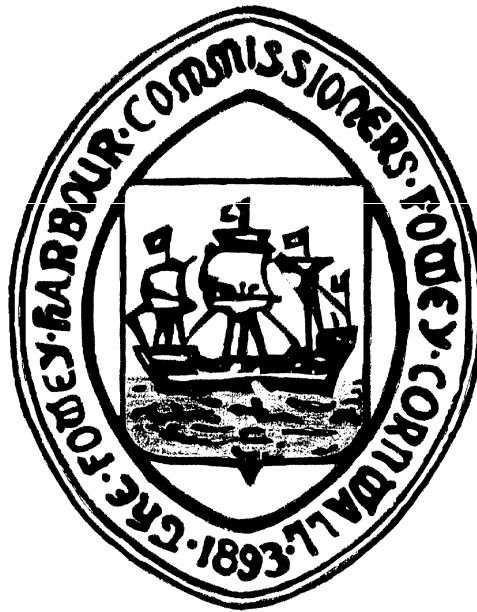


PART 2

FOWEY HARBOUR



Contents

Part 2: Fowey Harbour

Section 2: Risk Assessment

2.1	Introduction	14
2.2	Scope of the Plan	14
2.3	Factors of Assessment	14
2.4	Pre Arrival Checks	15
2.5	Passage & Berthing within the Harbour	15
2.6	Bunkering Operations.....	16
2.7	Potential Harbour Spillage.....	17
2.8	Other Sources of Potential Oil Spillage.....	17
2.9	Risk Assessment for largest vessel capable of entering the Harbour (e.g. Port of Refuge)	18
2.10	Response Strategy	18
2.11	Overall Conclusion	19
2.12	Consensus.....	19

Section 3: Environmental Sensitivities & Priorities for Protection

3.1	General Strategy.....	20
-----	-----------------------	----

Section 4: Categories of Incident

4.1	Levels of Call-out.....	22
-----	-------------------------	----

Section 5: Waste Disposal Operations 23 |

Section 6: Document Control & Plan Revision 26 |

Section 7: Training & Exercise

7.1	Training Policy	27
7.2	Exercise Programme	28

Section 8: Incident Response Organisation

8.1	Introduction	29
8.2	Responsibilities & Incident Control Arrangements.....	29
8.2.1	Chief Executive / Harbour Master	29
8.2.2	The Response Team for Fowey Harbour comprises.....	29
8.2.3	Fowey Harbour Commissioners, Tier II response	30
8.2.4	Organisational Structure.....	31
8.2.5	Oil Pollution Incident Chain of Command Fowey Harbour	32

Section 9: Dispersant Use..... 33**Section 10: Interface with other Contingency / Emergency Plans** 34**Section 11: Internal Alerting & Call-out Procedures**..... 35**Section 12: Liaison Procedures with other Agencies** 36**Section 13: Response Strategies**

13.1	Statutory Duties	37
13.2	Site Safety Assessment.....	37
13.3	Safety on the Foreshore.....	40
13.4	Safety on the Water	40
13.5	Safe Operation.....	41
13.6	Decontamination.....	41

Section 14: Oil Spills

14.1	Introduction	42
------	--------------------	----

14.2	Response to Oil Spills	42
14.3	Oil Sampling	43
<u>Section 15: Disposal Plan</u>		44
<u>Section 16: Action Sheets</u>		
16.1	Observer of the incident at Fowey Harbour Office.....	45
	16.1.1 Information to be Obtained at Initial Spill Report.....	46
16.2	Fowey Harbour Chief Executive & Harbour Master.....	47
	16.2.1 Initial Response Upon Notification of a Spill	47
	16.2.2 Action Sheet Fowey Chief Executive & Harbour Master	48
	16.2.3 Escalation of Response	51
16.3	Briefing of Chairman of the Commissioners & Board Members.....	52
<u>Section 17: Communications</u>		
17.1	Notification Matrix	53
17.2	Communications & Reporting.....	54
	17.2.1 Reporting of Oil Pollution	54
	17.2.2 MCA Automatic Reporting Procedure by Fax.....	54
	17.2.3 Communication.....	54
	17.2.4 Records	55
<u>Section 18: Sensitive Areas Response Information</u>		
18.1	General Nature Conservation Information of the Fowey River & Estuary	56
	18.1.1 Landscape Designations	57
	18.1.2 Designated Voluntary marine & Conservation Area.....	58
18.2	Environmentally Sensitive Areas of the Fowey Estuary	59
	18.2.1 Polruan Pool	59
	18.2.2 Penleath Point	59

18.2.3	Pont Pill.....	59
18.2.4	Penpoll Creek, River Lerryn, St. Winnow Point – Lostwithiel.....	60
18.2.5	Mixtow Pill, Cliff Pill & Woodgate Pill	60
18.2.6	Upper Reaches.....	60
18.3	Fisheries	60
18.4	Site of Special Scientific Interest.....	61
18.5	Amenity Areas	61
18.6	Tidal Streams.....	62
18.7	Fowey Harbours Environmentally & Socio Economically Sensitive Sites	63

Section 19: Report forms & Check Lists

19.1	Pollution Incident Report Forms.....	64
19.2	Incident Log Sheet.....	65
19.3	Waste Disposal Action Checklist.....	66
19.3.1	Waste Generated from a Shoreline Clean-up Operation	66
19.3.2	Oily Liquid Recovered at Sea & Held on a Dedicated Oil Recovery Vessel	68

Section 20: Press & Public Information

20.1	Press Statement	69
20.1.1	For Guidance it would be expected as follows:	69
20.1.2	Initial Press Statement	69

FOWEY HARBOUR

Section 2: Risk Assessment

2.1 Introduction

A Risk Assessment to meet with OPRC Contingency planning requirements for Ports & Terminals was completed by Briggs Marine Environmental Services Ltd on the basis of a format, previously agreed with MCA.

2.2 Scope of Assessment

This assessment covers both quayside operations and marine operations where vessels and users are under the jurisdiction of The Fowey Harbour Commissioners. The area is as shown in *Section 1.3.1 Page 4 & 5* (Harbour Limits), starting on the seaward side from Punch's Cross Rocks across to St. Catherine's Point and stretching northwards up the River Fowey to Lostwithiel Road Bridge including all tributaries up to their high water marks (Mean High Water).

2.3 Factors of Assessment

Fowey Harbour is a drowned river valley fed by the Rivers Fowey, Lerryn, Pont and their tributaries. The lower part of the harbour is mainly given over to moorings for leisure craft. Occasional cruise liners visit and moor in this area, just off the main fairway. The middle harbour contains 5 commercial berths owned by IMERYS Minerals Ltd. from where large quantities of china clay are exported; this constitutes the main commercial trade of the harbour. The upper reaches contain moorings for leisure craft.

There is no crude or fuel tanker traffic to Fowey. There is a fuel point on a pontoon providing fuel for small craft moored in the lower harbour at Toms Boat Yard, Polruan Pool, storage tanks are ashore.

The RNLI have a 12000 litre bunded storage tank situated at the Pilots Pontoon in Fowey Docks for bunkering the lifeboats.



Aerial view of Fowey Harbour

2.4 Pre arrival checks

Pilotage is compulsory for vessels over 37.5 metres and a tug has to be taken for vessels over 92 metres. All vessels are required to report their operational condition in accordance with Statutory Regulations (Schedule 2) this is done via the ship's agent and to the pilot. The shipping agents provide a daily Voyage Information System (VIS) listing of expected ship movements, via an internet link. IMERYS is the main charterer of commercial vessels at Fowey and vessels used by them are audited beforehand.

A written passage plan is discussed between the pilot and vessel's master prior to harbour entry and departure, navigational plus other relevant information is given at this time. The Chief Executive/Harbour Master or Pilot carries out checks if necessary. These include checks to ensure that the vessel is not leaking oil. That no ballast or overboard discharge, other than where permission has been granted, will take place during the period in harbour.

2.5 Passage and Berthing within the Harbour

Entry into the harbour is narrow (185m) but well defined, there are clear navigational leading lights. Vessel size is restricted by length, this being 170 metres. Large vessels turn in the lower harbour with the assistance of a tug/or tugs, they are then towed stern first onto their berth.

Berthing operation and size of tugs available

There are two tugs (1,000 bhp) on standby within the Harbour at Fowey. Vessels over 92 metres are required to take a tug on their stern, larger vessels, over 102m could require a second tug on their bow.

No berthing accidents have been reported within the Harbour over the last 25 years.

Berthing failure or collision - Conclusion

A **Berthing operations failure** is considered to be a **low-level risk** at this harbour due to controls in operation, namely compulsory pilotage, compulsory use of tugs and the use of documents such as the Port Operations Manual and regulations. **Collision risk is small** and the only scenario envisaged was between a manoeuvring vessel and port infrastructure. The size and type of vessel using the harbour is such that the result of collision damage to the largest cargo tank, taking into consideration hydrostatic pressure is calculated that it could be no more than 30 tonnes of HFO or 50 tonnes MGO.



Aerial view of a wharf operated by IMERYYS Minerals Limited

2.6 Bunkering Operations

Vessels are bunkered at the berths by road tanker. These operations are infrequent, and as such should be statistically viewed as a low risk. Bunkering is only allowed with the permission of the Chief Executive / Harbour Master and Imerys Ports, checklists provided by the supplier must be completed prior to commencing operations. There is a recorded reporting system and this activity is covered by Harbour Byelaws. The maximum road tanker loading is 20 tonnes MGO. No bunkering spills have been registered at the harbour.

Bunkering for leisure craft and the few fishing boats remaining is carried out at the bunker pontoon operated by and positioned off Toms Boat Yard at Polruan in the lower harbour. The marine gas oil is stored in a shore based tank and is delivered to the pontoon via a connecting bridge. Fuelling is via a pump to a flexible hose with a trigger nozzle, this being passed to the receiving boat. Visual checks are carried out prior to fuelling and there is always an operator in attendance on the pontoon and another on the receiving craft. Any spillage would be less than 5 litres.

Contents liable to be lost in the event of a Bunkering failure:

- Hoses used are 3" diameter and 20 m long. Average content being 100 litres
- Loading rate is 300-400 litres per minute

Bunkering failure - Conclusion

Maximum amount due to overflow or failure would be < 150 litres.



Fuelling Pontoon – Toms Boatyard, Polruan Pool

2.7 Potential Harbour Spillage

- Worst case loss from ruptured fuel tank on vessel 30 tonnes HFO or 50 tonnes MGO.
- Operational Bunker loss <150 litres.
- Worst case loss of road tanker 20 tonnes.

2.8 Other sources of potential oil spillage

- River run-off from the upper reaches of the Fowey above Lostwithiel and outside the Harbour Authorities jurisdiction.
- Storm water drains from Fowey and Polruan run directly into the harbour.
- Spill during waste oil discharge. Waste oil is disposed of by vessels under The Merchant Shipping (Port Waste Reception Facilities) Regulations 1997 (SI No 3018). There is a Port Waste Management Plan in operation. Permissions and control measures also apply.

2.9 Risk assessment for largest vessel capable of entering the harbour. (E.g. port of refuge):

Fowey would not be considered as a Port of Refuge for vessels larger than those already using the harbour due to the narrow entrance and the proximity of Plymouth and Falmouth. Fowey Harbour does not have large repair facilities.



Brazen Island maintenance yard

2.10 Response Strategy

The Overall Objective - will be to use all available means to minimise the long-term ecological and economical damage from any kind of spill. Containment of oil afloat will be the prime objective, minimising pollution of the shoreline.

At a meeting of the named consultees, it has been agreed that small oil spills within the harbour area will be recovered using Tier 1 materials and equipment held in stock by the Harbour Commissioners. In the event of a Tier 2 spill additional response, above that which could be provided by FHC, would be within 4 hours with the spill being contained and recovered and disposed of by the nominated Fowey Harbour Commissioner's accredited contractor. Waste will be disposed of by a certified disposal route in compliance with EA regulations.

In the majority of cases, any spillage of the size nominated within this study would be recovered using sorbents or mechanical means. It is FHC's policy that dispersants are not to be used, endorsed by DEFRA, NE and EA based upon water depth, flows and proximity of sensitive areas.

2.11 Overall Conclusion

Fowey is considered to be a very well controlled, **low risk** harbour. Proper vessel controls exist through pilotage and tug usage. There is no tanker movement within the Harbour limits and the fuel pontoon is moored well away from the main channel. There is very little shore/ship bunkering.

TIERED RESPONSE LEVELS DETERMINED

	Harbour	IMERYYS Berths	Fuel Pontoon
TIER 1	300 Ltrs Waste Oil	300 Ltrs MGO	5 Ltrs LFO
TIER 2	30 Tonnes HFO 50 tonnes MGO		
TIER 3	200 Tonnes HFO		

2.12 Consensus

This Risk Assessment was undertaken by Briggs Marine Environmental Services Ltd and the findings were presented by them to a meeting of the Fowey Harbour Commissioners, the consultees to this plan, local contractors and Harbour users, prior to compilation of this report.

Section 3: Environmental Sensitivities and Priorities for Protection

3.1 General strategy

Before starting a clean-up operation shoreline clean-up targets/ objectives should be remembered;

- To restore the affected area
- Satisfy Government / public perceptions of clean (*See appendix 9*)



Upper Estuary – Lostwithiel marshes

Considerations to be taken into account when planning the incident strategy;

- Is the oil on the shore
- Shore accessibility
- Accessibility from the sea
- Potential mobility of the oil on the shore
- Temporary storage and removal
- Sensitive environments
- Clean-up equipment

Where possible, considering safety and estuarine conditions, recovery of oil off the water will be the priority:-

- Less environmental damage
- Technically simpler
- Less costly overall
- Potentially higher recovery rates

Any floating oil on the water surface should be removed physically – no chemical dispersants are to be used. Removal should particularly be attempted where this may significantly reduce the possibility of quantities of oil coming ashore on areas of recreational and environmental importance.

Where oil comes ashore, considering safety and estuarine conditions, it should be removed by manual and mechanical means whenever possible. General guidelines to follow;

- Seek expert advice on type and degree of clean-up (Natural England (NE) should be consulted if on or close to a SSSI)
- Minimise Disturbance to shoreline
- Minimise disposal requirements
- Co-ordinate clean-up with tidal cycles
- If appropriate, oil should be left to degrade naturally.

See *Section 23 page 87* for the Fowey Estuary clean-up options for the different types of foreshore found in Fowey harbour

See *Section 18 page 56* for *Sensitive Areas Response Information*.

Section 4: Categories of Incident

Fowey Harbour has in place a tiered incident response system for oil spillage (*Section 1.5 page 8*). The responsibility of escalating an incident from Tier 1 to Tier 2 lies with the Chief Executive / Harbour Master.

4.1 Levels of Call-out

Tier 1 Spills

For minor spills, where the response is addressed within the immediate vicinity, the Chief Executive / Harbour Master will take the appropriate action and arrange for safe storage and legal disposal of waste. Since all oil spills, regardless of size, have to be reported to the appropriate Authorities, the Chief Executive / Harbour Master will always alert the MRSC Brixham who via their automated system inform other appropriate organisations (*See Section 17.2.2 page 54*).

Tier 2 and Tier 3 Spills

For all spills of a higher level, the Chief Executive / Harbour Master will alert the Incident Response Organisation according to this Plan.

Section 5: Waste Disposal Operations

The safe handling and disposal of recovered oil is governed by relevant sections in the following legislation:

- a) Environmental Protection Act 1990
- b) The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991
- c) Control of Pollution (Amendment) Act 1989
- d) The Waste Management Licensing Regulations 1994
- e) Environmental Protection (Duty of Care) Regulations 1991
- f) Hazardous Waste (England & Wales) 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 handled, transported and ultimately disposed of in an appropriate manner. If the material is to be handled by contractors then the operator has to ensure that each contractor has the relevant waste transportation and disposal licenses.

Natural England (formerly English Nature) should be consulted on any proposal to dispose of or store waste material to ensure that sensitive wildlife areas such as SSSI's are not affected. 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 oiled solids are:

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

Each disposal option will be examined in turn with various points for consideration highlighted.

a) Temporary Storage / Clean, Treat, Stabilise, Recover, Re-use

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 environmental option. It avoids the risk of changing what was a marine oil pollution problem into an inland surface pollution problem or groundwater pollution problem.

From temporary storage the contaminated material can be stabilised. 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 the EA.

b) Temporary Storage and Appropriate Disposal Site for Burial

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

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

In addition, under the above legislation, the temporary storage site including demountables, will have to be constructed in a specific manner and must be approved by the EA. It is therefore essential that the construction of temporary storage sites be done through close liaison with the local authority concerned and the EA.

c) 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 onboard 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 ship's Master to ensure that this waste is disposed of appropriately. However, the local authority must confirm that any contractors have the necessary licences to handle and dispose of the waste. The disposal route should also be agreed with the EA to ensure it meets with their satisfaction.

d) Direct to Appropriate Disposal Site

All disposal sites require a Waste Management Licence. The licence is specific to the type of material that can be disposed of at the site. The classification of landfill sites in accordance with The Landfill (England & Wales) Regulations 2002 has dramatically reduced the number of sites licensed to receive Hazardous Waste including organic or chemically polluting materials (including oily waste). There will be a charge levied by the site operator for depositing material at the site. In addition there is landfill tax / levy applied to all waste deposited in a landfill.

The Hazardous Waste (England & Wales) Regulations 2005 require premises producing hazardous waste to register their sites with the EA and it is the duty of the waste producer to annually re-register their premises. The registration of hazardous waste producing sites removes the need for pre-notification of waste removal.

The Hazardous Waste Consignment Note system ensures that hazardous waste is controlled at every stage, from production to final disposal, and that it is disposed of at a suitably licensed site. The producer/holder of the waste must complete parts A and B of the

consignment note before the waste can leave the site. The licensed waste carrier completes part C of the consignment note and takes it with the waste to the receiving facility. The licensed operator of the receiving facility then signs part D of the consignment note to say that they have accepted the waste and that they are authorised to manage it properly.

Waste crude oil is likely to be classified as Hazardous Waste and should be treated as such until otherwise determined. Mixes of crude oil / 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.

Oil recovered at sea by a dedicated Oil Recovery Vessel could be discharged within a harbour to an appropriate waste reception facility and a consignment note would then 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 the EA to confirm that the disposal route identified meets with their satisfaction.

Section 6: Document Control and Plan Revision

The Fowey Harbour Commissioners 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 each of the harbours, changes to be made to the plan or any other updates will be issued as amendments. There will be a new issue number for amended pages (bottom left) and they will be circulated 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 after that time.

This plan will be issued as a CD Rom unless otherwise requested

Section 7: Training and Exercise Policy

7.1 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 held for all employees of Fowey Harbour, their contractors and port operators with an identified role within the plan. In addition, there will also be awareness briefings with other harbour users and the Agencies who were involved in the consultation process.

After initial training, instruction will be specific with the use of the Tier 1 oil spill response equipment located at the Harbour. This will be tested and deployed using those personnel who will be responsible for operating this equipment in the event of a spill.

In order to meet the minimum levels as recommended in the MCA guidelines, the training and exercising of key personnel is detailed below.

Position	Type of training
Chief Executive / Harbour Master	Highest level (5p (IMO3))
Deputy Harbour Master	Highest level (4p (IMO3))
Pilots Environmental Officer	MCA Level 4
Masters of vessels, Foreman and Charge Hands, etc.	MCA Level 3
Port Staff and Pilot Boatmen	MCA level 1

The training regime will be supervised to the relevant standards in place at the time by an MCA/NI approved trainer, who are accredited trainers to MCA level 3. *See appendix 1 & appendix 6*

In the event of the Chief Executive/Harbour Master (HM) & the Deputy Harbour Master (DHM) being unavailable a member of FHC Staff or Pilotage staff who has been trained to MCA level 4 will take the role of incident controller until HM or DHM are available to take over, assisted by a MCA level 3 member of staff.

See Appendix 6 for training schedule

7.2 Exercise Programme

To ensure that the Oil Spill Contingency Plan is “user friendly” and understood by all those involved in its use, communications and practical exercises will be undertaken on an annual basis. A record of Personnel Training and Contingency Plan Exercises will be held by the Harbour Office.

EXERCISE IN THE USE OF THIS PLAN		
Exercises	Timing	Type of Exercise
Inspection of all equipment	Quarterly	Inspection - reorder used or out of date equipment
Desktop	Annually	Or part of a formal exercise
Inspection and exercise in the use of the equipment	Every six months	Inspect and use the equipment, updating personnel in procedures and use
Oil Spill Response Exercise	Every six months	Simulation of an oil spill incident using the Oil Spill Contingency Plan, Emergency Plan and Communications Plan mobilising equipment and personnel as appropriate
Revalidation	5 years	Update and test

The carrying out of the above will be staggered through each twelve month period.

See *Appendix 14* Exercising the Plan

Section 8: Incident Response Organisation

8.1 Introduction

This Plan has been compiled to cover the response to any spillage caused during operations within the limits of Fowey Harbour, including spills either from shore-side operations, or vessels alongside, in transit or on passage within the harbour authority jurisdictional area. The Plan indicates the Tier 1 response available at the Harbours relevant to the perceived risk through normal operations as well as a mechanism for calling upon Tier 2 or Tier 3 response in the event of an abnormal incident or major accident affecting Fowey Harbour.

Definitions of the tiered levels used in these harbours are shown in *Section 1.5 page 8*.

8.2 Responsibilities and Incident Control Arrangements

8.2.1 Chief Executive / Harbour Master

The Incident Response Team will be lead by the Chief Executive / Harbour Master or his Deputy and will involve the named personnel below. A Marine Response Centre will be established in the Control Room at the Harbour Office.

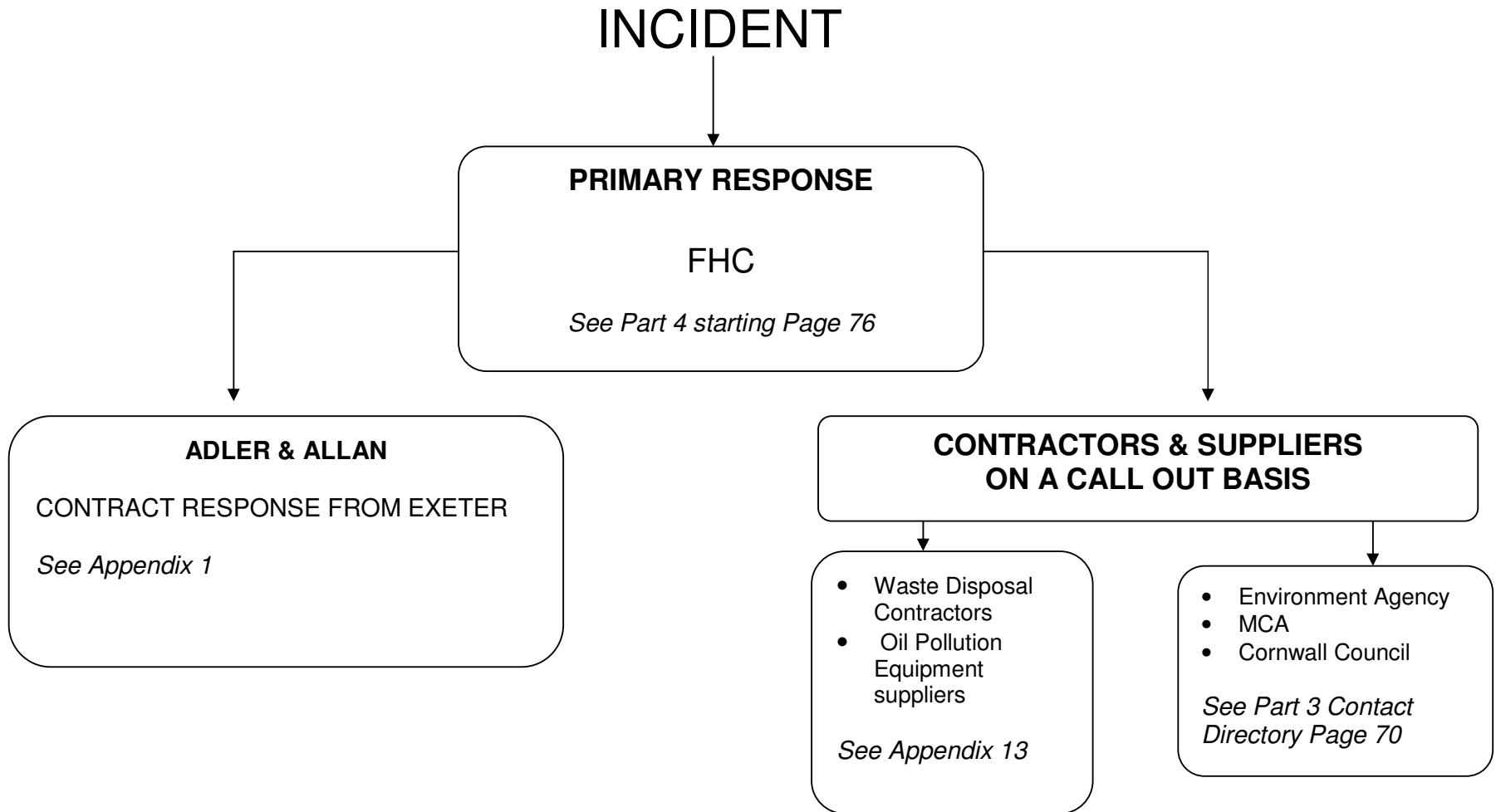
The Chief Executive / Harbour Master or his Deputy will act as Incident Controller.

8.2.2 The Response Team for Fowey Harbour comprises

Position	Duty
Chief Executive / Harbour Master	Incident Controller
Deputy Harbour Master	On-scene Commander
Masters or Foreman	Sector Commander
Mates/Chargehands	Unit Commanders
Marine Operatives and Pilot Boatmen	Clean-up Operations
Pilots	On-scene/sector Commanders

8.2.3

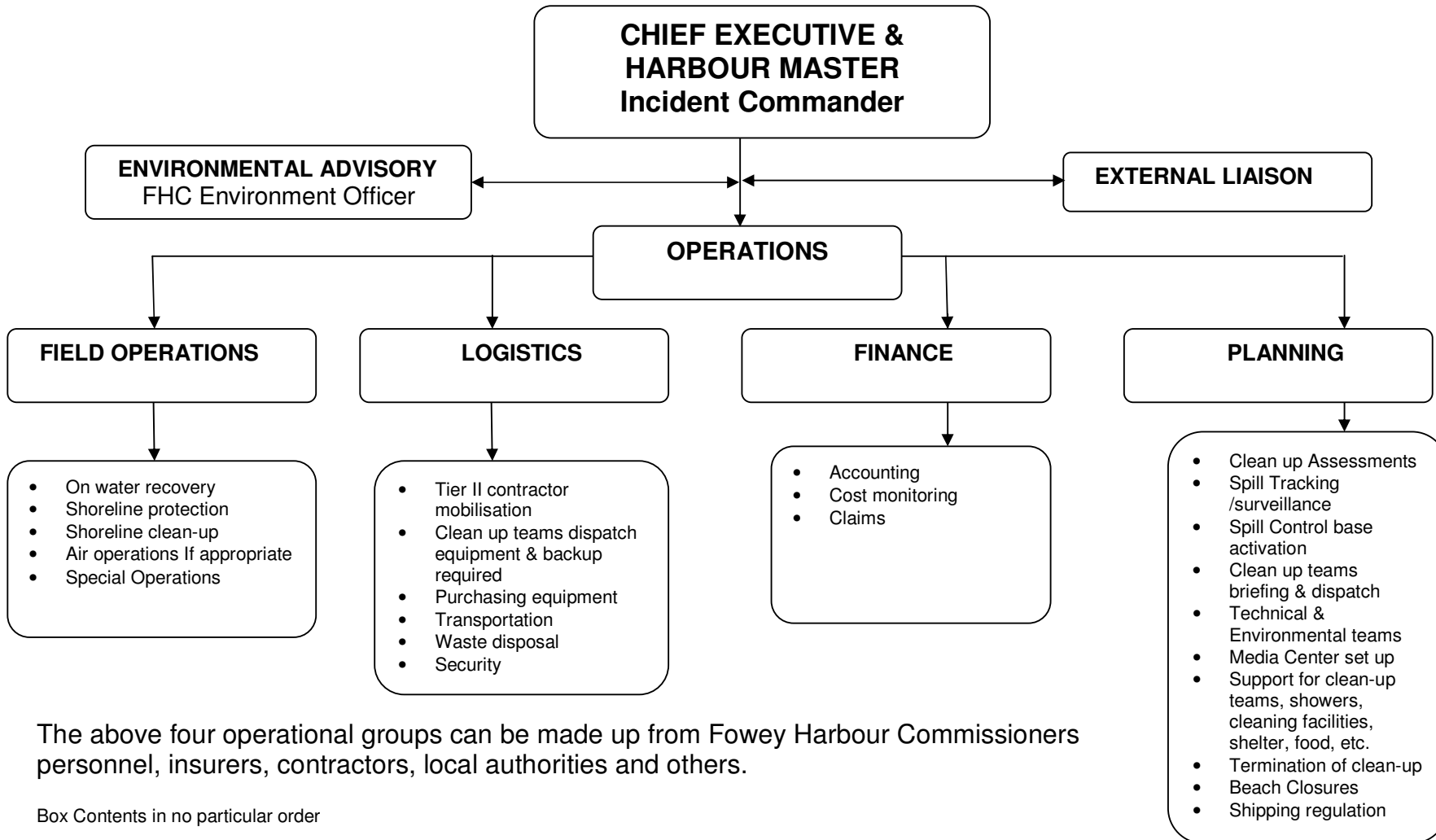
FOWEY HARBOUR COMMISSIONERS
TIER II RESPONSE



8.2.4

ORGANISATIONAL STRUCTURE

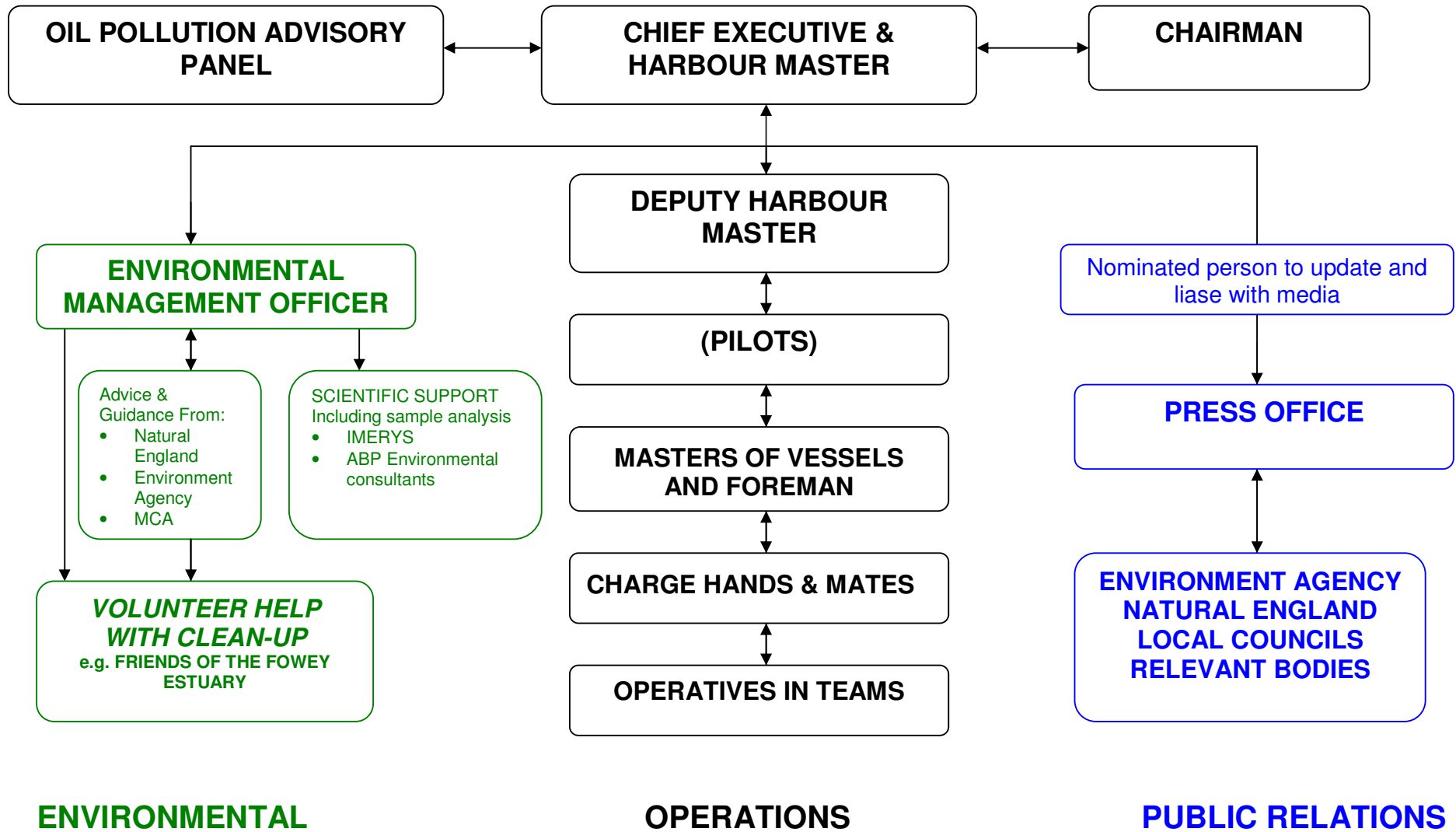
Comprising of the major players and response parties



The above four operational groups can be made up from Fowey Harbour Commissioners personnel, insurers, contractors, local authorities and others.

Box Contents in no particular order

8.2.5 OIL POLLUTION INCIDENT CHAIN OF COMMAND FOWEY HARBOUR



Section 9.0: Dispersant Use

The use of dispersant is not allowed within the Fowey harbour, except under life threatening situations.

Under the provisions of the Food and Environment Protection Act 1985, Part II, as read with the Deposits in the Sea (Exemptions) Order 1985, no deposit may be made of any substance produced for the purpose of treating oil on the surface of the sea in an area where the depth of water is less than 20 metres or within one nautical mile of any such area save with the prior approval of the Licensing Authority. This includes any area submerged at mean high water springs (e.g. beaches, wharfs, quays and slip-ways). The Licensing Authority in England is the Marine & Fisheries Agency/MMO.

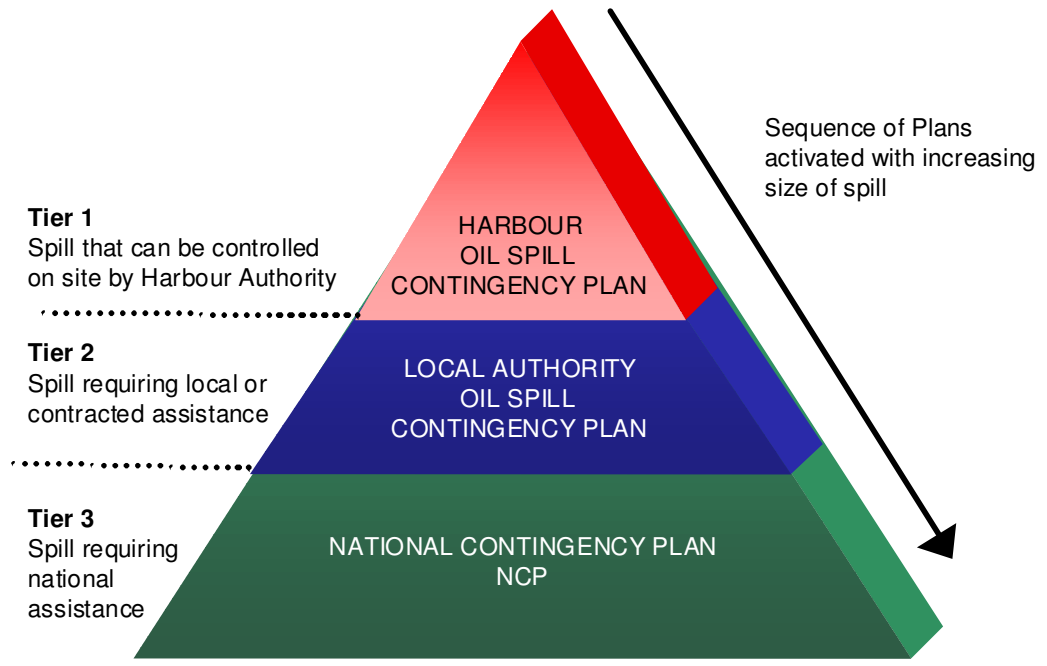
For other areas of the sea which are more than one nautical mile from the 20 metre contour, there is no such statutory obligation. Those dealing with oil spills are however advised that it is Government Policy that the Licensing Authority should be consulted in advance of all proposals to use oil dispersant except under "force majeure" conditions, e.g. where the safety of a vessel or offshore installation is threatened, where people's health is at risk, or where access to the site by staff is restricted. In such cases access areas such as slipways and steps will be pressure washed preferably but they may require treatment under existing procedures.

It is therefore essential to consult the MFA/MMO for advice on the implications for fisheries and the marine environment on the use of dispersant.

See Appendix 2

Section 10: Interface with other Contingency / Emergency Plans

This Plan will be used in conjunction with the Fowey Port Marine Emergencies Plan and Fowey Estuary Management Plan. Other Plans such as the Cornwall Council Coastal Counter Pollution Plan and the Devon and Cornwall Police Plan will be co-ordinated by Cornwall Council and the MCA if an SRC is required to be activated.

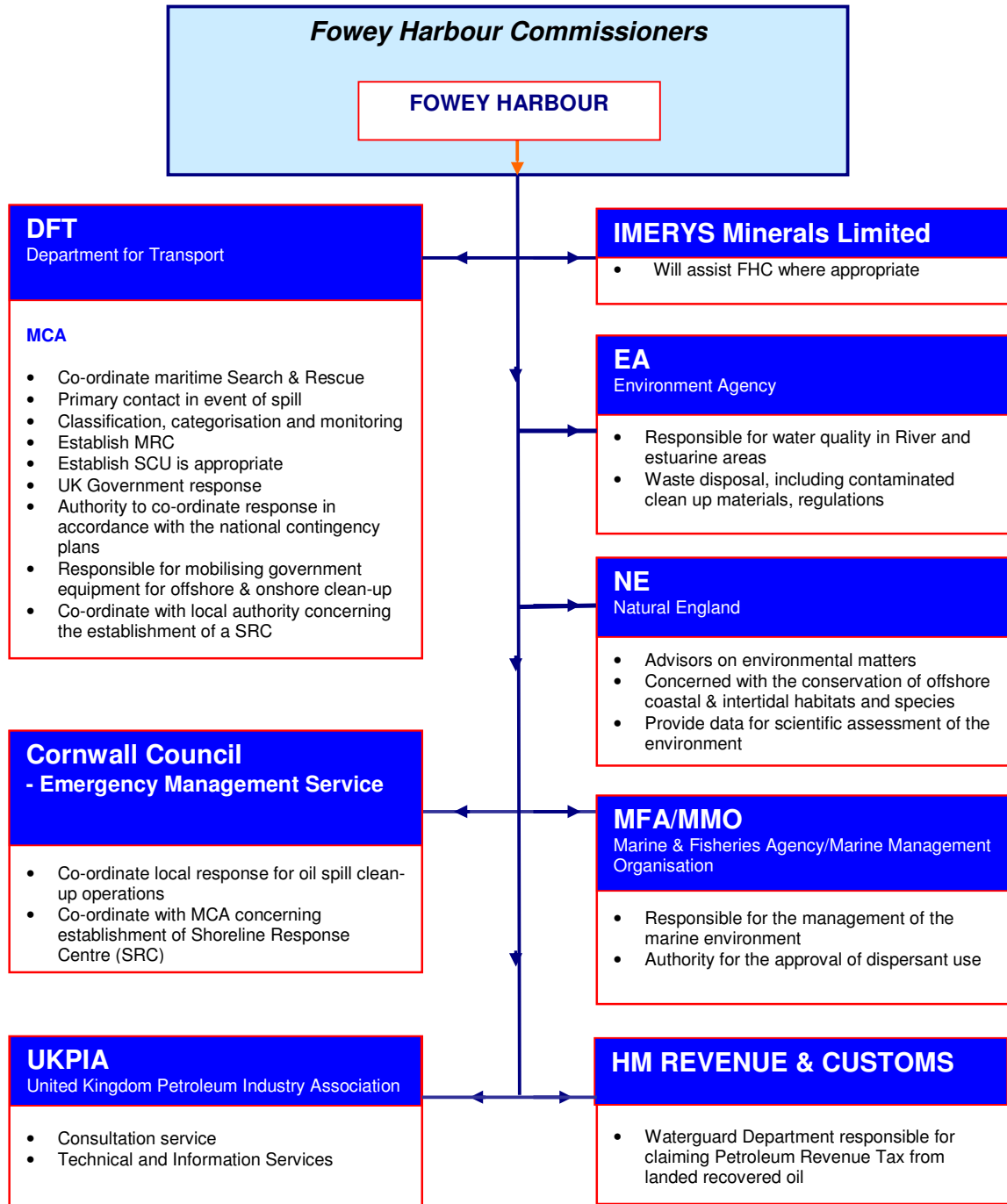


Section 11: Internal Alerting and Call-out Procedures

An initial spill report will come in the first instance to the FHC Harbour Office (which provides 24 hours telephone cover & response). Out of office hours reports may come via MCA, EA or Police. The information received must be passed immediately to the Chief Executive /Harbour Master. The Chief Executive / Harbour Master will confirm the incident details and determine the level of clean-up operation necessary and the requirement as to whether to activate the Harbour Operations Response Team (*Section 16 page 45*). All calls and decisions made must be recorded, and an Incident Log and relevant pollution report forms raised and completed (*Section 19.1 page 64 & Section 19.2 page 65*)

Section 12: 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.



For contact numbers see *Section 21*

Section 13: Response Strategies

13.1 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 Management of Health and Safety at Work Regulations 1992 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 does not cause adverse effect. That all personnel 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.

In addition to the above legislation **MCA's STOp 1/98** entitled **Health, Safety and Welfare during shoreline Clean up**, provides invaluable information, being based upon lessons gained from cumulative experiences of numerous spills (*Appendix 2*)

13.2 Site Safety Assessment

To achieve a Safe Operation, 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 Assessment 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 Assessment 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 cleanup 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 addressed, 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 should be stated and the reasons for and priorities of each facility established.

- Cranes
- Boats
- Breathing Apparatus.
- Fork Lifts
- Hoses and Pumps
- Low Loaders
- Motor Vehicles
- Raking and Sweeping Gear

c. Site Control

It is essential that those in charge of the Spill Cleanup have control of the site as soon as possible and before any significant part of the cleanup operation begins. Access to the site must be restricted to those personnel who are essential to the cleanup operation.

Arrangements must be made for the area to be barriered, closed and policed such that no one can enter the work area without reporting to the site supervisor. Signs will be placed on the beach, quay or access points to inform the public the area is closed and for what reason, and any other health & safety information that is required. No workers should be allowed on site until they have received the full vetting and briefing with respect to the Safety Plan.

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)

PPE includes:

- 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 taken into account.

e. Personnel

Selection of Personnel to carry out the cleanup must be dominated by safety considerations.

13.3 Safety on the Foreshore

During the execution of a foreshore Site Survey, access to the area to be cleaned must to be carefully assessed. Account needs to be taken of low and high tides and the need for workers to access inlets, cliffs and terrain difficult to navigate. Tide tables should be consulted as well as the taking of advice from those with local knowledge.

Where necessary and appropriate, the use of equipment such as handrails, ropes and ladders should be considered.

Where workers are, by necessity, required to work out of sight of one another, communication between them and the supervisor is essential.

The provision and use of Personal Emergency Beacons and Distress Flares by appropriate personnel should be considered.

13.4 Safety on the water**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 and should be protected by a Survival Suit.

13.5 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.

13.6 Decontamination

Conditions requiring decontamination

Where workers have been wearing waterproof and protective clothing, it is likely that the clothing will become contaminated by crude 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 Hazardous Waste. If incineration facilities do not exist at the site, the clothing may need to be delivered to the Local Authority or to a Hazardous Waste Contractor.

Section 14: Oil Spills

14.1 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, 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 and skin absorption.

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

- spreading
- evaporation
- oxidisation
- 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.

14.2 Response to Oil Spills

Oil Spill within the Harbour Area

Oil spilled and remaining within the immediate vicinity will be recovered using sorbent materials held by FHC.

In the event that a larger spill occurs it will be recovered and disposed using the Port personnel in conjunction with an accredited FHC contractor(s) (*See Section 21 for approved contractors and waste operators*). Waste arisings will be legally carried for disposal.

Within Fowey Harbour fixed booming points have been found to be impracticable due to the fast tidal flows. In most cases of a spillage of the size nominated within this plan it would be allowed to evaporate and disperse naturally due to the speed of local currents with consequential shoreline clean-up.

On a flood tide, spilt oil is unlikely to travel further than the top end of Wiseman's Reach as the strength of freshwater river flow normally exceeds tidal current flow. Also the wind pattern is such that the prevailing wind comes from the North.

The Chief Executive / Harbour Master has the ability to call upon personnel and various harbour authority craft (*See Section 24*) that would be available to attend and participate in containment or clean-up operations

Any action undertaken would be on the advice of NE and EA and other appropriate authorities.

14.3 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, it is therefore essential that the procedure for the collection of a sample is followed to ensure their authenticity cannot be challenged.

Guidance in the matter of collection of samples is given in MCA STOp Notice 4/2001 (*Appendix 2*). Samples will be collected following the protocol described in this appendix, where possible, by EA personnel or with their assistance.

Section 15: Disposal Plan

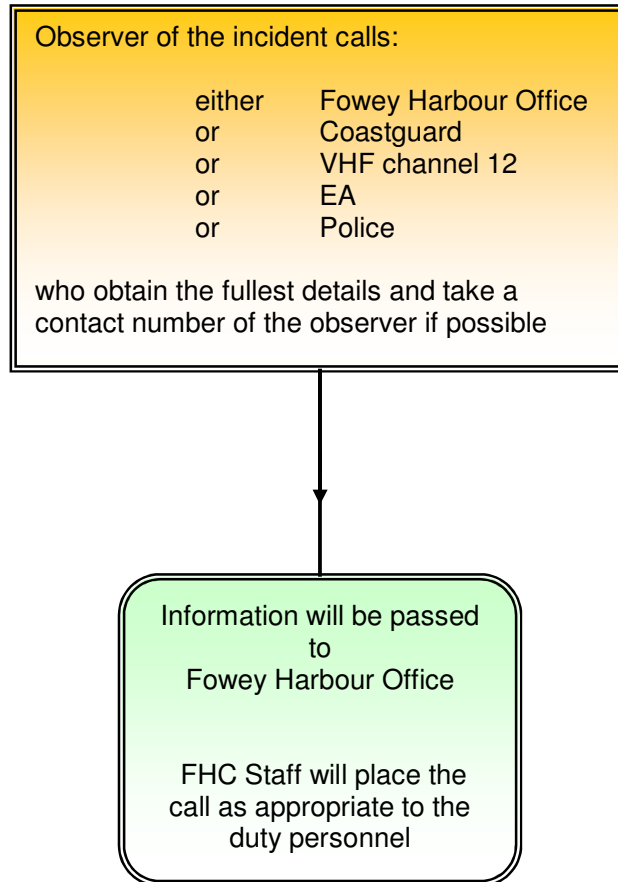
All waste from an oil spillage will be handled systematically and strictly in line with the current Regulations. Policy and instructions are identified in *Section 5 page 23*. A waste disposal action checklist is shown in *Section 19.3 page 66*.

Within the resources of the Plan, initial holding and storage will be possible through use of portable storage tanks as listed in *Section 24* and thereafter the oil will be disposed of using a local licensed contractor.

Licensed transport contractors are listed in *Section 21*. In the event of a Tier 2 or 3 spill response, the legal disposal of recovered oil will be undertaken, through a disposal route agreed with EA and in consultation with NE, on behalf of FHC. This will be managed by the approved Oil Spill Contractors duly accredited to Level 3 under the EA / British Oil Spill Control Accreditation Scheme as given in *Section 21* and *Appendix 1*.

Section 16: Action Sheets

16.1 Observer of an Incident in Fowey Harbour



For specific telephone numbers see *Section 21*.

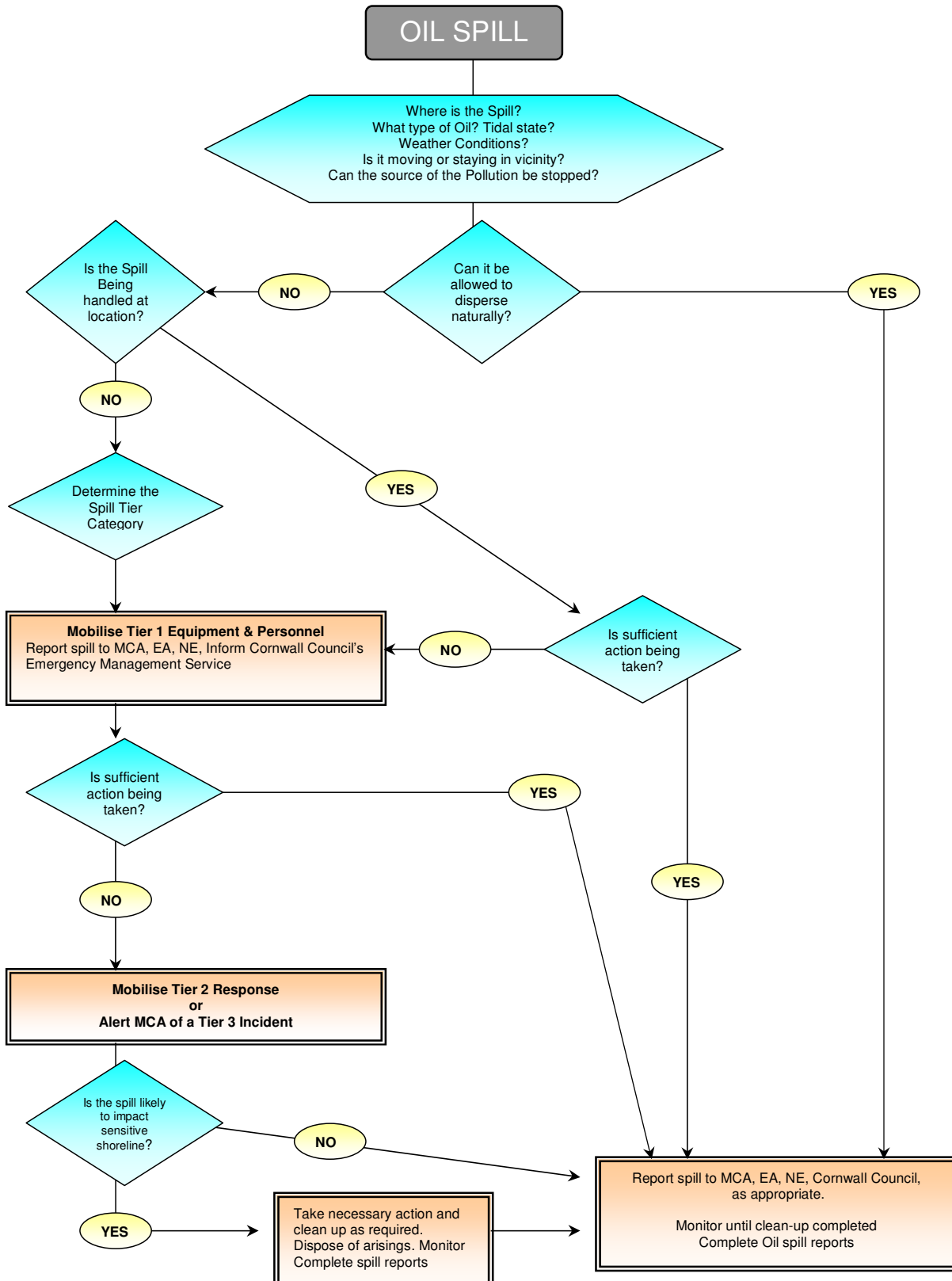
Fowey Harbour Commissioners Internal Pollution Incident Reporting Forms are shown in *Appendix 3*

16.1.1 Information to be obtained at initial spill Report

Date: _____
Time: _____
1. Name of person reporting incident _____
2. Job Title _____
3. Details of Company/organisation or address _____ _____ _____
4. Call back number _____
5. Location of the Incident _____
6. Estimated quantity of spilled oil _____ litres/tonnes
7. Type of oil spilled _____
8. Action taken to prevent further spillage _____ _____
9. Other relevant information _____ _____ _____ _____ _____

16.2 Fowey Chief Executive & Harbour Master

16.2.1 Initial response upon notification of a spill



16.2.2 Action sheet Fowey Chief Executive / Harbour Master

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. The Chief Executive who is also the Harbour Master will be in a position to make corporate decisions regarding media reporting and liaising with underwriters and contractors while in communication with the Fowey Harbour Commissioners' Chairman.

CHIEF EXECUTIVE / HARBOUR MASTER		
TIER 1 SPILL RESPONSE		
NO.	ACTION	REFER TO
1	Obtain all available information. Ensure that an Incident Log has been started.	Report Forms and checklist Section 19.1 & 19.2
2	Determine initial level of manpower and equipment resource mobilisation required. (Contact IMERYYS if their assistance is required)	Tiered Response Part 4
3	Obtain initial briefings from on-scene Clean-up Supervisor, complete incident details & progress of clean up.	
4	Establish communication with all concerned parties and ensure that statutory reporting requirements have been carried out. Determine level of response that has been initiated and inform MCA, EA, NE and Cornwall Council of intended response. Determine level of response required from duty personnel from these organisations as appropriate.	Statutory Notification Section 17 & section 19 Tiered Resources Section 4
5	Assessment meeting, determine likely impact of incident, set priorities for action. Feedback to supervisors, forecast, objectives and priorities.	
6	Deploy booms as necessary in accordance with Booming Plan	

NO.	ACTION	REFER TO
7	Contact/Call out Incident Response Team Personnel, activate MRC as appropriate.	Mobilisation Procedure Section 8
8	Monitor Situation. Obtain regular briefings from clean-up supervisor on progress of clean-up	
9	Ensure that a sample of spilt oil has or is being taken, especially when the origin of the spill is unknown or legal proceedings are liable to be taken.	MCA's STOp Notice 4/2001 Appendix 2
10	If it appears that the spill has escalated, proceed as for Tier 2 and Tier 3 incidents.	
11	Liaise with wildlife organisations e.g. RSPCA, RSPB, Cornwall Wildlife Trust	
12	The log of the incident should be completed with a full report including costs incurred.	
13	Terminate Clean-up Operations in agreement with relevant authorities	
14	Debriefing "wash-up meeting" Review the incident – Successes & lessons learnt	
15	Monitoring for any long term effects if appropriate	

TIER 2 AND 3 INCIDENTS		
NO.	ACTION	REFER TO
1	Contact Response Contractors and agree primary level of response required.	Section 21 Part 4
2	Start and maintain an accurate log or recording all communications with contractor.	
3	Establish communication link with the contractor's Response Manager and issue a call back number.	
4	Determine extent of incident in terms of: <ul style="list-style-type: none"> • Any casualties • Any safety hazard • Damage to facilities • Extent of pollution • Results of any actions taken so far. 	
5	Brief Response Supervisor of actions as appropriate.	
6	Arrange initial Public Relations programme.	Utilise advice and pro-forma statement Section 20
7	Establish review/planning meetings. Continue normal communications and ad hoc briefings.	
8	Attend review meetings in Marine Response Centre	
9	When incident stood down confirm incident closure with all agencies involved.	
10	Complete the incident log and ensure receipt of report from response supervisor.	

16.2.3 Escalation of Response

In the event that a response escalates to Tier 2 or Tier 3 level, sufficient personnel will be mobilised to establish a Marine Response Centre at Fowey Harbour Office and room will be made available to meet with personnel from external agencies.

The Chief Executive/Harbour Master will retain the position of Incident Controller unless any change is agreed in writing with the Government Agencies involved.

If the response is likely to become protracted, the Chief Executive/Harbour Master must make arrangements for the Marine Response 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 13 page 37* of this Plan.







16.3 Briefing of Chairman of Commissioners & Board Members

The Harbour Commissioners having approved this contingency plan will act in line with their predefined policy. The Chief Executive will work within this, regarding contracts, policy and liabilities.

THE CHIEF EXECUTIVE/HARBOUR MASTER WILL BRIEF THE:		
NO.	ACTION	REFER TO
1	Chairman of the Harbour Commissioners in the event of a Tier 2 or Tier 3 incident being declared	
2	The Chief Executive / Harbour Master will convene board meetings or specialised Commissioners committee meetings as required by the chairman	
3	The Chairman and or board will approve major expenditure outside the already agreed format	Appendix 17 Cost Recovery
4	The Chairman or is deputy will attend Press/Media briefings in liaison with the Chief Executive/Harbour Master	Section 20 Press and Public Information
5	The Chairman will call any meetings or debriefings for the Harbour Commissioners as they feel are necessary	

Section 17: Communications**17.1 Notification Matrix** (For telephone and fax numbers see Section 21)

Organisation	Oil Spill Tier			For contact numbers see Section 21 Contact Directory	
	1	2	3	Method	Remarks
Fowey Harbour Commissioners Harbour Chief Executive /Harbour Master	 	 	 	Telephone Fax	
MCA MRSC Brixham	 	 	 	Fax Telephone	Coastguard will require information on the Oil Spill Report Form Section 19.1. Confirm details by fax. Coastguard will inform the appropriate personnel & organisations see section 17.2.2
EA	 	 	 	Fax, Telephone, Pager	Contact if spill has originated from land based source. Confirm by fax.
Cornwall Council	 	 	 	Telephone, Fax	Contact the Emergency Management Service if oil is likely to contaminate the shoreline.
NE	  	  	  	Telephone Fax Pager	Contact if spill exceeds one tonne and ask for NE oil pollution advisor.
MFA/MMO				Fax, Telephone	
Oil Spill Contractors		 	 	Telephone or Fax	Contact the 24-hr contact number and ask for the Duty Manager.
IMERYYS Minerals Ltd Ports General Manager				Telephone	Courtesy Call, and to call upon extra personnel if required.

-  Notify immediately by phone
-  Notify immediately by fax
-  Notify immediately by pager
-  Notify by phone as appropriate
-  Notify by fax as appropriate
-  Notify by pager as appropriate

17.2 Communications & Reporting

17.2.1 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 Harbour Authorities jurisdiction or liable to pose a threat to it, should report the matter whether or not the source is known (*Section 16 page 45*).
- C. The Chief Executive / Harbour Master is responsible for ensuring statutory notifications are made (*Section 12 page 36*).

17.2.2 MCA Automatic Reporting Procedure by Fax

In the event of a pollution incident being reported to the MCA, the MCA routinely inform the following organisations.

From:	MRSC Brixham	
To:	MCA HEADQUARTERS (MPCU)	INTERNAL
INFORM:	COUNTY POLLUTION OFFICER CORNWALL	FAX
	CORNWALL COUNCIL	FAX
	NATURAL ENGLAND	FAX
	ENVIRONMENT AGENCY EXETER	FAX
	MFA/MMO HQ NEWCASTLE UPON TYNE	FAX & EMAIL
	ROM (CPS) WESTERN	FAX
	MARINE OFFICE PLYMOUTH	FAX
	MCA PRESS OFFICE	INTERNAL
	CEFAS	FAX
	FOWEY HARBOUR	FAX

17.2.3 Communications

Initially, reports will be passed by telephone. The Harbour Authority maintains VHF sets that would be issued to supervisors once a clean-up strategy has been established. Due to limits in mobile telephone communications in the area, in the event of a prolonged clean-up operation the police radio network may be brought in to assist.

Also in the event of a prolonged clean-up operation a shift system will be instituted to ensure the main telephone position is manned on a 24 hours basis.

17.2.4 Records

It is essential that all events occurring during an incident are logged and recorded (*sheet shown in Section 19.2 page 65*). This will provide assistance if liability, compensation or reimbursement issues arise as a result of the incident (*See Appendix 17 for a Guide to Cost Recovery*). To achieve this, logs should be kept by **all** key personnel, this may be achieved by recording VHF and telephone lines.

Entries in the logs should show details of events, actions taken, number of personnel, equipment in use, consumable materials used, communications with outside Agencies, decisions made and any other points relevant to the operation.

These logs should be forwarded to the Chief Executive / Harbour Master once the incident has ended to form part of the final incident report and provide the basis for a "wash-up" meeting.

A radar and CCTV system have been installed in the lower harbour and is linked to the Vessel Traffic Services (VTS) within the Harbour Office. The film coverage and VHF recording facility associated with this system may be utilised in an incident and the VTS office may be used as a control centre.

Section 18 : Sensitive Areas Response Information

18.1 General Nature Conservation Information of the Fowey River and Estuary

Fowey Harbour Commissioners retains an Environmental Officer on their staff. The Environmental Officer maintains the Fowey Estuary Management Plan and liaises with Environmental Agencies and other concerned bodies.

In the event of an oil spill EA and NE must be consulted; in addition reference will be made to the Fowey Estuary Management Plan and the Cornwall Council Coastal Counter Pollution Plan.

The Fowey Estuary and River are renowned for their natural beauty and this great value is reflected in the designation of the inner estuary as an Area of Great Landscape Value (AGLV), the valley also lies within the Cornwall Area of Outstanding Natural Beauty (AONB). The latter includes the Heritage Coast designation aimed at identifying areas of coastline for protection purposes and the Fowey Voluntary Marine Conservation Area (VMCA) (See Section 18.1.1 & 18.1.2)

The Fowey Estuary is a ria, a drowned river valley formed after the post-glacial sea level rise. The coastline around the outer estuary consists mainly of wave-exposed outcrops of bedrock interspersed with sediment filled bays. Bedrock shores extend up river as far as Polruan and Whitehouse Points. The Western shore as far as Wiseman's Point and the eastern shore to the entrance of Pont Pill are predominantly house and business frontages built on top of the bedrock or manmade sea defences with sandy shores below.

Above Wiseman's Point, the shores become increasingly sedimentary in nature, the western bank being dominated by the manmade supporting bank for the railway line.

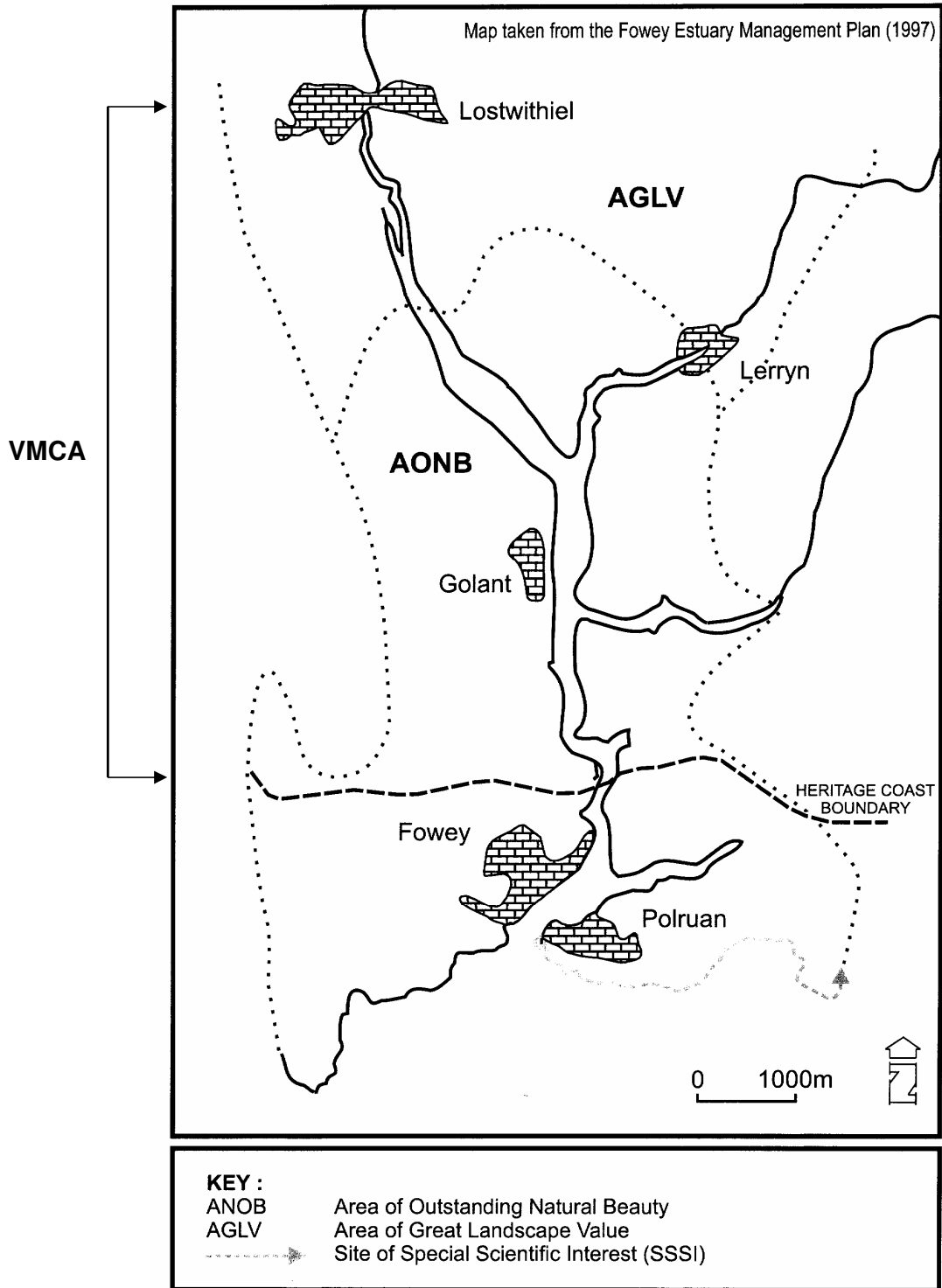
The River Fowey and its tributary the River Lerryn and several side branches or Pills flow through steep sided and mostly wooded valleys. The upper reaches have gradually silted up and extensive intertidal mud and sand flats are present upstream of Golant. These are important areas of feeding birds, nationally important populations of Greenshank occur during the autumn and several species of wader over-winter in the estuary.

Small patches of saltmarsh exist in the upper reaches of the estuary at Lostwithiel / Milltown. Saltmarshes are difficult habitats to clean after an oil spill and priority should be given to their protection, especially as saltmarsh is a relatively rare habitat in Cornwall.

The saltmarsh at Lostwithiel (Shirehall & Madderly Moors) are now under the ownership of Lostwithiel Town Council, it is therefore their responsibility for any clean up operation on this land although the Harbour Commissioners are responsible for ensuring that such procedures are carried out.

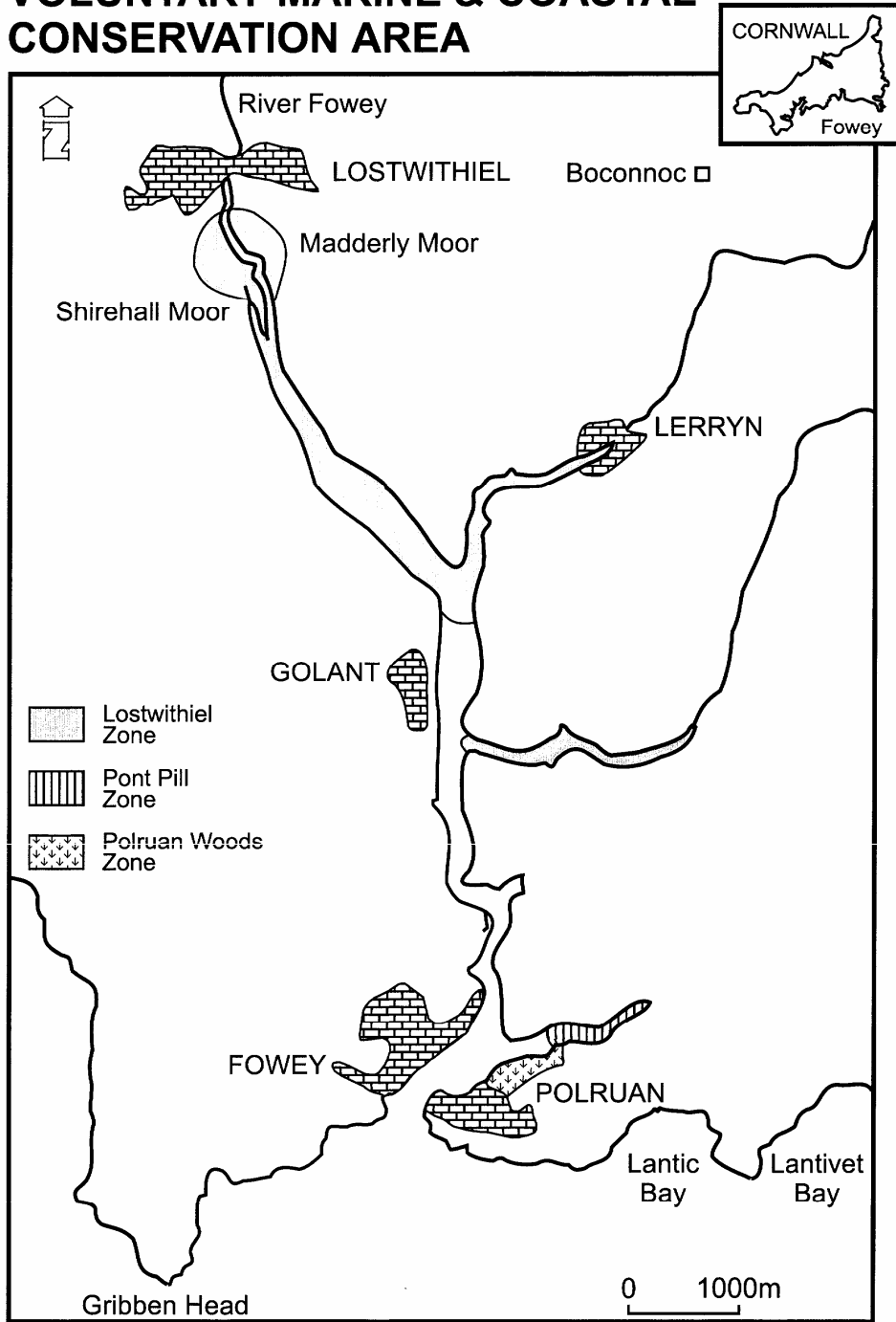
18.1.1 Landscape Designations on the Fowey Estuary

FOWEY ESTUARY : LANDSCAPE DESIGNATIONS



18.1.2 Designated Voluntary Marine & Coastal Conservation Area

VOLUNTARY MARINE & COASTAL CONSERVATION AREA



December 1999

18.2 Environmentally Sensitive Areas of the Fowey Estuary

Additional information can be seen in *Appendixes 7, 8, 9, 10*

Harbour Entrance

At the entrance to the Fowey estuary are areas of exposed and semi-exposed broken, generally steeply sloping, bedrock. Rock pools, over hangs and vertical rock are present from upper shore to low water level.

Rockpools are found at all levels of the shores around the entrance to the estuary. The pools tend to be algae-dominated, although a wide variety of fauna is also present.

Vertical and overhanging bedrock occurs around the low water level; particularly extensive areas are found at Mundy Rocks. Dense algal cover is characteristic; animals present includes sponges, encrusting bryozoans and ascidians. The starfish *Asteris rubens* and the jewel anemone *Corynactis viridis* among other species are found on more exposed shores.

18.2.1 Polruan Pool

Areas of fine sand are algal-dominated giving way to beds of Eel grass, *Zostera marina*, although the extent of the beds is not currently known. This makes them of ever greater conservation value, not least because the species is known to provide habitats for a great diversity of flora and fauna. The community includes Sea Belt *Laminaria saccharina*, the hydroid *Obelia geniculata* on algal fronds, the daisy anemone *Cereus pedunculatus*, the hairy seamount *Electra pilsoa* and the anemone *Sagartiogeton undatus*. *Zostera* leaves support banded chink shells *Lacuna vincta*, colonial diatoms and hydroids. (Moore *et al* 1999)

18.2.2 Penleath Point

At Penleath Point, the splash zone is lichen-dominated above dense upper shore cover of Channel Wrack, *Pelvetia canaliculata* and Spiral Wrack, *Fucus spiralis*. Barnacles are common and there are abundant Rough Periwinkle, *Littorina saxatilis*. Mid-shore rocks are covered by dense growths of Egg Wrack, *Ascophyllum nodosum* and Toothed Wrack *Fucus serratus*. On steeply sloping bedrock, barnacles and limpets, *Patella vulgata* are dominant. Some red algae are present and on the mid-shore littorinids are frequent. Lower shore areas are dominated by *F. serratus* and a fairly wide variety of fauna and other algae.

18.2.3 Pont Pill

In the sheltered creek of Pont Pill, areas of gravely silt and clay are dominated by polychaetes, and additionally characterised by large numbers of Estuary ragworm, *Nereis diversicolor* and oligochaetes. Mudflats in the pill are also polychaete – dominated with *Nephtys hombergi* and *Streblospio shrubsolii* and oligochaetes present. A similar community is found up in the main channel at West Wood, although abundances are much higher at the upstream site (Moore *et al*, 1999). Pont Pill area is used by Commercial Shell Fisheries see section 18.3 page 60.

18.2.4 Penpoll Creek, River Lerryn, ST. Winnow-Lostwithiel

Bedrock is scarce in the inner reaches of the estuary but there are bridge walls at Lerryn and Penpoll which provide hard substratum. Flora and fauna are very limited on bedrock; *Fucus ceranoides* is dense on the bridge stones and also present on stones in mud. Some red and green algae are also present. Amphipods, mysids and prawns *Crangon crangon* are also found. Eels and shore crabs are common under boulders at Penpoll. Other animals are found sporadically, including peppery furrow shells and barnacles.

Small stands of saltmarsh, dominated by freshwater species such as *Puccinellia*, occur at the head of the creeks, along the River Lerryn and along the River Fowey from St. Winnow to Lostwithiel. Saltmarsh covers only 2.8 ha of intertidal area along the Fowey estuary.

18.2.5 Mixtow Pill, Cliff Pill, Woodgate Pill

Dominated by silty sand and mud, these creeks are dominated by the estuarine polychaete and oligochaete worms and support a diverse range of flora and fauna including Green crabs and eels.

18.2.6 Upper Reaches

The fringing marshland and woodland is important for its brackish water floral communities and freshwater ponds with reedbed vegetation. Which are breeding habitats for a number of bird species, along with the associated mudflats that are feeding grounds for waders and wildfowl such as Little Egret, Curlew, Redshank and the Black-tailed Godwit.

18.3 Fisheries

The estuary is a major nursery area for bass *Dicentrarchus labrax*, and has been designated as a bass nursery area with a closed season between 1st May and 31st December in all waters enclosed by a line drawn from Penleath Point to the opposite shore (270^o) to the upper tidal limit of the Fowey.

Atlantic Salmon *Salmo salar* and Sea Trout *Salmo Trutta* migrate into the estuary to spawn upstream. The salmonids are protected by Net Limitation Orders that restrict the number of nets used in the estuary. The lampern *Lampetra fluviatilis*, sea lamprey *Petromyzon marinus* and twaite shad *Alsoa fallax*, all species protected under the Wildlife and Countryside Act 1981, have been recorded from the Fowey.

Fyke and elver nets are used to catch Eels *Anguilla anguilla*.

Shore Crabs *Carcinus maenas* are collected for bait from beneath boulders and manmade traps. Bait digging for Polychaetes is common practice on many sections of the estuary's foreshore. The Harbour Byelaw (102) restricts the digging for bait in any part of the harbour within 20 feet (6m) of any mooring, pile, beacon, mark, hard, causeway, jetty, quay, wharf or similar structure or foreshore between signs indicating areas of no digging.

Pont Pill is a designated shell fishery area classified for the production of bivalve mollusc under the Food Safety (Fishery Products and Live Shellfish) (Hygiene) amendment (No.2) Regulations 1999. Two shell fish farms, in the middle reaches on either bank of the Pill, are concerned with the cultivation of Malina Clams, *Tapes philippinarum* and Pacific Oysters, *Crassostrea gigas*, the area is also used for the relaying of mussels, *Mytilus edulis*. (Section 18.7 page 63)

A designated shellfish water area for Pacific Oysters and relaying mussels is found further up the river above the docks at Wiseman's Reach. (Section 18.7 page 63)

18.4 Site of Special Scientific Interest

There are no SSSIs within the area of this plan. One has been designated adjacent to it:-

Punches Cross Polruan to Polperro

The coastal habitat features rocky shore backed by cliff. To the east of the site is Polperro Harbour, to the west of Fowey Harbour. The site is particularly important for its rare plants and associated invertebrates.

See *appendix 7* for citation and map of the designated area

Natural England Recommendations: Leave oil to degrade naturally. Manual collection of tarballs and other oily debris.

18.5 Amenity areas

The Fowey estuary is a busy commercial waterway. There are boat building yards at Lostwithiel and Polruan. The majority of the hinterland is rural in character. Leisure activities are concentrated in the lower reaches of the estuary where there are 1,500 permanent moorings; sailing, windsurfing, canoeing and angling take place. Fowey harbour also attracts approximately 7,000 visiting craft each year.

Readymoney Cove is a popular recreation spot (as are other stretches of the foreshore) and is a designated Bathing Beach over the summer season between May and September, under the Bathing Waters Directive 76/160/EEC.

18.6 Tidal Streams

Tidal Steams at the entrance begin as follows:

Interval from HW Devonport (Dover)	Direction	Max Sp Rate Knots
+0610 (+0030)	In-going	1
-0015 (-0555)	Out-going	1.5

Currents of 3 knots can be experienced as the River Fowey ebbs and floods though the narrowing harbour. Currents in the bay are generally weak.

Extract from Admiralty pilot

The following extract from FHC published tide tables, which should be referred to for relevant tidal data.

The height (Ht.) of the tide is given in the Tables is the height in metres above the datum used on Admiralty Chart No. 31. It should be added to the depths shown on that chart.

Southerly winds tend to increase the height above that predicted in the tables and Northerly winds tend to reduce it.

An atmospheric pressure below 1010 mbrs tends to increase the height above that predicted in the Tables while a pressure more than 1010 mbrs tends to reduce it.

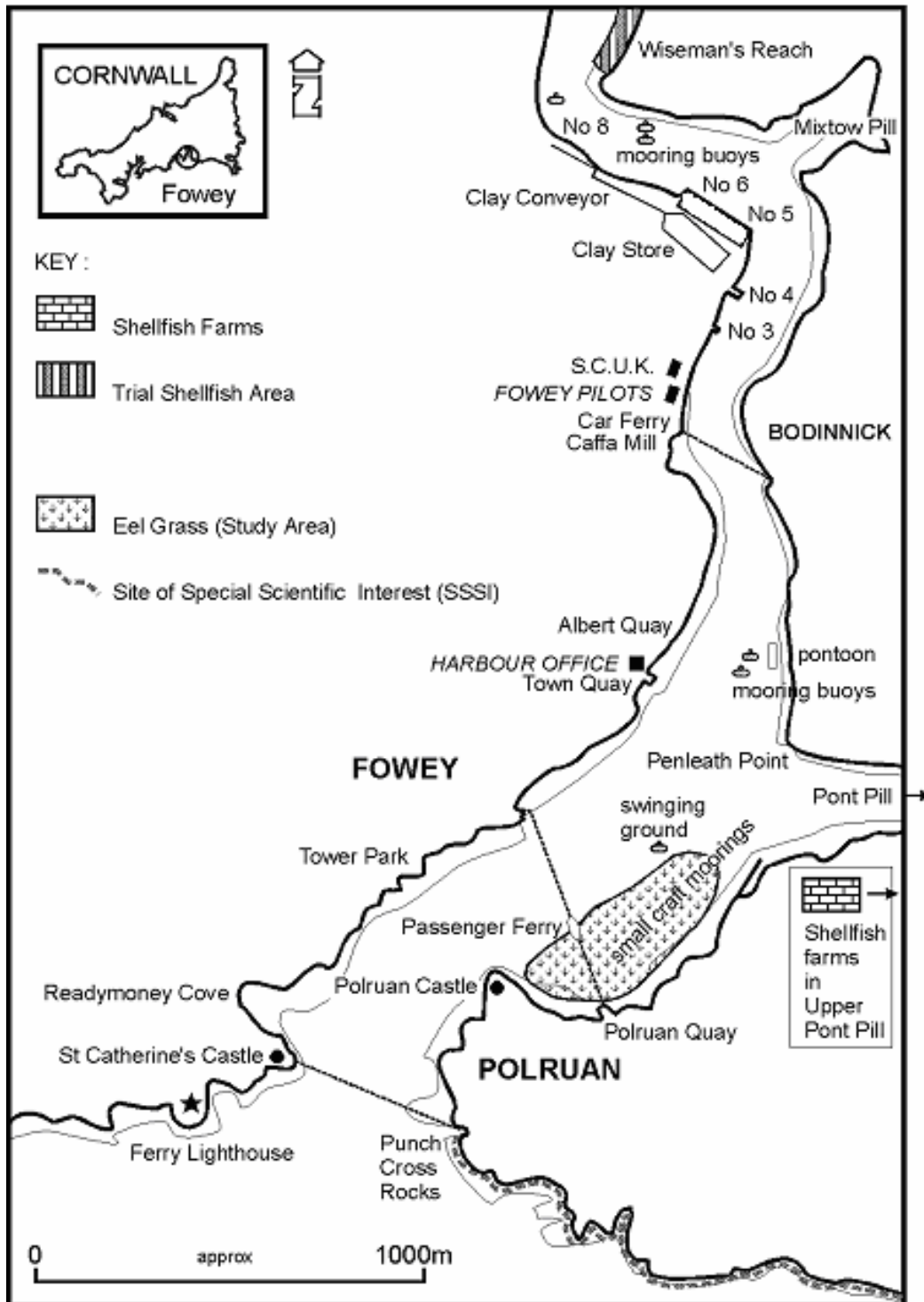
Admiralty chart datum 3.05 metres below O.D. (Newlyn)

The ebb tide in the ship channel can be in excess of 1 ¾ knots.

Neap tide 2m range
Spring Tide 6m range

18.7 Fowey Harbour's Environmentally and Socio Economically Sensitive Sites

FOWEY HARBOUR ENVIRONMENTALLY & SOCIO-ECONOMICALLY SENSITIVE SITES



Section 19: Report Forms and Checklists

19.1 Pollution Incident Report Forms

Fowey Harbour Commissioners have a series of Pollution Report forms including Internal reports, Incident location maps and Incident reports which include final reporting and summary sheets.

The appropriate report forms are to be sent to MCA –MRSC Brixham and copied to Agencies as required

See Appendix 3 for Pollution Report Forms

19.3 Waste Disposal Action Checklist

19.3.1 Waste Generated from a Shoreline Clean-up Operation

a) Temporary Storage / Clean, Treat, Stabilise, Recover, Re-use

1. Discuss requirement to establish temporary storage sites along the shoreline with EA, the Local Authority and NE, when on or adjacent to an SSSI.
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. Confirm treatment methods and ultimate disposal with Regulator and Local Authority.
5. In close liaison with the Oil Spill Response Contractors agree course of action and assist with the necessary arrangements where necessary.

b) Temporary Storage and then to Appropriate Disposal Site

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, 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. Liaise with EA to ensure that the disposal strategy is acceptable.
6. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

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

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

d) Direct Transportation to Appropriate Disposal Site

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

19.3.2 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.

Section 20: Press and Public Information

20.1 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:

- A nominated media liaison person (Chief Executive/Harbour Master) will deal professionally with the representatives of the media.
- Co-ordinate and release information to the general public regarding the pollution incident and the Harbour Authority's response to it. Statements to be confined to facts.
- No other FHC staff or contractors will provide statements unless authorised by the Chief Executive/Harbour Master.
- The Chairman of the Board of Commissioners may make statements relating to policy issues as necessary.

20.1.1 For guidance it would be expected as follows:

Tier 1 spill – Harbour Authority involvement only

Tier 2 spill – Harbour Authority, Accredited contractor and Local Authority involvement

Tier 3 spill – MRC &/or SCU &/or SRC established with MCA Press Officer 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.

20.1.2 Initial Press Statement

A press statement will be issued by the Port Management. The format of any statement will be agreed by Chief Executive/Harbour Master and will contain all relevant information as to the type of spill, its extent, containment and the clean-up procedures in place.

If available, the Mission to Seamen at Fowey Docks will be utilised as a press centre if required. The Pilots Office in Fowey may also be used.

See Appendix 12 Interviews Do's & Don'ts