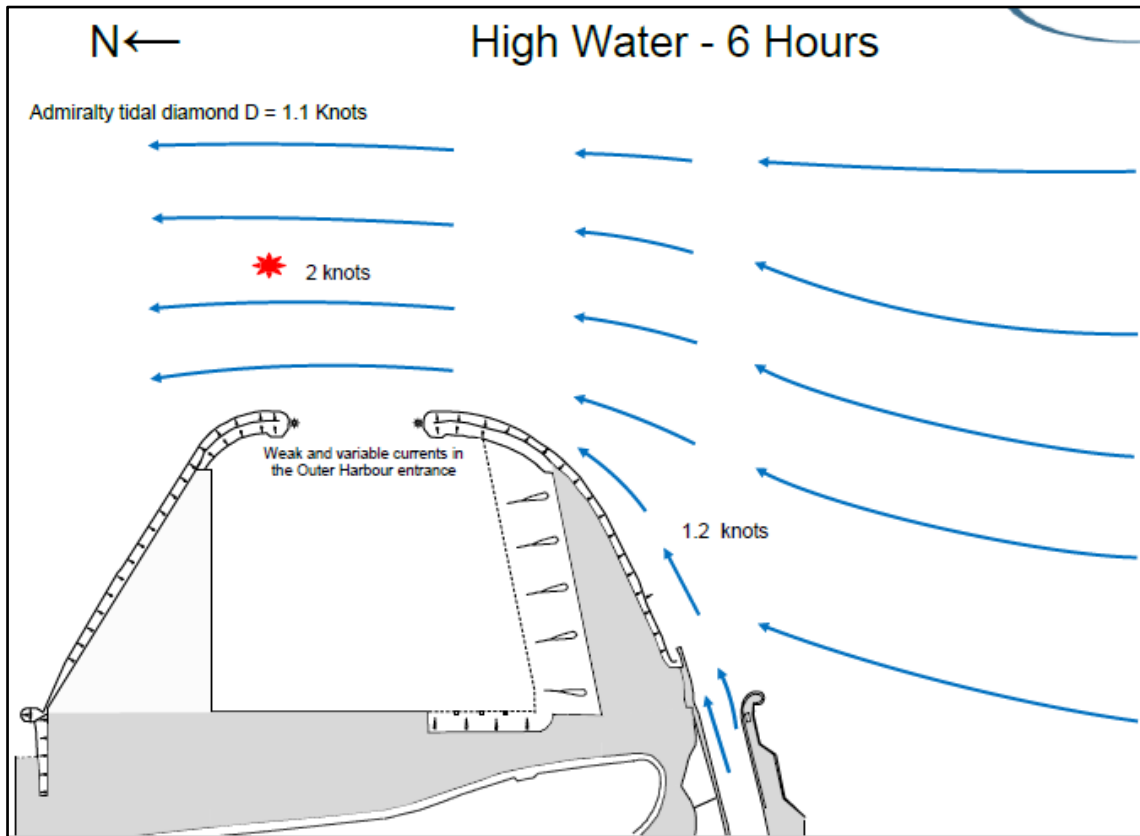
Tidal flow charts (HW – 6 Hrs to HW+6hrs)

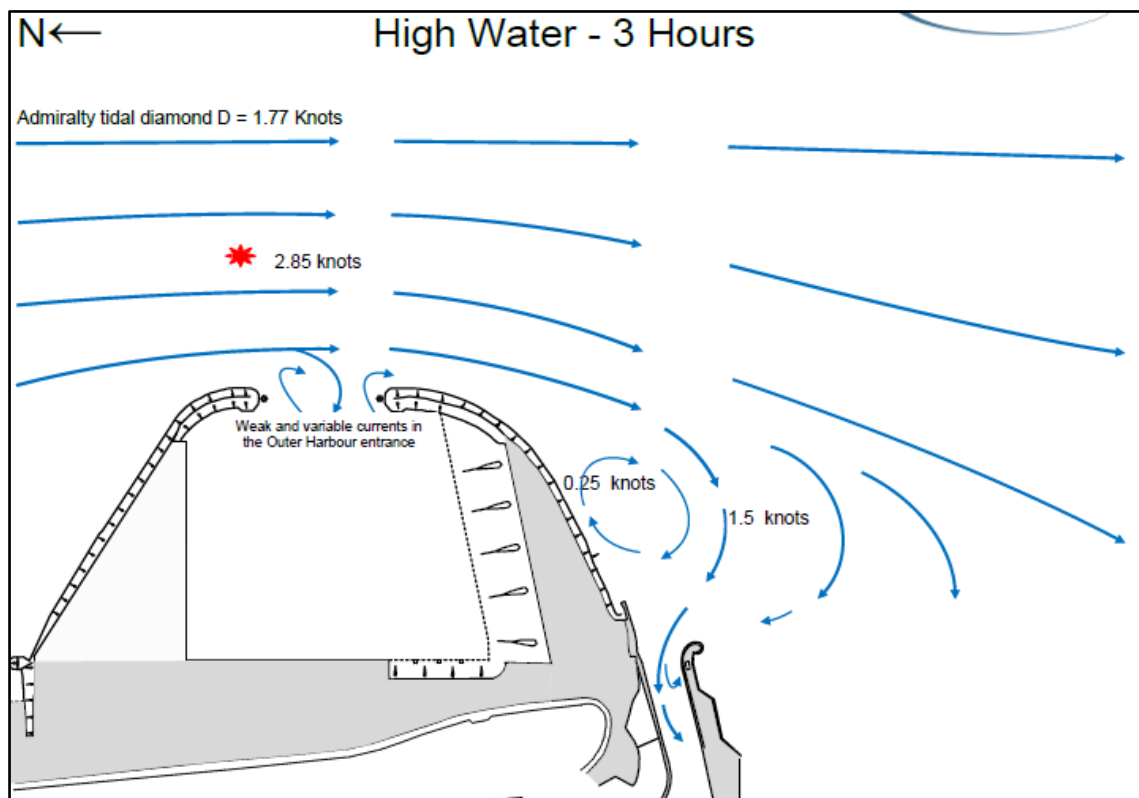
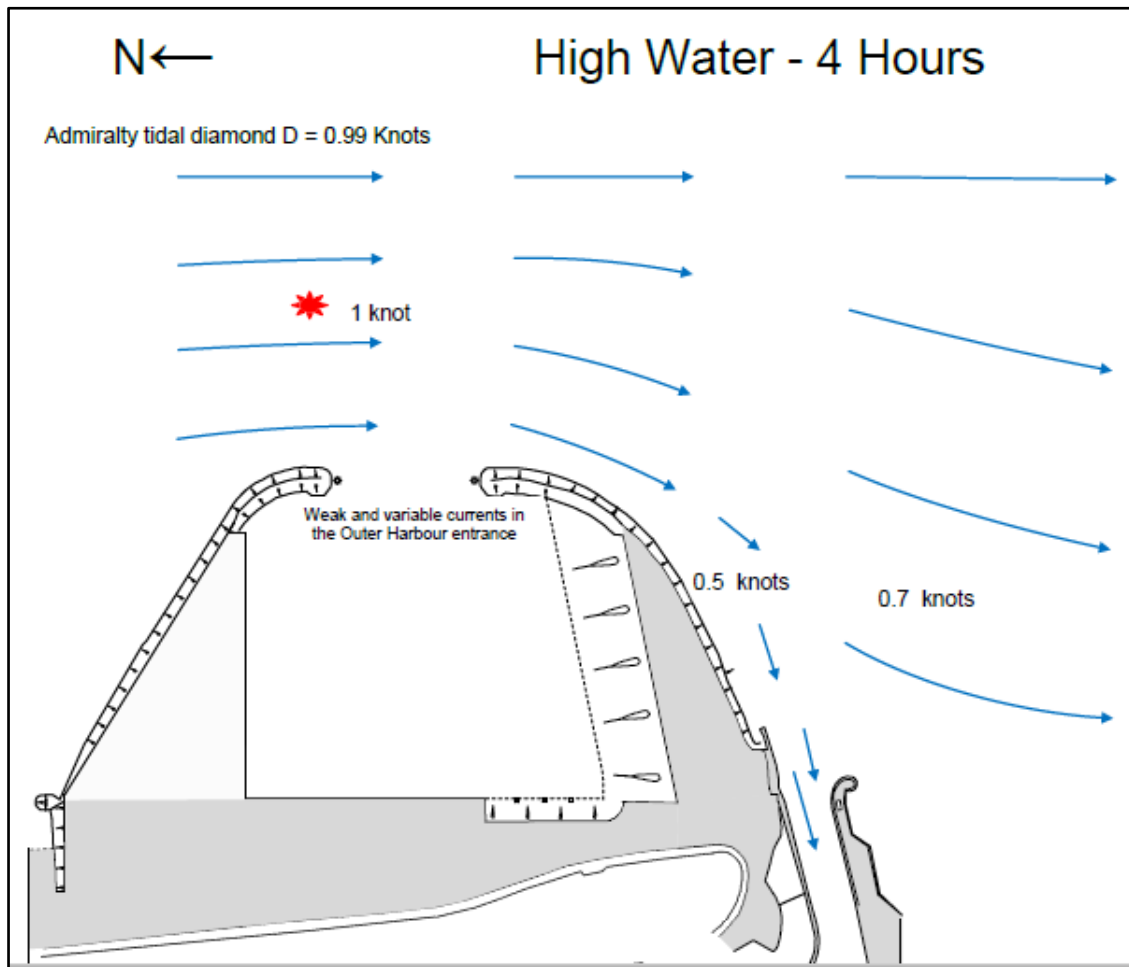
Tidal Diagram

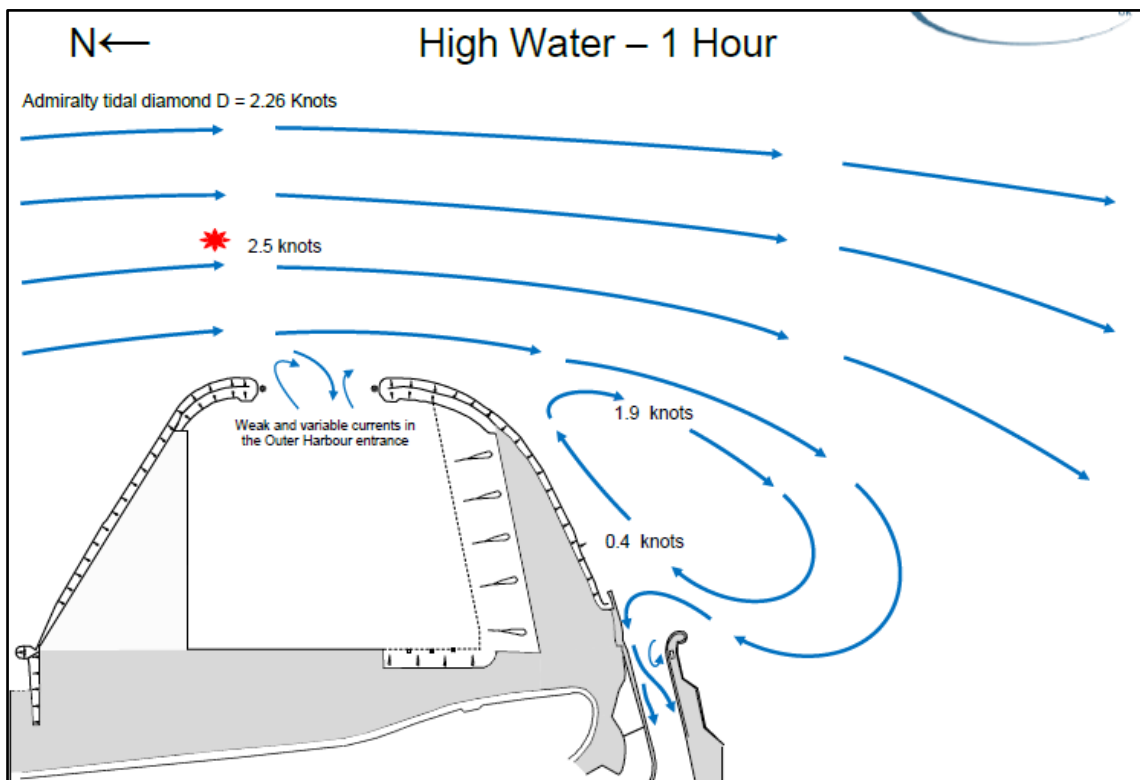
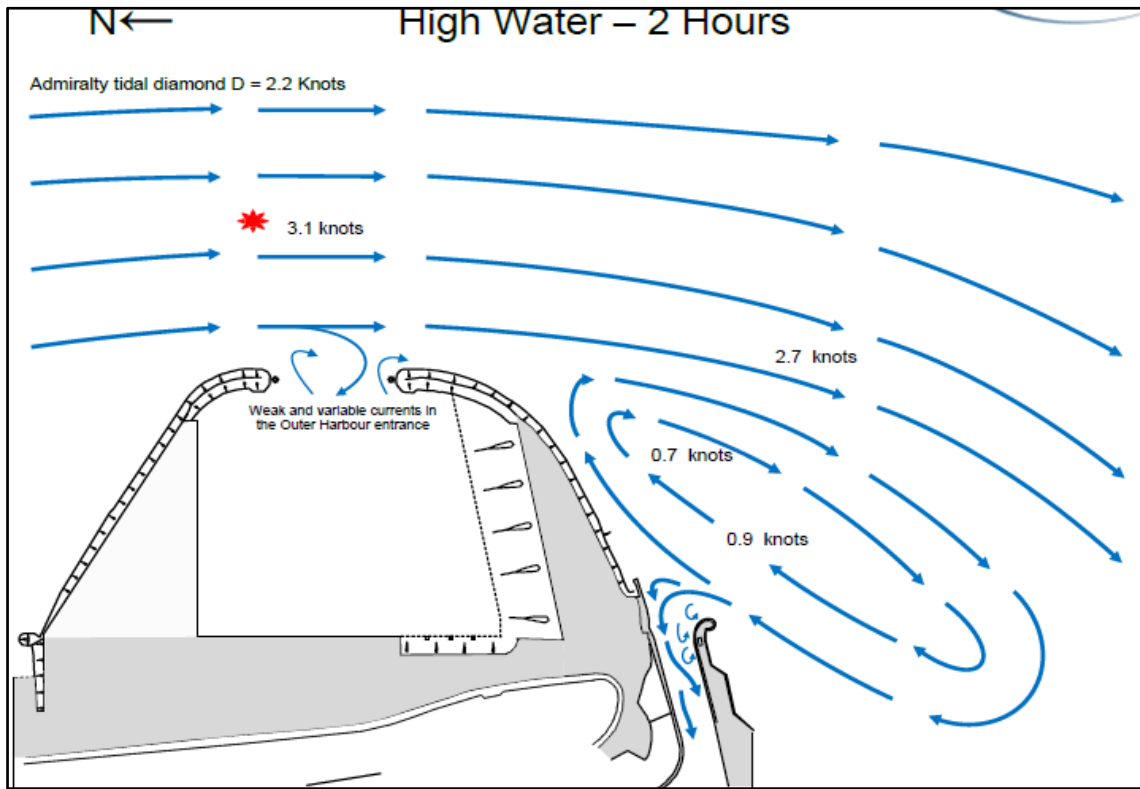
Appendix 1

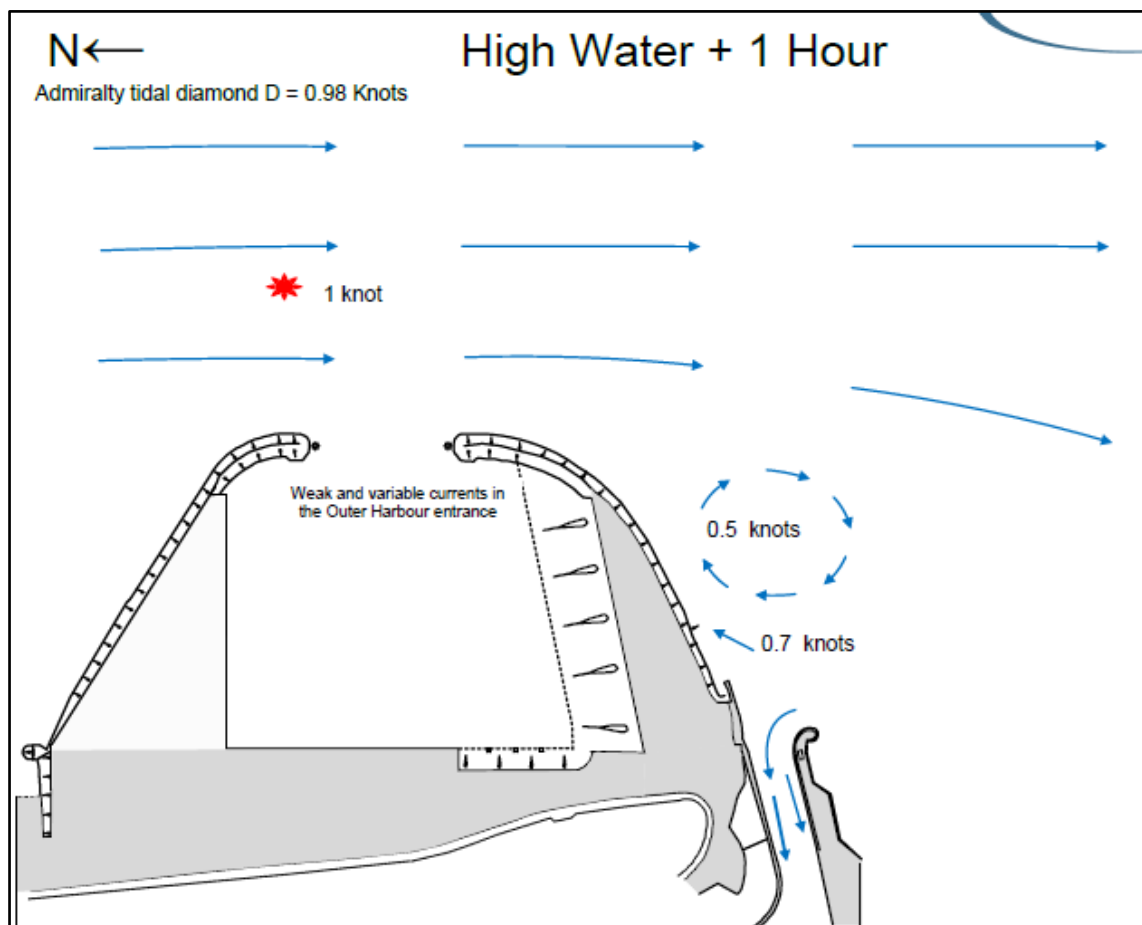
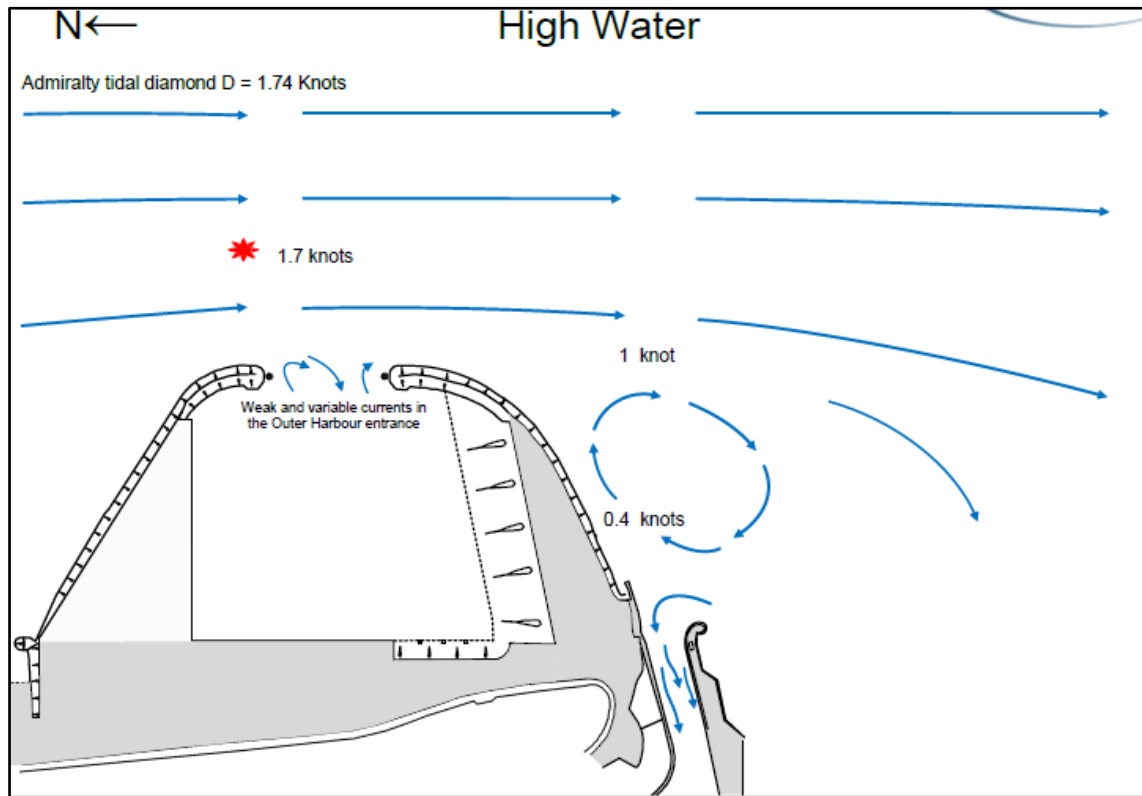
Tidal Height/Flow Graphs.

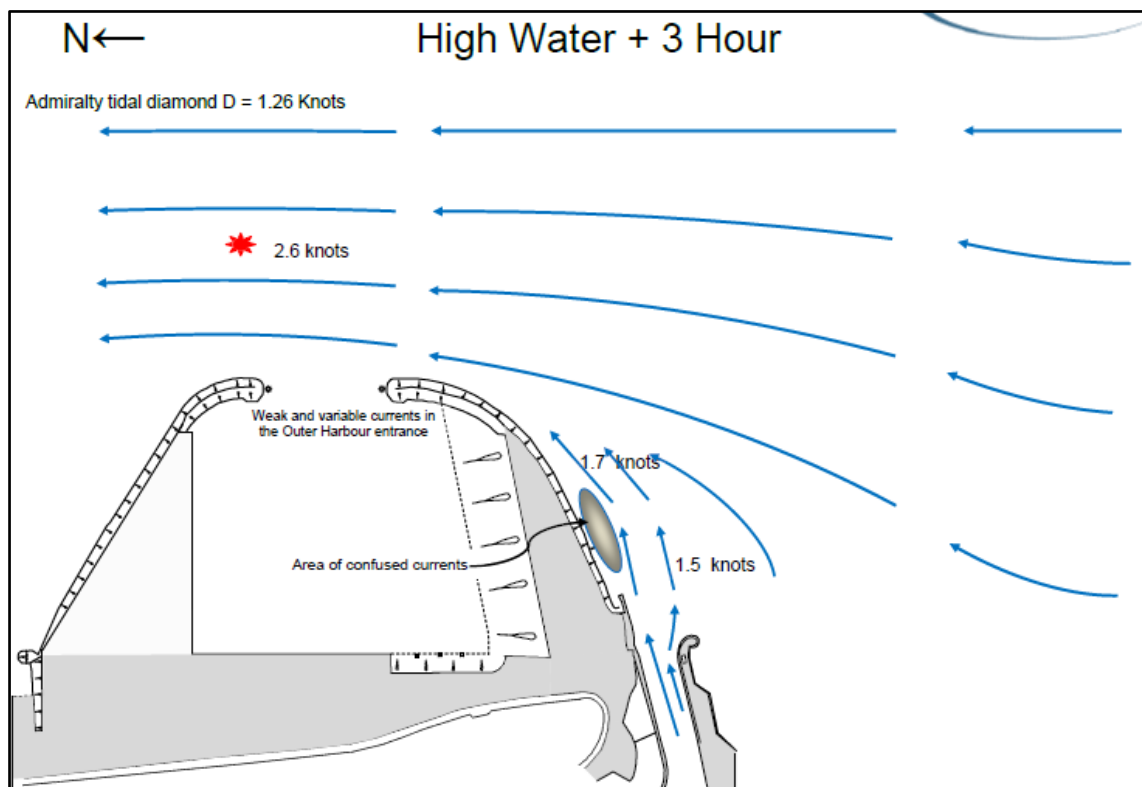
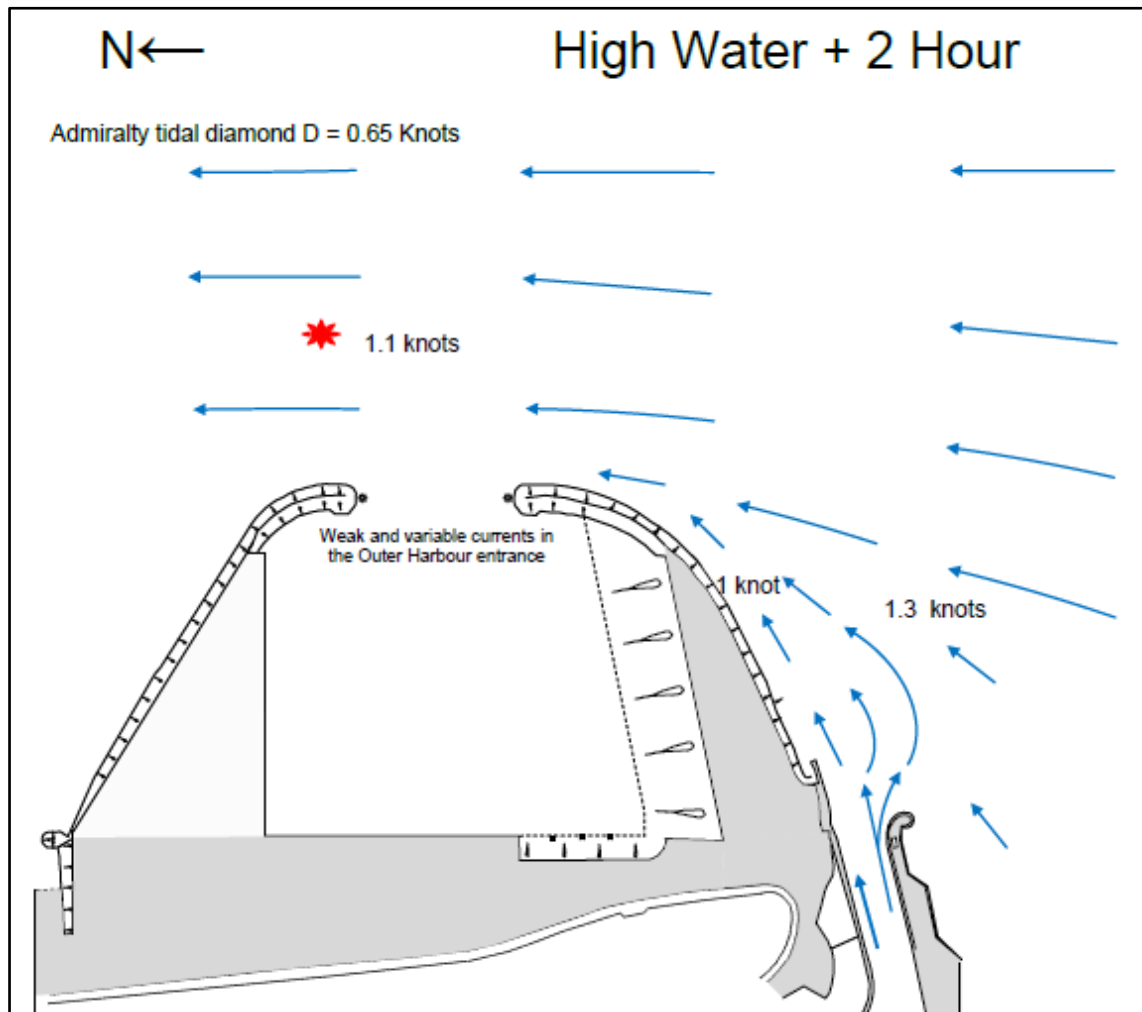
Appendix 2

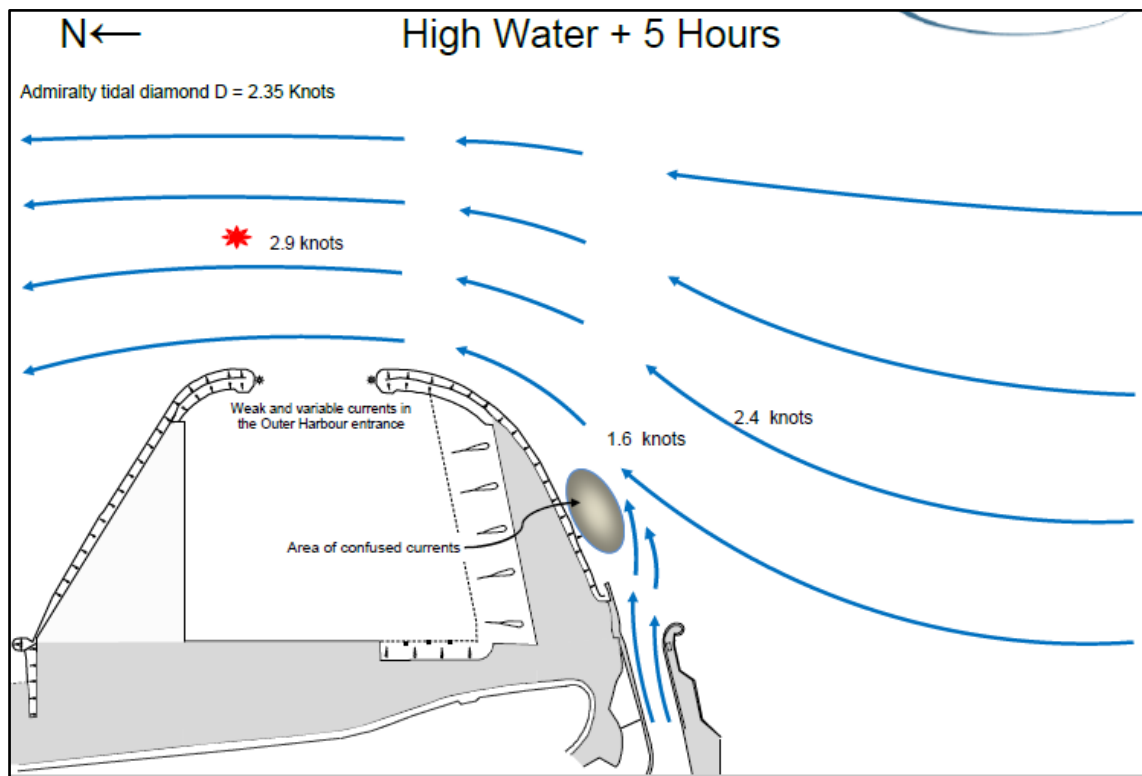
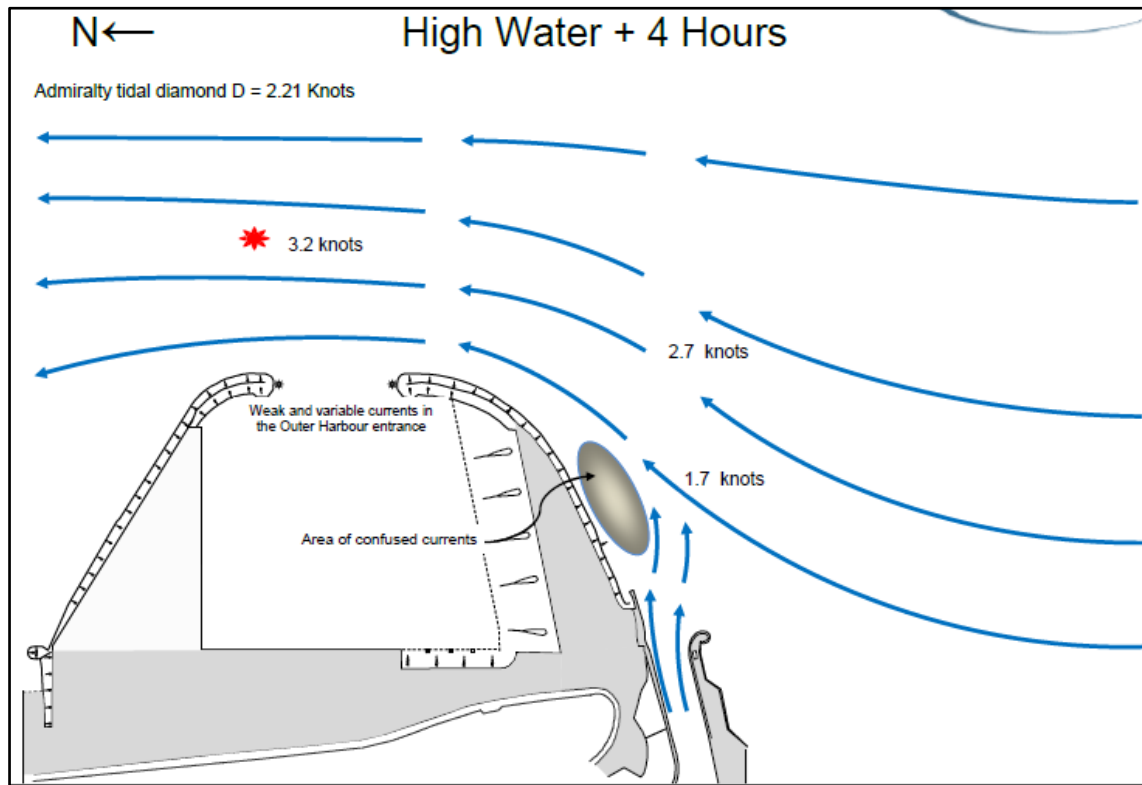


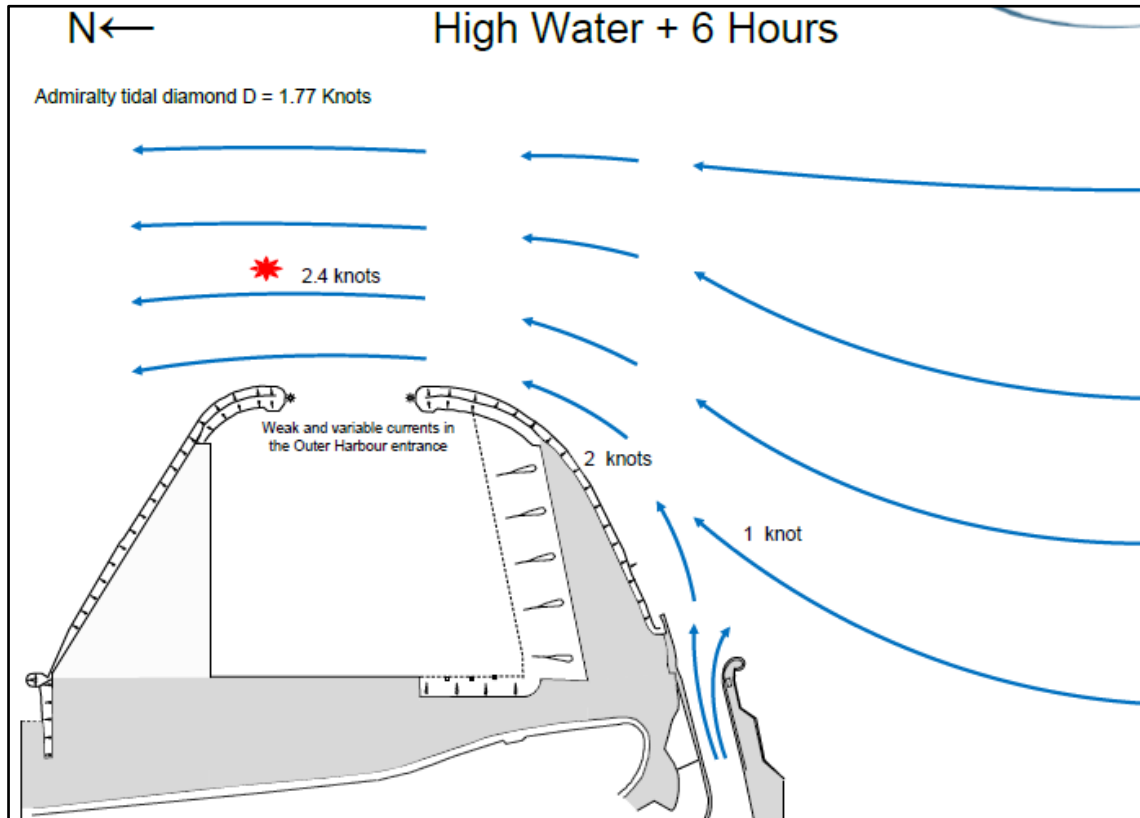


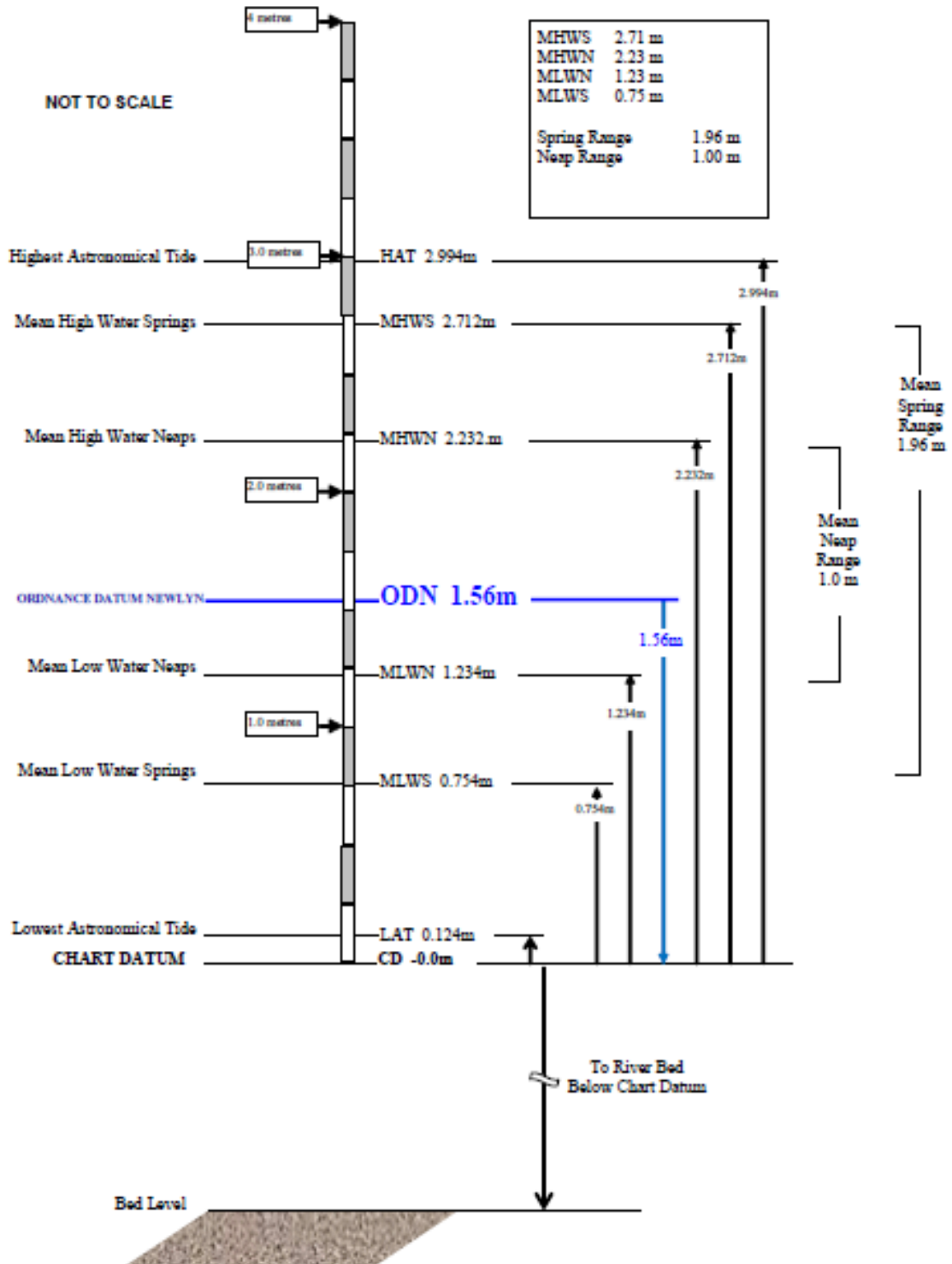




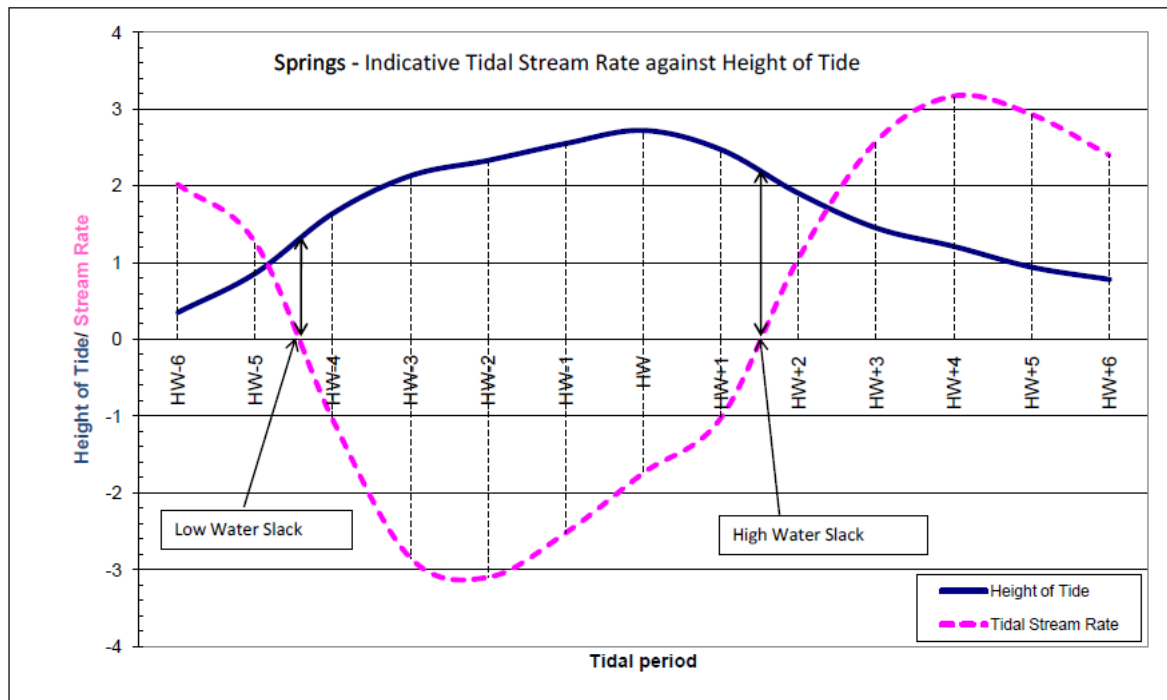








Information obtained from the tidal flow rate meter * at position 52°34.76'N 01°44.9'E



Appendix 5 – PPGY Environmental Toolbox Talk – Drainage

ENVIRONMENTAL

Enviro365

PEEL PORTS GROUP

Tool Box Talk

Date of Release: July 2021

Doc No. RES 280 PPG HSE

Drainage

Types of Drains

Surface water drains

- Designed to discharge water directly into a watercourse. This may include dock systems, rivers, streams, culverts and canals, rather than a public sewer system.
- Only water **uncontaminated by surface pollutants** can be discharged in this way, i.e.: rainwater runoff.
- Rainwater runoff should be 'clean', so hard standing areas should be kept clean.
- These drains should be marked with a **BLUE** arrow, showing the direction of flow.



- BLUE** drains marked with a **WHITE FISH** remind that the water will discharge directly to the river.

Foul water drains

- Designed to carry sewage and contaminated water into the sewer network and to a treatment plant.
- For ports, contaminated water includes **trade effluent** which should be discharged only with the **correct consent**.
- These drains should be marked with a **RED** arrow, showing the direction of flow.

Combined drains

- Designed for the discharge of both foul water and surface water in a single drainage system usually to a sewage treatment plant.
- These drains should be marked with a **RED 'C'** and a **RED** arrow, showing the direction of flow.

For further information please contact:
Alex Pepper, Group Head of Energy and Environment at alex.pepper@peelports.com

ENVIRONMENTAL Tool Box Talk	Enviro 365	PEEL PORTS GROUP
Date of Release: July 2021	Doc No. RES 280 PPG HSE	

Key points to note

- **Protect all drains in the event of an oil or chemical spillage.** If this isn't possible, every effort must be made to **divert the spill to a foul drain** or at least a drain that flows through an interceptor/oil separator.
- Vehicles must only be cleaned in a **designated washdown facility**.

Always **report signs of polluted watercourses** to site management and on Sphera. This can indicate that there has been a drainage issue.

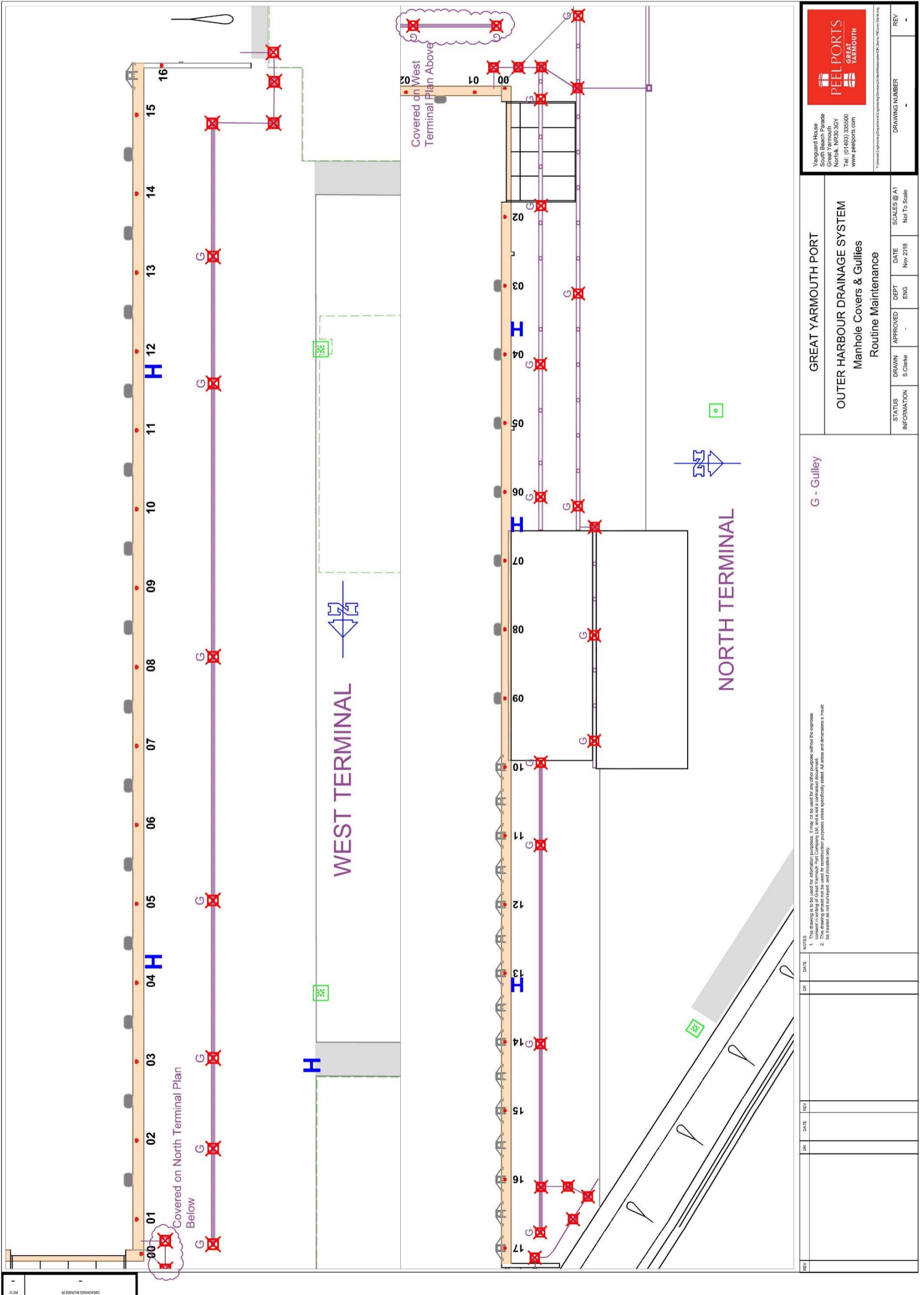
Signs such as:

- Sheens on bodies of water that do not look natural, such as multicoloured or translucent/'misty' sheens (see below)
- Signs of unhealthy/dead wildlife
- A foul or oily smell close to watercourses that isn't normally present



For further information please contact:
Alex Pepper, Group Head of Energy and Environment at alex.pepper@peelports.com

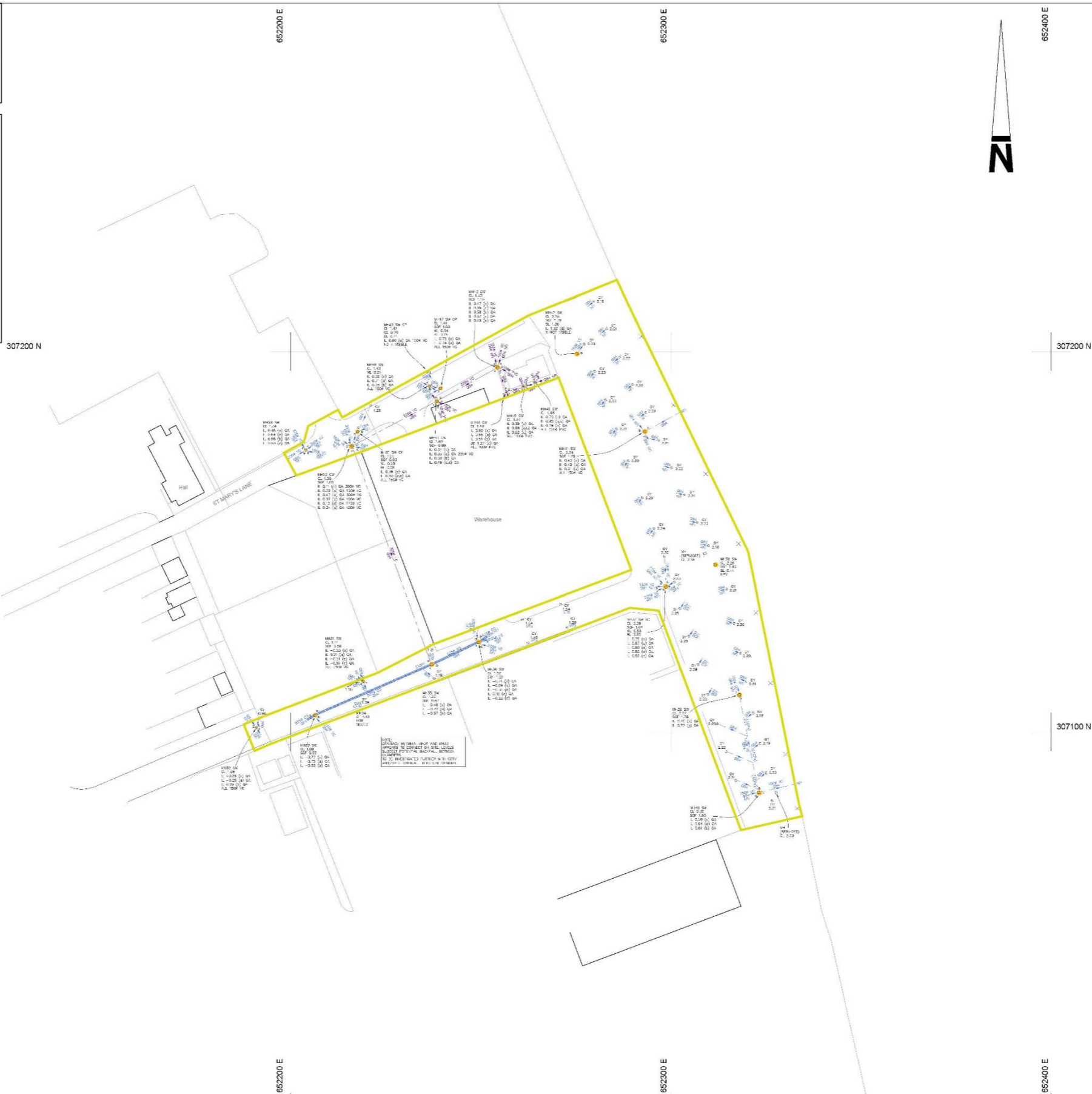
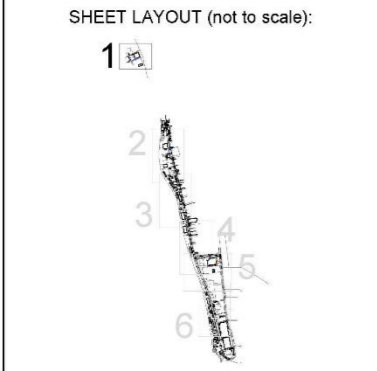
Appendix 6 – Great Yarmouth Drains Surveys







DETECTION SURVEY REPORT
CONNECTIVITY SURVEY
 All drainage connectivity was carried out in accordance with PAS 128:2014 (Publicly Available Specification from BS). Quality levels are determined by the detection methodology. Please refer to PAS 128:2014 Quality Level Guide for details.
 Some manholes were unable to be lifted due to obstructions on site, such as containers, equipment or cars blocking the covers. Furthermore some covers were found to be seized and unable to be lifted with the hydraulic lifter. Recommend full CCTV survey to prove drainage network.
 This drawing has been compiled for record purposes. Levels, pipe sizes and connectivity to be cross checked where future works are being considered.



- Notes:**
- GRID IS NATIONAL GRID
 - LEVELS ARE BASED UPON ORDNANCE DATUM, DERIVED FROM THE NATIONAL GNSS NETWORK
 - DRAINAGE INFORMATION ADDED TO OS BACKGROUND DATA
 - DRAINAGE INFORMATION HAS BEEN DETERMINED WITHOUT MAN ENTRY INTO CHAMBERS AND WHILST EVERY EFFORT HAS BEEN MADE TO CORRECTLY IDENTIFY THIS INFORMATION, IT SHOULD ALWAYS BE CHECKED IN AREAS THAT ARE CRITICAL TO THE FUTURE PROPOSAL
 - ALL SEWERS ARE PRESUMED TO BE STRAIGHT BETWEEN CHAMBERS, WITH ROUTES/CONNECTIVITY OBTAINED USING ACUSTIC METHODS ONLY. THESE ARE TO BE CONSIDERED ASSUMED AND SHOULD BE INVESTIGATED FURTHER IN CRITICAL AREAS. KINKS AND DEVIATIONS ARE INDICATIVE AND UNLESS SPECIFIED HAVE NOT BEEN ACCURATELY POSITIONED VIA ELECTROMAGNETIC LOCATOR (EML) GROUND PENETRATING RADAR (GPR). ALL SUB SURFACE DRAINAGE POSITIONS SHOULD BE CROSS CHECKED IN CRITICAL AREAS BY EML OR GPR SURVEY OR HAND DUG TRIAL HOLES
 - CONNECTIONS FROM RAIN WATER PIPES, GULLIES, KERB OUTLETS, SOIL PIPES ETC SHOULD BE TREATED AS ASSUMED ONLY, UNLESS PROVEN WITH A CCTV SURVEY.

DRAINAGE KEY

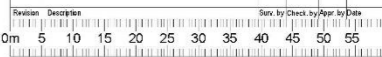
ABBREVIATIONS		DRAINAGE KEY	
ACP	ASSUMED CONNECTION POINT	MH	MANHOLE
AC	ASSUMED CONNECTION	NPV	NO PIPES VISIBLE
AGI	ABOVE GROUND	OL	OUTLET
AR	ASSUMED ROUTE	OU	OUTFALL
BD	BACKGROUND LEVEL	PF	PITCH FIBRE
BS	BASE LEVEL	PP	POLYPROPYLENE
BK	BRICK	POW	PIPE ON WALL
BL	BASE LEVEL	PT	P-TRAP
CI	CAST IRON	PTG	PIPE TO GROUND
CL	COVER LEVEL	PTS	PIPE TO SURFACE
CO	CONCRETE	PVC	POLYVINYL CHLORIDE
CU	CULVERT	PVC-U	ULTRA RIB (PVC)
CP	CATCHPIT	RR	ROUTE FROM RECORDS
CWL	CROWN LEVEL	RE	RODDING EYE
CW	COMBINED WATER	RMAN	RISING MAIN
DCH	DRAINAGE CHANNEL	RWP	RAIN WATER PIPE
DI	DUCTILE IRON	SOF	SOFFIT OF BISCUIT
FD	FILTER DRAIN	SP	SOIL PIPE
FW	FOUL WATER	SVP	SOLVENT PIPE
GY	GULLY	SW	SURFACE WATER
IC	INSPECTION COVER	TW	TRADE EFFLUENT WATER
IE	INVERT DEPTH	UTL	UNABLE TO LOCATE
IL	INVERT LEVEL	UTR	UNABLE TO RAISE
INT	INTERCEPTOR	UTS	UNABLE TO SURVEY
IT	INLET	VC	VITRIFIED CLAY
KO	KERB OUTLET	VP	VENT PIPE
LH	LAMP HOLE	WL	WATER LEVEL

LEGEND

- COMBINED SEWER: F-TAP
- FOUL WATER SEWER: BACK DROP INTERNAL, BACK DROP EXTERNAL
- SURFACE WATER SEWER: 2.0% MIN. SLOPE, 2.0% MIN. SLOPE
- TRADE EFFLUENT SEWER: 2.0% MIN. SLOPE
- UNIDENTIFIED SEWER: UNABLE TO CCTV SURVEY
- RISING MAIN: CAPPED PIPE, ELECTROMAGNETIC DERIVED DEPTH
- MANHOLE: ELECTROMAGNETIC DERIVED DEPTH
- UNIDENTIFIED CHANNEL: DATA FROM OTHER RECORDS
- SEWER: UNIDENTIFIED

PAS 128:2014 Quality Level Guide

Quality Level	Description	Accuracy
Q04	A utility is expected to exist but cannot be detected - (AR, RI, VI)	Undefined
Q03	Horizontal location only using one geophysical technique	± 50mm Horizontal Undefined Vertical
Q02	Horizontal and vertical location only using one geophysical technique	± 250mm or ± 40% of depth whichever is greater
Q01	Horizontal and vertical location only using two geophysical techniques	± 150mm or ± 15% of depth whichever is greater
QA	Service verified in an open excavation, inside an inspection chamber (down pit) or at the point the service enters / exits the ground	± 50mm Horizontal ± 25mm Vertical



Drainage Survey

INSEWER SURVEYS
 156 REVENUE ROAD
 LORDSWOOD INDUSTRIAL ESTATE
 CHATHAM
 KENT
 ME4 4JD
 TEL: 01843 861 789
 FAX: 01843 201370
 WEB: www.insewer.co.uk
 EMAIL: mail@insewer.co.uk

**Peel Ports
 Great Yarmouth
 Norfolk**

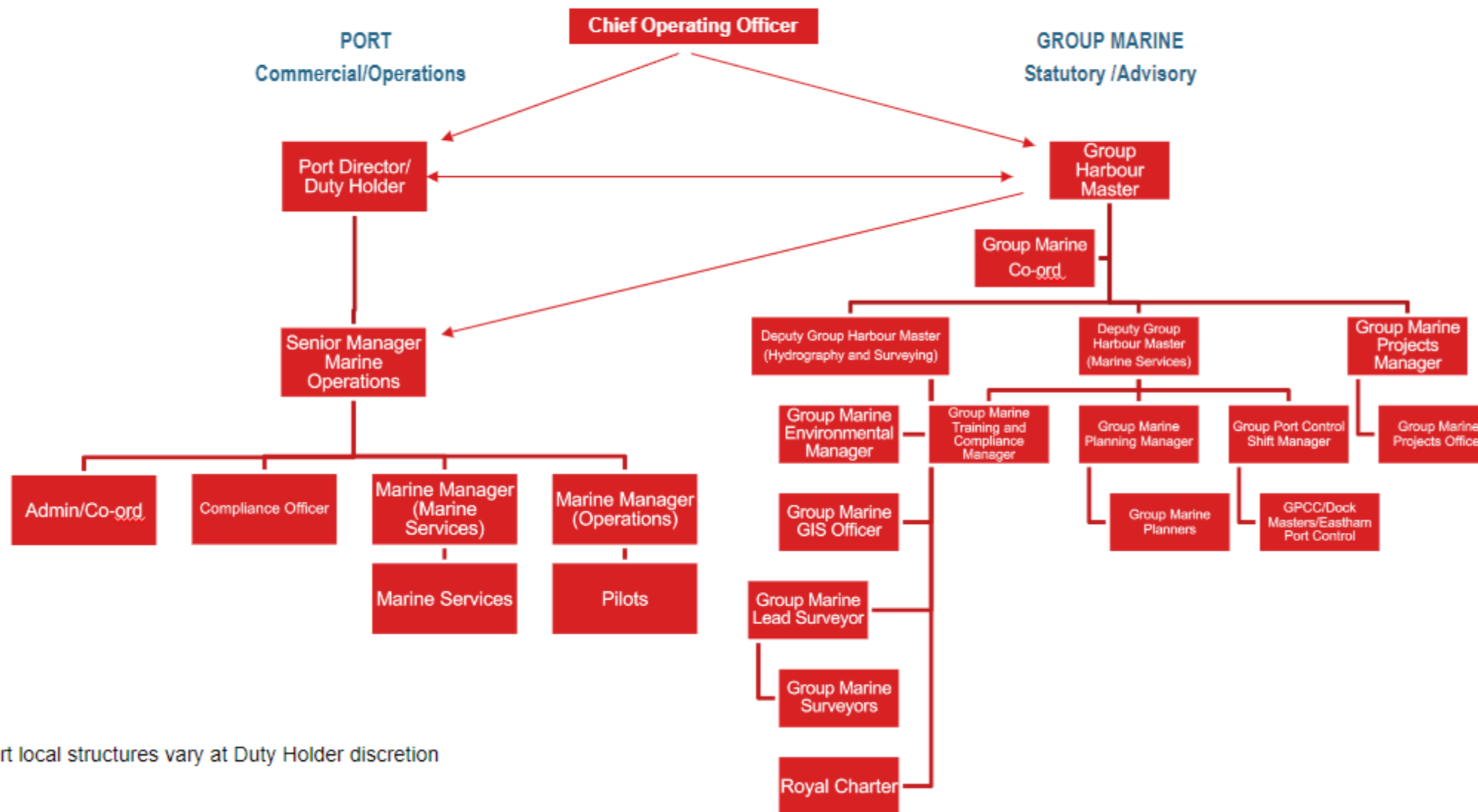
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Project Number:	Rev:	Checked by:	Approved by:
29618	-	MK	TW MPW

mksurveys

www.mksurveys.com www.surveys4bm.co.uk
 Head Office: Milton Keynes t: 01908 565561 e: mail@mksurveys.co.uk

Appendix 7 – Marine Organisation Structure

Marine Structure



Exceptions: Port local structures vary at Duty Holder discretion

Appendix 8 – Incident Organisation Chart GYPA

