Dartford Borough Council
Oil Pollution, Chemical Spill and Cargo Recovery Emergency Plan

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Issue & review register

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Distribution list and location of document

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1. Introduction

The purpose of this plan is to set out the principles that govern the multi-agency response to significant oil pollution, a chemical spill or the deposit of cargo onto the shorelines and coastlines of Kent; specifically the area of Kent County Council and Medway Unitary Council.

This Plan sits underneath the Kent and Medway Oil Pollution, Chemical Spill and Cargo Recovery Emergency Plan and should be used in conjunction with this plan. This plan sits above the relevant emergency plans of all Category 1 Responders and other organisations concerned with supporting the response of the community to an emergency.

The Plan is produced and maintained by the Upper Thames Oil Pollution Group, comprising Dartford and Gravesham Borough Council, Medway Council along with the Port of London Authority and the Environment Agency, to meet the requirements of the Civil Contingencies Act 2004 and the accepted expectations of other Departments and Agencies. This Plan is needed by virtue of the existence and maintenance by other Category 1 and 2 Responders of their own plans for response to oil spills and other maritime incidents.

The Plan will assist the Shoreline Response Centre and those directing the response to shoreline and coastline oil pollution, chemical spill or deposit of cargo, to co-ordinate the activities of the responding organisations.

1.1 Scope

The main objective of the Plan is to ensure a coordinated response to shoreline and coastline oil pollution, chemical spill or deposit of cargo, which will protect life and well-being with the mitigation of property and environmental damage as a strong supporting objective.

The Plan provides a general overview of actions, roles and responsibilities. Other responding agencies will hold copies of specific plans relevant to themselves and which will be used when responding in conjunction with this Plan. Other Kent-wide plans / frameworks may also be active; copies are available to responding agencies from the Kent Resilience Forum Business Management Support Unit (KRF BMSU).

Specifically these include the following:
- Pan Kent Strategic Emergency Framework
- Kent Recovery Framework
- Maritime and Coastguard Agency (MCA) National Contingency Plan
- Kent and Medway Oil Pollution Response, Chemical Spill and Cargo Recovery Plan

The main aim of the plan is to describe how key agencies will respond to an oil spillage affecting the foreshore, that being land exposed by falling tide.

The objectives of this plan are:

1. To outline organisational responsibilities
2. To provide emergency points of contact
3. To determine the operational needs of the district council.
4. To ensure the availability of personnel for effective co-ordination of the response

5. To ensure that appropriate personnel are trained and exercised
6. To ensure that liaison takes place with adjoining local authorities and other involved organisations.

1.2 Audience and Risk Assessment

This document is intended for organisations within the Kent Resilience Forum that would participate in and support the response of the affected communities to shoreline and coastline oil pollution, chemical spill or deposit of cargo.

1.2.1 **Community Risk Register**

An assessment of the risk of oil pollution in Kent can be found in the Community Risk Register (at Local Resilience Forum Level).

http://www.kent.gov.uk/publications/community-and-living/kent-community-risk-register.htm

Risk Reference HL37 – Release of significant quantities of hazardous/chemical materials as a result of major shipping accident
(This is the national picture to provide context for local risk assessment).

Risk rating **HIGH**

Fatalities and casualties unlikely. Significant environmental / ecological damage.

1.3 Parameters of Emergency Plan

The area covered by this emergency plan extends from …

Along the coastline this area of responsibility includes all beaches/foreshores from …

1.4 Tiers of Pollution

A Tier system which classifies the magnitude of oil spills is used to determine the correct and appropriate level of response. An internationally recognised three Tier classification is as follows:

Figure 1.3

Tier	Scale	Definition
1	**Small operational spills**	A spill that can be dealt with immediately (essentially within 30 minutes of initial notification), using local resources without assistance from other areas.
2	**Medium sized spills**	A spill requiring regional assistance. May involve assistance from local government.
3	**Large Spills**	Beyond the capability of local and regional resources and requiring assistance through implementation of the National Contingency Plan.

Within the area covered by this Emergency Plan, Tier 1 spills will usually be dealt with by the relevant coastal/riparian district council. Tier 2 spills will usually be dealt with by the relevant coastal/riparian district council, if necessary, with County Council

assistance and input from the MCA. The response to Tier 3 spills will usually be co-ordinated by the County Council, in the first instance, but may also require implementation of the National Contingency Plan, and establishment of a Shoreline Response Centre (SRC).

Chemical Spills
Chemical (non-oil) spills on a beach / foreshore arising from a discharge to water from a land-based source or from a water-borne vessel will be identified using an approved/accredited Chemical database. Actions taken to remove the chemical from the beach / foreshore will follow the procedures set out generically in the Major Emergency Plan for chemical spillages from land-based sources.

Cargo Recovery
Cargo washed ashore will be the responsibility of the carrier/owner of the vessel that 'lost' the cargo to clear up. It would be anticipated that the carrier would appoint Contractor(s) to undertake the clear up, removal and restoration of shorelines/beaches contaminated by cargo washed ashore.

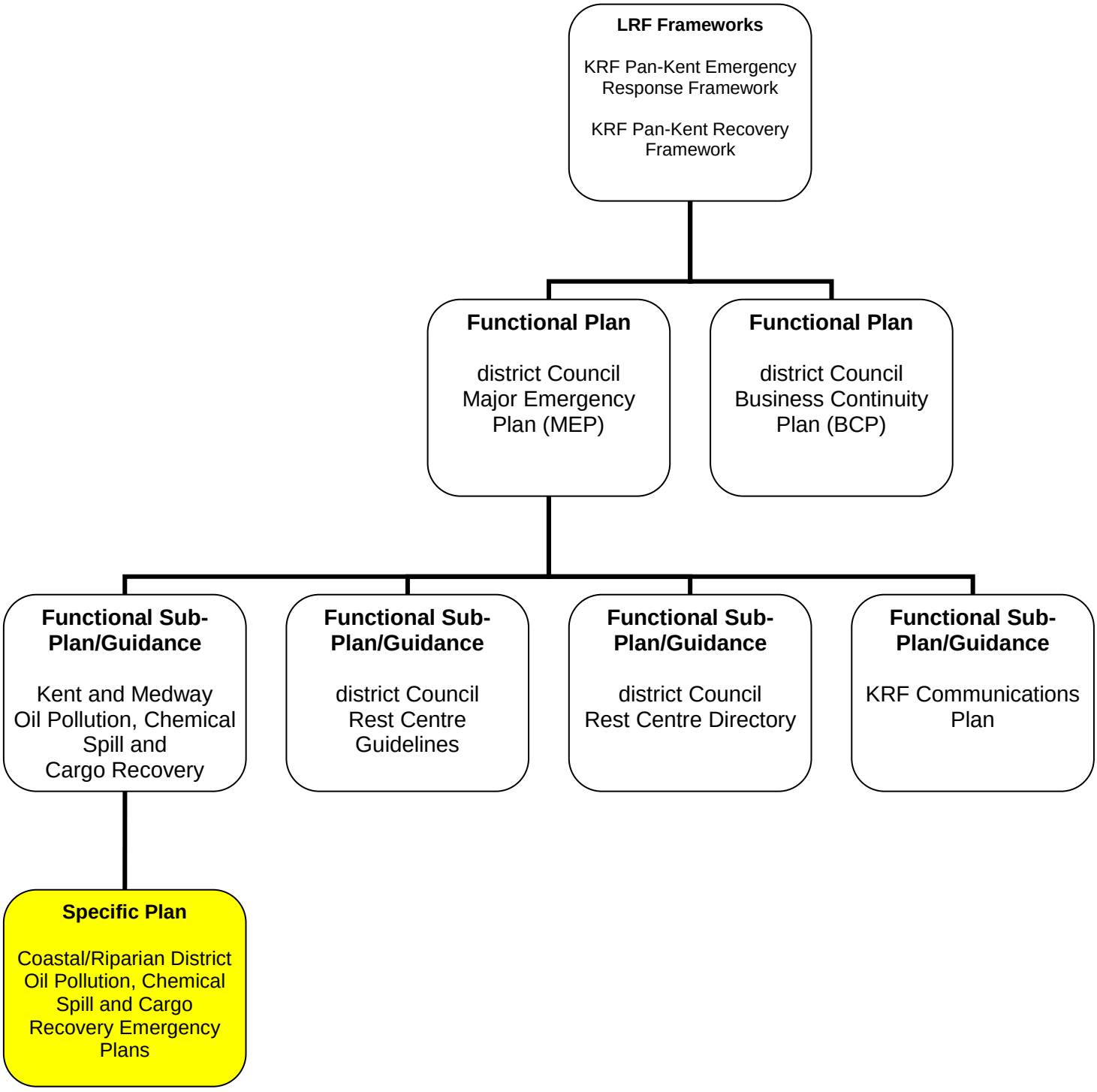
In the event that the carrier does not appoint a Contractor, the coastal/riparian local authority, assisted by the emergency services and other agencies will mobilise resources to effect clear up operations. The operation will be treated as an oil spill insofar as the magnitude (refer to 1.4.1 above), the deployment of resources, disposal of the cargo and maintaining financial records are concerned.

Cargo washed ashore, historically, attracts salvagers to the scene. The lead responder will consider, on the circumstances of the incident, whether to establish a cordon. This will be based generally on health and safety considerations. Public warning and informing information will be communicated in accordance with agreed multi agency protocols.

1.5. Related and Interdependent Plans

The relationships between response plans are indicated in the diagram below.

Figure 4.1 - Related and Interdependent Plans



2. District Oil Pollution Officer (DOPO) - Actions

On receipt of a POLREP, DOPO will deploy the Zonal Beachmaster(s) for the Zone(s) affected and consider any protective measures required for sensitive areas.

In cases where oil pollution occurs or threatens the foreshore and DOPO is the first to receive a report, e.g., from a member of the public, the DOPO should report the incident to Marine and Coastguard Agency (MCA) or to the Head of KCC Emergency Planning Group. As far as the information is known, the report should contain information about the location, nature and extent of the pollution and the type of oil, including images transmitted from the scene (where available).

Samples of the oil should be taken, in accordance with the procedures set out in Section 3 of this Plan, in order to help identify the polluter. Kent Scientific Services are contracted to take oil pollution samples. The Zonal Pollution Officer(s) will provide a report with images following an inspection of the foreshore for use as evidence in case a subsequent claim for compensation needs to be made.

On receipt of the report from the zonal beach master(s), the DOPO should assess the total clean-up action required with an estimated cost. The prior approval of the Head of Kent County Council Emergency Planning Group should be obtained for grant aid purposes. He should organise a check on available resources, including shovels, heavy duty plastic bags, skips, maps and manpower.

If Kent County Council assistance is required the Head of Kent County Council Emergency Planning Group must be informed of the tier of pollution and the type of assistance needed – from Emergency Planning Officer or media and communications back-up through to deployment of teams of contractors or equipment.

The DOPO should begin a comprehensive chronological log of events and actions taken. Therefore, it is likely that the DOPO will require administrative support for the duration of the oil pollution response. Successful claims for expenditure will depend upon the District's ability to provide accurate and comprehensive proof of events leading to expenditure.

Depending on the circumstances, it may be appropriate to set up the District Emergency Centre. Procedures for doing this are described in Council's Major Emergency Plan.

Early contact should be made with the Environment Agency, Natural England, RSPCA and harbour authorities about harbours or estuaries that could potentially be affected.

Parish and Town councils likely to be affected by pollution should be informed as should the Leader and Cabinet and affected ward councillors.

The Kent County Council Oil Pollution Emergency Plan outlines the circumstances in which the County Emergency Centre and a Shoreline Response Centre would be set up (see Section 4, Reference 2). District Councils will be asked to send a Liaison Officer to the County Emergency Centre. The role of the Liaison Officer will be:

a) To maintain communication links between the County Emergency Centre/Shoreline Response Centre and the relevant District Council Emergency Centres.

b) To provide detailed knowledge of the District's geography to the CEC/SRC.

c) To provide information to the Technical/Operations Team concerning specific locations within their District in order to co-ordinate the clean-up strategy.

d) To work with the Procurement/Finance Team to input specific District Council information, i.e. organisation, resource and deployment of equipment and manpower.

e) To inform the Districts of the agreed strategy and the resources allocated to each site.

f) To arrange reception of resources at forward sites in conjunction with the Procurement/Finance Team.

g) To maintain up-to-date details of pollution and clean-up activities within their District.

On receipt of a POLREP, DOPO will carry out reconnaissance and consider any protective measures required for sensitive areas.

In cases where oil pollution occurs or threatens the coastline and DOPO is the first to receive a report e.g. from a member of the public, the DOPO should report the incident to the Coastguard and to CEPO. The report should contain information about the location, nature and extent of the pollution including, if known, the type of oil,

Samples of the oil should be taken in order to help identify the polluter. It is advisable for DOPO to inspect the beaches and to prepare a report for use as evidence in case a subsequent claim for compensation needs to be made. Only qualified personnel should carry out sampling. Although the Environment Agency can do this their resources in large spills may be limited. In which case, KCC staff from Kent Scientific Services may be used to take samples.

If the oil is considered to be of sufficient quantity to require clean up action, DOPO should assess the total task and estimated cost and obtain prior approval from CEPO for grant aid purposes.

If County Council assistance is needed CEPO must be informed of the tier of pollution and type of assistance required.

An oil pollution incident affecting the District is likely to attract substantial media interest. If a County Emergency Centre and or a Shoreline Response Centre has been set up, then some aspects of the response will be handled at these locations. However, the District will need to deal with media interest in its response. Local comment will be limited to what action the District is taking to clean up the spillage on the coastline. All questions about the spillage and operations offshore should be referred to the Marine Pollution Control Unit's Press Officer.

3. Shoreline Response Centre (SRC)

When a SRC is established the MCA will bear the costs of resources it makes available from its own stockpiles together with other resources it decides are necessary, which local authorities cannot reasonably be expected to provide. However local authorities will continue to bear the costs of any resources they make available. A SRC will not be established to manage shoreline response for all maritime pollution incidents in the United Kingdom

During a major shipping oil pollution incident spill, which requires a co-ordinated response from both national and local authorities, the MCA CPRB in conjunction with HM Coastguard will take initial action. These are most likely to require a SRC if a significant amount of oil impacts a significant length of coastline.

The purpose of the SRC is to co-ordinate and lead the on-shore response In order to achieve that it must: -

- Determine the extent of pollution along the affected coastline
- Devise and agree an overall strategy for the clean-up response, assign priorities based on threat, impact and available resources.
- Propose, agree and initiate the shoreline clean-up response
- Obtain and allocate resources required on an agreed priority basis
- Agree working liaison with the Environment Group
- Determine methods for disposal of oily wastes arising from the clean-up operations
- Monitor progress and effectiveness of the clean-up operations
- Issue regular briefings to the press, elected representatives, Central Government Ministers and other interested parties.

When established, the full SRC team structure comprises:-

- The Management Team
- Strategy Sub-group
- The Technical Team
- Waste Management Sub-group
- Health and Safety Sub-group
- The Procurement Team
- The Media Team
- The Administration Team
- Information Dissemination Team

Functional Teams
When a Shoreline Response Centre is established, as part of the activation of this Emergency Plan, its establishment and operation will be based on the following functional teams:

- The Management Team and Strategy Sub-Group
- The Technical Team including Waste Management and Health and Safety Sub- Groups
- The Procurement Team
- Media and Public Relations Team
- Administration Team
- Information Dissemination Team

In addition to the above there will also be an Environment Team to provide environmental and public health advice to those involved in the response.

The Management Team
- To manage the shoreline clean-up operation in its totality

Tasks:
- To assess the threat and impact of pollution to the shoreline.
- To determine the overall clean-up strategy such as deciding the order of priority for action in protecting sensitive areas and dealing with pollution at the various polluted sites. The Management Team should produce an initial Strategy Statement as quickly as possible for dissemination to those within and outwith the SRC.
- To monitor progress against the agreed strategy
- To consider and manage the general financial aspects of the operation
- To interact closely with Elected Representatives, Central Government, the public and the press and media
- To prepare regular situation reports, concerning the conduct of operations, for circulation to all interested parties (based on briefings supplied by the Technical Team and the EG) specifically - Elected Members and Ministers.

Membership
- KCC County Oil Pollution Officer of nominated substitute (Chair)
- District Oil Pollution Officer / Emergency Planning Officer
- Environmental Liaison Officer (Environment Group)

- MCA Counter Pollution and Response Branch
- Chairs of functional Teams within the SRC (As required)
- Environment Agency
- Natural England

Strategy Sub-Group
The objective of this sub-group is to provide the Management Team with an overview of short, medium and long term issues to be addressed as the response evolves. The groups work should aim to minimise operational ‘firefighting’ and maintain a clear overall perspective as well as highlighting otherwise unnoticed issues before they become a problem.

The group will identify the short, medium and longer term issues for each of the functional teams in the SRC to consider. They will draw up a matrix identifying

significant and potentially significant issues for the SRC response strategy as a whole but especially the management team for consideration looking at time frames of say: the next 1-3 days, 3-10 days and beyond 10 days. This group will agree the matrix with the Management Team and report back on progress on the agreed issues. The group should comprise individuals with experience in dealing with major incidents and oil/chemical pollution in particular who are not directly involved operationally in the response and who can provide an objective assessment of the response from a strategic viewpoint.

The Technical Team
To report to the Management Team. The Technical Team is responsible for directing and implementing the operational response.

Tasks:
- Determining and agreeing all possible shoreline protection strategies with the Management Team and Environment Group
- Determining optimal clean-up strategy to be adopted to deal with pollution. Close liaison with the Environment Group is essential
- Allocating resources on a priority basis as determined by the Management Team
- Informing the Management Team of any resource shortfalls
- Allocating contractors to specific tasks as agreed with the Management Team
- Transmitting decisions and work instructions to forward control centres
- Monitoring the progress of operations
- Meet/liaise with all Beach Masters to assess progress of operations and produce a revised forward plan for the next day's operations
- Deploying staff to beaches to assess and report on beached and stranded oil (in conjunction with the Environment Group) and acting on reports received
- Identifying and deploying strategic area beachmasters to promote consistency of operations and ensure that the Technical Teams instructions are being implemented properly
- Ensuring that operations are technically reasonable.
- Ensuring that resources are being reasonably allocated
- To ensure that health and safety risk assessments have been carried out and are implemented on a site by site basis
- Briefing the Management Team on the conduct of operations

Membership
- MCA Senior Scientist or nominated substitute.(Chair)
- Local Authority Representatives covering Waste Management, Health and Safety, Technical and Engineering Services.
- MCA Scientist
- Environmental Liaison Officer (Environment Group)
- Environment Agency
- Police
- HM Coastguard
- Administrative Staff.

Waste Management Sub-Group
To manage and direct waste disposal issues in consultation with the regulator.

Tasks:
- Development of a waste disposal strategy
- Advising on waste minimisation and segregation

- Preparing a plan for temporary storage of collected oily waste
- Provision of technical advice on the location and format of temporary storage and treatment areas and disposal options for the oily waste
- Ensuring all waste regulations are followed by the technical team and fully understood by the forward control centres and Beachmasters
- Ensuring oily waste is transported by registered carriers as set out in the Special Waste Regulations
- Management of the final disposal options and identification of sites for oily waste

Note: the environmental regulator has a statutory role in approving sites for temporary storage and treatment, ensuring those disposal sites are appropriately licensed.

Membership
- The responsible Environmental regulator
- Local authorities' Waste Management Section

The Health and Safety Sub Group
[refer to the MCA STOp notice 1/1998 – Health, Safety and Welfare during Shoreline Clean-up]

To manage, direct and oversee the health and safety requirements of the shoreline clean-up operation.

Tasks:
- Promptly develop an overall Health and Safety strategy
- Ensure that proper health and safety procedures are in place for all shoreline clean-up operations
- Ensure that formal H&S risk assessments are carried out before commencement of operations
- Preparation of generic risk assessments for all routine clean-up procedures
- Maintain the health and safety continuity of practice throughout the incident
- Ensure that Beach Masters have sound understanding of H&S regulations and practice and carry out regular H&S briefings on site
- Ensure formal records are maintained: accident record books, recording of dangerous practice, formal risk assessments etc

In the case of extensive, complex and protracted incidents it may prove prudent to engage experienced health and safety consultants to oversee and advise on SRC H&S protocol both in the SRC and at operational sites.

The Procurement Team
- Local authority: (Resource Procurement, Plant Hire Officers, Transport Officers and Finance Officers)
- MCA
- Environmental regulator
- Industry
- All other organisations providing significant resources

Members of this team must be aware of resources available to their parent organisation and how they can be contracted. Local authority will likely have listings of plant providers.

Media and Public Relations Team

This team will act as a focal point for media and public interest and will work closely with the Management Team and the MCA/ local authorities' press and media response for the shoreline response operation.

Tasks:

- Preparing press briefings from the SRC in consultation and agreement with the Management Team
- Maintaining sound links with media staff in other response cells
- Calling, arranging and managing press conferences
- Arranging press interviews in consultation with the Management Team
- Managing the press briefing room, likely to be established outwith the confines of the SRC, and ensuring that regular press briefing notices are supplied to the briefing room
- Handing all press enquiries, which could involve a massive number of calls
- Contributing to text for incident web pages as and when established

If a public helpline is established this will be organised by the Media Team but staffing should be provided from outside of that Team as those trained to deal with the media are not necessarily those best trained to deal with the public.

Note: Callers offering assistance, in particular equipment and products may generate significant message traffic. In this event the MCA may set up a dedicated line in the MEIR to handle those calls, in which case offers of assistance should be redirected from the SRC to the MEIR, where information will be collated, evaluated and made available to all response cells.

Membership

- Local authority media staff and press officers.
- The Maritime and Coastguard Agency press office.
- Oil industry press and media staff.
- Government News Network

Administration Team

Responsible for the general administrative management of the SRC, providing administrative support for all functional teams.

Tasks:

- Providing and maintaining communication links within the SRC
- The reception and transmission of message traffic into and out of the SRC
- Distribution of message traffic within the SRC
- Log keeping of message traffic
- Circulating messages to correct team/group in the SRC, ensuring that messages get to the appropriate team/team leader
- Detailed minute taking during the Management and Technical Team discussions
- Filing messages, minutes and records for future reference and compensation claims
- Typing services
- Logging and updating of information boards and operational maps
- Providing catering to the SRC
- Providing security for the SRC
- Dissemination of information within the SRC from the MRC and SCU

Membership
- Local authority administrative staff
- Oil Industry staff
- Other participating organisations.
- MCA staff

Information Dissemination Team
To prepare, collate and update information on the progress of the incident response and ascertain the means for dissemination of that information.

Tasks:
- Set-up and maintain web pages for the shoreline clean-up element of the incident response
- Prepare electronic data for dissemination outside the SRC in agreement with the Management Team

Membership
- Local authority
- MCA
- Oil industry
- Other participating organisations

The Environment Group
The concept of an ENVIRONMENT GROUP, (EG), providing environmental advice to all units with a role in responding to a maritime pollution incident was recommended by Lord Donaldson in his 'Review of Salvage and Intervention and their Command and Control' (The Stationary Office, Cm 4193, March 1999). This recommendation was accepted by Government and incorporated in the National Contingency Plan (NCP) January 2000 (Section 9 & Appendix L).
[STOp Note 1/2001 sets out in detail the setting up, roles and responsibilities and working of the Environment Group.]

Purpose
The purpose of the EG is derived from the Terms of Reference detailed in the NCP Appendix L, paragraphs L.3 - 5.

- To provide environmental advice and guidance to all response centres involved in response to an oil and or chemical marine pollution incident and subsequent clean up operations. To minimise the impact of the incident on the environment in the widest sense, taking account of risks to public health, the natural environmental and potential impacts arising from any response operations, whether salvage or clean up operations at sea and on the shoreline.
- To monitor, assess and document the public health, environmental and wildlife impact of a maritime pollution incident with respect to oil and/or chemicals and the impact of all measures implemented in response to the incident.
- To facilitate welfare, rehabilitation or humane disposal of wildlife casualties by recognised animal welfare organisations.

Scope
The scope of EG functions will be directly proportional to the scale and location of the incident, its geographical location, extent, severity, oil and or chemicals involved, potential hazard to human health and the environmental sensitivities. The scale of

incident and response and their constituent phases are likely to evolve over time. The functions of the EG will need to be graduated to meet changing requirements, escalating or diminishing in the input to each phase over time.

The definition of environment includes public health, the natural environment, water quality, wildlife, cultural, landscape, habitats and socio - economic factors linked to human health, e.g. through food chains.

Tasks:

- To provide environmental advice to the SOSREP (SCU), the MRC, the SRC and the Command and Control Centre for incident response in ports and harbours
- To liaise with and obtain environmental information from all response units established the deal with the pollution. To proactively manage information on all environmental issues between the cells
- In order to minimise the impact of an oil and or chemical pollution incident on human health and the environment, the EG has a role in determining optimal environmental end points, beyond which the response will not provide environmental benefit, or may actually be a disbenefit. The scope of this task includes identification of how 'clean' the environment needs to be to enable ecological recovery. This process is undertaken using Net Environmental Benefit Analysis

Response to Incidents Involving More Than One Local Authority

Where only one authority is affected by a spill, then it will set up and manage in co-operation with MCA a single authority SRC. In many cases the county councils have produced a county wide plan which incorporates each of their district maritime authorities. The new unitary authorities have produced their own plans or have collaborated with others to produce joint plans.

In the case of two or more authorities being impacted by a significant spill there will be only one formal SRC to manage the overarching response to the shoreline clean-up. A successful response will rely on a single management team fairly assessing priorities for action and fairly distributing resources according to those agreed priorities.

The decision on where to establish the SRC will likely be based on factors such as which local authority is worst affected and which available response centre have the required infrastructure for accommodation, communications and is best placed geographically to co-ordinate the response. Decisions about which site will be used will be made through consultation between the Chief Executive/Oil Pollution Officer of the respective local authorities with advice from MCA. To ensure sound and fair collective management of the response it is important that a clear and effective system of multi authority liaison is implemented.

Collective management between the affected authorities will be best achieved through the setting up of neighbouring authority liaison teams.

Design and Layout Of The SRC

- The SRC should be large enough to accommodate the number of teams and persons likely to be present during the incident. In addition it should be equipped with sufficient telephone lines to enjoy effective liaison with outside bodies. Fax and email facilities are essential (two at least – one for incoming faxes and one for outgoing faxes – that are monitored continuously to distribute incoming messages and check on paper levels).

It is preferable that the Management Team and the supporting functional teams are situated within one room. However, it is useful if there are one or two private rooms available to provide a quiet area for group discussion.

A large-scale map of the coastal area and situation boards should be mounted on the wall, preferably near the Management Team, and continuously updated to provide a focal point for briefing members of the SRC on events along the coastline. There should be a separate status board for each polluted coastal location. An accurate record of all status boards should be made on a day by day basis as changes are made and the boards updated.

The group (loggers and plotters) charged with the responsibility of keeping the large scale map and the situation boards correctly annotated and continuously updated should be aware that the object of creating this briefing area is to present an up to date summary of the progress and response action taken.

A well prepared set of situation summary boards and a properly annotated map will greatly assist:

- The Media/Public Relations Team in preparing press briefing notes;
- The Management Team in preparing periodic situation reports;
- Briefing Ministers/Elected Representatives; and
- Briefing incoming relief staff.

Care should be taken in where to situate the maps and how best to present the data on the situation boards when planning the layout of the SRC. For each coastal location a typical status board should have a layout similar to the following:

Coastal Data And Clean-Up Recommendations

Example of Status Board for each Coastal Location:

SITE: **PRIORITY:** As assigned by the Management Team	**AMOUNT:** Tonnes of oil
TREATMENT:	**EQUIPMENT/PERSONNEL**:
	Personnel 10
	Skimmers 2
	JCBs 3
	Fast Tanks 4
	Etc

In addition to the main briefing area a second large-scale map and situation boards should be available to the Technical Team to assist them in their operational planning.

An Admiralty Chart of the area, to plot oil movements, and a weather board is also useful.

The press briefing room should be situated outside the SRC in order to provide a focal point for informing the press whilst minimising the impact on SRC activities.

The fax communications centre should be located in a separate room with operators allocated by the SRC Manager.

TV and video facilities can be extremely useful for playing back video tapes from the aircraft/helicopters and beach clean-up operations, as well as watching local and national coverage of the incident.

It is vitally important that security arrangements are made to prevent unauthorised access to the SRC.

Response to Incidents Involving More Than One County

Where only one authority is affected by a spill, then it will set up and manage in co-operation with the MCA a single authority SRC.

In the case of two or more authorities being impacted by a significant spill there will be only one formal SRC to manage the overarching response to the shoreline clean up. A successful response will rely on a single management team fairly assessing priorities for action and fairly distributing resources according to those agreed priorities.

The decision on where to establish the SRC will likely be based on factors such as which authority is worst affected and which response centre has the required infrastructure for accommodation, communication and is best placed geographically to co-ordinate the response. Decisions about which site will be used will be made through consultation between the Chief Executive / County Oil Pollution Officer of the respective authorities with advice from MCA

To ensure sound and fair collective management of the response it is important that a clear and effective system of multi-authority liaison is implemented. This may be done by setting up neighbouring authority liaison teams.

KCC Emergency Planning Unit maintains an SRC Box in accordance with STOp 2/2001.

More detail about the establishment and operation of SRC's in the area covered by this emergency plan are contained in Annex N.

1. When an emergency is entirely within one district council area than that council will coordinate the local authority response. If it affects more than one district council area, or if it is too big for the district council to manage, then KCC will take on the coordinating role.

4. Support

4.1 Collection and Handling of Samples

Background

Where an oil pollution incident is thought to have arisen from an illegal discharge, effort should be made to collect a sample of the pollutant. Kent Scientific Services are contracted to collect oil pollution samples on behalf of Kent District Councils and KCC. However, District Councils may be asked by the Marine Pollution Control Unit (MPCU) to collect samples of beach pollution. Early and multiple sampling is recommended to ensure the retention of the clearest possible chemical signature for an oil pollution incident.

Shoreline Sampling

When a large amount of oil is beached, the MPCU may require a minimum of one sample per kilometre of shoreline per day. Following an incident, attempts may be made to infer that not all the oil pollution came from one vessel and that some of it came from other sources. Where an oiled beach is being sampled, a careful 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, these should be noted and some idea of their extent obtained. Samples of such pollution should be retained.

Size of Samples

An oil sample for analysis should be as large as is reasonably practicable. The minimum amounts needed for full analysis are:

Unweathered oils that are liquid and substantially free of water	100ml
Oil exposed to sea's surface and forming water-in-oil emulsion	500ml
Over-side water discharge where contravention of 100ppm or 15ppm is suspected	2.5 - 5 litres of discharge
Tarry lumps as found on beaches	20 - 50 grammes

A sample should not be withheld simply because the recommended quantity cannot be obtained as much smaller samples can give useful results.

Methods of collecting samples

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.

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.

Bottling, sealing, packaging and boxing of samples
All samples should be securely packed and sealed, using screw topped containers and sufficient packing to prevent breakage in transit. The bottle should be placed inside a plastic bag. The glass bottles recommended for use by MPCU are held by HM Coastguard. MPCU has supplies of the labels.

Labelling and Addressing of Samples
The label on each container should provide the following details:

a) An identifying number:

Year	2 digits
Month	2 digits
Day	2 digits
Time	4 digits

and the initials of the official in charge of taking the samples.

b) Description of samples.

c) Position from which sample was taken, with grid reference, if possible.

d) Date and time of sampling.

e) Purpose for which sample was taken.

f) Suspected source e.g. name of tanker, if known.

g) Whether or not dispersants have been used and their type and make, if known.

h) Method of sampling (description of sampling device).

i) Name, address and telephone number of person taking the samples and of anyone witnessing the taking of it.

If possible the following information would also be helpful:

j) Wind direction and velocity.

k) Air and water temperature (Celsius)

l) Sample descriptions i.e. viscosity, colour and contaminants.

m) Description of the oil spill i.e. distribution and consistency.

Transportation of Samples
Dispatching of Samples:
A phone call/facsimile message should be made to Environment & Resource Technology Ltd. (ERT) on 0131 331 5363 (phone) or 0131 3315364 (fax).

The number of packages for collection from (address of site) and the exact location and contact name from whom collection can be made and approximate time for pick up should be given. ERT will then arrange sample collection. Please note that analysis will only be carried out and paid for by MPCU if authorised by MPCU.

Address packages to :

Jim McDougall
Environment & Resource Technology Ltd.
Environmental Services Unit
Old St James Church
Port Edgar
South Queensferry
WEST LOTHIAN EH30 9SQ

Enclose any relevant documents and **state how urgent samples are.** Normal screening analysis time is 10 working days. A 48hour service is available but will attract a high premium.

If a sample matches a suspect source then further analysis will be required for cases proceeding to court. This work will be charged at an hourly rate and only undertaken once permission has been received from MPCU.

When samples are dispatched to ERT please send a fax to ERT detailing the samples, urgency date and any other relevant information. Follow the fax with a letter to the address above.

Supply of Appropriate Sample Bottles
Appropriate sample bottles can be obtained from the following supplier:

Abinghurst Limited
Unit 1
Ross Road Business Centre
Northampton NN5 5AX

Tel: 01604 58111
Fax: 01604 588150

When ordering sample bottles it is important to consider the following:

1. Wide necked bottles make sampling easier.

2. Sample security can be achieved with locking cap seal.

3. Ensure that no components of the bottle can interfere with analysis e.g. wax cap inserts.

4.2 Pollution Site Survey Report Form

If the County Emergency Centre and/or a Shoreline Response Centre have been set up, the District Council may be asked to submit oil reports in accordance with the form below:

Location Name	**Amount of Oil (tonnes)** **Extent of pollution (%cover)**
Grid **Access to beach**	**Type/State of Oil**
Responsible Authority **Contact**	**Priority for Clean-up**
Agreed Clean-up Method(s)	**Equipment/Staff**
Temporary Storage Arrangements	

4.3 Clean-Up Operations Ashore

It is essential to plan any clean-up operation in considerable detail before moving onto the polluted foreshore or amenity beach area. Review the following and make a carefully considered plan of action before starting work. Make sure that all those involved in the clean-up operation understand their roles and are briefed to maintain regular contact with one another.

Possible sequence of events:

a) Inspect the area affected;

b) Consult the national authorities concerned (e.g. MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, English Nature, MPCU and Environment Agency);

c) Maintain close communications with the District Liaison Officer at the County Emergency Centre, if this has been activated;

d) Earmark safe access routes to beaches and coves;

e) Identify suitable temporary storage areas;

f) Prepare or use pre-prepared maps of beaches, coves and harbours etc;

g) Bear in mind the load bearing strength required to hold fully laden vehicles on any access routes to and from beaches on coves and on the approach to storage areas;

h) Organise available manpower into shifts and work teams. Provide for supervision. One foreman to ten men, ten teams to a supervisor and the squad to work to an experienced and well-briefed Beach Master;

i) Arrange to change shifts every three or so hours. The manual work involved in clearing oil from beaches is extremely tiring. Excessive shifts should be avoided. Transport arrangements will need to be put in place to get staff to and from the scene at the appropriate times;

j) Consider tidal patterns and match work schedules accordingly. Do not allow over-zealous teams of workmen or vehicle drivers to get caught by the incoming tide;

k) Provide reliable communications between the front line teams, the District Emergency Centre and the County Emergency Centre/Shoreline Response Centre;

l) Provide for the decontamination of men, materials, plant and vehicles within the contaminated zone;

m) Arrange for a one-way traffic system and avoid transferring contaminated material on tyres etc. Sound traffic management and clear signposting is essential. Work closely with the Police on these arrangements;

n) Storage bunds should be staggered for ease of access and placed to simplify dumping and clearance;

o) Sumps or bunds must have angled sides, must not be too deep and must be above the high water mark. One scoop with a JCB bucket is normally adequate. Bunds should be lined with heavy duty polythene;

p) All necessary plant, pumps, vehicles and equipment should be mustered. When unloading vehicles, make sure that they straddle sumps and keep wheels clear of contamination;

q) Be cautious if using bulldozers - they trample oil into the sand or shingle making it difficult to recover and increasing the bulk of contaminated material;

r) Ensure that drivers do not make more than one pass over a contaminated area. Generally, it is better to squeegee than to dig or scoop (an efficient squeegee can be made by clapperboards grasping a two inch rubber tongue gripped by a JCB bucket);

s) The containers must be strong enough. Plastic bags split. Use fertiliser bags or clay bags (one cubic metre capacity maximum);

t) Slurry wagons from farms etc are very useful to clear sumps;

u) Earmark JCBs, slurry wagons, sludge pumps, portable generators, commercial heavy duty plastic sheeting, hoses, hand tools, squeegees, mops, barrows, shovels, brooms, protective clothing, trucks etc.

The most effective way to recover emulsified oil from the shoreline is to locate and collect. The operation is labour intensive and success depends on the availability of sufficient manpower, plastic containers and mechanical aids. A co-ordinated approach, backed up by cross boundary resources may well be necessary.

Depending on circumstances, it may be appropriate to let all the oil come ashore over a period of days before commencing clean-up operations. Handling pollution is a complex and time-consuming operation. Economy of effort will be necessary to avoid wasting resources and escalating costs. Areas of coastline may have to be closed temporarily to the public.

Consultation should take place with Natural England to take account of sensitive areas such as estuaries, mud flats, rock pools, areas of Special Scientific Interest etc. Reference should be made to the Natural England data sheets contained in the Kent County Council Oil Pollution Emergency Plan (see Section 4, Reference 1). In such areas natural dispersal may prove to be less damaging to marine and bird life than manual collection which may be counter-productive.

Prepared collection areas will be needed to store polluted material before eventual disposal. A flat surface (car park) fenced and covered with heavy duty polythene is suitable. MPCU will supply industrial materials and portable collection tanks. Kent County Council has a number of fastanks at its Preston Depot, Faversham.

Disposal of oil impregnated material is a particularly sensitive issue. Every effort must be made to keep the amount of waste to an absolute minimum. A list of disposal sites can be found in the KCC Oil Pollution Emergency Plan. Local disposal tips may be quite inappropriate.

5. Booming

Booms may help protect harbours and estuaries. However, their effectiveness is most sensitive to the prevailing sea state. Booms may be of little value in areas where tidal streams exceed two knot or waves exceed two metres. Sites must be surveyed in advance. Suitable mooring or tethering points must be pre-determined as must the angle at which the boom will be placed and the position of any collection sumps. It may be possible to use a boom to deflect oil into a collection trap or sump.

There are a number of points which should be considered prior to boom deployment:

a) Check that the boom angle of deflection will be appropriate to the expected maximum current strength;

b) Will oil be deflected to relatively quiet waters for recovery?

c) Is it possible to stagger booms from opposite banks and thereby keep a navigation channel open?

d) Where extensive deflection booms are required, is there sufficient expertise and time to lay multiple moorings? How easily can each boom configuration be laid out?

e) The correct type of mooring equipment must be identified for the type of boom to be deployed;

f) Use local knowledge. Local people can be a vital source of information such as local currents and vehicle access over soft sediment areas.

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6. Training and Exercises

6.1 Training

KCC staff identified as having a role in this Emergency Plan will as soon as reasonably practicable attend an appropriate training course provided by the Maritime and Coastguard Agency and / or their own training provider. These courses are likely to relate to oil pollution, contingency planning and response or the undertaking and supervision of beach clean-up.

6.2 Exercises

This Emergency Plan will be validated periodically in one of the following ways:

- By exercises sponsored by KCC
- By participation in exercises sponsored by Ports and Harbours
- By participation in boom deployment exercises sponsored locally, or as part of training organised by the Maritime and Coastguard Agency.
- By participation in exercises sponsored by neighbouring local authorities.

6.3 Training and Exercising Programme

Figure 8.3

Organiser	Title of training / exercise	Type	Date	Relevant lessons or link
KCC/MCA	Beachmaster Training	Training	22-23 Sept 2009	
KCC	Oil Pollution Study Day	Training	23 Dec 2010	

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7. References/Abbreviations

References

1. Kent County Council Oil Pollution Emergency Plan (2004).

2. MCA STOp Notice 1/93 - The Establishment, Management Structure and Layout of a Shoreline Response Centre.

3. MCA Stop Notice 1/96 - Collection and Handling of Oil Samples.

Abbreviations and Acronyms

ACPO	Association of Chief Police Officers
ARCC	Air Rescue Co-ordination Centre
BEC	Borough Emergency Centre
BNFL	British Nuclear Fuels
BOSCA	British Oil Spell Control Association
BTA	British Tugowners Association
CAA	Civil Aviation Authority
CAST	Coastguard Agreement on Salvage and Towage
CCW	Countryside Council for Wales
CEC	County Emergency Centre
CHAG	Chemical Hazards Advisory Group
CIA	Chemical Industry Association
CLC	The International Convention on Civil Liability for Oil Pollution Damage 1969
COI	Central Office of Information
COPO	County Oil Pollution Officer
COSSH	Control of Substances Hazardous to Health
CRISTAL	Contract regarding an Interim Supplement to Tanker Liability for Oil Pollution
DARD	Department of Agriculture and Rural Development
DDO	Duty District Officer
DEFRA	Department of Environment, Fisheries and Rural Affairs
DETR	Department of Environment, Transport and the Regions
DLO	District Liaison Officer
DMO	Director of Maritime Operations (MCA)
DOE NI	Department of the Environment for Northern Ireland
DOPO	District Oil Pollution Officer
DRO	Duty Regional Officer (MCA)
DTI	Department of Trade and Industry
EA	The Environment Agency
EG	Environment Group
EHS	Environment and Heritage Service (Northern Ireland)
ELO	Environment Liaison Officer
EPG	Environment Protection Group
ESA	Environmentally Sensitive Area
ETV	Emergency Towing Vessel
FCC	Forward Control Centre
FCO	Foreign and Commonwealth Office
FEPA	Food and Environment Protection Act (1985)
FPSO	Floating Production Storage and Offloading Vessel
FSU	Floating Storage Unit
HMCG	Her Majesty's Coastguard

HMSO	Her Majesty's Stationery Office
HOO	Head of Operations, MCA
HSE	Health and Safety Executive
IMO	International Maritime Organisation
IOPC	International Oil Pollution Compensation Fund Convention
ITOPF	International Tanker Owners Pollution Federation
JNCC	Joint Nature Conservation Committee
KCC	Kent County Council
LNR	Local Nature Reserve
MCA	Maritime and Coastguard Agency
MARPOL	Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978
MEHRAs	Marine Environmental High Risk Areas
MEIR	Marine Emergencies Information Room
MEPC	Marine Environment Protection Committee
MOD	Ministry of Defence
MOU	Memorandum of Understanding
MPL	Medway Ports Limited
MRC	Marine Response Centre
MRCC	Maritime Rescue Co-ordination Centre
MRSC	Maritime Rescue Sub Centre
MSD	Marine Safety Division
NAWAD	National Assembly for Wales Agriculture Department
NCP	National Contingency Plan
NE	Natural England
NHS	National Health Service
OPMU	Oil Pollution Management Unit
OPOL	Offshore Pollution Liability Association Ltd
OPRC	Oil Pollution Preparedness, Response and Co-operation Convention 1990
OS	Ordnance Survey
P&I Club	Protection and Indemnity Club
PCPSO	Principal Counter Pollution & Salvage Officer
PLA	Port of London Authority
POLPLAN	Port of London Oil Pollution Contingency Plan
POLREP	Pollution Report
PPE	Personal Protective Equipment
RAMSAR	Special protected wetland habitat for wildfowl
RDO	Regional District Officer
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
RSPB	Royal Society for the Protection of Birds
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SAC	Special Area of Conservation
SAR	Search and Rescue
SCAT	Shoreline Clean-up Assessment Team
SCU	Salvage Control Unit
SEEEC	Sea Empress Environmental Evaluation Committee
SEPA	Scottish Environment Protection Agency
SERAD	Scottish Executive Rural Affairs Department
SFI	Sea Fisheries Inspectorate
SNH	Scottish Natural Heritage
SOLAS	Safety of Life at Sea

SOSREP	Secretary of State's Representative
SPA	Special Protection Area
SRC	Shoreline Response Centre
SSSIs	Sites of Special Specific Interest
STOp	Scientific, Technical and Operational Guidance Notices
TDA	Temporary Danger Area
TEZ	Temporary Exclusion Zone
TOSCA	Thames Oil Spill Clearance Association
TOVALOP	Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution
UK	United Kingdom
UKOOA	United Kingdom Offshore Operators' Association
UKPIA	United Kingdom Petroleum Industry Association
UNCLOS	United Nations Convention on the Law of the Sea
WM	Watch Manager
WRA	Water Resources Act

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8. Riparian Council Outline Responsibilities

The council has the following responsibilities:

- To nominate a District Oil Pollution Officer (DOPO) and deputies
- To pass all reports of oil pollution on-shore/floating offshore to the Marine and Coastguard Agency (MCA) and the Head of Kent County Council Emergency Planning Group.
- To provide a point of contact to receive alerts and warnings
- To maintain a log of events
- To carry out reconnaissance and reporting as required.
- As necessary, to establish the Borough Emergency Centre (BEC)
- To seek prior approval from Head of Kent County Council Emergency Planning Group for all grant aided expenditure e.g. clean-up operations, equipment etc
- To deal with oil pollution of beaches/foreshores
- To liaise with the Head of Kent County Council Emergency Planning Group for the supply of additional resources
- To make arrangements for the clearance of private beaches
- To provide mutual aid to neighbouring districts where required
- To ensure appropriate personnel are trained in oil pollution response
- To make arrangements for funding and to maintain financial records of expenditure
- To provide a liaison officer, if required, at the County Emergency Centre
- To store and maintain equipment, protective clothing funded under grant aid
- To update and maintain an Oil and Chemical Spill Contingency Plan

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9. County Council Outline Responsibilities

The county are expected:

- To nominate the County Oil Pollution Officer (COPO) and deputies
- To provide a point of contact to receive alerts and warnings
- To alert the appropriate authorities and County Council Departments
- When requested, to support District Councils with County Council resources
- To arrange for external resources for use by the County Council and where appropriate, District Councils
- Where appropriate establish the County Emergency Centre (CEC) and/or a Shoreline Response Centre (SRC)
- To take overall responsibility for co-ordination when more than one district is involved, or when any one district is unable to cope
- To maintain financial records of County Council expenditure and make arrangements for funding
- To alert and liaise, where appropriate, with Central Government departments, other public bodies and any other organisations which may be involved in the incident
- To exercise any authority which may be delegated by Central Government
- To provide arrangements for dealing with the media and the public
- To make arrangements for the disposal of waste arising from the incident
- To store and maintain equipment
- To arrange for the training of personnel in oil de-pollution activities
- To update and maintain the Kent County Council Coastal / Riparian Oil Pollution Emergency Plan

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10. National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (Abridged Version)

Issued by the Maritime and Coastguard Agency (MCA)
(This may contain duplicates of sections elsewhere in this Plan)

This Plan covers the following sections:

- Scope and purpose:
    - Introduction
    - Legal basis
    - Marine pollution
    - Area covered
    - Purpose
    - Implementation
- Initial information MCA expects to receive
- Establishing the level of response:
    - Options and factors considered by the PCPSO
    - Action taken after initiating a national or regional response
- Setting up the national response units
- Salvage:
    - The role of SOSREP and the SCU for shipping casualties
    - Access to the casualty
    - Offshore installations
- At sea response:
    - Marine response centre
    - Options for the clean up operation
    - Dispersant spraying
    - Introduction of fishing restrictions
- Harbour response:
    - Powers of harbour authorities
    - Roles of the harbour master and SOSREP
    - Command and control centre
    - Division of responsibilities for clean up
- Shoreline and on shore response:
    - Shoreline Response Centre
    - Local authority/EHS contingency plans
    - Hazardous substances
- Environmental advice and monitoring
- Media:
    - Introduction
    - Media team and designated press officer
    - Ministerial and VIP visits
    - Liaison with other government departments and agencies
- Finance
- Prosecution

List Of Acronyms

ARCC Air Rescue Co-ordination Centre
BOSCA British Oil Spill Control Association
BTA British Tugowners Association
CAST Coastguard Agreement on Salvage and Towage
CCW Countryside Council for Wales
CEFAS Centre for Environment, Fisheries and Aquaculture Science
CHAG Chemical Hazards Advisory Group
CIA Chemical Industry Association
COI Central Office of Information
DANI Department of Agriculture for Northern Ireland
DETR Department of the Environment, Transport and the Regions
DMO Director of Maritime Operations, MCA
DOE (NI) Department of the Environment for Northern Ireland
DTI Department of Trade and Industry
EA Environment Agency
EHS Environment and Heritage Service of DoE (NI)
ELO Environment Liaison Officer
EN English Nature
EPG DETR's Environment Protection Group
ETV Emergency Towing Vessel
FCO Foreign and Commonwealth Office
FEPA Food and Environment Protection Act 1985
HMCG Her Majesty's Coastguard
HOO Head of Operations, MCA
HSE Health and Safety Executive
IMO International Maritime Organisation
IOPC Fund International Oil Pollution Compensation Fund
ITOPF International Tanker Owners Pollution Federation
JNCC Joint Nature Conservation Committee
MACC Military Aid to the Civil Community
MCA Maritime and Coastguard Agency
MAFF Ministry of Agriculture, Fisheries and Food
MAIB DETR's Marine Accident Investigation Branch
MEIR Marine Emergencies Information Room
MLL Marine Land and Liability Division of DETR
MOD Ministry of Defence
MOU Memorandum of Understanding
MRC Marine Response Centre
MRCC Maritime Rescue Co-ordination Centre
MRSC Maritime Rescue Sub Centre
NAWAD National Assembly for Wales, Agriculture Department
NHS National Health Service
NOTAM Notice to Airmen
OIM Offshore Installation Manager
OPOL Offshore Pollution Liability Association Ltd
OPRC Convention Oil Pollution Preparedness, Response and Co-operation Convention 1990
P&I club Protection and Indemnity club
PCPSO Principal Counter Pollution and Salvage Officer
RSPCA Royal Society for the Prevention of Cruelty to Animals
SAR Search and Rescue
SCU Salvage Control Unit
SEEEC Sea Empress Environmental Evaluation Committee
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SEPA Scottish Environment Protection Agency
SERAD Scottish Executive Rural Affairs Department
SERS Ship Emergency Response Service
SFI Sea Fisheries Inspectorate
SNH Scottish Natural Heritage
SOSREP Secretary of State's Representative
SP3 Shipping Policy (3) Division, DETR
SRC Shoreline Response Centre
SSPCA Scottish Society for the Prevention of Cruelty to Animals
SSSIs Sites of Special Specific Interest
STOp Scientific, Technical and Operational Guidance Notices
TDA Temporary Danger Area
TEZ Temporary Exclusion Zone
UKOOA United Kingdom Offshore Operators' Association
UKPIA United Kingdom Petroleum Industry Association
UNCLOS United Nations Convention on the Law of the Sea 1982

1. Scope And Purpose

Introduction *Associated with* **Appendix A** *(Roles and responsibilities) and* **Appendix B** *(Contact details).*

As a Party to the UN Convention on the Law of the Sea (UNCLOS), the UK has an obligation to protect and preserve the marine environment. This plan is one of the measures that the UK has taken to meet this obligation.

After saving human life, the key purpose of responding to a maritime incident is to protect human health, and the marine and terrestrial environment. A range of national and local agencies, some of which have more specific statutory duties than others, undertake the response to incidents that threaten to pollute the seas around the UK. ***Appendix A*** outlines the roles and responsibilities of the organisations that may become involved. ***Appendix B*** contains contact details for these organisations.

This plan parallels similar documents dealing with the UK Government's responsibility for saving life at sea, for search and rescue and for caring for survivors brought ashore. Plans prepared by coastal local authorities, harbour authorities, and operators of offshore installations underlie this national plan. These local plans provide detailed information on the local response to marine incidents and should describe arrangements for mutual support.

Legal basis

The legal basis for this plan is section 293 of the Merchant Shipping Act 1995, as amended by the Merchant Shipping and Maritime Security Act 1997 (the "1995 Act"). This section gives the Secretary of State for the Environment, Transport and the Regions the function of taking, or coordinating, measures to prevent, reduce and minimise the effects of marine pollution.

This plan also meets one of the UK Government's obligations under the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (the "OPRC Convention"). The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998 implement other obligations under the Convention. In particular, they require harbour authorities to have oil pollution emergency plans that are compatible with this plan. Harbour authorities must submit revised plans to the Maritime and Coastguard Agency (MCA) every five years, or earlier if a substantial change is required. MCA has published advice in their ***Oil Spill Contingency Plan Guidelines for Ports, Harbours & Oil Handling Facilities***.

Local authorities in England and Wales have a general power under section 138 of the Local Government Act 1972 to act with respect to emergencies or disasters. Local authorities in Scotland have similar powers under the Local Government (Scotland) Act 1973. Local authorities have prepared, and implemented, local response plans based on these powers. MCA advises them to submit revised plans every five years, or earlier if there is a substantial change.

In Northern Ireland, the Water Act (Northern Ireland) 1972 authorises the Department of the Environment for Northern Ireland (DOE (NI)) to carry out pollution clean up work through the Environment and Heritage Service (EHS). The EHS prepares local response plans in the same way as local authorities do elsewhere in the United Kingdom.

Marine pollution
The scope of this plan matches the scope of the Secretary of State's powers of intervention. References to "marine pollution" therefore refer to pollution by oil or other hazardous substances. "Oil" means oil of any description (section 151 of the 1995 Act). "Other hazardous substances" are those substances prescribed under section 138A of the 1995 Act. They also include any substance that, although not so prescribed, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

Such pollution can result from spills of ships' cargoes carried in bulk or in packages, ships' bunkers, and leaks from oil and gas installations and pipelines.

Area covered

Associated with **Appendix C** *(International assistance and cooperation) and* **Appendix D** *(Maps of the UK pollution control zone)*

This plan covers all incidents in, or likely to affect, the UK pollution control zone1 - that is, any part of the sea within the area designated under the Merchant Shipping (Prevention of Pollution) (Limits) Regulations 1996, as amended.

This area includes the UK's internal waters, defined as waters inside the baseline of territorial waters; territorial seas, defined as 12 miles from the baseline; and the UK's pollution control zone, defined as 200 miles from the baseline or out to the nearest median line.

The Isle of Man and the Channel Islands are responsible for their own counter pollution arrangements but, as they have only limited resources, MCA provides assistance in a major incident.

Appendix C summarises the bilateral and multilateral agreements on co-operation. MCA's Director of Marine Operations (DMO), Head of Operations (HOO), and Counter Pollution Branch based at its headquarters in Southampton discharge all obligations under these agreements. MCA headquarters also informs other States of any pollution threat to their waters or shoreline, and co-ordinates any requests for international assistance.

Maps illustrating the UK's pollution control zone and search and rescue boundaries are at ***Appendix D***.

Purpose
The purpose of this plan is to ensure that there is a timely, measured and effective response to incidents. The owners and masters of ships and the operators of

offshore installations bear the primary responsibility for ensuring that they do not pollute the sea. Harbour authorities are likewise responsible for ensuring that their ports operate in a manner that avoids marine pollution, and for responding to incidents within their limits. However, ships, offshore installations and harbour authorities may face problems that exceed the response capabilities that they can reasonably maintain (especially in the provision of counter pollution equipment). Similarly, coastal local authorities may face incidents that require equipment or expertise beyond their capabilities. Therefore, the MCA may need to use national assets in the response to a marine pollution incident.

This plan sets out the circumstances in which MCA deploys the UK's national assets to respond to a marine pollution incident to protect the overriding public interest. It also describes how MCA manages these resources.

Implementation
Associated with **Appendix E** *(Intervention powers)*

MCA, an Executive Agency of the Department of the Environment, Transport and the Regions (DETR), has overall responsibility for the implementation of this plan. For this purpose, MCA exercises the functions of the Secretary of State (for the Environment, Transport and the Regions) under the 1995 Act, including the Secretary of State's intervention powers. Details of these powers are at ***Appendix E***.

Regulations under the Pollution Prevention and Control Act 1999 will create parallel powers for the Secretary of State (for Trade and Industry) in relation to offshore installations and pipelines. MCA will exercise these powers too.

Within MCA, the following officers may exercise the Secretary of State's powers:

- The Chief Executive;
- DMO;
- the Secretary of State's Representative (SOSREP);
- HOO; and
- A Principal Counter Pollution and Salvage Officer (PCPSO), if so authorised by one of the above for a specific incident.

The Government has appointed SOSREP to provide overall direction for all marine pollution incidents involving the salvage of ships or offshore installations that require a national response. The normal arrangement is therefore for him to exercise operational control, as explained below. As recommended in Lord Donaldson of Lymington's report on Salvage and Intervention and their Command and Control, Ministers and senior officials should not attempt to influence SOSREP's operational decisions while operations are in progress. In Lord Donaldson's words, they should "back him or sack him".

Action to prevent marine pollution remains a function of the UK Government. Nevertheless, the Scottish Executive, the Northern Ireland Departments, and the National Assembly for Wales (the "devolved administrations") need to be closely involved when their areas are, or may be, affected. They have responsibilities for the marine environment and fisheries in waters adjacent to their coasts, and are concerned with the effects on coastal areas. MCA has signed an Operational Agreement with the Scottish Executive Rural Affairs Department (SERAD), and a Memorandum of Understanding with the Environment and Heritage Service (EHS) of DoE (NI). Discussions on an operational agreement between the MCA and the National Assembly for Wales are underway.

This plan refers to the relevant units in the devolved administrations dealing with environmental and fisheries issues as the “devolved environment and fisheries departments”. For Wales, this includes the Ministry of Agriculture Fisheries and Food (MAFF) in respect of the fisheries functions where MAFF acts on behalf of the National Assembly for Wales.

2. Initial Information Mca Expects To Receive

Associated with **Appendix B** *(Contact details) and* **Appendix F** *(Forms for gathering and disseminating information on marine incidents)*

An immediate response to reported marine pollution or a risk of significant pollution is important. Incidents at sea should be reported urgently by radio or telephone to HM Coastguard (HMCG). If an incident occurs in a harbour, it should be reported to the harbour master who immediately informs HMCG. Operators of offshore installations immediately inform HM Coastguard’s Maritime Rescue Co-ordination Centre (MRCC) in Aberdeen, and the Department of Trade and Industry, Oil and Gas Division, of any spill of oil or other pollutants, of any quantity.

The HMCG Watch Manager contacts the ship or offshore installation to ascertain, among other things:

- The nature of incident (collision, loss of containment, etc.);
- The number of people on board;
- The type, size and name of the ship or installation;
- The identity of the owner or operator;
- The precise location, course and speed of the ship, and its proximity to other ships, offshore installations, shallow water and the shore;
- Information on the ship’s cargo, stores or bunkers, and whether any are dangerous;
- The structural and mechanical integrity of the ship or installation;
- The weather, sea state and tidal conditions;
- Any assistance available to the casualty and the intentions of the Master or Offshore Installations Manager (OIM); and
- Any measures already taking place.

The Watch Manager initiates any search and rescue response required. He reports any pollution incident (whether or not known to involve oil or any other hazardous substance, and even if of unknown origin) to the duty PCPSO, with a copy to MCA Headquarters.

Any other organisation (for example, a local authority, harbour authority or environmental organisation) receiving a report of marine pollution of any quantity, or a threat of marine pollution, whether from a ship, offshore installation or unknown source, should send that information immediately to HMCG. HMCG contacts the duty PCPSO.

Organisations sending information should make every practicable effort to identify, as a basis for decisions:

- the nature and quantity of the pollutant involved;
- its location;
- its source;
- the weather, sea state and tidal conditions in the area; and
- events and actions so far.

Forms used for gathering information on a marine incident are at ***Appendix F*** and the contact details for disseminating information to those involved are at ***Appendix B***.

3. Establishing The Level Of Response

Associated with **Appendix G** *(Temporary Exclusion Zones and Temporary Danger Areas)*

Options and factors considered by the PCPSO

The duty PCPSO decides in the first instance what level of response (national, regional or local) the incident warrants. This plan lays down no rigid criteria for triggering a regional or national response. However, the PCPSO may trigger a national response if:

- a shipping casualty gives rise to the risk of significant pollution requiring a salvage operation;
- there is a spill of oil or any other hazardous substance at sea from a ship that requires the deployment of sea borne or air-borne equipment to contain, disperse or neutralise it;
- there is a spill of oil or any other hazardous substance from an offshore installation that requires the deployment of seaborne, or air-borne equipment by MCA to contain, disperse or neutralise it which the operator of the installation does not have the capacity to deploy (after allowing for mutual support arrangements agreed with other operators);
- there is a spill of oil or any other hazardous substance within the area of a harbour authority that requires the deployment of national resources under national control to contain, disperse or neutralize it, or other action beyond the capacity of the harbour authority and local authority concerned (after allowing for mutual support arrangements with neighbouring harbour authorities or local authorities); or
- a local authority requests the deployment of national shoreline equipment under national control because the action is beyond the capacity of the local authority after allowing for any mutual support arrangements with neighbouring authorities.

In a regional response, the PCPSO may deploy regional MCA equipment and facilities to support the harbour authorities or local authorities (or, in Northern Ireland, the EHS). A local response is appropriate in all other cases. In a local response, MCA has no role other than to maintain records of any pollution for statistical purposes.

The PCPSO considers the following actions – some of which involve the deployment of regional MCA resources, whereas other actions engage national MCA equipment and facilities:

- Ordering aerial surveillance of the ship, if possible with a qualified observer;
- Arranging for inspection of the ship by an MCA surveyor or other qualified person;
- Putting on stand-by or deploying:
- Dispersant spraying aircraft and ships,
- Oil recovery equipment,
- Cargo transfer equipment,
- booms, or
- ETVs;
- Establishing the availability of salvage and lightening ships;

- Moving the ship to shelter;
- Using statutory powers of intervention;
- Obtaining specific weather forecasts;
- Requesting control of airspace in vicinity of the casualty; and
- Establishing a temporary exclusion zone (TEZ). (***Appendix G*** contains information on TEZs.)

Action taken after initiating a national or regional response
When a threat of significant pollution justifies a regional or national response, the PCPSO immediately informs DMO, SOSREP, or HOO at MCA headquarters of the incident. The PCPSO ensures that MCA keeps a record of actions taken. DMO, HOO, or SOSREP may decide to supplement the response or stand down a national response.

In relation to incidents involving ships, MCA takes the lead in providing UK Government Ministers with situation reports. DETR's Shipping Policy (3) Division (SP3) takes the lead in providing policy advice, consulting colleagues in DETR, other government departments and the devolved administrations as appropriate. In relation to incidents involving offshore installations, the Oil and Gas Division of the Department of Trade and Industry (DTI) takes the lead in providing both operational and policy advice. MCA or the DTI, as appropriate, also give situation reports to officials of the devolved administration affected, so that they can similarly advise their Ministers.

Thus, when MCA triggers a regional or national response, DMO, HOO, or SOSREP arranges for the following to receive situation reports:

- The offices of the Secretary of State for the Environment, Transport and the Regions, the Minister for Transport, the Minister for the Environment, and the Parliamentary Under-Secretaries handling maritime and environmental issues (by fax or e-mail);
- The DETR Duty Press Officer (by telephone, via the MCA Public Relations Office);
- SP3, Marine Land and Liability (MLL) and Ports Divisions of DETR, the Oil and Gas Division of the DTI, MAFF, and the devolved environment and fisheries departments, as appropriate (by telephone, fax or e-mail);
- Affected local authorities;
- National Focus (if there is potential or actual risk to public health); and
- Those organisations that provide the core members of the Environment Group (see Section 9).

The remainder of this plan sets out the framework for a national response.

4. Setting Up The National Response Units

In managing the counter pollution response to an incident, the hierarchy of aims is:

- First, to prevent pollution occurring;
- Second, to minimise the extent of any pollution that occurs;
- Third, to mitigate the effects of that pollution.

Separate, but linked, response units direct operations. There may be units to handle salvage (the Salvage Control Unit (SCU)), action at sea (the Marine Response Centre (MRC)), action in the area of each harbour authority involved, and action on shore (the Shoreline Response Centre (SRC)). An Environment Group provides environmental advice to all of these units. Not all incidents require all these response units. However, the arrangements for managing the incident must allow for the

possibility of salvage operations, action at sea and action on shore taking place simultaneously.

The accommodation for each unit should have sufficient telephone lines to enable full liaison with outside bodies. Photocopier and fax facilities are essential, although noisy equipment should be located in a separate room. Fixed VHF equipment would be desirable. Television and video facilities can be extremely useful for playing back videotapes from aircraft and helicopters, as well as watching local and national coverage of the incident. Wall space to display several charts and situation boards is essential. Those holding responsibility for keeping the situation boards continuously updated should be aware that their objective is to present a summary of the current situation and response actions being taken.

A well-prepared set of situation boards and annotated charts greatly assists the preparation of:

- Press briefing notes;
- Briefing for Ministers and elected representatives; and
- Briefing for incoming relief staff.

Each of the units need support from an Administration Team responsible for the general management of the unit and providing personnel for:

- Communication links between the units;
- The distribution of messages within the units;
- Keeping records of messages and expenditure;
- Taking minutes during meetings to record decisions;
- Typing services;
- Updating situation boards and charts; and
- Providing catering to the units.

5. Salvage

Associated with **Appendix H** *(Salvage)*

The role of SOSREP and the SCU for shipping casualties

If there is a threat of significant pollution HMCG issues a broadcast to the salvor or, if not yet appointed, the master or owner of the ship, and the harbour master, if the incident is in a port or its approaches, stating that intervention powers may be exercised and directing him to give SOSREP information. This information must include:

- Whether the owner has appointed a salvor and, if so, its name and contact details;
- The broad nature of the contract between owner and salvor;
- Information on the intentions of the salvor; and
- Any other important information that has not yet been gathered (see ***Appendix F***).

It is for SOSREP to decide whether the salvor has the capability to carry out the necessary salvage actions, in terms of experience, personnel, and material. He decides whether it is necessary to set up a SCU. If the size of the incident merits the establishment of a SCU, SOSREP travels to the scene at an appropriate time.

The members of the SCU are:

- SOSREP;
- The Salvage Manager from the salvage company appointed by the ship-owner;

- The harbour master, if the incident involves a harbour 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 PCPSO;
- An Environmental Liaison Officer, nominated by the Chair of the Environment Group; and
- If SOSREP decides to appoint one, SOSREP's personal salvage adviser.

DMO, or HOO, controls the salvage operation from the Marine Emergencies Information Room (MEIR) at MCA headquarters while SOSREP is en route to an MRCC, a Marine Rescue Sub-Centre (MRSC), or other appropriate forward base, and until he has established the SCU. DMO or HOO also activate all members of MCA Counter Pollution Branch necessary to assist in the response.

SOSREP uses all the information available to him to assess whether the actions proposed are in the public interest. SOSREP also considers what should happen if the current salvage plan goes wrong or the incident escalates in severity. He is empowered to exercise intervention powers to what ever extent is required in the public interest and may take control of the salvage operation, by issuing directions. If SOSREP takes control of a salvage operation, all those involved will act on his directions. In other cases, the salvors operate by agreement with, or with the tacit approval of, SOSREP, without the need to issue further directions.

Irrespective of any directions issued, MCA arranges for a written record of all decisions made by SOSREP and sends copies to the other response units as soon as practicable.

Access to the casualty (affected vessel)
If SOSREP decides that it is necessary for the salvage operation, he establishes an On Board Salvage Team in addition to the SCU. This team normally comprises the Salvage Master and his crew, SOSREP's own representative and, if the shipowner wishes, a Ship-owner's Casualty Representative. SOSREP strictly monitors and, if necessary, controls access to the casualty.

SOSREP uses discretion in limiting access. Every additional body increases the potential problem of rescue, and every additional person increases the risk of confusion as to what the Salvage Master and his crew are doing.

SOSREP's own representative keeps SOSREP fully informed of developments on board and monitors compliance with any directions issued to those on board. The Shipowner's Casualty Representative may discuss the handling of the casualty with the Salvage Master and report to his colleague in the SCU. However, none of those on board has any power of direction.

Additionally, SOSREP may allow others with a clearly defined and beneficial role access to the casualty. For example, SOSREP may grant a single special representative of hull insurers, or a single special representative of cargo owners and insurers, access to the casualty.

Similarly, as soon as he judges that the situation is safe, SOSREP grants access to one or more inspectors of the Marine Accident Investigation Branch (MAIB). MAIB has a statutory duty to investigate accidents falling within its jurisdiction and prompt access to witnesses and to other evidence on board greatly facilitates the work of these technical investigators.

Offshore installations
Incidents occurring at an offshore installation fall under the remit of the installation's oil spill response plan. In general2, when there is a release of oil from an installation, the tasks of containing and responding to the oil on the water are identical to when a ship spills oil.

At the outset, the installation manager is in control of implementing the emergency plan at the installation. On shore, the company activates its Emergency Response Centre under the control of the Emergency Operations Manager. MCA controls any national resource deployed, in consultation with SOSREP and the Emergency Operations Manager.

The company has a duty to implement its plan to contain the spill and minimise the environmental damage caused. There is unlikely to be a need to exercise the Secretary of State's powers of intervention. Nevertheless, in a major spill, SOSREP monitors the progress of the salvage operation under the control of the Emergency Operations Manager. SOSREP is empowered to exercise intervention powers on behalf of the Secretary of State for Trade and Industry to what ever extent is required in the public interest and may take control of the salvage operation, by issuing directions. If SOSREP takes control of a salvage operation, all those involved will act on his directions.

The approved oil spill response plan for the installation must identify the location for a command and control centre. Suitable accommodation may be available close to the operator's Emergency Control Centre; otherwise, it is likely to be the MRCC at Aberdeen. This command and control centre requires the same support and structure as an SCU and similar links to other operational units engaged in other tasks including search and rescue, at sea clean up and shoreline clean up, as appropriate.

The members of the operational group that supports SOSREP and their roles are:

- The Emergency Operations Manager of the installation to provide, when necessary, a communications link between SOSREP and the Offshore Installation Manager;
- A single representative of the owners and of the physical property and liability underwriters;
- A PCPSO;
- An Environmental Liaison Officer, nominated by the chairman of the Environment Group;

One significant difference is that "live" crude may generate an inflammable gas cloud that could make operations at sea hazardous.

- A representative of the DTI to provide SOSREP with advice on the importance of the installation to strategic supplies and other matters of national interest and give independent advice on the technology of the installation; and
- If SOSREP decides to appoint one, a personal advisor.

Again, there need to be timely written records of all SOSREP's decisions. All response units should receive copies of these as soon as practicable.

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11. At Sea Response

Associated with **Appendix I** *(Counter pollution operations)* **Marine Response Centre**

In almost all cases involving a national response, whether ship or offshore related, MCA establishes a Marine Response Centre (MRC) at the nearest MRCC or MRSC. As soon as HOO can leave the MCA Headquarters and reach the site of the MRC, he takes control of it. Until then, the PCPSO has control of the MRC. It contains the following persons, although some of MCA staff may play more than one role:

- A PCPSO, to manage sea borne and air borne operations;
- Where a ship is involved, an MCA officer to manage cargo transfer operations;
- An MCA Logistics Officer, to organise the deployment of the equipment needed and monitor financial commitments;
- If the incident involves a harbour or its services, a representative of the harbour authority;
- An officer of the relevant fisheries department, to advise on the impact of fisheries and to liaise with fishing organisations. Where the relevant fisheries department is part of the Scottish Executive, or is the Department of Agriculture for Northern Ireland, this officer also acts as liaison officer with the devolved administration. If the incident involves waters designated under the Government of Wales Act 1998, the MRC also contains a liaison officer nominated by, or on behalf of, the relevant Assembly Secretary of the National Assembly for Wales;
- A local authority officer (or, in Northern Ireland, an officer of the EHS), to act as liaison with the Shoreline Response Centre;
- An Environmental Liaison Officer nominated by the Chair of the Environment Group; and
- An MCA Public Relations Officer, to liaise with the DETR Press Office and the media.

In consultation with DMO, HOO nominates other members of MCA Counter Pollution Branch staff to assist in the response.

Options for the clean up operation

HOO (subject to any instructions from SOSREP in a salvage operation) decides on actions to contain, disperse, or neutralise pollutants, and to remove potential pollutants from the scene. If circumstances allow, he consults DMO at MCA Headquarters before reaching decisions on the following methods of response:

- Assessing and monitoring;
- Dispersant spraying operations;
- Mechanical recovery operations; and
- Cargo transfer operations.

The aim of any clean up operation is to minimise the damage (environmental, ecological, amenity or financial) that the spill would cause. The MRC decides between the options for clean up bearing in mind the following:

- The severe limitations on the effectiveness of at sea clean up techniques;
- The distance from shore of the casualty;
- The type of spill;
- The weather conditions and currents;
- The time needed to deploy resources to the scene.

DMO has the right to change a decision on response action taken by the MRC. ***Appendix I*** outlines counter pollution procedures.

Dispersant spraying
Associated with **Appendix J** *(Procedure for approving and testing oil treatment products)*

The manufacture and use of dispersants and other oil treatment products is subject to regulation. Details of the controls are at ***Appendix J***.

Introduction of fishing restrictions
Under Part I of the Food and Environment Protection Act 1985 (FEPA), Departments or Agencies with food safety responsibilities can prohibit the taking of fish and edible plants from a designated sea area. They may do this when the consumption of contaminated food from that area could present a health risk to consumers. They may therefore restrict fishing, on a precautionary basis, if resources are, or are likely to become, contaminated.

7. Harbour Response

Powers of harbour authorities
For an incident occurring inside the harbour authority's jurisdiction, the harbour master is in control of the incident response from the outset. All harbour masters have powers to direct the time and manner of a ship's entry into, departure from, or movement within a harbour. This gives a harbour master the power to regulate day to day movements within the harbour. However, it does not permit the harbourmaster to prohibit or insist upon entry.

Some harbour authorities have powers to issue general directions. Unlike the harbour master's powers, these powers are not ship and movement specific. Neither do they enable the harbour authority to prohibit or insist upon a ship's entry or departure. However, the Dangerous Vessels Act 1985 does permit a harbour master to prohibit entry or require departure from a harbour. He may do so if, in his opinion, the condition of that ship, or the nature of anything it contains, is such that its presence in the harbour might involve a grave and imminent danger to the safety of persons or property or risk that that the ship may, by sinking or foundering in the harbour, prevent or seriously prejudice the use of the harbour by other ships. He must have regard to all the circumstances and to the safety of any person or ship. SOSREP is empowered to exercise the powers of the Secretary of State to over-rule such directions.

Roles of the harbour master and SOSREP
A harbour authority exercising any of its functions, including those of the harbour master, must have regard to any potential threat to the environment and should have access to the advice of the Environment Group. The harbour authority has responsibility for the response to any incident and this should be in accordance with the approved local plan. This will allow appropriate regard to other harbour operations. SOSREP secures by direction, if necessary, information on the way the harbour authority powers are to be exercised. He is empowered to exercise intervention powers to what ever extent is required in the public interest and may take control of the salvage operation, by issuing directions. If SOSREP takes control of a salvage operation, all those involved will act on his directions rather than those issued by the harbour authority. SOSREP's directions over-rule any directions issued by the harbour master in respect of the casualty or its cargo.

Command and control centre
The command and control centre is located either at the port's own operations room or at the nearest MRCC or MRSC. Some ports can cope with large salvage operations. In these ports, SOSREP may view it as an advantage to exercise control using port facilities. The harbour master is a member of the SCU and it may be beneficial to maintain his presence at the port so that he can keep control of other activities within the port. The decision whether to use the port or Coastguard facilities for the control centre should be predetermined in the local plan taking account of many factors, including:

- The availability and range of communications equipment (radio link with the casualty, salvors, and emergency units on scene, spare telephone lines, faxes etc.);
- The need for ancillary equipment such as radar equipment for the control of port traffic;
- The availability of local knowledge of environmentally sensitive areas, bathymetry, port resources to supplement rescue, salvage and counter pollution efforts;
- Size of building and number of rooms available (large rooms for press briefings and communications, quiet rooms for decision making by the SCU);
- The availability of support staff; and
- Location (ease of access, available parking).

Division of responsibilities for clean up
The responsibilities for the clean up of pollution within the jurisdiction of a harbour authority are as follows:

Location of pollution Responsibility for clean up lies with:
on the water harbour authority jetties/wharves/structures harbour authority beach/shoreline owned by the harbour authority harbour authority shoreline (including land exposed by falling tide) local authority/EHS

8. Shoreline And On Shore Response

Associated with **Appendix K** *(The shoreline response centre)*

Shoreline Response Centre
When the threat of pollution to the shoreline exceeds the capability of the most affected local authority (or EHS), and MCA initiates a national response, that local authority or EHS sets up a Shoreline Response Centre (SRC).

Each local authority's own contingency plan (and, in Northern Ireland, the EHS contingency plan) should specify how to set up the SRC in the light of its own practices and organisation. These plans also contain the necessary authorisations by each local authority to enable the designated officer directing the SRC to take decisions on behalf of the other local authorities concerned.

The SRC needs to contain representatives of all the local authority services that may need to participate in the clean up operation, and representatives of all local and port authorities that may become involved. In addition, it contains a liaison officer nominated by the Chair of the Environment Group.

Local authority/EHS contingency plans
The local authority/EHS contingency plans should at least contain the following:

- Guidance on what equipment and personnel is at the disposal of the SRC, including neighbouring local authority resources;
- Arrangements for establishing accommodation and catering arrangements for members of the SCU, MRC, SRC and Environment Group who may need to be in the area away from their own base; Section 101 of the Local Government Act 1972 and section 84 of the Local Government (Scotland) Act 1973 provide for such authorisations.
- Arrangements for handling liaison with the SCU, the MRC and the Environment Group;
- Arrangements for handling the media;
- Temporary, intermediate and final storage sites and routes for the disposal of waste;
- Maps, clearly depicting sensitive sites, access points, terrain types etc.; and
- Guidance on the health and safety of workers involved in preventive measures and clean up activities.

Hazardous substances
Some marine accidents may release hazardous substances that have the potential to threaten public health. In such cases, MCA expects the NCP to run in parallel with, and dovetail into, existing major incident plans normally invoked when there is an incident involving hazardous substances onshore. Under Home Office arrangements for dealing with disasters, the Police, as the lead body for co-ordinating the response, sets up a strategic command centre at a previously designated appropriate location. MCA nominates a representative to attend the strategic co-ordination meetings providing a link to the maritime response units. More details are at ***Appendix I***.

In 1974, local authority associations agreed that shoreline county councils would extend their oil spill contingency plans, in consultation with district councils, to cover emergencies arising from hazardous substances washed ashore.5 EHS deals with hazardous substances washed ashore in Northern Ireland.

9. Environmental Advice And Monitoring

Associated with **Appendix L** *(The environment group)*

The response to any maritime incident in the UK requiring a regional or national response involves the establishment of an Environment Group. All those involved in operations at sea (including salvage) and shoreline clean up need environmental advice. The Environment Group advises on environmental aspects and impacts of these operations. The Group is a common facility, providing comprehensive advice to all response units.

The environment agencies recognise the need to develop strategic plans for the disposal of waste.

Resolution of this issue partly depends upon finalisation of the exemption proposals that DETR is currently preparing, but the environment agencies need to undertake further work to ensure that disposal is in accordance with existing legislation.

See joint DOE Circular 123/74 and Welsh Office Circular 201/74, and SDD Circular 75/1975 as amended or added to by SDD Circulator No 28/1981 and SOEnD Circular No 35/1992.

As well as provision of "expert advice" based on immediately available data and information, there may be a need to initiate the collection of real time environmental data. Its purpose is initially to provide accurate baseline data of vulnerable environmental features immediately before impact of the pollution plume, so that the damage can be quantified. The Group also needs to track the success of preventive and counter pollution measures throughout the incident, and to assess the overall long-term environmental impact.

It is the responsibility of the MCA Chief Scientist, or his representative, to initiate the process for the formation of the Environment Group. The core membership of the Group comes from the relevant statutory nature conservation agency, fisheries department, environmental regulator, and (in the case of incidents beyond territorial waters) the Joint Nature Conservation Committee (JNCC). The Group also includes a representative from MCA. These core members nominate a chairman for the Group as quickly as possible. In general, the chairman comes from the relevant statutory nature conservation agency. However, with the agreement of the members, the chairmanship of the Group may change to reflect any alteration in the nature of the incident.

In the simplest incidents, the chairman acts as a conduit of advice (probably by telephone) to SOSREP or the response units. The chairman is also free to offer any environmental advice that he may think appropriate. The chairman also decides when it is necessary to convene the Environment Group at the scene of the incident and nominates Environment Liaison Officers for any response units established. Local contingency plans need to identify suitable accommodation and support facilities for the Environment Group.

As the incident develops, the chairman and core members decide whether to expand the Group's membership to include representatives of other relevant bodies, such as local health authorities, animal welfare groups, or other non-governmental organisations.

Response units should make all reasonable efforts to consult the Environment Group, or its chairman, about any proposed action that is likely to have lasting impact on the environment. If time does not permit the response unit to consult before acting, it must circulate a full written report to the Environment Group and all other response units as soon as possible after the event. This report must detail the actions taken, the reasons for them, and their anticipated outcome.

The Environment Group should record its advice in writing and circulate it to the response units as soon as practicable. Where a response unit does not follow such advice, it should record the reasons for not doing so as soon as practicable.

If a marine pollution incident is expected to have a significant impact on the marine environment, or the shoreline, arrangements will be made to monitor and assess the impact in the longer term.

Appendix L gives further details of how the Environment Group is to be established, its terms of reference, membership and functions.

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10. Media

Associated with **Appendix M** *(Media)*

Introduction

A major maritime incident is of immediate interest to the local media and, depending on the scale and nature of the incident, may result in national and international media attention. It is in the public interest and the interest of all concerned to keep the media informed as fully and as regularly as possible. Failure to consider the media response at an early stage may have serious implications for the management of the whole incident.

Media team and designated press officer

From the outset of an incident, MCA should ensure that it has an adequate media response team in place, under a Designated Press Officer. One of the team's roles is to liaise on behalf of SOSREP with the press and other Government press offices (for example, the DETR and DTI press offices). In particular, it is the task of the Designated Press Officer to advise SOSREP on media relations, to arrange press conferences, and to issue regular news bulletins.

It is essential that the media team ensure that the media do not interfere with the operational activity of the emergency services or harass casualties.

Further details of the suggested procedure for dealing with the media from the outset of a major incident are at ***Appendix M***.

Ministerial and VIP visits

It is inevitable that, in the case of a major or high profile incident, a Minister will wish to visit the scene. A designated MCA senior officer will escort Ministers or other VIPs who visit the scene - whether from central Government, a devolved administration or a Government Agency - at all times.

The media team must consider how to accommodate a Minister and any Ministerial press conference on site and advise DETR and/or DTI Press Office accordingly.

Liaison with other government departments and agencies

The media team establishes and maintains a line of communication with the DETR or DTI Press Office to keep it informed of the progress of an operational response. In addition, appropriate officials must stand ready during the course of the response to provide any advice or draft statements requested by Ministers or Press Office.

In the case of an incident occurring in an area covered by a devolved administration or within a port, the media team establishes and maintains a line of communication with the press office of the devolved administration or harbour authority to keep it informed of progress.

11. Finance

Associated with **Appendix N** *(Liability & compensation for pollution damage) and* **Appendix O** *(Cost recovery)*

Dealing with marine pollution incidents can be a protracted and expensive business. Initially the costs of such operations fall on those undertaking them. In line with the "polluter pays" principle, those incurring expenses as part of the response operation later seek to recover them from those responsible. ***Appendix N*** contains a brief summary of compensation regimes that may enable them to recover those costs.

Appendix O contains guidance on the procedure that they should follow when claiming compensation.

It is essential that, from the outset, all participants keep records of how, when, and why, they respond. They will need these records to support claims for cost recovery and to show that the actions taken were reasonable and commensurate with the threat from pollution and the risks to safety.

12. Prosecution

The regulatory body for each piece of legislation has a duty to secure evidence for possible use in court if it has reason to believe that an offence has been committed. The gathering of such evidence must not interfere with the operational activities of the salvors and other emergency services.

11. Format of Pollution Reports (Cg77-Polrep)

Oil pollution reports will be provided by Marine and Coastguard Agency (normally to the Kent Police) in the following form:

	POLREP No DTG
A	Classification of report. (I) Doubtful: (ii) Probable: (iii) Confirmed:
B	Date and time pollution observed/reported: Identity of Observer/Reporter
C	Position and extent of pollution
D	Tide, wind speed and direction
E	Weather conditions and sea state
F	Characteristics and appearance of pollution
G	Source and cause of pollution
H	Details of vessels in the area
J	If photographs have been taken or samples obtained
K	Remedial action taken or intended
L	Forecast of likely effect of pollution
M	Names of those informed other than addressees
N	Any other relevant information

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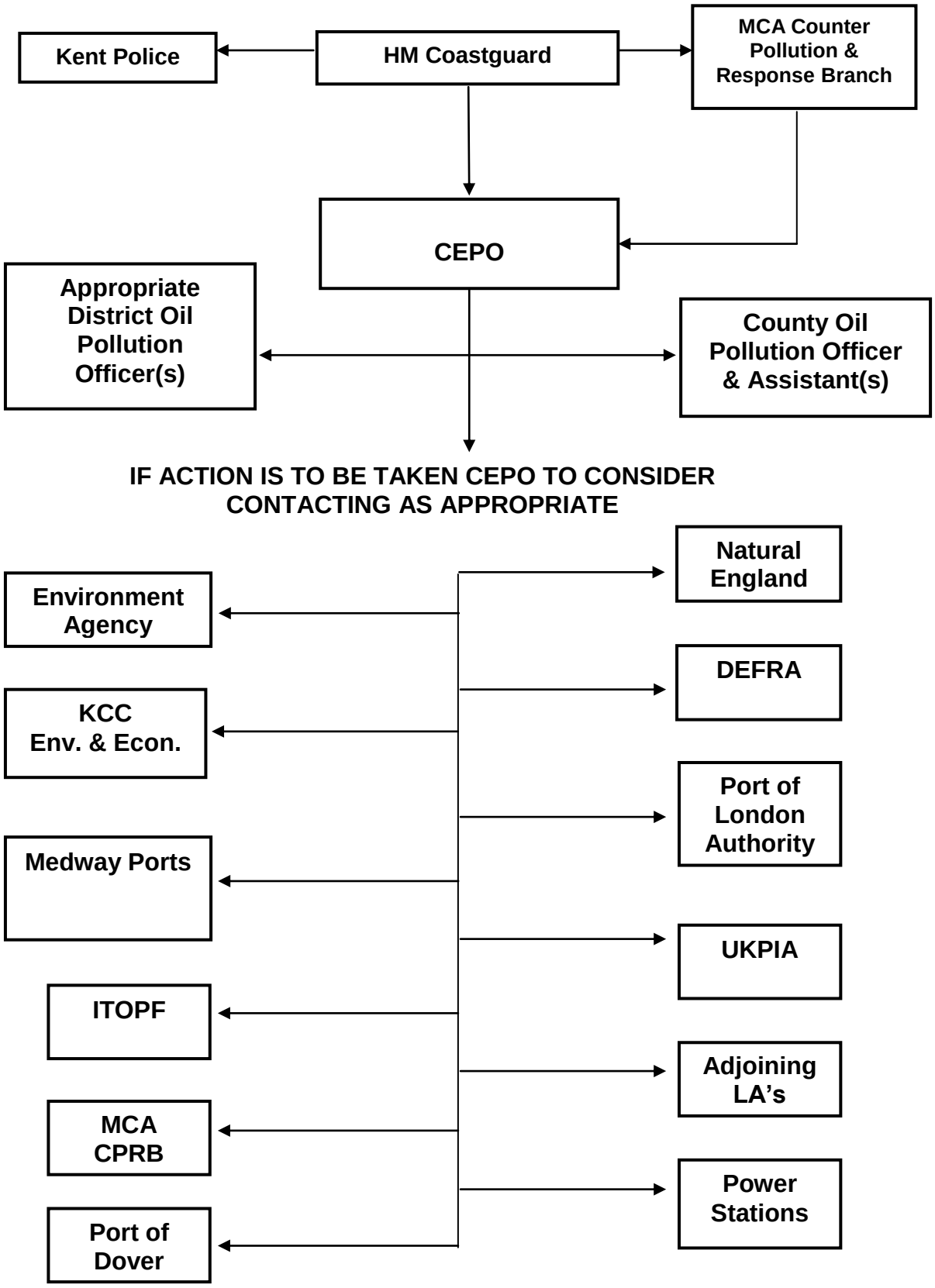
12. Oil Pollution Alerting Organisation Chart



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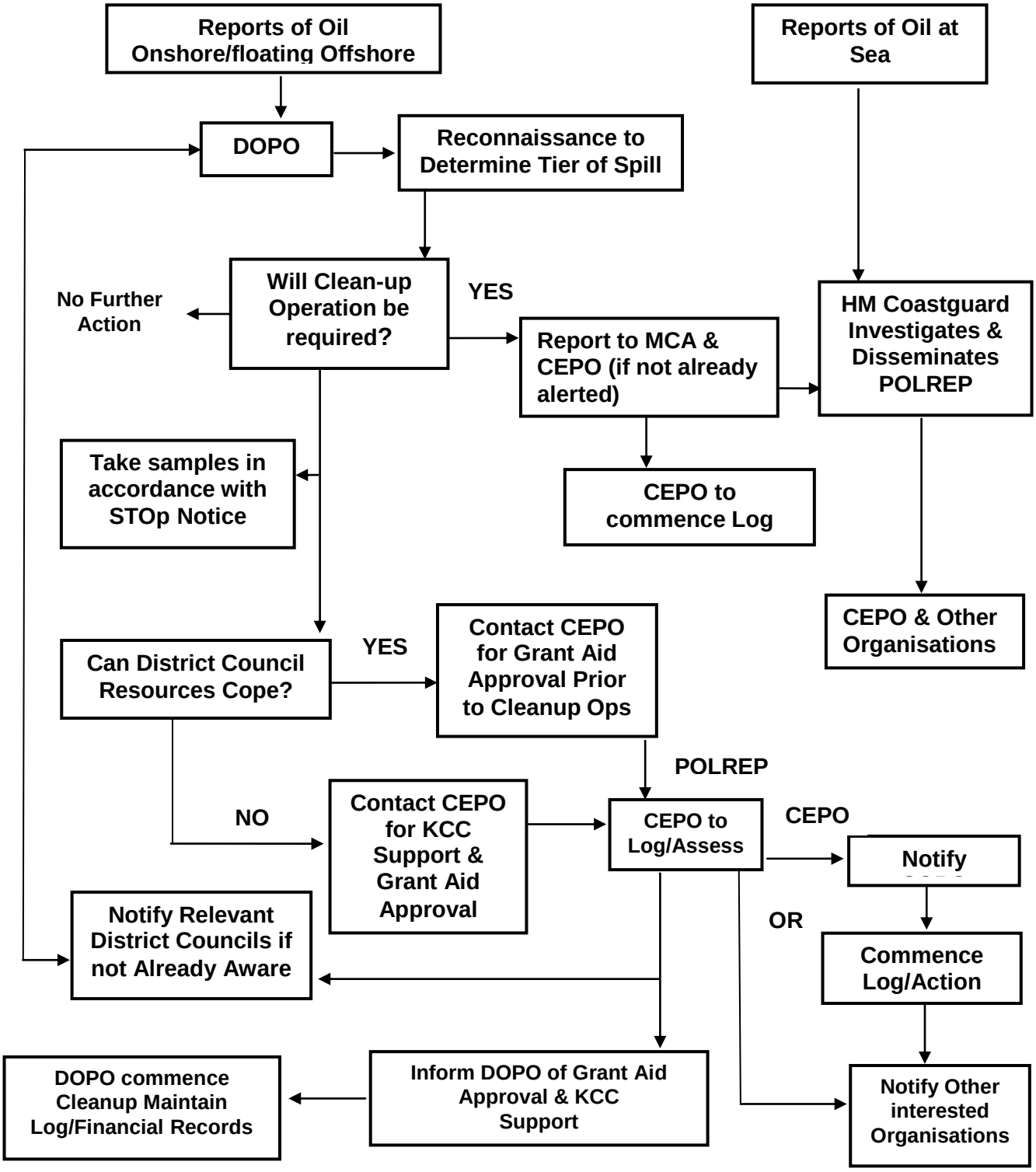
13. Algorithm for oil reports



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14. Oil Pollution Response Equipment

Oil Pollution Response Equipment Held by KCC

KCC holds a small stockpile of oil pollution response equipment which is available for use by District Councils as appropriate. The equipment is held at the Ringways Depot at Preston on the A2 near Faversham (see below). Any request for its use should be made via CEPO.

Contents of Securistore Box

2 Barrel Lifts
6 KCC Flags
1 x 200 metres Nylon Rope Coil
8 Fuel cans - explosion proof
4 First Aid Kits
33 pair goggles
28 Life jackets - Crewsaver (self- inflating)
6 Blankets
3 Fast tanks (200 gall), 3 roof covers + 6 polythene liners.
6 CP3 series knapsack sprayers.
200 metre Sea Sentinel Boom mounted on a hydraulically powered reel on a trailer.
1 200 metre Beach Sealing Boom
1 Oil Mop Skimmer
1 Floating Disc Skimmer
2 Power Vacuum System
3 Suction Head Skimmers
1 Weir Skimmer

Oil Pollution Response Equipment Held by District Councils

The Council is responsible for holding its own stock of equipment as necessary.

Availability of MCA's Stockpile Equipment

When the local authority can cope with an oil spill, MCA scientific/technical advice will be free of charge. MCA will deploy staff to local emergency centres if appropriate. Items of MCA specialised shoreline clean-up equipment will be made available on a repayment basis.

If the incident outstrips the local authority's resources, MCA will, at the request of the local authority, consider establishing a SRC. If a SRC is established, MCA will bear the cost of resources it makes available from its own stockpiles together with other resources it deploys. Local authorities will continue to bear the cost of any resources that they make available. The stockpile list is approximate at any point in time as equipment may be moved temporarily from site to site. Response times for the stockpile are to be anywhere on the mainland within 12 hours. Mobilisation times are half an hour during the working day and two hours at night. Mobilisation of MCA equipment can only be authorised by Maritime and Coastguard Agency staff.

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15. Use of Dispersant

Product Approval and Testing
Part II of the Food and Environment Protection Act and the Deposits in the Sea Exemptions Order 1985 prohibit the use in UK waters of oil treatment substances unless approved by the licensing authority (in the UK the Department of the Environment Food and Rural Affairs (DEFRA)).

DEFRA acts on behalf of the other licensing authorities for the testing and approval of dispersants and other oil treatment products intended for use in UK waters. Products must pass tests for toxic effects on marine species using standard protocols developed by the Centre for Environment, Fisheries and Acquaculture Science, an executive agency of DEFRA.

These tests ensure that approved products are safe for use at sea. The relative toxicity of a mix of oil and dispersant must be no greater than the toxicity of the oil alone. The tests also ensure that products are safe for use on rocky shores. Products must also pass tests for efficacy at the time of manufacture to standards set by the National Environmental Technology Centre of AEA Technology plc.

There are also requirements for periodic re-testing. If stocks remain sealed in the original packaging, this must take place after ten years to ensure that they remain effective. For all other stocks, such as those poured into ships' tanks a re-test must take place after five years. Further efficacy tests must take pace at five-year intervals. A list of currently approved products is available from DEFRA on request.

APPROVAL FOR USE
It is also a statutory requirement to obtain specific approval from the licensing authority for any use of oil treatment products in water depths of less than 20 metres or within one nautical mile of any such area. If the use of such products is to take place in deeper waters, the licensing authorities wish to be consulted beforehand except under force majeure conditions (for example if human life is at risk).

The licensing authorities issue some standing approvals to ports and oil companies to enable them to use limited amounts of dispersant according to terms specified in the approval and the procedures described in an approved oil pollution contingency plan. The licensing authority must approve any use in shallow waters not covered by the terms of a standing approval or that exceeds the approved amount on a case by case basis. In each such a case, the licensing authority seeks advice from the statutory nature conservation agencies, or if set up, the Environment Group, before granting any approval.

Environment Protection Act covers the entirety of the sea, including estuaries and other tidal waters, tidal docks and structures covered by the tide, as well as beaches and rocky shores.

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16. Disposal of Contaminated Waste

Introduction
Kent County Council has a responsibility to provide technical support and make arrangements for the safe disposal of oil contaminated waste arising from any oil pollution incident affecting the Kent coastline.

When a pollution incident involving oil on the shore of the County has been reported the following response procedure should be implemented. It will be important to set in motion plans to dispose of any oil contaminated waste permanently. Although oil pollution on the beach is a very sensitive subject with the public there is nothing to be gained in hasty and improper storage and disposal of waste. This will simply transfer the problem elsewhere and may add to the overall pollution.

Any waste generated from such an incident should be disposed of according to the Best Practicable Environmental Option (BPEO). This means that wherever possible the waste should be used to benefit the environment, but if this is not possible it should cause the minimum detriment to the environment. In the case of waste oil it is a potential fuel with a high calorific value. Wherever possible the oily waste should be disposed of in a manner that reclaims the oil for onward use or in a way that uses the calorific value to produce energy, e.g. incineration.

The final resort will be disposal to landfill, and it is accepted that in some cases this will be inevitable. However, it may be that some pre-treatment would reduce any likely environmental impact after the waste is deposited in the landfill.

The waste may be in two distinct physical states - solid and liquid.

Storage and Disposal of Liquid Waste
If oil is washed ashore in any sizeable quantity it is likely that some liquid oil will be collected. This material is likely to contain seawater and possibly dispersant. The immediate problem will be suitable means of storage of the liquid. The preferred option will be to pump the material straight into tankers for removal off-site. This will necessitate a potentially large fleet of tankers being on call. A second option would be the construction of temporary holding lagoons.

The difficulty in constructing suitable lagoons should not be under-estimated. It would be necessary to excavate a fairly large area and then to install an impermeable liner that is resistant to the liquid to be stored therein.

The use of non-lined lagoons is not recommended.

Properly installing a liner is a technical job and one which requires careful supervision. Any weaknesses in the liner could result in groundwater pollution.

If it is considered necessary to construct a lagoon the Environment Agency (EA) should be contacted for advice. Only after that advice has been given should work commence.

A stock of suitable liner material and liner-welding equipment may need to be held for such occasions subject to problems of deterioration. Alternatively, arrangements may be made to obtain such material quickly. Liners are readily available from

builders' merchants in the form of impermeable membranes used beneath house foundations.

Once oil has been placed in the lagoon the primary objective is to remove and dispose of it within the shortest time-scale.

In addition to the potential pollution problems that lagoons create, there are health and safety considerations. The lagoon should be securely fenced and warning notices may be required. The Health and Safety Executive will assist with any enquiries on this subject.

The Dungeness area is within a highly sensitive groundwater zone and the construction of lagoons in the area is not recommended. If oil is spilled and washed ashore in this area, immediate action should be taken to pump the liquid away to tankers as detailed above. Failing this the liquid should be removed to a holding lagoon situated outside the sensitive zone. For reference purposes the zone extends south of a line between Camber and Lydd. The EA will provide more details on this area.

Whether a lagoon is used or not, the problem then arises of what to do with the oil waste. There are a number of waste disposal sites that are licensed to accept oil and oil contaminated wastes. Details of these sites can be obtained from the Environment Agency. It is the legal responsibility of those producing the waste to ensure the site it is destined for is properly licensed to accept it. It is also a legal requirement that, subject to a small number of exceptions, any carriers of waste are registered under the Control of Pollution (Amendment) Act 1989, with the Environment Agency.

Storage and Disposal of Solid Waste

This is likely to consist of sand, earth, shingle and possibly some small rocks which are contaminated with oil.

There may be hundreds of tonnes of this material in a large incident and the problems posed in disposing of this waste may inevitably lead to the need for stockpiles.

Stockpiles

It is recognised that any large oil spill will probably necessitate a temporary stockpile. Unlike the liquid fraction, solid waste need not always be placed within a lined lagoon. The very nature of the waste will reduce the amount of oil leaching into the soil. However the stockpile should be removed and disposed of as quickly as possible. In some cases the waste may contain enough oil to create haulage problems. It may be that specialist vehicles or vehicles specially adapted to contain sludges will be required.

If significant leaching of the oil over several weeks or months is likely from the stockpile, serious consideration should be given to whether a liner should be placed under the stockpile. This will need careful thought in design. Bunds around the edge would be required to prevent uncontrolled liquid run-off. Heavy plant will damage any liner unless the design is adequate.

In some areas there may be a low permeability soil nearby, e.g. alluvial clay is present in some areas of the North Kent coast. With the prior agreement of the EA, a

stockpile could be created using the properties of the underlying soil to retard leaching rather than constructing a basal liner.

The final decision on where to site any lagoon or stockpile should only be taken after advice has been provided by the EA.

Summary of Action to Be Taken As A Result Of an Oil Pollution Incident:

- Remove liquid fraction direct to tankers if practicable.
- If lagoons are used for liquid fraction they should be properly lined after consultation with the EA.
- The liquid fraction should be removed from lagoons as soon as possible.
- Wherever possible the waste should be taken to a site that will make use of it rather than a landfill site.
- No lagoons or stockpiles should be created south of a line from Camber to Lydd.
- Stockpiles of solid material will often be necessary.
- Any stockpiles should be as short-lived as possible.
- A basal liner should be considered if considerable leaching of oil is likely from a stockpile.
- Solid waste may require specially designed vehicles.
- Solid waste will only usually be accepted at certain landfill sites.
- Before finally deciding on the location of a lagoon or stockpile consult the EA.
- If in doubt contact the EA.

Below are some guidelines prepared by the EA concerning the identification of temporary storage sites, which includes a site assessment form.

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17. Guidance Notes on Identifying Temporary Storage Sites

Identifying a suitable location

Storage facilities should be located with easy access to public roads, but close to the centre of clean-up operations. Easy access will also be required from the beach and firm ground adjacent to the temporary holding area is essential to allow access for tankers and removal vehicles. Car parks at the head of beaches are ideal locations as they have easy access, are often tarmaced or hard standing and can be secured to keep members of the public out.

If using the beach, the storage area must be sited above the high tide mark.

Agency advice and approval must be sought on the location of these sites. The construction of storage lagoons on Dungeness beach would, for example, be unacceptable due to the risk it would pose to the highly sensitive groundwater zone. A clean up on these shores should therefore involve taking the waste immediately away from the area e.g. by tanker or at least moved to a holding area located outside oft the sensitive groundwater zone. To avoid enforcement action being taken by the Agency the use of temporary sites must demonstrate that the storage or treatment of polluted material at the temporary sites is proportionate to the requirements of the emergency and in the public interest.

Before a temporary storage site is established the 'Assessment form for Temporary Holding area for oily waste' should be completed following the guidelines given below.

Assessment Form

The assessor must visit and assess the site prior to a temporary storage area being set up. Access to the beach, access to the main road network, the suitability of the proposed storage area, the habitat, protected sites, and source protection zones should all be assessed. Extra pollution prevention measures may need to be put in place to prevent pollution to watercourses and the area around the storage site.

Surface: important as this will determine ease of access to the beach, holding area and route to the main road. Will also determine type of temporary storage that can be used.

Water Bodies adjacent: If there is a water body adjacent could it be polluted by a poorly sited storage area?

Source Protection zone: these are zones to protect groundwater, specifically drinking water boreholes. The Environment Agency will advise you in which zone the proposed storage area lies and what protection is required.

Surface water drains: If surface water drains are present where do they discharge? Do they need covering/protecting, especially if they are situated in or adjacent to the storage area?

Special site: Does the proposed storage area fall within a specially protected site? If 'yes', what restrictions will this put on the siting and operation of an oily waste storage site in the area? Natural England and the Environment Agency will be able provide information on special sites.

Habitat: The type of habitat will determine ease of access and what type of storage should be used.

Health & Safety: A risk assessment should address the health and safety of both members of the public as well as personnel involved in the incident response. Is the site secure and unauthorised preventable? Is physical access to the site likely to pose a risk e.g. due to traffic, steep gradient etc?

Other: For noting any other relevant information about the site i.e., who owns land, has access key.

Environment Agency - Southern Region
Assessment form for Temporary Holding area for Oily waste

Site reference :_____ NGR of holding area: _____

Beach name :_____ Date assessed :_____

Assessor name : _____

Access from Beach			**Holding Area**			**Route to Main road**		
Surface	Tarmac		**Surface**	Tarmac		**Surface**	Tarmac	
	Shingle			Shingle			Shingle	
	Sand			Sand			Sand	
	Earth			Earth			Earth	
	Other			Other			Other	
Water Bodies Adjacent	Stream		**Water Bodies Adjacent**	Stream		**Water Bodies Adjacent**	Stream	
	Pond			Pond			Pond	
	Lake			Lake			Lake	
	Other			Other			Other	
	None			None			None	
Source Protection Zone			**Source Protection Zone**			**Source Protection Zone**		
Surface water drains in area?	Yes		**Surface water drains in Area ?**	Yes		**Surface water drains in area?**	Yes	
	No			No			No	
Is drain protection required?	Yes		**Is drain protection required?**	Yes		**Is drain protection required?**	Yes	
	No			No			No	
Special Site	RAMSAR	Y/ N	**Special Site**	RAMSAR	Y/ N	**Special Site**	RAMSAR	Y/ N
	SSSI	Y/ N		SSSI	Y/ N		SSSI	Y/ N
	SNCI	Y/ N		SNCI	Y/ N		SNCI	Y/ N
	Heritage coastline	Y/ N		Heritage coastline	Y/ N		Heritage coastline	Y/ N
	None			None			None	
Habitat	Dunes		**Habitat**	Dunes		**Habitat**	Dunes	
	Saltmarsh			Saltmarsh			Saltmarsh	
	Woodland			Woodland			Woodland	
	Freshwater marsh			Freshwater marsh			Freshwater marsh	
	Grassland			Grassland			Grassland	
	Maritime cliff			Maritime cliff			Maritime cliff	
	Other			Other			Other	

Other (specify)	Other (specify)	Other (specify)

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18. Scientific, Technical and Operational (STOp) Guidance Notes

STOp 2/94 Low Viscosity Type 3 Dispersant.

STOp 1/98 Health, Safety and Welfare During Shoreline Clean-up

STOp 2/95 Operational Guidance for the Application of Bioremediation Agents.

STOp 5/99 Guidelines for the Preparation of Coastal and Estuarine Booming Plans.

INF Note 2/2000 Petroleum Industries Association Ltd (UKPIA) Regional Co-ordinators.

STOp 1/2001 Maritime Pollution in the UK The Environment Group.

STOp 2/2001 The Establishment, Management Structure, Roles and Responsibilities of a Shoreline Response Centre During a Marine Pollution Incident in the UK.

STOp 3/2001 Preparing Local Authority Oil and Chemical Spill Contingency Plans in line with the “National Plan for Marine Pollution from Shipping and Offshore Installations”

STOp 1/2003 Guidance for the Operation of the Technical Team, Waste Management Sub-Group Within a National Contingency Plan Shoreline Response Centre.

STOp 2/2003 Procedure for Initiating Response to Public Health Threat Prior to and During a Maritime Pollution Incident.

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

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19. Grant Aid Claim Form - Oil Pollution/Hazardous Substances Washed Ashore

To: Head of Emergency Planning, Invicta House, County Hall, Maidstone, Kent, ME14 1XX	From:	Reference: Date:

Item (*Incident/Equipment/ Training Costs/Maintenance	Authority for Expenditure	Reference: Expenditure Authorised: Incident Date: Identity of Polluter

Outline Details of Claim (Location, Type of Equipment etc)

Anticipated Income (if any) Amount £
Source

Grant Aid Claim *Approved/Actual Expenditure (whichever is less) less income and 25% District Contribution:

	£ p
Grant Aid Due	
Less Payment on Account	
Balance Claimed	

Certification: I certify that the above details are correct:

Signed Chief Financial Officer
Date

Enquiries to

Telephone

*Delete as appropriate

NB Please attach copies of supporting vouchers/receipts.

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20. Role of the Beachmaster

Experienced Beachmasters should be sourced via MPCU contractors. Selected Beach Masters will be responsible for supervising gangs of beach cleaners and equipment.

Each Beachmaster will be responsible for an allocated area.

Beachmasters should understand the clean-up method to be adopted and any specialist equipment to be used.

Instructions will be given by the DOPO to his authority staff/contractor(s).

Beachmasters will oversee the safety of the staff under their control. They should be particularly aware of tide changes.

Staff should be instructed to wear protective clothing

Beachmasters should ensure all equipment is steam cleaned at the end of each working day, or on removal from the beach.

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21. North Kent Shoreline Plan (Aerial)

(to be inserted)

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22. Dartford Borough Council (Only)

22.1 Distribution List

22.1.1 Internal Distribution List:

Control Issue No.	DOCUMENT OWNER Postholder	Post	Location
MASTER	Ken Follett	Drainage/Emergency Planning Manager	C28
1	Chris Oliver	Executive Director	
2	Graham Harris	Managing Director	
3	Rob Scott	Director of Environment	
4	Sheri Green	Director of Central Services	
5	Marie Kelly-Stone	Head of Legal Services	
6	Kenneth Lawrie	Cabinet Secretary	
7	David Cloake / Tony Harwood	Head of Emergency Planning/County Oil Pollution Officer (COPO)	Kent County Council, Maidstone
8	Amicus	Business Development Manager	Sittingbourne
9			
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22.1.1 Internal Distribution List
continued

Control Issue No.	DOCUMENT OWNER Postholder	DOCUMENT OWNER Post	Location
101			Emergency Centre
102			Emergency Centre
103			Emergency Centre
104			Emergency Centre
105			Emergency Centre
106			Emergency Centre
107			Emergency Centre
108			Emergency Centre
109			Emergency Centre
110			Emergency Centre
111	Tom Carney	Communications Manager	
112	Steve Brooks	Head of Finance + Human Resources	
113	Mike Pratt	Enforcement Manager	
114	John Prance	Environmental Contracts Manager	
115	Phil Kessel	Environmental Development Manager	
116			
117			
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125			

22.1.2 Members Distribution List

Control Issue No.	Members Name	DOCUMENT OWNER	Location
501	Cllr Jeremy Kite	Chairman of the Cabinet	
502	Cllr	Vice-Chairman of the Cabinet	
503	Cllr Geoff Prout	Shadow Leader of the Council	
504	Cllr	Deputy Shadow Leader of the Council	
505	Cllr B E Read	Group Leader	
506		Group Leader	
507			Member's Room
508		Member of the Cabinet	
509		Member of the Cabinet	
510		Member of the Cabinet	
511		Member of the Cabinet	
512			
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22.1.3 External Distribution List:

Control Issue No.	Document Owner	Type of Organisation
1001	Kent Ambulance NHS Trust-Ambulance Control HQ	Emergency Services
1002	Kent Fire Brigade- HQ Control	Emergency Services
1003	Kent Fire Brigade-Dartford Fire Station	Emergency Services
1004	Kent Constabulary-Police Control HQ	Emergency Services
1005	Kent Constabulary, Dartford	Emergency Services
1006	Kent Fire Brigade- North Division HQ	Emergency Services
1007	Kent County Council Emergency Planning Unit	KCC, Maidstone
1008	Kent County Council Emergency Planning Unit	KCC, Maidstone
1009	Kent County Council Emergency Planning Unit	KCC, Maidstone
1010	Kent County Council Emergency Planning Unit	KCC, Maidstone
1011	Bexley London Borough Council	Local Government
1012	Sevenoaks District Council	Local Government
1013	Gravesham Borough Council	Local Government
1014	Thurrock Council	Local Government
1015	North Kent Shoreline Group (held @ Medway Council)	Local Government
1016	Kent County Council - Highways + Transportation	Local Government
1017	Port of London Authority	Transport Operator
1018	Environment Agency	Utility Company/Agency
1019	RWE Innogy, Littlebrook Power Station	Private Frontager
1020	Thames Europort	Harbour Company
1021	Le Crossing Ltd. (Dartford River Crossing)	Transport Operator
1022		
1023		
1024		
1025		
1026		
1027		
1028		
1029		
1030		

22.2 Amendment List

AMENDMENTS NOTIFIED **TO** EMERGENCY PLANNING OFFICER

All amendments to this plan should be notified to:

Executive Director
Dartford Borough Council
Civic Centre
Home Gardens
Dartford
Kent DA1 1DR

AMENDMENTS NOTIFIED **BY** EMERGENCY PLANNING OFFICER ***– EXAMPLE ONLY***

To: Emergency Plan owner

From: Emergency Planning Officer

Oil Pollution Plan Update
No. (e.g. **OPP04/05-01**)
Amendment date:

Remove page No.	Insert page No.	Summary of update

Please return this portion of update sheet, signed and dated, to **Ken Follett: Room C28;**
to confirm receipt of the update.

Name of document holder

Date document updated

(Details of previous amendments can, also, be obtained from Ken Follett)

This emergency plan has been produced in consultation with Kent County Council, The Port of London Authority, Gravesham Borough Council and Medway Council forming the Upper Thames Sub-Group of the North Kent Shoreline Oil Pollution Group, River Frontagers and other commercial and leisure organisations.

22.3 District Oil Pollution Officers and Zonal Beachmasters

District Oil Pollution Officer (DOPO)

- Ken Follett
- John Prance (Deputy)
- Mike Pratt (Deputy)

Zonal Beachmasters

PLA Zone 060: Dartford Creek

- David Court
- (deputy)

PLA Zone 061: Queen Elizabeth II Bridge

- Colin Newmarch
- (deputy)

PLA Zone 062: Broadness

- Dave Clark
- (deputy)

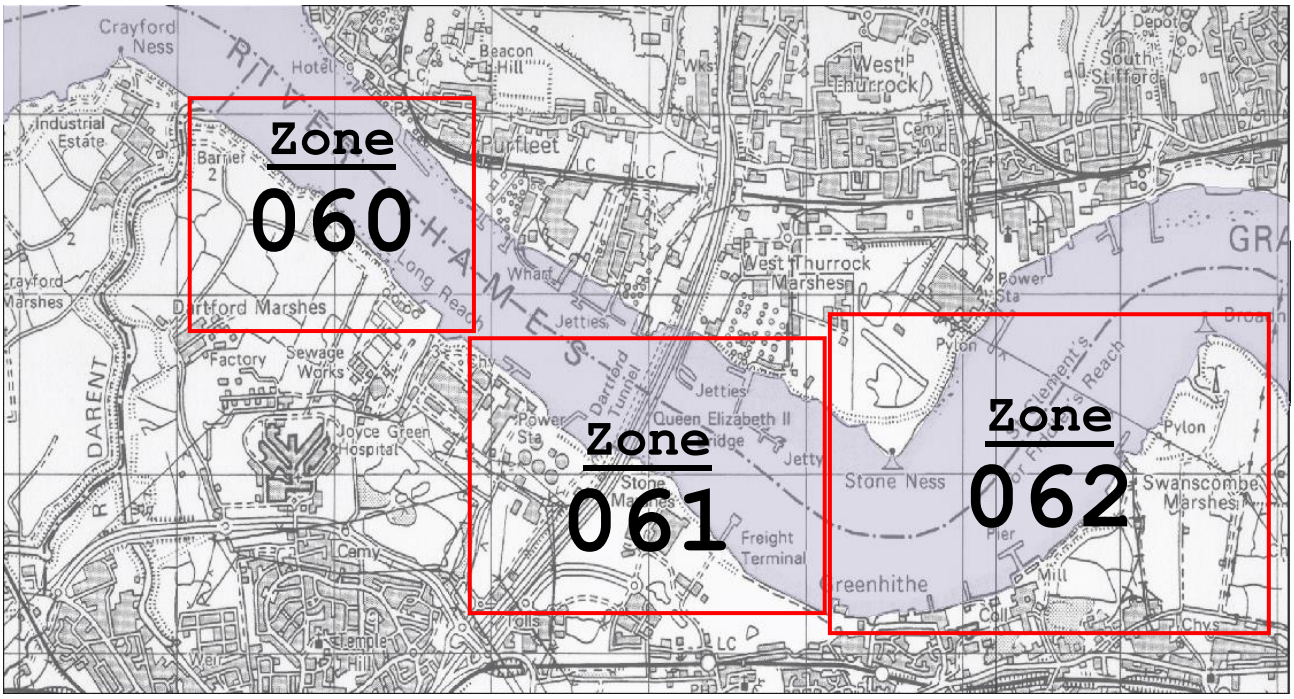
Zone Notation corresponds with the Map Index used in Volume 3 (Environmental Sensitivity) of the Port of London Authority Oil Spill Contingency Plan

22.4 Directory of Local Contacts

The directory is maintained separately in the Dartford Borough Council Contact Directory

22.5 - Dartford Borough Council – Thames Foreshore (Dartford Creek to Broadness)

22.5.1 Ordnance Survey Landranger base

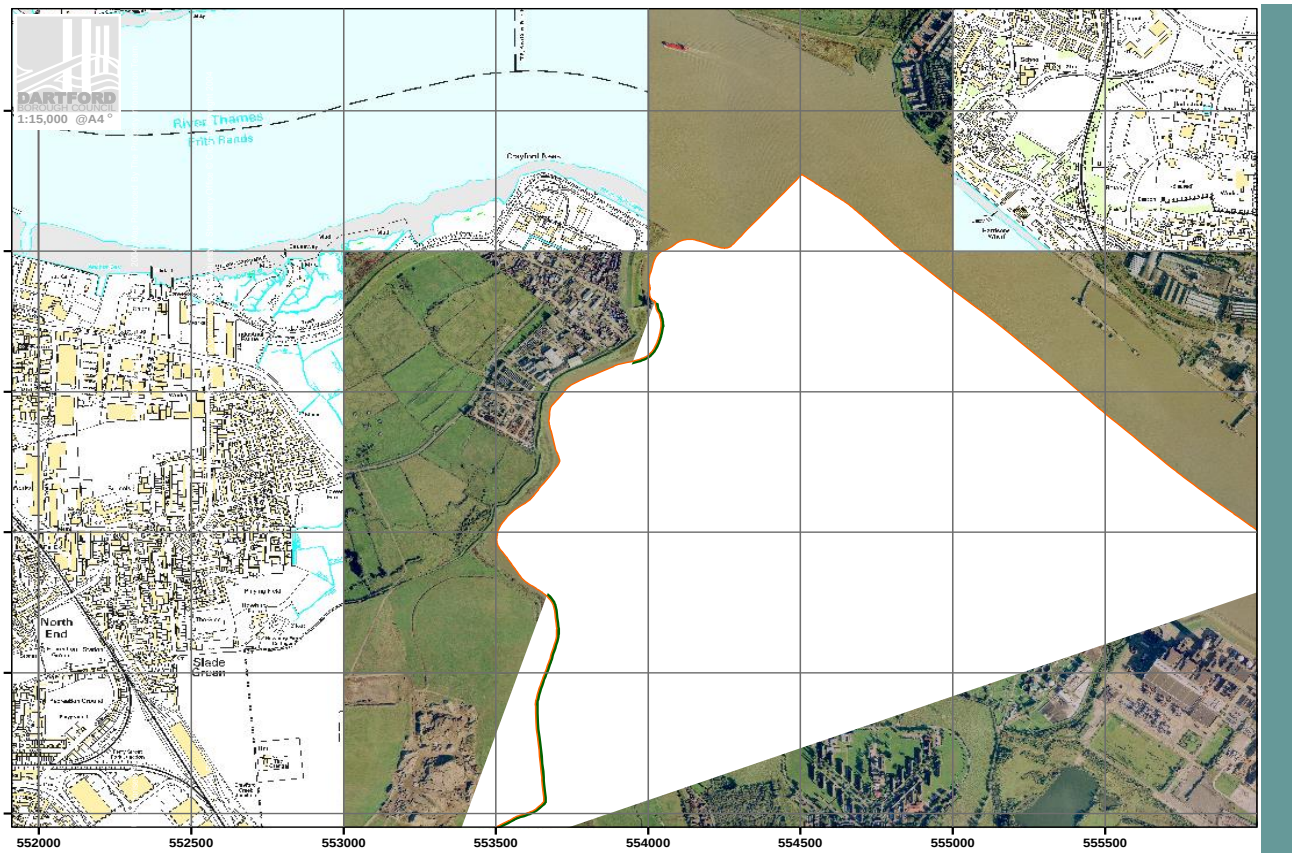


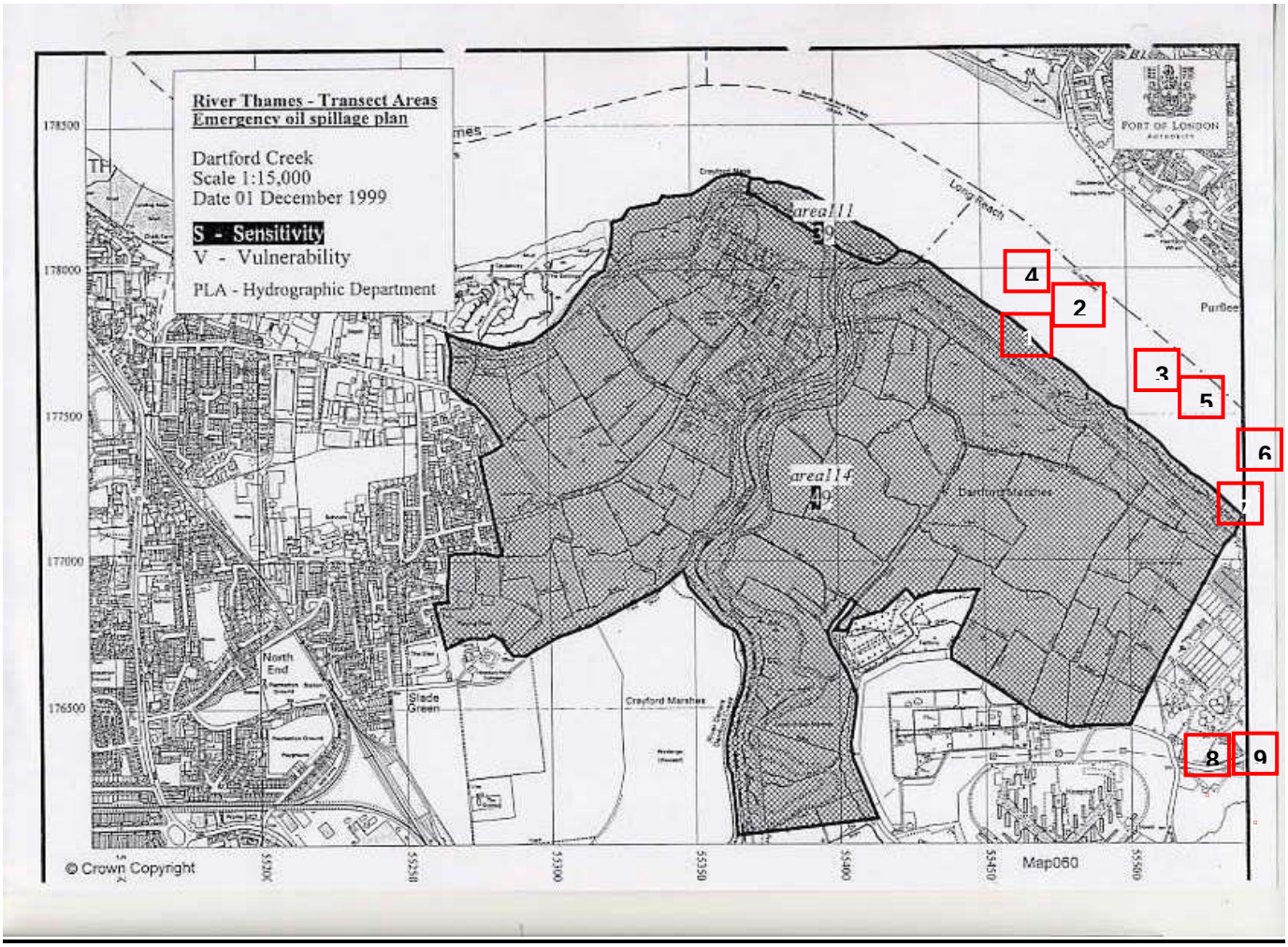
22.5.2 Ordnance Survey Aerial base

(to be inserted)

22.6 – Dartford Zonal Plans

22.6.1 Zonal Plan 060 – Dartford Creek




River Thames - Transect Areas
Emergency oil spillage plan
Dartford Creek
Scale 1:15,000
Date 01 December 1999
S - Sensitivity
V - Vulnerability
PLA - Hydrographic Department
PORT OF LONDON
Long Reach
area111
area114
Dartford Marshes
Crayford Marshes
North End
Slade Green
Purfleet
178500
178000
177500
177000
176500
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Map060
© Crown Copyright
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060/9

Zone: Dartford Creek Shoreline section: Map number 060

General description of shoreline:

Muddy shores backed by jetties and earth or structural seawalls.

Dartford and Crayford Marshes have been identified as a Local Nature Reserve for their dyke flora and fauna and remnant grazing marsh.

A moveable flood barrier is situated at the mouth of the River Darent to protect the Darent from inundation form the Thames. There is a booming plan for the Darent estuary.

The shoreline at the western extent of zone from Dartford Creek comprises areas of bare mud exposed at low tide and vegetated saltmarsh. To the east towards the Longreach Sewage Treatment Works the shoreline is typified by sporadically vegetated tidal defences comprising cobbles set in gently sloping concrete revetments. Below the defences a strip of sand, shingle and cobbles above mud is exposed at low tide.

Seasonal sensitivity (L=low, M=moderate, H=high):

	Conservation	**Amenity**	**Industrial**
Spring	High	Moderate	Low
Summer	High	Moderate	Low
Autumn	High	Moderate	Low
Winter	High	Moderate	Low

Clean-up recommendations:

Prohibited! Exercise extreme caution before entering muddy areas, do not enter saltmarsh of exposed mud as these areas are sensitive to disturbance and damage. Leave oil to degrade naturally. – take advice from English Nature.

Recommended. Early preventative intervention using sorbant mats / barriers recommended. Follow storage and disposal instructions.

Strandline oil and contaminated debris may be collected manually from man-made tidal defences and sand/shingle/cobble substrates. Care should be taken to protect vegetated areas on the tidal defences and sand/shingle/cobbles.

A booming plan exists for Dartford Creek – extreme care must be taken during boom deployment to avoid damage to sensitive habitats.

Access routes to foreshore:
Main access route onto the Thames tidal defences footpath for 4x4 vehicles is via Littlebrook Power Station (Route 60/1).

Access for larger vehicles to Dartford Creek is possible via the former Joyce Green Hospital access off Bob Dunn Way. Please take note a padlocked Environment Agency controlled gate interrupts this route (Route 60/2).

Route 60/1: access to this length of foreshore can be gained from Littlebrook Power Station. The entrance to the power station is signposted from Junction 1a on the A282 (M25). At the security gatehouse to the Power Station follows the safety procedures and directions of the site operators in order to open to the flood door. After passing through the opening of the flood door turn immediately left (West) and follow the tracked path past Long Reach Sewage Treatment Works.

Route 60/2: access to western foreshore, from Darent Creek Barrier to Long Reach Sewage Treatment Works, for vehicles up to light goods, rubber tyred plant, disposal/skip lorries from Bob Dunn Way. Turn northwards into Joyce Green Lane and at first roundabout take first exit. There are three gates across this road at various intervals any of which may be closed and padlocked – telephone the Environment Agency on 08708 506506 to obtain information regarding keyholders contact details. There are two routes to the foreshore from this road, either can be used.
There are various other footpaths over which vehicular access is difficult

Ecology considerations:

The western extent of zone comprising Dartford Creek eastwards to the Longreach Sewage Treatment Works forms part of the designated Dartford Marshes County Wildlife Site. The expanse of saltmarsh at the mouth of Dartford Creek and the tidal margins of its upstream channel supports a diverse flora including sea club rush (Scirpus maritimus), saltmarsh rush (Juncus gerardii), Borrer's saltmarsh grass (Puccinellia fasciculate), greater saltmarsh grass (Puccinellia pseudodistans), common saltmarsh grass (Puccinellia maritima),reflexed saltmarsh-grass (Puccinellia distans), English scurvygrass (Cochlearia anglica), sea arrowgrass (Triglochia maritime), common glasswort (Salicornia ramosissima), lesser sea-spurrey (Spergularium marina), sea aster (Aster tripolium), sea-purslane (Halimione portulacoides), sea plantain (Plantago maritima) and dittander (Lepidium latifolium). The tidal mudflats at the mouth of Dartford Creek support a typical estuarine crustacean and mollusc fauna. During summer months flocks of common tern (Sterna hirundo) gather to roost on the mudflats and saltmarsh at the mouth of the Creek. Dartford Creek is an important nursery ground for smelt (Osmerus eperlanus) a Kent Red Data Book migratory fish species.

Intermittent patches of vegetation on and below the tidal defences support a varied flora dominated by sea aster (Aster tripolium) and sea beet (Beta vulgaris ssp maritima). The rare (Kent Red Data Book Status 1) black redstart (Phoenicurus ochruros) nests within the tidal defences of this zone. The outfall from the Longreach Sewage Treatment Works attracts large numbers of sea birds.

Amenity impact:

The River Thames tidal defences footpath runs the length of this zone, forming an attractive walking route. It may be necessary to close the public footpath during clean-up operations within this zone.

Industrial & economic implications:

The Long Reach Sewage Treatment Works is situated at the eastern extent of this zone. The outfall from the treatment works is situated a short distance off-shore.

Other contacts:

Long Reach Sewage Treatment Works (via Thames Water)
Call Centre Tel. 0845 9200800
Ex-directory Emergency Contact Tel. 01793 431993

To gain access to foreshore / River Thames tidal defences via Littlebrook Power Station Tel. 01322 271121

To ensure Gate is opened on track access to Dartford Creek off Bob Dunn Way contact Environment Agency Southern Region Emergency Tel. 0800 252676 or Control Room Enquiries (24 hour) Tel 01903 832323

Zonal Oil Pollution Officer

Name: David Court
Address:
Tel. Nos:01322 343434 (office)
(home)
(mobile)

Deputy ZOPO
Name: Tony Spence
Address:
Tel. Nos:01322 343434 (office)
(home)
(mobile)

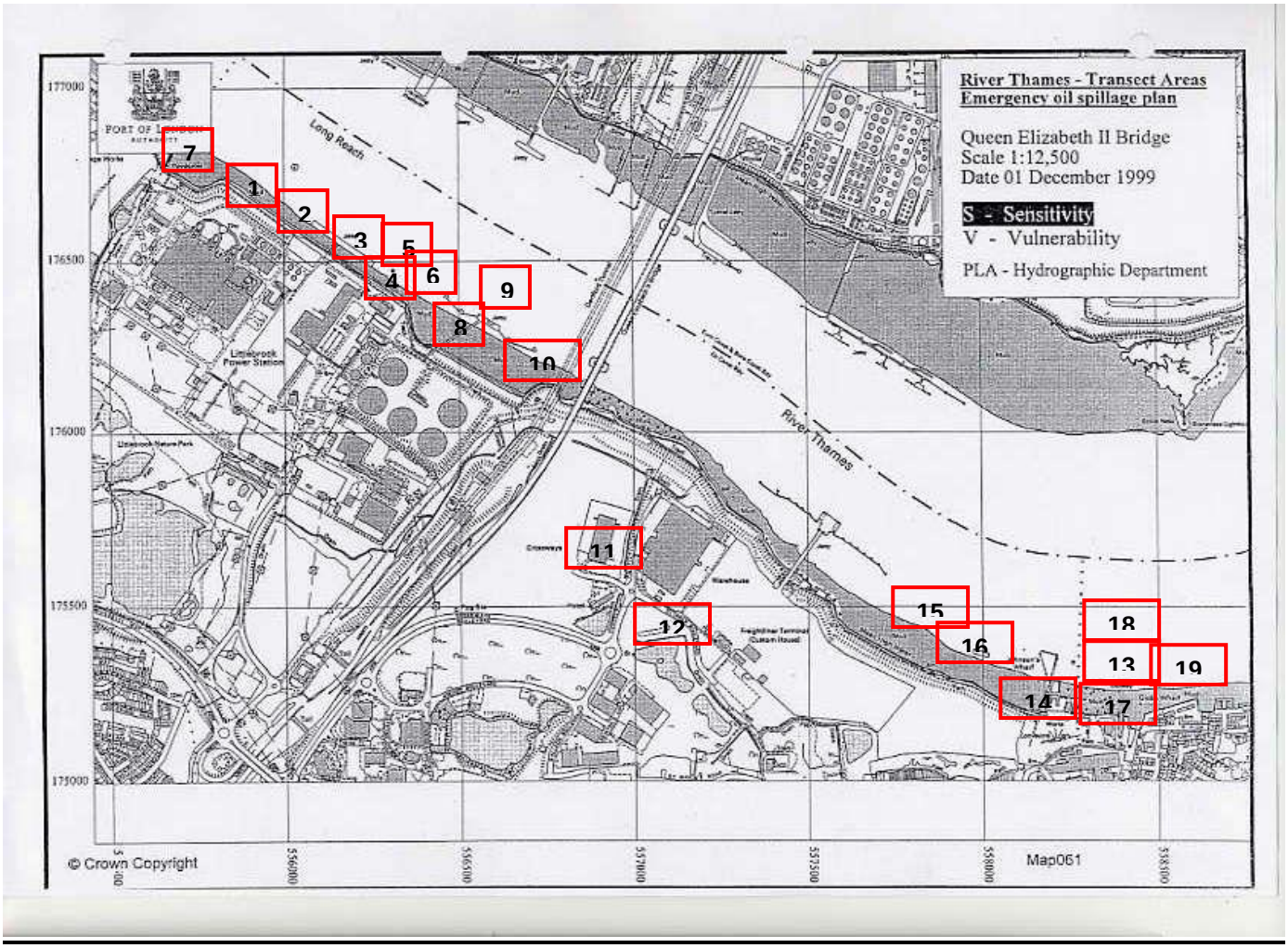
Beach Master (1st)

Name: Ken Follett
Tel.01322 343434 office
0845 6341212 out of hours
Beach Master (2nd)
Name: Dave Clark
Tel.01322 343434 office
0845 6341212 out of hours

Other relevant information:

Booming plan details for Dartford Creek may be found at section 6.7.2.

22.6.2 Zonal Plan 061 – Queen Elizabeth II Bridge


River Thames - Transect Areas
Emergency oil spillage plan
Queen Elizabeth II Bridge
Scale 1:12,500
Date 01 December 1999
S - Sensitivity
V - Vulnerability
PLA - Hydrographic Department
Long Reach
River Thames
Littlebrook Power Station
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© Crown Copyright
Map061


061/1
cobelfret ferries


061/2


061/3


061/4


061/5


061/6


061/7


061/8


061/9


061/10


061/11
ARNING!
PRIVATE LAND
NO MOTORBIKES


061/12


061/13


061/14


061/15


061/16


061/17


061/18


061/19
KEEP OFF

Zone: **Queen Elizabeth II Bridge**
Shoreline section: Map number **061**

General description of shoreline:

A heavily modified stretch of shoreline with concrete and cobble sea wall to the west of the zone and concrete and metal piles with timber boarding to the east of the zone. Industry and transportation infra-structure dominate with redevelopment for housing a feature of the eastern extent of this zone. Below the defences a strip of sand, shingle and cobbles above mud is exposed at low tide. Small patches of saltmarsh persist at the foot of the defences and some vegetation has taken a hold on the structures themselves. A number of jetties and wharfs associated with industrial activity are a feature of this zone

Seasonal sensitivity (L=low, M=moderate, H=high):

	Conservation	**Amenity**	**Industrial**
Spring	Moderate	Low	High
Summer	Moderate	Low	High
Autumn	Moderate	Low	High
Winter	Moderate	Low	High

Clean-up recommendations:

Prohibited: Do not enter saltmarsh or exposed mud as these areas are sensitive to disturbance and damage. Leave oil to degrade naturally.

Recommended: Early preventative intervention using sorbant mats / barriers recommended.

Strandline oil and contaminated debris may be collected manually from man-made tidal defences and shingle substrates. Care should be taken to protect vegetated areas on the tidal defences and shingle/cobbles. If bulk oil accumulates on the tidal defences and on sand/shingle/cobble shoreline low pressure seawater flushing may be effective. Re-mobilised oil must be collected and recovered using booms and skimmers

operated from shallow draft vessels at high water.

Seawater flushing of Jetties and QEII bridge piers may need to be considered. Entrapment of oil between tides within voids behind piles and boarding at the eastern extent of zone is a potential complicating factor.

Access routes to foreshore:

Main access route onto the Thames tidal defences footpath for 4x4 vehicles is via Littlebrook Power Station.

Access to the eastern extent of the zone is via private access roads and Station Road

Ecology considerations:

Though a heavily modified zone sand/shingle/cobbles and mudflats below the defences support a typical estuarine crustacean, annelid and mollusc fauna - which in turn attracts predatory fish and bird species.

Patches of saltmarsh and vegetated areas on the defences support a diverse flora including saltmarsh rush (Juncus gerardii), Borrer's saltmarsh grass (Puccinellia fasciculate), greater saltmarsh grass (Puccinellia pseudodistans), common saltmarsh grass (Puccinellia maritima), reflexed saltmarsh-grass (Puccinellia distans), English scurvygrass (Cochlearia anglica), sea arrowgrass (Triglochia maritima), common glasswort (Salicornia ramosissima), lesser sea-spurrey (Spergularium marina), sea aster (Aster tripolium), sea-purslane (Halimione portulacoides), sea beet (Beta vulgaris ssp. Maritima), sea plantain (Plantago maritima) and annual sea-blite (Suaeda maritima).

Sea birds congregate and roost on jetties within this zone including a small colony of cormorant (Phalacrocorax carbo).

Amenity impact:

The River Thames tidal defences footpath runs the length of the western sector of this zone forming a walking route. It may be necessary to close the public footpath during clean-up operations within this zone.

There is no public access to the central sector of this zone, though this area does comprise an element of panoramic views from vehicles traveling into Kent across the QEII Bridge.

Residential development overlooks the shoreline at the eastern extent of the zone with public access to defences.

Industrial & economic implications:

Littlebrook Power Station is a seawater extractor and must be alerted as a priority if pollution is threatened

Other contacts:

To alert to oil pollution incidents and/or gain access to foreshore / River Thames tidal defences contact Littlebrook Power Station 24 hour tel. 01322 271121.

Le Crossing Ltd. Control Room Duty Officer
24 hour tel. 01322 221603

Dartline (Europort) tel. 01322 281122

Beach Master (1st)
Name: Ken Follett

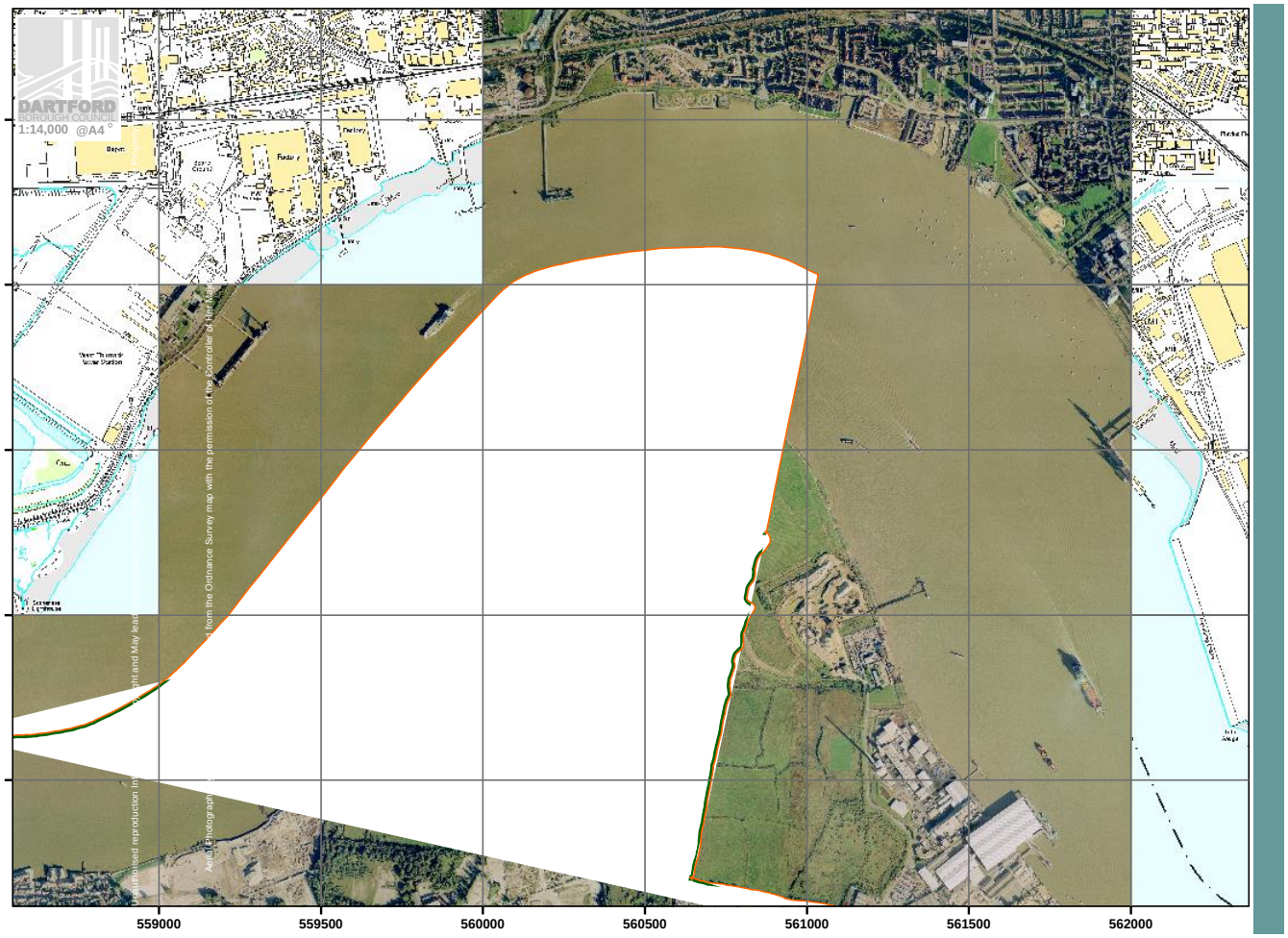
Tel.01322 343434 office
0845 6341212 out of hours

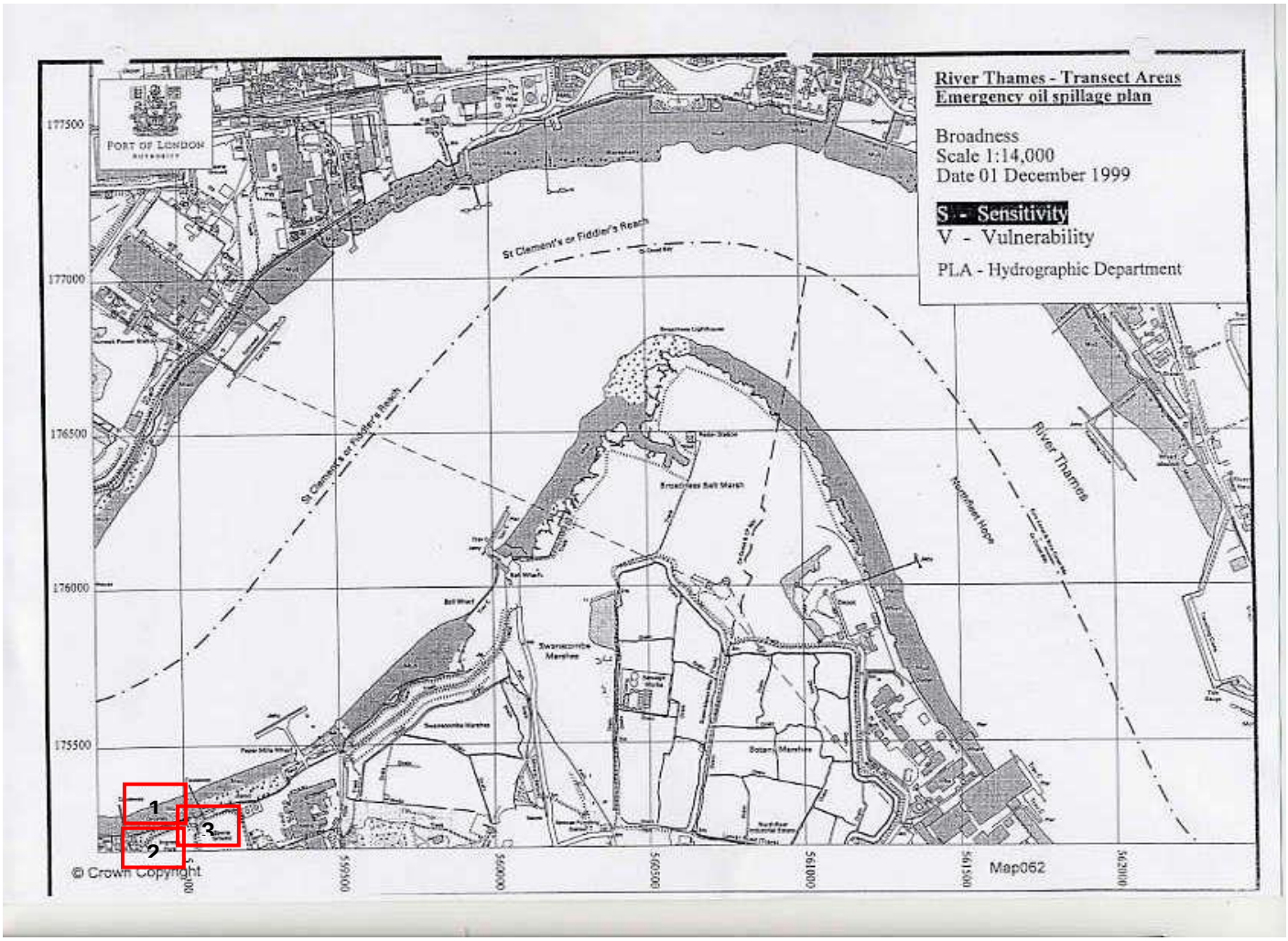
Beach Master (2nd)
Name: Dave Clark

Tel.01322 343434 office
0845 6341212 out of hours

Other relevant information:
None

22.6.3 Zonal Plan 062 – Broadness




River Thames - Transect Areas
Emergency oil spillage plan
Broadness
Scale 1:14,000
Date 01 December 1999
S - Sensitivity
V - Vulnerability
PLA - Hydrographic Department
PORT OF LONDON
177500
177000
176500
176000
175500
St Clement's or Fiddler's Reach
River Thames
Broadness Salt Marsh
Swanscombe Marshes
Botany Marshes
1
2
3
© Crown Copyright
Map062


062/1
SARA CRESCENT
Private Estate
Residents Only


062/2
N347 WOJ

062/3


30 9:39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30 9:41


LIGHTERMANS WAY
30 9:46


30 10:01


30 10:01


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30 10:50

Zone: **Broadness**
Shoreline section: Map number **062**

General description of shoreline:

Bare mud exposed at low tide backed by sea wall or metal piles at western extent of zone where historic industrial land uses are giving way to residential development. Some small patches of sandy and shingle shoreline exist influenced by existing and past aggregate industry land uses. Shoreline becomes more natural in character on approach to the Broadness Saltmarsh on the tip of Swanscombe peninsula with areas of saltmarsh, vegetated cobbles and rough grassland. A creek within the Broadness Saltmarsh is utilised for houseboat moorings and is a key landscape feature of the Swanscombe peninsula (a booming plan has been drawn up for the creek). A number of jetties and other manmade structures are characteristic of this zone.

Seasonal sensitivity (L=low, M=moderate, H=high):

	Conservation	**Amenity**	**Industrial**
Spring	High	Moderate	Low
Summer	High	Moderate	Low
Autumn	High	Moderate	Low
Winter	High	Moderate	Low

General description of shoreline:

Bare mud exposed at low tide backed by sea wall or metal piles at western extent of zone where historic industrial land uses are giving way to residential development. Some small patches of sandy and shingle shoreline exist influenced by existing and past aggregate industry land uses. Shoreline becomes more natural in character on approach to the Broadness Saltmarsh on the tip of Swanscombe peninsula with areas of saltmarsh, vegetated cobbles and rough grassland. A creek within the Broadness Saltmarsh is utilised for houseboat moorings and is a key landscape feature of the Swanscombe peninsula (a booming plan has been drawn up for the creek). A number of jetties and other manmade structures are characteristic of this zone.

Seasonal sensitivity (L=low, M=moderate, H=high):

	Conservation	Amenity	Industrial
Spring	Moderate	Low	High
Summer	Moderate	Low	High
Autumn	Moderate	Low	High
Winter	Moderate	Low	High

Clean-up recommendations:

Prohibited: Do not enter saltmarsh or exposed mud as these areas are sensitive to disturbance and damage. Leave oil to degrade naturally.

Recommended: Strandline oil and contaminated debris may be collected manually from man-made tidal defences. Care should be taken to protect adjacent saltmarsh, rough grass and other vegetated areas on the tidal defences and sand / shingle / cobbles. If bulk oil accumulates on the tidal defences low pressure seawater flushing may be affective. Re-mobilised oil must be collected and recovered using booms and skimmers operated from shallow draft vessels at high water. Seawater flushing of Jetties may need to be considered.

Protection of Broadness Saltmarsh and boats in creek area may be possible through booming entrance. If this is attempted care to be taken not to trample surrounding vegetation.

Access routes to foreshore:

Western extent of zone may be accessed via Ingress Park. A private track (Green Manor Way) provides access to Broadness Saltmarsh and Creek. A footpath runs along the defences for much of this zone.

Ecology considerations:

The more natural landscape incorporating saltmarsh and rough grassland at the Broadness Saltmarsh on the tip of the Swanscombe peninsula is particularly sensitive to disturbance and damage in ecological terms. Mudflats below the defences support a typical estuarine crustacean, annelid and mollusc fauna - which in turn attracts predatory fish and bird species.

Areas of saltmarsh, rough grass and vegetated substrates on and below the defences support a diverse flora including saltmarsh rush (Juncus gerardii), Borrer's saltmarsh grass (Puccinellia fasciculate), greater saltmarsh grass (Puccinellia pseudodistans), common saltmarsh grass (Puccinellia maritima), reflexed saltmarsh-grass (Puccinellia distans), English scurvygrass

(Cochlearia anglica), sea arrowgrass (Triglochia maritima), common glasswort (Salicornia ramosissima), lesser sea-spurrey (Spergularium marina), sea aster (Aster tripolium), sea-purslane (Halimione portulacoides), sea beet (Beta vulgaris ssp. Maritima), sea plantain (Plantago maritima) and annual sea-blite (Suaeda maritima).

The patches of sandy shoreline typical of this zone support the only populations of prickly saltwort (Salsola kali) and common sea-lavender (Limonium vulgare) recorded within the Borough.

Amenity impact:
The existence of residential development at the western extent of the zone and houseboat moorings at Broadness Saltmarsh lend some significance in amenity terms. However, public access to the remainder of the zone is practically difficult – though a public footpath runs along much of the length of the defences.

Industrial & economic implications:

Major residential and commercial development is now underway in this zone with industrial activity much reduced.

Other contacts:
None

Beach Master (1st)

Name: Ken Follett

Tel.01322 343434 office
0845 6341212 out of hours

Beach Master (2nd)
Name: Dave Clark

Tel.01322 343434 office
0845 6341212 out of hours

Other relevant information:
Booming plan details for the creek at the Broadness Saltmarsh may be found at section 6.7.1.

22.7 – Booming Plans

22.7.1 Broadness Saltmarsh

The following boom plan has been developed for the deployments at Broadness Saltmarsh following the assumption that equipment resources and experienced personnel are available for deployment. The booms have been identified as physically achievable and would utilise the boom collection properties combined with access practicality for deployment and the recovery of pollution.

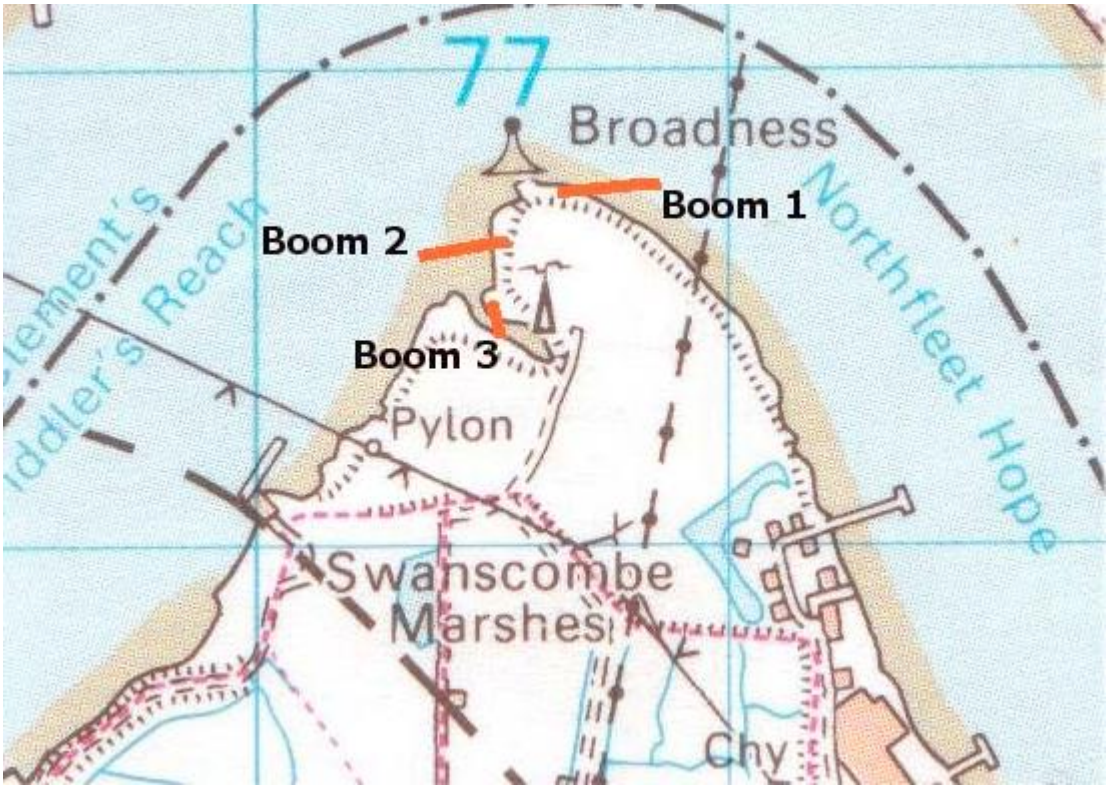

Fig 1: Broadness Saltmarsh Potential Boom Deployments

Factors that have contributed to boom site identification include:
• To Provide protection of sensitive sites
• Shore substrate
• Access for deployment
• Suitability for deployment of recovery equipment
• Potential for volume of collection
• Temporary storage facilities
• Access for pollution evacuation

ENVIRONMENTAL ASPECT

In the event of a spill requiring the realisation of any of these booms and dependant on the tier gradient of the spill. The 'Environment Group' of the 'Shoreline Response Centre' will need to determine if these booms can be deployed balancing the environmental impact of 'not responding', against the impact of access for boom deployment equipment and recovery of pollution.

The deployment of equipment will need to be approved by the relevant environmental group prior to any deployment.

BOOM DEPLOYMENTS

Access to Broadness Saltmarsh is via a metalled track through a rail link construction area, the access routes/restrictions may be affected during and upon completion of the proposed rail development.

Boom 1 Spur Boom OS Grid Ref: 607 767

Boom 1 is a spur boom to prevent any pollution travelling upstream on the flood tide from impacting on the area of marshes along the riverbank at Broadness Lighthouse.

Boom 2: 200m Spur Boom OS Grid Ref: 605 766

Boom 2 is a spur boom to corral any pollution travelling downstream on the ebb tide from impacting on the areas of salt marsh at Broadness Lighthouse.

Boom 3: 80m Collection Boom OS Grid Ref: 605 765

Boom 3 is a collection boom deployed across the mouth of the creek entrance. This boom will deflect pollution to the left bank for recovery.

Depending on the size of the oil spill, booms 2 & 3 could be deployed simultaneously to create a large collection area in relatively calm water for the collection of pollution. Advice from the Environment Group would need to be obtained for this strategy.

BROADNESS SALTMARSH PROTECTION PLAN

Survey Date: **03 August 2004**

LOCATION: Swanscombe, Kent
OS Sheet 177 Grid Ref: 605 765

FLOW RATES: There is no formal tidal data for this site. The flow rates experienced on the day were neap tides. Following periods of heavy rain the Ebb tidal flow may increase considerably.

SPRING TIDES: Flood: 1.5 Knots Ebb: 2.5 knots

NEAP TIDES: Flood: 1 Knot Ebb: 2 Knots

DEFINITIONS:

The following terminology and definitions (used by the Maritime & Coastguard Agency to define 'Riverbanks') will be used by all organisations in order to avoid any confusion and to ensure correct deployment of manpower and resources.

The definition is as follows:

"With your back to the ebb tidal flow all locations in front of you will be defined as Down Stream" and all locations behind you will be defined as "Up Stream". To your right hand side will be the Right Bank and to your left will be the Left Bank ".

SITE ACCESS AND BOOM LOCATION:

The access to the site was across a building site area that is under development as part of a rail link. The following directions are for access to the boom deployment site at the time of the visit.

Travelling eastbound on the A226 turn left into Manor Way that leads through an industrial area. Turn left signed as Manor Way, continue past a wheel washing station and across a derelict concrete area, this would be suitable as equipment lay down area. At the end of the concrete area turn right onto a porous metalled road, take the right fork, the right fork then the left fork. This will lead over a hill overlooking a small creek with derelict boats surrounded by open areas of grassland. On approach to the creek, at the bottom of the hill a right turn onto a grass track. Upon entering the grass an immediate left along a fading track will lead to Broadness Lighthouse and the boom deployment area.

LOCAL LIAISON:

Kent County Council
Emergency Planning Group Tel: 01622 694809 8am-5pm

Kent County Council

Contact Centre	Tel: 08458 247247 5pm – 8am
Kent Police Force Communications Centre	Tel: 01622 690690 5pm – 8am
Environment Agency	Tel: 0800 807060 24 Hrs

MAPS DIAGRAMS: See Appendices

MANPOWER:

The response to an oil pollution incident at Broadness Saltmarsh will be co-ordinated by a Beach Master. Staff identified by the Beach Master will deploy the booms. A Supervisor with training in and a working knowledge of boom deployment will supervise these staff. This group of staff will be referred to as the 'Broadness Saltmarsh Team'.

The Broadness Saltmarsh Team will comprise of the following staff:

Shore Team
Beach Master x 1
Foreman x 1
Boom Deployment Crew x 12

Boat Team
Boat Handler x 2
Coxswain x 2

The redundant area of concrete on the approach track would be suitable as a rendezvous point and equipment lay down area. From here equipment would need to be mobilised to the site by 4WD vehicle or similar but permission must be sought from the landowner. The deployment of all equipment and manpower will be co-ordinated by the Beach Master from the RvP.

COMMUNICATIONS: Marine band Channel 10
Mobile phone reception is good on site.

HEALTH AND SAFETY:

All staff should be made aware of health and safety responsibilities. Refer to MCA STOp note 1/98.

Personnel working from boats and on the foreshore must wear life jackets at all times.
Before Beach Anchor plates are driven into the foreshore the ground should be checked for underground services with a Cable Avoidance Tools.

The banks in the area of the deployment uneven with areas of soft mud, staff awareness should be raised to the potential dangers.

PHYSICAL DESCRIPTION OF THE SITE:

Located approximately 4 kilometres east from the QEII Bridge on the right bank of the Thames. The marshes are situated on the right bank of a bend in the Thames. The marshes are composed of a group consisting of Swanscombe Marsh, Botany Marsh and Broadness Saltmarsh. These converge to form a small headland, at the point of which, a small light mast 'Broadness Lighthouse' is situated. The shore in the area of Broadness Lighthouse is lined with saltmarsh. The riverbank is composed of

a shallow sloping compacted mud bank backed by a large open area of rough grassland.

A creek is situated on the upstream side of the marshes and adjacent to the area of saltmarsh is used by locals to tend to a varied collection of beached boats. A metalled track provides access through the marshes to the creek where the track reseeds to a grass area.

BOOM OPTIONS:

The bend in the river and the headland offer some protection from wind and tide exposure. As a result the potential exists to deploy short spur booms out into the Thames on both east and west sides of the marshes and/or to deploy a boom within the creek.

Boom 1: 200m Spur Boom OS Grid Ref: 607 767

Boom 2: 200m Spur Boom OS Grid Ref: 605 766

Boom 3: 80m Collection Boom OS Grid Ref: 605 765

BOOM 1

BOOM CONFIGURATION:

A single spur boom could be deployed from the right bank, east of the Broadness Lighthouse into the river Thames. The boom should be deployed at an angle of no greater than 30o to the tidal flow for a maximum distance of 200m.

This is an exposed site and although a boom of 200m could be deployed allowance must be made in the boom length and angle to suit the conditions on the day.

EQUIPMENT LIST:

Shallow Draft Workboat x 1
Safety boat x 1
All Terrain Vehicle x 1
Measuring Line x 1
Shore Sealing Boom x 50m
Skirt Boom x 150m
Towing bridles x 2
Water pump & hoses x 1
Air blower and connector x 1
Beach Anchor Plates x 4
CQR 50Kg Anchor x 3
Mooring Buoys with trip lines x 13
Danforth 15Kg Anchors x 10
Chain (6m lengths) x 14
Warps 10mm x 25m x 14
18mm Rope x 200m
Sledge Hammer x 2
Linear Winch x 1
Shackles (min of 2 per mooring point)
VHF Handheld Radios

CAT Scanner

BOOM DEPLOYMENT:

The boom at this site could be deployed at high or low water slack.

The area of hard standing on the metalled approach road would be the most suitable area to be used as equipment lay down area, but permission should be sought from the landowner.

- **All anchors should be set with trip lines attached.**
- Permanent moorings are not available at this site.
- On the right bank at OS Grid Ref: 607 767, and at a point suitably above the high water mark, 4 beach plates should be driven into the foreshore and linked together.
- A section of chain should be run from the beach plates as an attachment point, this would form the main right bank anchor point.
- A measuring line should be attached to the right bank anchor point and the workboat should tow the line downstream at an angle of no greater than 30o to the tide for a distance of 200m.
- The line should be tensioned and at this point 3 x 50Kg anchors should be set and buoyed with trip lines attached. This will form the channel anchor point.
- The measuring line can now be recovered.
- **Note: Allowance must be made to include a Linear Winch in the boom line.**
- A linear winch should be attached to the beach anchor point with tensioning cable fully extended and a towing bridle attached.
- The 50m of shore sealing boom followed by 150m of skirt boom should be assembled along the foreshore in-line with the main channel mooring point.
- All air chambers should be inflated and a towing bridle connected to the final section of boom.
- When ready the shallow draft workboat should tow the boom out from the shore and make the connection to the main channel anchor point.
- The linear winch should now be operated to remove the slack from the boom.
- At approximately 50m intervals intermediate anchors should be laid up and downstream of the boom. Anchors must be fitted with trip lines.
- When it has been confirmed that the boom is in the correct position, the water chambers can be ballasted.
- The workboat must stand by to adjust the moorings as the boom is first influenced by the incoming tide.

BOOM 2

BOOM CONFIGURATION:

A single spur boom could be deployed from the right bank of the creek mouth from OS Grid Ref: 605 766. The boom should be deployed at an angle of no greater than 30o to the tidal flow for a maximum distance of 200m.

This is an exposed site and although a boom of 200m could be deployed allowance must be made in the boom length and angle to suit the conditions on the day.

EQUIPMENT LIST:

Shallow Draft Workboat	x 1
Safety boat	x 1
All Terrain Vehicle	x 1
Measuring Line	x 1
Shore Sealing Boom	x 50m
Skirt Boom	x 150m
Towing bridles	x 2
Water pump & hoses	x 1
Air blower and connector	x 1
Beach Anchor Plates	x 4
CQR 50Kg Anchor	x 3
Mooring Buoys with trip lines	x 13
Danforth 15Kg Anchors	x 10
Chain (6m lengths)	x 14
Warps 10mm x 25m	x 14
18mm Rope	x 200m
Sledge Hammer	x 2
Linear Winch	x 1

Shackles (min of 2 per mooring point)
VHF Handheld Radios
CAT Scanner

BOOM DEPLOYMENT:

The boom at this site could be deployed at high water slack.

The area of hard standing on the metalled approach road would be the most suitable area to be used as equipment lay down area, but permission should be sought from the landowner.

- **All anchors should be set with trip lines attached.**
- Permanent moorings are not available at this site.
- Working from the right bank at OS Grid Ref: 605 766, and at a point suitably above the high water mark, 4 beach plates should be driven into the foreshore and linked together.
- A section of chain should be run from the beach plates as an attachment point, this would form the main right bank anchor point.
- A measuring line should be attached to the right bank anchor point and the workboat should tow the line downstream at an angle of no greater than 30o to the tide for a distance of 200m.
- The line should be tensioned and at this point 3 x 50Kg anchors should be set and buoyed with trip lines attached. This will form the channel anchor point.
- The measuring line can now be recovered.
- **Note: Allowance must be made to include a Linear Winch in the boom line.**
- A linear winch should be attached to the beach anchor point with tensioning cable fully extended and a towing bridle attached.
- The 50m of shore sealing boom followed by 150m of skirt boom should be assembled along the foreshore and flaked at the waters edge in-line with the main channel mooring point.
- All air chambers should be inflated and a towing bridle connected to the final section of boom.

- When ready the shallow draft workboat should tow the boom out from the shore and make the connection to the main channel anchor point.
- The linear winch should now be operated to remove the slack from the boom.
- At approximately 50m intervals intermediate anchors should be laid up and downstream of the boom. Anchors must be fitted with trip lines.
- When it has been confirmed that the boom is in the correct position, the water chambers can be ballasted.
- The workboat must stand by to adjust the moorings as the boom is first influenced by the incoming tide.

BOOM 3

BOOM CONFIGURATION:

80m of shore sealing boom could be deployed from the left bank across the mouth of the creek. The boom should be deployed at an angle of no greater than 35o to the tidal flow.

The creek offers some protection to the boom deployment, however the boom length and angle may need to be modified to suit the conditions on the day.

EQUIPMENT LIST:

Shallow Draft Workboat x 1
Safety boat x 1
All Terrain Vehicle x 1
Measuring Line x 1
Shore Sealing Boom x 80m
Towing bridles x 2
Water pump & hoses x 1
Air blower and connector x 1
Beach Anchor Plates x 6
Mooring Buoys with trip lines x 2
Danforth 15Kg Anchors x 2
Chain (6m lengths) x 4
Warps 10mm x 25m x 4
18mm Rope x 200m
Sledge Hammer x 2
Linear Winch x 1
Shackles (min of 2 per mooring point)
VHF Handheld Radios
CAT Scanner

BOOM DEPLOYMENT:

The boom at this site should be deployed at high water slack.

The area of hard standing on the metalled approach road would be the most suitable area to be used as equipment lay down area, but permission should be sought from the landowner.

- **All anchors should be set with trip lines attached.**

- Permanent moorings are not available at this site.
- On the left bank at OS Grid Ref: 605 764, and at a point suitably above the high water mark, 3 beach plates should be driven into the foreshore and linked together.
- A section of chain should be run from the beach plates as an attachment point, this would form the main right bank anchor point.
- A measuring line should be attached to the right bank anchor point and the workboat should tow the line across the creek at an angle of no greater than 35o to the tide for a distance of 80m to the right bank.
- The line should be tensioned and at this point and suitably above the high water mark, 3 beach plates should be driven into the shore.
- The beach plates should be secured together and a section of chain should be run from the beach plates as an attachment point.
- This would form the right bank anchor point.
- The measuring line can now be recovered.
- **Note: Allowance must be made to include a Linear Winch in the boom line.**
- A linear winch should be attached to the left bank anchor point with tensioning cable fully extended and a towing bridle attached.
- The 80m of shore sealing boom should be assembled along the foreshore in-line with the right bank anchor point.
- All air chambers should be inflated and a towing bridle connected to the final section of boom.
- When ready the shallow draft workboat should tow the boom out from the shore and across to the right bank where the connection to the right bank anchor point can be made.
- The linear winch should now be operated to remove the slack from the boom.
- At approximately 40m intervals intermediate anchors should be laid up and downstream of the boom. Anchors must be fitted with trip lines.
- When it has been confirmed that the boom is in the correct position, the water chambers can be ballasted.
- The workboat must stand by to adjust the moorings as the boom is first influenced by the incoming tide.

OIL RECOVERY AND OIL STORAGE FOR BOOMS 1, 2 & 3:

All the booms deployed at Broadness Saltmarsh are to prevent any oil migrating along the bank and impacting on the areas of saltmarsh at Broadness Lighthouse.

Boom 1 would corral oil to the shore for recovery.
Boom 2 would corral oil into the area of the creek mouth and used in conjunction with Boom 3 would corral oil to the shore for collection.

Vacuum recovery would be the preferred method of recovery at this site. The access track restricts the type of equipment that could be mobilised to this site. Tractor Vacs and lightweight vacuum recovery modules could be mobilised to the relevant boom cusp where pollution would collect.

There are areas of open grassland adjacent to each of the boom deployments that would be suitable for deployment of temporary storage facilities but care must be taken to ensure tanks are deployed on level ground and permission must be gained from the landowner.

BOOM RECOVERY FOR BOOMS 1, 2 & 3:

The boom can be recovered at all states of the tide; the following is for a high water slack recovery.

- The water chamber valves on all sections of shore sealing boom should be opened.
- All intermediate mooring lines should be released.
- For booms 1 & 2 the workboat should release the main channel anchor line. For boom 3 the right bank anchor line.
- The shore team on the shore should now land the boom and the workboat should guide the trailing end back to the shore as it is recovered.
- Constant radio communications must be maintained with the shore and workboat to successfully land the boom.
- All sections of the boom can now be dismantled and returned to the equipment lay down area.
- All anchors should now be recovered and a careful visual inspection of the site should be carried out to ensure all equipment has been recovered.

APPENDICES:

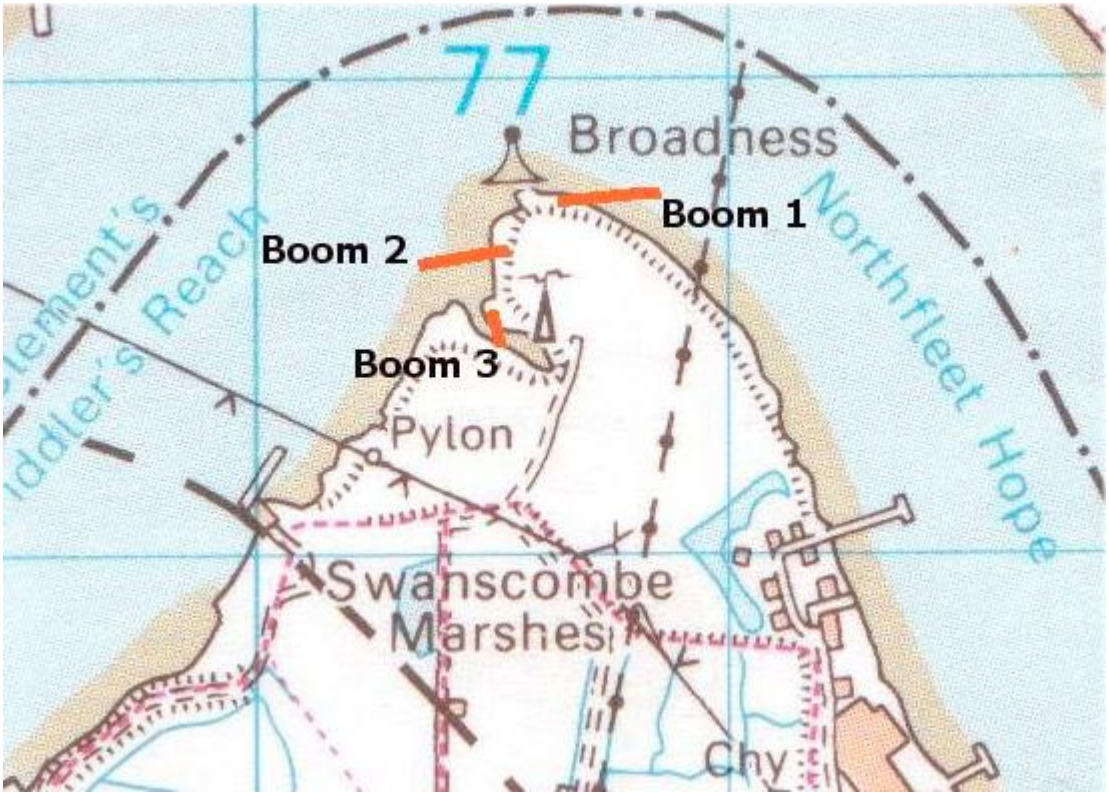

Fig 1: Broadness Saltmarsh Location map
Proposed Boom Deployments Shown

Fig 2: Broadness Saltmarsh Proposed Boom 1

Fig 3: Broadness Saltmarsh Proposed Boom 2

Fig 4: Broadness Saltmarsh Proposed Boom 3

Fig 5: Broadness Saltmarsh Access Track

Fig 6: Broadness Saltmarsh Boom 1 & 2 Access Track

Fig 7: Broadness Saltmarsh Boom 1 & 2 Access Track Fork

22.7.2 Dartford Creek

A boom plan has been developed at the Dartford Creek following the assumption that equipment resources and experienced personnel are available for deployment. The boom has been identified as physically achievable and would utilize the boom collection properties combined with access practicality for deployment and the recovery of pollution.

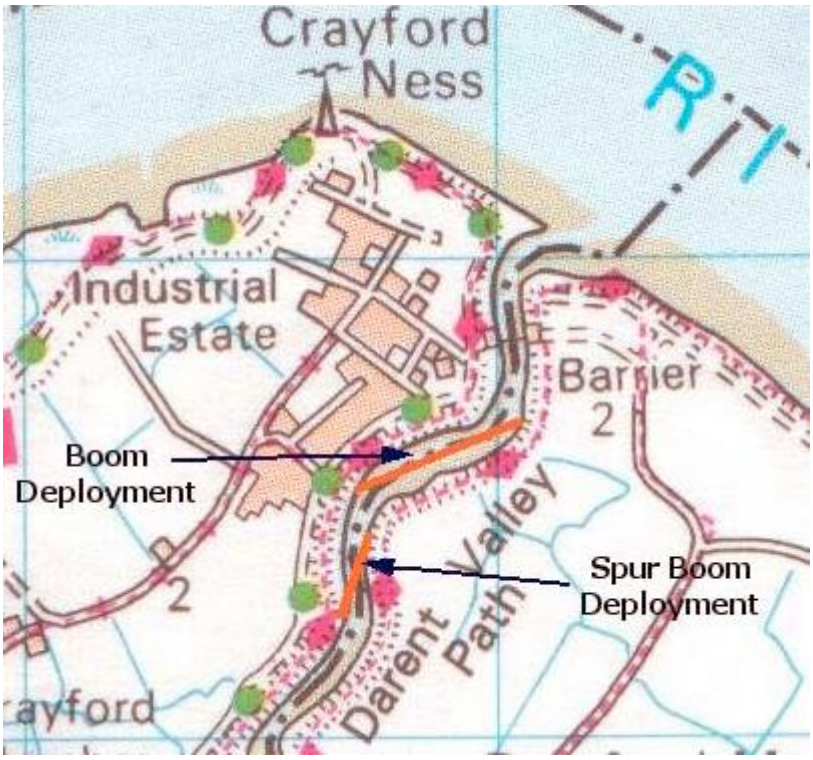

Fig 1: Dartford Creek Proposed Boom Deployments

Factors that have contributed to boom site identification include:

- To Provide protection of sensitive sites
- Shore substrate
- Access for deployment
- Suitability for deployment of recovery equipment
- Potential for volume of collection
- Temporary storage facilities
- Access for pollution evacuation

The deployment of equipment will need to be approved by the relevant environmental group prior to any deployment.

BOOM DEPLOYMENT:

The high tidal flow rates and the relatively narrow channel severely limit the possibility for a successful boom deployment at this site. There are no areas evident where the tidal flow eases to allow a collection area to be utilised by a boom deployment. The boom deployment identified in this location is at a very shallow angle to the tidal flow to prevent being overwhelmed and risking structural damage to the boom.

The area where the boom cusp is created as a collection area at the left bank would be subject to turbulence from the tidal flow. This turbulence against the boom would cause some oil to be pushed under the boom and continue upstream.

A second boom should be deployed approximately 50m upstream to collect any pollution that passes the first boom.

Primary Boom location OS Grid Ref: 536 776
Secondary Boom location OS Grid Ref: 536 772

DARTFORD CREEK PROTECTION PLAN

Survey Date: **03 August 2004**

LOCATION: Dartford Creek, Kent
OS Sheet 177 Grid Ref: 540 778

FLOW RATES: There is no formal tidal data for this site. The flow rates experienced on the day were neap tides. Following periods of heavy rain the Ebb tidal flow may increase considerably.

SPRING TIDES: Flood: 2 Knots Ebb: 2.5 knots

NEAP TIDES: Flood: 1 Knots Ebb: 1.5 Knots

DEFINITIONS:

The following terminology and definitions (used by the Maritime & Coastguard Agency to define 'Riverbanks') will be used by all organisations in order to avoid any confusion and to ensure correct deployment of manpower and resources.

The definition is as follows:

"With your back to the ebb tidal flow all locations in front of you will be defined as "Down Stream" and all locations behind you will be defined as "Up Stream". To your right hand side will be the Right Bank and to your left will be the Left Bank ".

SITE ACCESS AND BOOM LOCATION:

From the M25 turn onto the A206 travelling westbound to Erith. From the A206 in Erith follow signs for Darent Industrial Estate and Manor Road. Upon entering Darent Industrial Estate take the second right into Maypole Crescent; this will lead to an access road for an Environment Agency Sluice Gate. There is an area of hard standing adjacent to the Sluice gate from where an access track barred by two locked gates runs along the riverbank. This track passes a large marker post (see appendix) from where the boom can be deployed.

LOCAL LIAISON:

Kent County Council Emergency Planning Group	Tel: 01622 694809 8am-5pm
Kent County Council Contact Centre	Tel: 08458 247247 5pm – 8am
Kent Police Force Communications Centre	Tel: 01622 690690 5pm – 8am
Environment Agency	Tel: 0800 807060 24 Hrs

MAPS DIAGRAMS: See Appendices

EQUIPMENT LIST:

Shallow Draft Workboat x 1
Safety boat x 1
Argocat or similar x 1
Measuring Line x 1
Shore Guardian x 290m
Towing bridles x 2
Water pump & hoses x 1
Air blower and connector x 1
Beach Anchor Plates x 6
Mooring Buoys with trip lines x 20
Danforth 15Kg Anchors x 28
Chain (6m lengths) x 30
Warps 10mm x 25m x 28
18mm Rope x 200m
Sledge Hammer x 2
Linear Winch x 1
Shackles (min of 2 per mooring point)
VHF Handheld Radios (Channel 10)
CAT Scanner

MANPOWER:

The response to an oil pollution incident at the Dartford Creek will be coordinated by a Beach Master. Staff identified by the Beach Master will deploy the booms. A Supervisor with training in and a working knowledge of boom deployment will supervise these staff. This group of staff will be referred to as the 'Dartford Creek Team'.

The Dartford Creek Team will comprise of the following staff:

Shore Team
Beach Master x 1
Foreman x 1
Boom Deployment Crew x 10

Boat Team
Boat Handler x 2
Coxswain x 2

The access road to the sluice gate affords an area large enough to be utilized as a rendezvous point and equipment lay down area but permission must be sought from the landowner. The deployment of all equipment and manpower will be co-ordinated by the Beach Master from the RvP.

COMMUNICATIONS: Marine band Channel 10
Mobile phone reception is good on site.

HEALTH AND SAFETY: All staff should be made aware of health and safety responsibilities. Refer to MCA STOp note 1/98.

Personnel working from boats and on the foreshore must wear life jackets at all times.

Before Beach Anchor plates are driven into the foreshore the ground should be checked for underground services with a Cable Avoidance Tools.

The banks in the area of the deployment are steep with a soft mud riverbed. Staff awareness should be raised to the potential dangers and should not venture onto the mud.

PHYSICAL DESCRIPTION OF THE SITE:

The Dartford Creek is located on the South bank of the Thames 3km upstream from the Dartford Tunnel. The river is approximately 150m wide at the mouth, narrowing upstream. The river runs through Dartford, Eynsford, Shoreham and beyond.

The Dartford Creek is composed of a soft mud riverbed with shallow sloping banks within the inter-tidal area. These are backed by compacted earth riverbanks topped with rough grass slopes.

The Darent Industrial Estate backs the left bank at the river mouth from where a main road provides access to a large Environment Agency tidal defence barrier that spans the river. There is a large tarmac area which serves as the approach to the sluice gate, from here a gravel track barred from vehicles by a locked gate provides a public footpath that runs along the length of the left bank. The right bank opens onto rough grass fields and the Dartford Marshes.

BOOM CONFIGURATION:

The boom at this site should be deployed at high water slack. The narrow channel and the very high flow rates require the boom to be deployed at a very shallow angle to the tidal flow. A boom 250m in length of shore sealing boom could be deployed from the left bank OS Grid Ref: 536 776 from a position adjacent to a light marker (see fig: 5) and the boom should be deployed at an angle of no greater than 25o to the tidal flow.

This boom should be deployed in conjunction with a spur boom deployed upstream as a secondary catchment area in the event that pollution passes under the boom due to the high flow rates.

BOOM DEPLOYMENT:

The boom at this site should be deployed at high water slack.

- The approach road to the tidal defence barrier would be a suitable area to be used for equipment lay down, but permission should be sought from the landowner.
- Equipment would need to be mobilised to the boom deployment site via the gravel access track.
- Permanent moorings are not available at this site.
- Approximately 600m upstream from the tidal defence barrier at a point suitably above the HW mark, 3 beach plates should be driven into the foreshore and secured together.
- A section of chain should run from the beach plates as an attachment point, this is the left bank anchor point.
- A measuring line should be attached to the beach plates walked down the shore and passed to the workboat.

- The workboat can then tow the measuring line downstream at an angle of no greater than 25o to the tide for a distance of 290m and across to the right bank.
- The line should be tensioned, at this point and suitably above the high water mark, 3 beach plates should be driven into the foreshore and secured together.
- The plates should be linked together and a section of chain run from the beach plates as an attachment point. This will form the right bank anchor point.
- The measuring line can now be recovered.
- **Note: Allowance must be made to include a Linear Winch in the boom line.**
- A linear winch should be attached to the left bank anchor point with tensioning cable fully extended and a towing bridle attached.
- With the first section attached to the towing bridle 290m of shore sealing boom should assembled along the foreshore in-line with the main channel mooring point.
- A towing bridle should be connected to the final section of boom and all air chambers inflated.
- When ready the shallow draft workboat should tow the lead end of the boom out from the shore and make the connection to the right bank anchor point.
- The linear winch can now be operated from the left bank to remove the slack from the boom.
- At approximately 20m intervals 15Kg intermediate anchors should be laid up and down stream of the boom. Anchors must be fitted with trip lines.
- When it has been confirmed that the boom is in the correct position, the water chambers can be ballasted.
- The workboat must stand by to adjust the moorings as the boom is first influenced by the incoming tide.

OIL RECOVERY AND OIL STORAGE:

The boom at this site is to deflect pollution to the left bank for recovery. Vacuum recovery would be the preferred method of recovery at this site. Access to the boom cusp can be gained via the metalled track from the equipment lay down area. Skimmers could also be deployed from bank into the boom cusp area.

The access track and adjacent ground would be suitable for temporary storage facilities. Care must be taken in the placement of storage to ensure tanks are positioned level and that access is not restricted for evacuation, permission must be gained from the landowner.

BOOM RECOVERY:

- The boom can be recovered at all states of the tide.
- The water chamber valves on all sections of shore sealing boom should be opened.
- All intermediate mooring lines should be released.
- The workboat should release the securing line from the right bank.
- The shore team on the left bank should now land the boom and the workboat should guide the trailing end back to the shore as it is recovered.
- Constant radio communications must be maintained with the shore and workboat to successfully land the boom.
- All sections of the boom can now be dismantled and returned to the equipment lay down area.

- All anchors and beach plates should now be recovered and a careful visual inspection of the site should be carried out to ensure all equipment has been recovered.

APPENDICES:

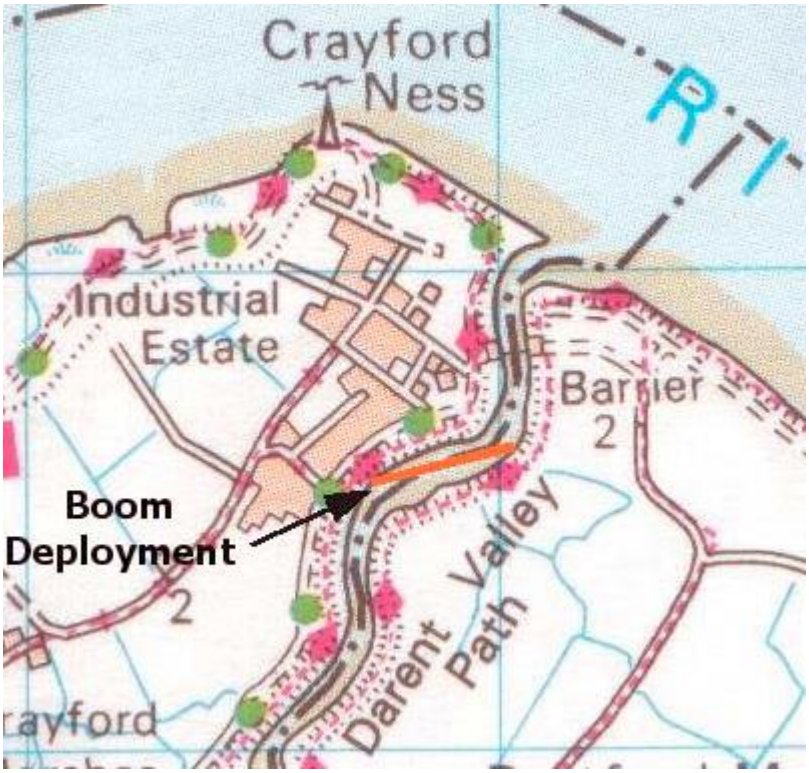

Fig 1: Dartford Creek Location map
Boom Deployment Shown

Fig 2: Dartford Creek Sluice Gate Access

Fig 3: Dartford Creek Equipment Lay Down Area

Fig 4: Dartford Creek Access Track & Gate

Fig 5: Dartford Creek Access Track and Marker

Fig 6: Dartford Creek Proposed Boom Deployment

22.8 – Nature Conservation Sites

22.8.1 Dartford Marshes County Wildlife Site (Incorporates Dartford Creek)

National Grid Ref: TQ 544773. Area 182.8 ha. KTNC Grade I. The site is part of the Inner Thames Marshes and part of the Managing the Marshes initiative for Dartford, Crayford and Erith Marshes. The site has proposed SSSI status.

Reasons for notification: This large area of former grazing marsh supports the most important water vole population in the north-west of Kent. The site is a mosaic of saltmarsh, grazing marsh, rough unmanaged grassland, dry grassland and scrub, with an interconnecting dyke system. The marsh is home to 240 species of bird, 140 of which are wetland species. The site has the highest recorded densities of water vole nationally as well as other rare animals such as the harvest mouse and water shrew. There are also rare plants, aquatic invertebrates, grass snakes, common lizards and amphibians. Scrub and secondary woodland on the site supports barn and long-eared owls. A variety of bats species including Daubenton's, brown long-eared and serotine use the site.

22.8.2 Black Duck Marsh

National Grid Reference: TQ 596756. Area 8.9 ha. The area does not contain any national, regional or local nature conservation designations. However, Black Duck Marsh contains habitats mentioned in the UK Biodiversity Action Plan (BAP) or as priority habitats within the Kent Local BA, and are considered to be of sufficient value that the Swanscombe Peninsula West planning application safeguards the area from built development and will establish it as a Local Nature Reserve.

Reason for inclusion: The area includes saltmarsh, areas of neutral and marshy grassland, an area of broad leaved woodland and reedbeds, within which there are wet and dry drainage ditches and two small areas of marshy grassland. Black Duck Marsh supports water voles, smooth newts, common lizard and grass snake. Five species of bat use the site. There is also a heronry in the wooded area.

22.9 Europort Dartford

6.9.1 In accordance with Regulations that came into force in May 1998, ports, harbours and oil handling installations falling within certain criteria are required to prepare oil spill contingency plans.

6.9.2 Ports and Harbours have statutory duties to undertake oil pollution clean-up operations. When an oil spill occurs in waters under their control they will deal with spills to allow safe operation of the port/harbour.

6.9.3 Thames Europort is a major freight handling terminal located, to the north and east of Crossways Business Park off Crossways Boulevard, within the foreshore area (Zone 61) for which the Council is responsible. Thames Europort does not meet the criteria requiring a contingency plan to be produced however it does have plans to deal with and alert others should a spill occur as a result of its operations or from a visiting vessel.

6.9.4 The Contact Officers at Thames Europort are:

Contact	Office	Out of hours	FAX