Maritime & Coastguard Agency

MARITIME POLLUTION RESPONSE IN THE UK: THE ENVIRONMENT GROUP

Scientific, Technical and Operational Advice Note - STOp 2/16

Note: This document should be read in conjunction with:

- Emergency Response and Recovery guidance - *Non statutory guidance accompanying the Civil Contingencies Act 2004*
- STOp 1/16 – Response and Recovery to a maritime pollution incident impacting the UK shoreline
- The National Contingency Plan (NCP) - A strategic overview for responses to marine pollution from shipping and offshore installations
- Local LRF STAC plans

All extant MCA STOp notices may be found at:
https://www.gov.uk/government/publications/scientific-technical-and-operational-advice-notes-stop-notes

1.0 INTRODUCTION

The concept of an ENVIRONMENT GROUP (EG), providing public health and environmental advice to all response units[1] with a role in responding to a significant 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 for Marine Pollution from Shipping and Offshore Installations (NCP) see section 9.13 of the 2014 document. This STOp notice supplements that guidance.

This notice aims to provide specific guidance to EG membership on the purpose and scope of the EG, and **in particular the great value in contingency planning through the establishment and maintenance of regional "Standing" Environment Groups.**

The Maritime and Coastguard Agency (MCA) will initiate the formation of an EG to provide advice during any incident requiring a regional or national response. However, the framework established by Standing Environment Groups (SEG) will also enable coordinated and timely environmental input to any other more localised or unusual/specialised incidents. Typically the MCA will alert an SEG in any situation which has the potential to cause public health or environmental harm. MCA will keep the SEG Chair directly informed on the progress of a response with alerts and trigger points and expected outcomes. In the event of a significant spillage the MCA will make recommendations to the SEG on what level of EG response may be required according to

- nature and quantity of pollutant
- environmental sensitivity at the time of incident
- prevailing weather conditions
- potential worsening of situation

It is stressed that the EG's remit is advisory and it has no powers of direction or enforcement. Regulatory functions of individual members of the EG are exercised outwith the Environment Group structure and function.

SEG's are currently in place across the UK. MCA coordinate the geographical coverage of individual SEG's, contact details and call out arrangements. MCA also facilitate exercising of SEG's and an all-UK meeting on an annual basis to update all Groups on sharing of best practice.

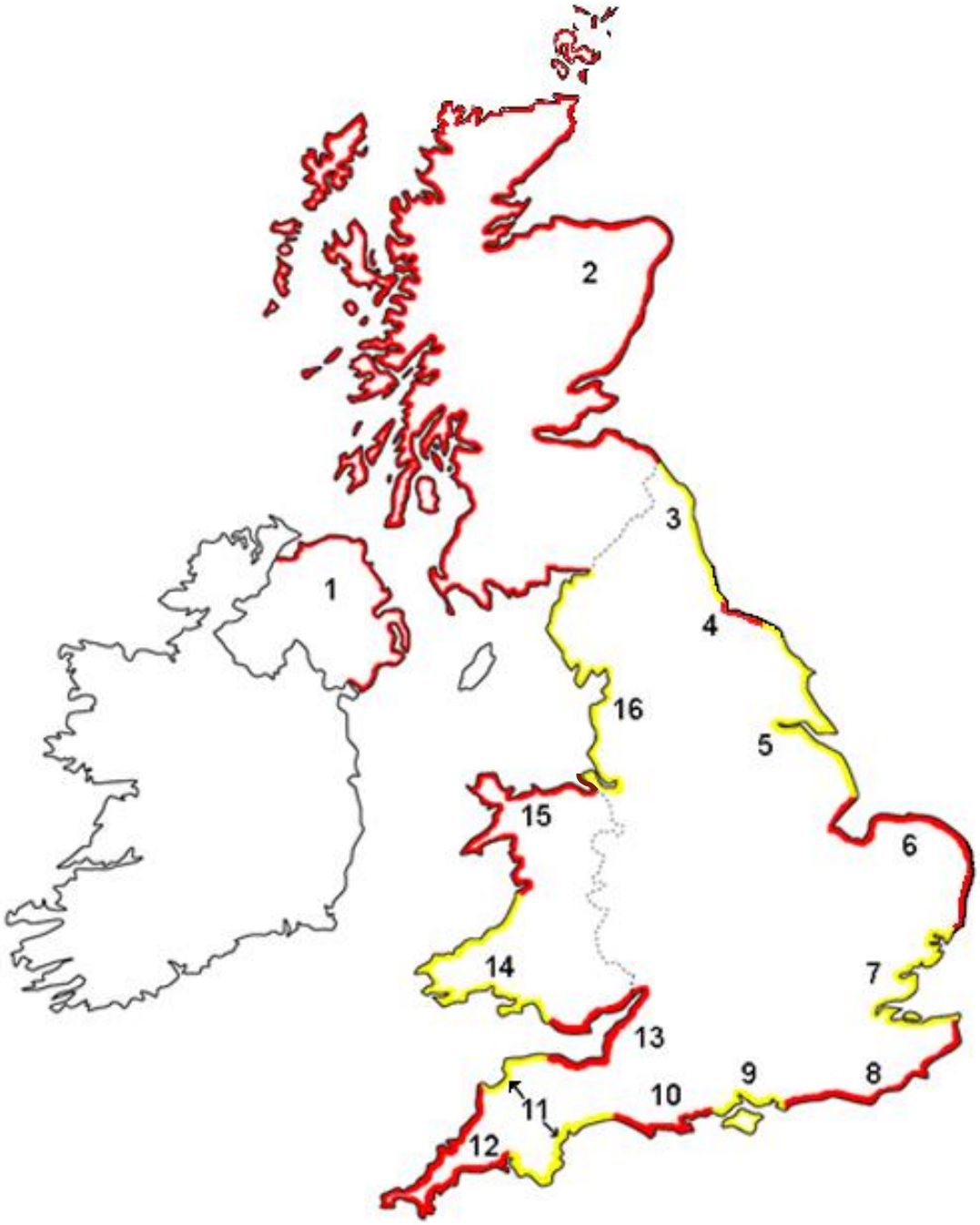
The Scientific and Technical Advice Cell (STAC)

Where the incident poses a significant threat to health or the environment on land, the SCG may establish a Scientific and Technical Advice Cell (STAC). The role of the STAC is to provide timely and coordinated advice on scientific and technical issues, for example regarding the public health or environmental implications of an incident.

The role of the STAC is to provide a common source of scientific and technical advice to the SCG, coordinate activity within the scientific and technical community, and share information and agree on courses of action. In addition, it liaises between agencies represented in the cell and their national advisors to ensure consistent advice is presented locally and nationally. Its role is similar to the EG in that it provides guidance and advice to the SCG and TCG.

Note! Where both the EG and STAC are established for an incident, they will liaise closely and may on occasions merge fully. This decision will be made by the Chairs of the EG and the STAC in consultation with the SCG Chair and the MCA. The decision will likely be influenced by whether the incident main threat is to the environment or public health.
In the event of wide-area emergencies where more than one SCG might require scientific advice, consideration would be given to establishing a single EG/STAC.

[1] The Salvage Control Unit, Marine Response Centre, Shoreline Response and port or harbour Command and Control Centre are referred to as *response units* throughout this document.



1. Northern Ireland	7. Greater Thames	13. Bristol Channel
2. Scotland	8. Kent and Sussex	14. West Wales
3. North East England	9. Solent	15. North Wales
4. Tees	10. Dorset	16. North West England
5. Humber	11. Devon	
6. Norfolk, Suffolk and the Wash	12. Cornwall & Isles of Scilly	

Figure 1 – Standing Environment Group distribution across the UK:

2.0 PURPOSE, SCOPE AND KEY TASKS OF THE ENVIRONMENT GROUP

2.1 Purpose of the Environment Group

The purpose of the EG has evolved since the concept was introduced following the Donaldson recommendations in 1999.

- To provide public health and environmental advice and guidance to all response units involved in response to an oil and or chemical marine pollution incident and subsequent clean-up operations.
- To advise response units so as to minimise the impact of the incident on the environment in the widest sense, taking account of risks to public health and the natural environmental, and potential impacts arising from any response operations, whether salvage or clean-up operations, at sea and on the shoreline.
- To provide advice and guidance on monitoring, assessing and documenting the public health and environmental (including 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 provide advice and guidance on the humane rescue and rehabilitation or humane disposal and post mortem analysis of wildlife casualties by recognised animal welfare or conservation organisations.

2.2 Scope of the Environment Group

The scope of EG functions will be directly proportional to the scale and nature of the incident, its geographical location, extent, severity, pollutant 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 and 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 marine and coastal environment in the EG's context includes public health, the natural environment, water quality, wildlife including fish, cultural, landscape, habitats and socio - economic factors linked to human health, e.g. through food chains.

The scope of EG functions includes:

- provision of public health and environmental advice to all Groups set up to respond to a maritime incident, and may include:
    - Secretary of State's Representative (SOSREP) and the Salvage Control Unit (SCU)
    - Marine Response Centre (MRC)
    - Strategic Coordinating Group – (SCG), Tactical Co-ordinating Group – (TCG), Recovery Coordinating Group for the long haul (RCG), Response Coordinating Group – for cross border incident coordination, (Res CG). In England the Strategic Co-ordinating Group and the Tactical Co-ordinating Group between them cover many of the functions previously carried out by the Shoreline Response Centre. For devolved administrations please see section 9.12 of the NCP.
    - Operations Control Unit (OCU - for offshore incidents)
- liaison with and obtaining any relevant information the EG requires to fulfil its functions from all response units established to deal with the pollution.
- proactive management of information on all health and environmental issues between the units.
- seeking to minimise the impact of an oil and or chemical pollution incident on human and animal health.
- seeking to minimise the impact of an oil and or chemical pollution incident on the environment, by determining optimal environmental end points, beyond which the response will not provide environmental benefit, or may actually produce a disbenefit. This process can be undertaken through an environmental risk assessment such as 'Net Environmental Benefit Analysis'.
- the prompt planning, implementation and management of data gathering to enable an integrated evaluation of acute and chronic health and environmental impacts of the pollution incident across the widest appropriate range of issues (see Appendix C - Impact Assessment).
- ensuring that proper consideration is given to all the health and safety requirements for personnel working for the EG.

2.3 Key tasks of the Environment Group

NB: The following tasks are not in order of priority nor intended to be exhaustive, and not all may be necessary in individual incidents. Tasks and priorities will be incident specific.

Provision of health advice

- Provide advice on potential and real impact on public health with respect to oil and chemicals.
- Advise on requirements for the monitoring of threat to public health.

Provision of operational advice

- Assess environmental priorities at risk from pollutant and from clean-up activity.
- Establish EG priorities for resource protection and pollution clean-up.
- Prepare an incident-specific EG view on at-sea and on-shore dispersant and chemical treatment product use.
- Provide advice and guidance on health and environmental sensitivities, and risks, preferred options and health and environmental implications of proposed salvage and clean-up response strategies with respect to achieving a net environmental benefit.
- In collaboration with recognised animal welfare and conservation organisations, provide advice with regards to the potential impacts of pollution and clean-up activities on wild animal populations and assist in the development of operational plans to minimise these impacts.
- Ensure that the above advice is timely and accurately reflects the dynamics of health and environmental resources at risk.
- Ensure thorough and timely documentation of all advice provided to the response units. Copies of all records of advice provided and feedback from response units should be circulated within the EG (see Appendix F – Record Keeping).
- Facilitate effective communication on health and environmental matters between the response units and the EG via appointed Environmental Liaison Officers (ELO).
- Ensure that appropriate coordinated and timely arrangements for incident specific assessment of the effects on public health and environment are initiated and subsequently managed (see Appendix C - Impact Assessment)
- Monitor and keep under review public health and environmental implications of ongoing salvage and at-sea clean-up operations.

Contribution to the Shoreline Management Group:

- Ensure representation in the Technical Group via the appointed Environmental Liaison Officer.
- Monitor effectiveness of on-shore clean-up operations, particularly in sensitive areas to ensure that clean-up operations match the strategy agreed in the Shoreline Management Group.
- Assist, and possibly contribute to, the Shoreline Clean-Up Assessment Teams (SCAT), as required.
- Advise and contribute to the Impact Assessment.

Health and safety

- Ensure the full implementation of health and safety measures for personnel working in the field on behalf of the EG [for example, through risk assessments, COSHH, Personal Protective Equipment, and health tracking].

2.4 Requirements of EG in order to fulfil functions

- A wide range of expertise in the impact of oil and chemicals on public health, marine and coastal ecology, wildlife, water quality, fisheries and animal welfare.
- Sufficient experienced personnel with appropriate local knowledge to carry out the many and varied key and essential tasks. A major incident will require a significant number of personnel, potentially 24 hours a day, and seven days a week. The number of people and level of expertise required must not be underestimated (see section 3).
- Comprehensive information and data: pre-incident health and environmental baseline data and all incident related data. (See Appendix D - Data)
- A prepared organisational framework.

3.0 EG COMPOSITION AND STRUCTURE

3.1 Core Membership of the EG

The minimum core membership will include representatives of:

- The environmental regulator
- The statutory nature conservation body
- The fisheries department
- The public health body
- MCA
- Local authorities are core members of some SEG's

Organisation → **Administration↓**	**Environmental Regulator**	**Statutory Nature Conservation Body**	**Fisheries Department**	**Public health body**
Scotland	SEPA	SNH (+ JNCC >12 miles offshore)	Marine Scotland	NHS Scotland
England	EA	NE (+ JNCC >12 miles offshore)	Defra MMO	Public Health England
Wales	Natural Resources Wales	Natural Resources Wales (+ JNCC >12 miles offshore)	Welsh Government Marine and Fisheries	Public Health Wales
Northern Ireland	DOE	DOE (+ JNCC >12 miles offshore)	DARD, Fisheries & Environment Division	Public Health Agency (NI)

Table 1. The responsible organisations providing the core members under the UK devolved administrations

In addition, the EG may draw on specialist expertise according to the nature of the incident and which will dictate specific requirements for information and advice. In a major incident the EG will likely be expected to field significant numbers of personnel both in the core EG and in the field. Incident response circumstances may require the setting up of sub groups to cater for specialist activities. Where a clear threat to public health exists it is likely that the appropriate public health organisation will join the group.

3.1.1 Extended membership may include

Health:

- Local authority Environmental Health departments
- Occupational Health Advisor
- Food Standards Agency and Food Standards Scotland
- National Chemical Emergency Centre

Fisheries:

- IFCA or Inshore Fisheries Groups (IFG) in Scotland
- Centre for Environmental, Fisheries and Aquatic Science
- Marine Laboratory, Marine Scotland Aberdeen
- Association of Salmon Fishery Boards
- Agri-Food and Bioscience Institute, Northern Ireland

Coastal Environment:

- Local authority coastal and marine environmental staff
- (Coastal) National Park Authority staff

Wildlife Welfare:

- Royal Society for the Prevention of Cruelty to Animals (RSPCA)
- Scottish Society for the Prevention of Cruelty to Animals (SSPCA)
- Ulster Society for the Prevention of Cruelty to Animals (USPCA)
- Sea Alarm

3.1.2 Additional organisations potentially able to provide support include

- Royal Society for the Protection of Birds (RSPB)
- British Trust for Ornithology (BTO)
- Sea Mammal Research Unit (SMRU)
- National Trust / National Trust for Scotland
- County / local Wildlife Trusts
- Other NGO's
- Specialist environmental consultancies
- Academic and research institutions
- Aquaculture industry

3.2 Key EG personnel and their roles

Each of the key roles should be filled by the individuals most suited to the job and purpose, independent of their parent organisation or position within that organisation. They should be suitably experienced to command respect and authority of personnel within the EG and the incident response units. Each should have one or more clearly identified deputies.

3.2.1 EG chair

The role of the Chair is to ensure the EG undertakes its functions so as to enable provision of:

- the management of a prompt and timely evaluation of the impact of the pollution incident.
- timely and appropriate health and environmental advice to SOSREP and other response units.

Responsibilities

- Management of the group
- Ensuring strategic objectives are met
- Co-ordination of all group functions and activities
- Development and maintenance of most appropriate group structure
- In the simplest incidents, act as a conduit of advice (usually by telephone) to SOSREP, MCA or any response unit or local authority response coordination centre.

The EG chair must nominate at least one deputy; working 24 hours / day, 7 days / week may be required, or make arrangements for cover.

Competencies

- People manager.
- Good judgement.
- Good communication skills and clear ability to mediate in times of debate over contentious issues.
- Able to command respect and authority with a range of organisations.
- Ability to exercise delegated authority on behalf of and within Group.
- Ability to understand, interpret and address the full range of health and environmental issues.
- Ability to identify the key issues and the organisations and individual specialists who can provide support and advice to the group.
- Familiarity with relevant public health issues and the environmental features of the affected marine and coastal area.
- Familiarity with the NCP and this STOp notice.
- Some experience in maritime pollution response would be advantageous, through exercising with Ports and Harbours, Local Authorities or oil and gas companies/operators preferably with several of the other key members of the Group. MCA can advise on exercising opportunities.

The Chair should be able to take an overview independent of personal professional interest and the working culture of his / her parent organisation. The Chair does not need to be a specialist.

3.2.2 Environmental Liaison Officer (ELO)

The role of the ELO is to:

- Work under the guidance of the EG Chair, and EG members to communicate with other activated response units. This will include giving and receiving information and providing advice backed up by the EG.
- Provide public health and environmental advice to each activated response unit.
- Act as the key communications link between the EG and each response unit.
- ELOs should be able to take an overview independent of personal professional interest and the working culture of their parent organisation
- Act as a central liaison point between the EG and NGO's
- Liaise with conservation NGOs carrying out surveys and collating ad-hoc reports of casualties, as well as of animal welfare organisations retrieving and rehabilitating live casualties. Depending on workload the EG may wish to dedicate a single ELO to solely liaise with all NGO activity.

The EG should have an ELO in each response unit established to deal with a pollution incident. ELOs need to have a comprehensive range of specialised competencies and should be suitable for the role. It is the responsibility of the EG Chair to nominate suitable ELOs for each response unit, taking into account the location, nature and scale of the incident, the views of the group and the expertise each unit is most likely to require. If possible, due to the specialised nature of the ELO role, the Chair's task may be assisted by a pre-incident planned list of suitably qualified and experienced personnel across a range of disciplines.

Responsibilities

- Providing timely, prioritised and focussed health and environmental advice to the individual response unit where he / she is based.
- Providing an efficient and effective two-way communications link, with respect to health and environmental issues, between the response unit and the EG.
- Ensuring feedback to the EG of all relevant information from the response unit on progress of the incident.

One ELO should be appointed to each response unit to ensure a clear focus of EG representation. Depending on the scale of the incident, ELOs should have back up in the form of one or more deputies because health and environmental advice to the response units may be required 24hrs / day, 7 days / week. The Shoreline Management Group ELO will be required to be a member of the SCG/TCG and may also have appropriate administrative and technical support and assistance.

ELO's are responsible for the management and passing of information within the EG remit only.

Competencies

The competencies listing provides guidance to assist with the identification of the most appropriate individuals for the role, depending upon the nature of the incident.

General competencies

- A broad understanding of relevant public health and marine / coastal environmental issues, and an understanding of relevant local health and environmental resources, issues and priorities for protection.
- General understanding of relevant statutory and regulatory responsibilities of member organisations of core EG and ability to evaluate the implications of these in providing advice.
- Ability to balance a wide and potentially conflicting range of issues in presenting EG advice succinctly. When there is insufficient time to consult the EG as a whole, ELO's may need to provide immediate, on-the-spot advice to the response units. If in doubt they should refer to the EG Chair.
- Ability to exercise delegated authority on behalf of Group.
- Ability to command respect and authority within assigned response unit.
- Good communication skills.
- An understanding of UK response to marine pollution incidents.

Useful specialised competencies (not essential)
SCU / MRC/OCU

- Familiarity with and understanding of technical issues relevant to assigned response units; e.g. shipping, salvage, offshore installations, pollutant behaviour, response options including dispersant use, efficacy and limitations.
- Marine ecology or public health knowledge

SCG/TCG

- Ability to effectively represent the EG on the SCG/TCG Management and Technical Teams
- Familiarity with and understanding of pollutant behaviour, shore clean-up techniques and their efficacy and limitations, including dispersant use, and waste management and disposal issues.

3.2.3 Other key roles in the EG

In addition to the representatives of the core member bodies, depending on the scale, location and complexity of any marine pollution incident and associated response, there may be a need for a wide range of other key roles within a core EG. These are likely to include, but not be limited to the following:

- Impact assessment manager / coordinator
- Specialists according to nature of incident, e.g. Public Health advisors, chemists, marine ecologists, ornithologists, water quality, geologists.
- Administrative and secretarial management and support.
- Information and data managers (strong cross links to impact assessment manager & main link to data collection support groups).

3.2.4 Additional roles

The core operational EG may also require support from:

- Deputies for all key roles, particularly Chair and ELO's.
- Data collectors, loggers and analysts.
- Specialist observers to obtain environmental overviews of incident, particularly from any available aerial platforms
- Specialist 'monitors' at sensitive sites / complex responses. The EG may assist, and possibly contribute to, the Shoreline Clean-Up Assessment Teams[2] (SCAT), as required.

[2] Shoreline Cleanup Assessment Technique, A Field Guide to the Documentation of Oiled Shorelines in the UK – April 2007
https://www.gov.uk/government/publications/shoreline-clean-up-assessment-techniques-scat

3.3 Structure of Environment Group

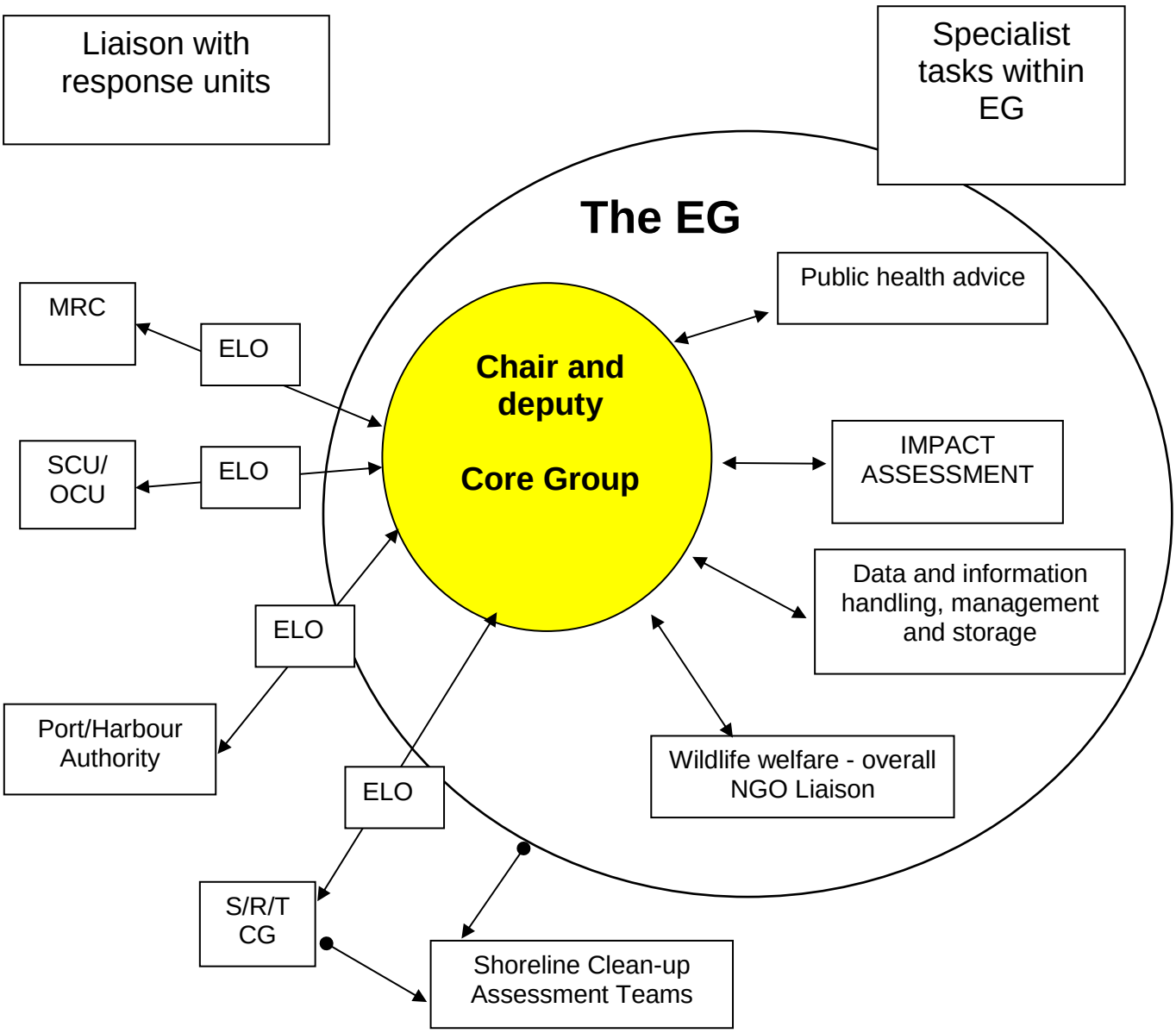


Figure 2 - Structure of EG in a major incident

4.0 Establishment of the EG for maritime incident response

This section amplifies the broad guidance on establishment of the EG provided in paragraph 9.13 of the National Contingency Plan (September 2014).

The ease of timely establishment of an operational EG and its fully effective working will be largely determined by whether:

- a Standing EG already exists in the locality of the incident.
- the Standing EG is fully aware and committed to its role and responsibilities and is adequately prepared.
- the Standing EG comprises the appropriate complement of expertise to deal with the incident in hand.

The benefits of having a Standing EG in place, particularly in the event of a major and/or complex incident, should not be underestimated.

4.1 MCA routine alerting procedure

In the event of a maritime incident threatening to or actually causing marine pollution, the MCA have a routine alerting procedure to inform all organisations likely to be involved in response to the incident.

HM Coastguard will routinely call the duty MCA Counter Pollution and Salvage Officer (CPSO), who in turn will contact the duty MCA Counter Pollution Branch scientist. The MCA duty scientist or his representative will call the appropriate national contact points for the following organisations:

- The Fisheries Department
- The Statutory Nature Conservation Body
- The Environmental Regulator
- Public health agencies

Contact with the SEG chair, or deputy, will be made via these national contact points, requesting a representative of the SEG contact the MCA duty scientist. The MCA duty scientist will then request that an EG is activated.

4.2 Standing down the EG

The decision to stand down will be taken by the EG. Whilst standing down the advisory function of the EG will be largely guided by the response units, the decision to stand down any impact assessment operations will be driven by scientific criteria.

4.3 Cross boundary working

Clearly, maritime pollution incidents know no boundaries. A single spill incident can readily impact across both local authority and SEG boundaries. In the event of a spill impacting 2 or more SEG areas the Group Chairs should consider either merging the Groups or at very least maintaining close liaison with respect to a developing and/or changing scenario requiring coordination of response and advice provision.

5.0 Role of Standing Environment Group and Contingency Planning

Advice from the EG will be required at an early stage in an incident. Membership contact details, pre-identification of key role-holders and rapid access to essential health and environmental information are vital if the group is to be formed swiftly and advice is to be timely and accurate.

The benefits of a 'Standing' EG are manifold:

- The EG will be able to establish itself promptly and independently of any response units.
- There will be a collective understanding of the role and function of the EG within the overall incident management process.
- Organisational representatives will understand the roles and responsibilities of the other players in the EG.
- Provision of information about health and environmental sensitivities will be pre-identified and collated into readily useable formats, and can be provided timely and coordinated.
- Individuals will already know each other and their respective areas of expertise.
- Particular roles and tasks within the EG can be agreed and pre-allocated e.g. Chair, Deputy, ELO's, and other specialists.
- A working protocol is already agreed, promoting a timely, committed and co-ordinated start.

National consistency of approach is important. A maritime pollution incident affecting more than one SEG area of jurisdiction will require a common approach in the provision of advice on minimising impact on public health and the environment.

5.1 Geographical coverage

The geographical boundaries of SEG's should meet local needs, but be widely known and interface with adjoining groups. MCA have accepted the role of coordinating and disseminating information on SEG locations and boundaries. See the SEG Distribution map, figure 1.

In establishing the area to be covered by a SEG it is important that the area is logical i.e.:

- has easily defined outer (coastal) limits
- encompasses the whole of any estuary system
- abuts adjacent SEG's
- encompasses ecologically meaningful areas

Whilst it would be administratively convenient if the geographical limits of SEG's coincide with the boundaries of all the participating organisations, it is highly unlikely, and agreement should be sought to identify a practical and workable area with contingency in place for amalgamation where an incident impacts more than one SEG area.

5.2 Suggested SEG Work Programme

SEG's should prepare a plan for an EG response to a worst case maritime oil and or chemical incident scenario to:

- Identify key roles, responsibilities, competencies and job description
- Establish expertise, shortfalls and gaps within the group.
- Identify external sources of expertise not available to the group.
- Establish and maintain communication links within the group, with adjacent SEG's and with parent organisations.
- Identify pool of ELO's able to fulfil specialist ELO functions in complex incident response.
- Identify administrative support and communications requirements
- Establish links with local contingency plans: port and harbour plans, local marine pollution emergency plans.
- Identify suitable EG operational accommodation (co-located with and independently of an SCG/RCG)
- Establish and maintain appropriate health and environmental databases.
- Undertake generic risk assessments for public health and of environmental resources within SEG's geographical area.
- Develop generic environmental advice, for the use of aggressive clean-up techniques, leave alone sites, site protection prioritisation.
- Develop Impact Assessment priorities, organisation, environmental baselines and project management.
- Identify potential SEG members to contribute to SCG/RCG established Shoreline Clean-up Assessment Teams.
- Identify training needs for SEG members of all disciplines.
- Develop administrative protocols for information and data management and record keeping.
- Develop health and safety protocol
- Write, exercise and review the SEG plan.

5.3 Post spill environmental monitoring: guidance and co-ordination.

If a marine pollution incident is expected to have a significant environmental impact, arrangements may be made to begin to monitor and assess the long-term, as well as the short- and medium-term, environmental impacts. In addition to providing environmental and public health advice to the response centres, the Environment Group (EG) established during the incident may provide advice and guidance on the collection and evaluation of data for the assessment of the environmental impact of the incident.

In England any monitoring and impact assessment activities will be undertaken to the principles set out in the PREMIAM (Pollution Response in Emergencies: Marine Impact Assessment and Monitoring) post-spill monitoring guidelines. If necessary a Premiam Monitoring Coordination Cell (PMCC) will be established to develop, coordinate and report the findings of any monitoring programme. The PMCC will have direct links and receive advice from any Environment Group formed. More information on the Premiam guidelines and processes can be found at:
www.cefas.defra.gov.uk/premiam

In Scotland a process for the coordination of post spill environmental monitoring many be implemented by the Scottish Evidence Response Group (SERG).

SERG will advise the operational EG on any environmental monitoring requirements based on the principles laid down by PREMIAM and as directed by the SERG which will be chaired and co-ordinated by Marine Scotland Science, and will include staff from JNCC and Food Standards Scotland (FSS) in an offshore incident and SNH, FSS and SEPA in the event that the coastal area is threatened.

In the largest incidents there may be a need for two or more Marine Scotland (MS) representatives on the operational EG, one to chair and/or to act as the ELO to any of the above mentioned response cells and another to represent MS with specific regard to monitoring, collection of samples etc. (most likely chair of the SERG).

In Northern Ireland:
Any monitoring and impact assessment activities will generally be undertaken to the principles set out in the PREMIAM (Pollution Response in Emergencies: Marine Impact Assessment and Monitoring) post-spill monitoring guidelines, see link above. If necessary a Premiam Monitoring Coordination Cell (PMCC) will be established to develop, coordinate and report the findings of any monitoring programme. The PMCC will have direct links and receive advice from the Northern Ireland Environment Group.

In Wales:
The Environment Group will be responsible for the overall conduct and integrated co-ordination of monitoring and impact assessment activities following a marine incident. A sub group will be established known as the Monitoring Coordination Cell (MCC) for steering impact assessment work. The initiation and development of a co-ordinated monitoring programme will be informed by in line with the Premiam post-spill monitoring guidelines.

The Monitoring Coordination Cell may be formed at the discretion of one of the Welsh Standing Environment Groups within minutes/hours of an incident as a result of key individuals being informed through the already established emergency response notification procedures (e.g. POLREPs etc.). The formation of the MCC will be the responsibility of the pre-identified SEG chairs and/or deputy chairs and controlled by the active EG. The chairs and deputy chairs of the MCC will be drawn from the organisation with primary responsibility for overseeing marine monitoring in Welsh waters namely: Natural Resources Wales.

The membership of the MCC will be driven by the nature of the incident, including geographic position, and the nature of the resources that form the focus of the monitoring activity (e.g. fisheries, food, conservation, amenities etc. Government stakeholder 'evidence needs and statutory requirements' will be the main driver in the design of the monitoring programme. The membership will also evolve as the group move from considering initial to ongoing to cessation of activities.

APPENDIX A - COMMONLY USED ACRONYMS

ACOPS	Advisory Committee on Protection of the Sea
AONB	Area of Outstanding Natural Beauty
ASSI	Area of Special Scientific Interest (Northern Ireland)
BEIS	Department for Business, Energy & Industrial Strategy (previously DECC)
BOD	Biological Oxygen Demand
BTO	British Trust for Ornithology
CaMRA	Coastal and Marine Resource Atlas
CAST	Coastguard Agreement on Salvage and Towage
CCA	Civil Contingencies Act
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CGOC	Coastguard Operations Centre
COBR	Cabinet Office Briefing Room
COSHH	Control of substances hazardous to health
CPSO	Counter Pollution and Salvage Officer
CPS	Counter Pollution & Salvage
CRCE	Centre for Radiation, Chemical and Environmental Hazards (PHE)
DARD	Department of Agriculture & Rural Affairs (Northern Ireland)
DECC	Department of Energy and Climate Change
DEFRA	Department of Environment, Fisheries and Rural Affairs
DfT	Department for Transport
DOE	Department of the Environment (for Northern Ireland)
EA	Environment Agency
EEZ	Exclusive Economic Zone
EG	Environment Group
EIA	Environmental Impact Assessment
ELO	Environmental Liaison Officer
EMSA	European Maritime Safety Agency
ESGOSS	Ecological Steering Group on the Oil Spill in Shetland
ETV	Emergency Towing Vessel
FC	Fund convention
FEPA	Food and Environment Protection Act 1990
FSA	Food Standards Agency
FSS	Food Standards Scotland
GESAMP	Group of Experts on the Scientific Aspects of Marine Pollution
GIS	Geographical Information System
GRT	Gross Registered Tonnage
GT	Gross Tonnage
HCPS	Head of Counter Pollution and Salvage
HMCG	Her Majesty's Coastguard
HPS	Health Protection Scotland
HSE	Health and Safety Executive
IFCA	Inshore Fisheries Conservation Authority
IFG	Inshore Fisheries Groups (Scotland)
IMDG Code	International Maritime Dangerous Goods Code
IMO	International Maritime Organisation
IOPC Fund	International Oil Pollution Compensation Fund
IP	Institute of Petroleum
ITOPF	International Tanker Owners Pollution Federation
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
LRF	Local Resilience Forum
LWT	Local Wildlife Trust
MAGIC	Multi-Agency Geographic Information for the Countryside
MAIB	Marine Accident Investigation Branch
MARPOL	International Convention for the prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MEPC	Marine Environment Protection Committee
MMO	Marine Management Organisation
MNR	Marine Nature Reserve
MOU	Memorandum of Understanding

MRC	Marine Response Centre
MS	Marine Scotland
MSDS	Material Safety Data Sheet
MSS	Marine Scotland Science
NCEC	National Chemical Emergency Centre
NCP	National Contingency Plan
NE	Natural England
NEBA	Net Environmental Benefit Analysis
NGO	Non-governmental Organisation
NIEA	Northern Ireland Environment Agency
NNR	National Nature Reserve
NRW	Natural Resources Wales
NT	National Trust
OCU	Operations Control Unit
OPA90	US Oil Pollution Act of 1990
OPRC	Oil Pollution Preparedness Response and Co-operation Convention 1990
OSIS	Oil Spill Information System
OSPRAG	Oil Spill Prevention and Response Advisory Group
P&I	Protection and Indemnity 'Clubs'
PHE	Public Health England
PHW	Public Health Wales
POLREP	Pollution Report
PREMIAM	Pollution Response in Emergencies: Marine Impact Assessment and Monitoring
RCC	Recovery Coordinating Centre
RCG	Recovery Coordinating Group
RecCG	Multi-RCG Recovery Co-ordinating Group
RED	Department for Communities and Local Government's Resilience and Emergencies Division
ResCG	Response Coordinating Group
RIGS	Regionally Important Geological Site
RRF	Regional Resilience Forum
RSPB	Royal Society for the Protection of Birds
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SAC	Special Area of Conservation (EU Habitats Directive)
SAM	Scheduled Ancient Monument
SAR	Search and Rescue
SBM	Single Buoy Mooring
SCAT	Shoreline Clean-up Assessment Team
SCG	Strategic Coordinating Group
SCU	Salvage Control Unit
SE	Scottish Executive
SEEEC	Sea Empress Environmental Evaluation Committee
SEERAD	Scottish Executive Environment Rural Affairs Department
SEG	Standing Environment Group
SEPA	Scottish Environmental Protection Agency
SERG	Scottish Evidence Response Group
SFI	Sea Fisheries Inspectorate
SITREP	Situation Report
SLAR	Sideways Looking Airborne Radar
SMRU	Sea Mammal Research Unit
SMG	Shoreline Management Group
SNH	Scottish Natural Heritage
SOLAS	International Convention for the Safety of Life at Sea
SOSREP	Secretary of State's Representative for Maritime Salvage and Intervention
SPA	Special Protection Area (EU Birds Directive)
SRC	Shoreline Response Centre
SSPCA	Scottish Society for the Prevention of Cruelty to Animals
SSSI	Site of Special Scientific Interest
STAC	Scientific and Technical Advice Cell
STOp	Scientific, Technical and Operational Guidance Notes
TCG	Tactical Coordinating Group
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
USPCA	Ulster Society for the Prevention of Cruelty to Animals
VTS	Vessel Traffic System
WG	Welsh Government
WWF	World Wide Fund for Nature

APPENDIX B - USEFUL POLLUTION RESPONSE WEBSITES

Type	Name of Service	Website
Government & Government-Related Websites	MCA Counter Pollution branch MCA STOp Notes National Contingency Plan	https://www.gov.uk/government/organisations/maritime-and-coastguard-agency https://www.gov.uk/assessing-risk-and-responding-to-uk-coastal-and-marine-pollution https://www.gov.uk/government/publications/scientific-technical-and-operational-advice-notes-stop-notes https://www.gov.uk/government/publications/national-contingency-planncp
	Marine Scotland	http://www.scotland.gov.uk/About/People/Directorates/marinescotland
	Marine Management Organisation	https://www.gov.uk/government/organisations/marine-management-organisation
	The Department for Environment, Food and Rural Affairs	https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs
	Environment Agency	https://www.gov.uk/government/organisations/environment-agency
	Natural Resources Wales	https://naturalresources.wales/
	Northern Ireland Environment Agency	http://www.doeni.gov.uk/niea/
	Scottish Environment Protection Agency	http://www.sepa.org.uk/
	Natural England	https://www.gov.uk/government/organisations/natural-england
	Scottish Natural Heritage	http://www.snh.gov.uk/
	Joint Nature Conservation Committee	http://jncc.defra.gov.uk/
	International Maritime Organisation	http://www.imo.org
	Department for Transport	https://www.gov.uk/government/organisations/department-for-transport
Government & Government-Related Websites	Department for Business, Energy & Industrial Strategy (pka DECC)	https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy
	Met Office	http://www.metoffice.gov.uk/
	Bonn Agreement	http://www.bonnagreement.org/
	Public Health England	https://www.gov.uk/government/organisations/public-health-england
	Public Health Wales	http://www.publichealthwales.wales.nhs.uk/
	Health Protection Scotland	http://www.hps.scot.nhs.uk/

	European Maritime Safety Agency	http://www.emsa.europa.eu/
Satellite imagery	EMSA Cleanseanet	http://www.emsa.europa.eu/operations/cleanseanet.html
Real-time AIS data	Marine Traffic	http://www.marinetraffic.com
	Vessel Finder	https://www.vesselfinder.com
	ShipAIS	www.shipais.co.uk
Oil Companies Related Organisations	Energy Institute	https://www.energyinst.org/home
Ports & Harbour Authorities	Associated British Ports (ABP)	http://www.abports.co.uk/
	British Ports Association (BPA)	http://www.britishports.org.uk/
	Port of Rotterdam	http://www.portofrotterdam.com/en/Pages/default.aspx
	UK Ports Directory	http://uk-ports.org/uk-ports-map
Industry Bodies	International Tanker Owners Pollution Federation Ltd	http://www.itopf.com/
	Oil & Gas UK (OSPRAG)	http://www.oilandgasuk.co.uk/ http://www.oilandgasuk.co.uk/knowledgecentre/osprag.cfm
	UK Spill Association	http://www.ukspill.org/
	International Petroleum Industry Environmental Conservation Association	http://www.ipieca.org/ http://oilspillresponseproject.org/completed-products
	Oil Spill Response	http://www.oilspillresponse.com/
Modelling	United States National Oceanic and Atmospheric Administration (NOAA)	http://www.noaa.gov/
	British Maritime Technology (BMT)	http://www.bmt.org/
	Ricardo-AEA	http://www.ricardo-aea.com/cms/
	RPS ASA	http://www.asascience.com
Environmental Organisations	Royal Society for the Protection of Birds (RSPB)	http://www.rspb.org.uk/forprofessionals/policy/marine/pollution.aspx
	World Wildlife Fund (WWF)	http://www.wwf.org.uk/
	Royal Society for the Prevention of Cruelty to Animals (RSPCA)	http://www.rspca.org.uk/home
	Scottish Society for the Prevention of Cruelty to Animals (SSPCA)	https://www.scottishspca.org/

	Ulster County Society for the Prevention of Cruelty to Animals (UCSPCA)	http://www.ucspca.org/
	Wildfowl & Wetlands Trust	http://www.wwt.org.uk/
Maritime Research	Centre for Environment, Fisheries & Aquaculture Science	http://www.cefas.defra.gov.uk/
	University of Plymouth Institute of Marine Studies	http://www1.plymouth.ac.uk/marine/Pages/default.aspx
	Natural Environment Research Council: National Oceanography Centre (NOC)	http://noc.ac.uk/
	Ricardo-AEA	http://www.ricardo-aea.com/cms/

APPENDIX C - IMPACT ASSESSMENT:

The description, quantification and evaluation of the effects of maritime pollution incidents

C1 INTRODUCTION

Any incident resulting in marine pollution may have a public health or an environmental impact. There will inevitably be both public and political expectations of those involved in the incident and its aftermath to be able to quantify and describe how public health and the environment were affected by it.

Contingency planning is necessary to prepare for the assessment of the actual effects of significant pollution incidents, to enable assessment action to be taken proactively rather than reactively, and to match the scale of impact assessment action to scale of incident. Strategic planning at the time of an incident is also necessary to meet the assessment requirements of the specific incident.

Assessment should be based upon objective, accurate information and data rather than assumption and perceived wisdom.

There are clear differences between the objectives of impact assessment and providing operational advice to response units; there are also differences in outputs, timing, decision making, resourcing and political framework. There are both common and different data requirements. The geographical scope of impact assessment and operational response planning also differ.

These differences necessitate clear demarcation between the planning and implementation of the two EG roles. In a significant pollution incident it will almost certainly be necessary for the impact assessment function to be the task of a separate sub-group. However, there must be close integration and liaison between the sub-group and the rest of the EG; not least to meet the common data requirements.

An IA sub-group will reduce the need for government to form an official scientific committee, such as Sea Empress Environmental Evaluation Committee (SEEEC) or Ecological Steering Group on the Oil Spill in Shetland (ESGOSS), to coordinate long term assessment work. However, in the event of a large scale incident where such a committee may be established, the early work carried out by the impact assessment sub-group will be vital to an authoritative impact assessment and the sub-group should be prepared for an effective hand-over of responsibility and information if necessary.

It could be that a Premiam Monitoring Co-ordination Cell (PMCC) or equivalent may be established to initiate, conduct and co-ordinate post spill environmental monitoring and impact assessment. Access to the Premiam Guidelines, operating principles and responsibilities is via the Cefas website (Cefas is an executive agency of the Department for Environment, Food and Rural Affairs (Defra)).
https://www.cefas.co.uk/premiam/guidelines/

C2 AIMS AND OBJECTIVES

The main aims of impact assessment are to:

- quantify actual health and environmental impact caused by pollution incident
- determine net environmental benefit of advice provided to response units and consequent response action
- meet agencies statutory duties to monitor / report on public health and the environmental condition of, *inter alia*, designated sites, species, waters
- meet public and political requirements for health and environmental information

In addition to these broad aims, impact assessment work should meet the following specific objectives:

- determine concentrations of pollutant in the environment, particularly in the human population, sensitive species and habitats, and the change of contaminant levels over time and to compare these with baseline data
- determine the environmental effects of the clean-up response on the environment
- determine the acute and chronic effects on environmental features affected by contamination, and their timescales; based, *inter alia*, on the assessment of the condition, population and distribution of species in their habitats, in comparison with those in control sites and trends in other areas remote from the contamination
- determine the longer term impacts on wildlife population and distribution (spatial and temporal) based on reproductive and behavioural effects

- predict the likely rate of recovery of species and habitats following contamination, and
- provide an overall assessment of the health and environmental impact of the incident in comparison with other incidents

The impact assessment will have to take full account of the spatial, temporal and behavioural fate of the pollutant as determined by the MCA and SCG/TCG.

C3 PLANNING FOR IMPACT ASSESSMENT

There is a need for plans to address both common national issues and specific local / regional requirements.

Impact assessment presents administrative, resource and logistical problems in performing it within the operational advice framework of the response phase of an incident. It is strongly recommended that impact assessment should be organised by a clearly distinct sub group which can call upon national resources whilst maintaining close liaison with the core Group and utilising a common data-gathering framework

In the event of a significant pollution incident, plans should clearly acknowledge the need for prompt mobilisation of resources to enable impact assessment. Immediate tasks include rapid, real-time, assessment of key features in areas likely to be impacted by the pollution, collection of data on acute impacts, collection of data on impacts on public health and food safety, ensuring that the essential fate and behaviour of pollutant data which will be required later in the assessment is obtained and made available. The preparation of baseline resource and sensitivity databases should be undertaken as part of contingency planning (see section A2.5.2).

C4 DATA REQUIREMENTS FOR IMPACT ASSESSMENT

Fate and behaviour of pollutant

Pollutant distribution, extent, characteristics, behaviour, actual and predicted, over full timescale of incident, in the atmosphere, on surface waters, in the water column and on shore (see Appendix D). The integration of EG plans with other plans is vital to ensure the rapid and effective transmission of pollutant data to the EG during an incident.

Pollution response

Actions undertaken by MRC, SCG/TCG and other response units as appropriate; a full record and description of actions taken, time, location, techniques used and outcomes.

Baseline

- Real-time confirmation of human populations at risk
- Real-time confirmation of environmental resources at risk, particularly seasonally variable or mobile features (e.g. birds, mammals, fish stocks, invertebrate fauna and flora)
- Comprehensive inventory of all environmental features - habitats, species, geology, landscapes, designated sites etc - within the group's area (contingency planning)
- Benchmark background pollutant levels

Initial (acute) effects.

- Effects on human health
- Wildlife casualties and mortalities
- Habitats and archaeological features

Medium - long term (chronic) effects of pollutant.

- Direct and indirect, effects of pollutant on:
    - human health
    - marine and coastal wildlife communities, species and habitats
    - fisheries
- Levels of pollutant contamination in human population, biota (external / internal / tissue) and sediments

Effects of clean-up / response

- Direct and indirect, effects of response actions on:
    - marine and coastal communities, species and habitats
    - fisheries
    - landscape

- archaeological features

Shoreline clean-up response data from the SCG/TCG should be supplemented wherever possible by EG shore 'monitors'.

Animal welfare action

Detailed records of:

- all wildlife taken for cleaning and rehabilitation
- action taken
- survival rates in captivity
- release dates and locations
- ringing or marking of wildlife prior to release
- post-release survival success

Fate and behaviour of pollutant

- Pollutant distribution and behaviour information supplied by the MCA during the early stage of an incident should be supplemented wherever possible with an environmental overview of the incident.
- The requirement for long-term, or very precise, fate and behaviour of pollutant information for impact assessment purposes may exceed that which is necessary to inform response action. In these circumstances, the EG may need to make the necessary arrangements to ensure these data are collected.

C5 CONTINGENCY PLANNING

C5.1 National level

The following issues need to be addressed across the core agencies at either a UK or a devolved administration / country level:

- review, set and maintain sampling & data recording and analytical protocols and QC standards (national);
- establish and maintain coordination between core agencies; common data requirements, data sharing, integration of data collection effort (national & country)
- establish and maintain protocol to ensure the timely provision of fate and behaviour of pollutant data (national)
- integration with existing procedures to assess impacts of major environmental accidents on human health
- prepare and maintain broadscale baseline environmental resource database (national & country)
- prepare and maintain broadscale sensitivity atlases on GIS (national & country)
- identify resource requirements; maintain liaison between agency parent bodies and relevant central government administration
- establish and maintain coordination between core agencies and potential supporting agencies and organisations with respect to supporting roles, such as major NGOs (national & country)
- provision of relevant health and safety standards and advice (national & country)
- establish and maintain necessary administrative procedures; e.g. for individual project contracting and management (country)
- develop generic task descriptions for major roles

In addressing the above, the variation in local environmental priorities and sensitivities must be recognised. National agreements and standards should support rather than prescribe and circumscribe contingency plans developed by regional EG's.

C5.2 Local / regional level

Planning for impact assessment will be an integral part of the contingency planning carried out by standing EG's. Plans should include:

- composition of and provision to establish an incident specific impact assessment sub-group
- identification of key regional issues, priorities and tasks
- provision for liaison and coordination between core agencies, and with parent bodies with respect to national issues
- provision to ensure a continuous, two-way, flow of information and data sharing between the impact assessment sub-group and those responsible for providing health and environmental advice to response units and the parent agencies
- provision to liaise with wider membership and relevant support agencies

- preparation of local / regional environmental baseline resource database / GIS
- identification of roles and development of task descriptions
- identification of identified role holders and deputies
- training and briefing requirements for identified role holders
- H&S requirements and risk assessments for role holders

Plans must recognise the likely medium to long term effects of pollution incidents, and the consequential long time scales of later response phases and of impact assessment. Impact assessment is likely to continue well beyond cessation of clean-up response.

Plans must also anticipate the need:

- to maintain long term group structure until all agencies agree environmental interest in response is over and impact assessment is concluded
- for significant medium to long term resource requirements, particularly staff time

C5.3 Liaison and coordination

The scope of impact assessment is potentially very wide. Although the core agencies have different responsibilities, they share many common information requirements. There are enormous opportunities for confusion, overlap and duplication of effort. In addition to addressing the avoidance of these problems through planning, formal Memoranda of Understanding between agencies and organisations may be appropriate; for example, between core agencies with respect to the national issues, core agencies and national or local NGOs with respect to the roles and tasks they would be prepared to commit themselves to.

Within the EG there needs to be continuous, two-way, flow of information between those providing environmental advice to the response units and the impact assessment sub-group.

C6 INCIDENT SPECIFIC PLANNING

The primary responsibilities of an impact assessment sub-group established during a pollution incident will be to develop an incident specific impact assessment strategy, and to *organise and coordinate* impact assessment rather than necessarily being the participating individuals.

C6.1 Membership

Impact Assessment sub-group plus:

- Central Government / devolved administration scientists
- health specialists
- local government environment specialists
- RSPCA, SSPCA, USPCA (depending on area)

An incident specific impact assessment strategy sub-group will be dependent on the preparative planning and baseline data assembled by both national and regional planning groups. Continuity of membership with these groups is advantageous.

C6.2 Tasks

The sub-group should:

- develop strategy to meet pre-identified key regional issues, priorities and tasks in the context of the specific incident
- initiate the prompt and effective collection of field data as planned and as appropriate to the incident
- identify shortfalls in the strategically planned assessment
- identify resource requirements
- contribute data to support response advice operational collection as required

It should achieve this through:

- direction of field data gathering resources
- liaison with core EG - input from the EG will be vital in informing strategic requirements
- liaison with parent organisations and devolved administrations

The sub-group should also contribute, via the core EG, to the provision of information for the media.

C6.3 Issues

Issues which will need to be addressed at an early stage will include:

- areas affected by the pollutant, and predicted to be contaminated in the future
- areas that have been, are being, or will be cleaned, the cleaning methods and the prevailing levels of contamination, and areas which should be left uncleaned (either as control sites or to self-clean)
- concentrations of pollutant in water, sediments and biota
- mortalities and morbidities of birds, fish, crustaceans, molluscs, marine mammals and other species
- background data on pollutant concentrations and affected species
- plans for monitoring longer term effects and recovery
- the scope to co-locate studies to ensure that the ranges of pollutant contamination, shoreline type and treatment will be covered
- shortfalls in coverage of the affected area and types of impact assessment
- resources available to implement planned assessment

C6.4 Technical issues

Impact assessment contingency planning should consider:

- Resource constraints
    - availability of competent technical specialists
    - competing demands on core agency staff with relevant local knowledge
    - regional and local variation in quality and quantity of baseline environmental resource information available (see A3.6.3)

- Common standards
    - health and safety requirements for fieldworkers
    - data recording protocols & storage formats (standard forms; standard electronic formats, position precision and map datum's to ensure rapid and efficient information & data sharing)
    - data quality control standards

APPENDIX D - DATA

D1 INTRODUCTION

Any incident that results in pollutant or chemical pollution at sea will generate an immediate requirement for a range of reliable data collected before, during and after the incident.

Data will be required by the Environment Group to:

- enable risk assessment of implications for human health and environmental damage likely to result from pollution and / or response and clean-up operations, to be carried out to inform advice on response strategies
- enable the best possible advice to be provided to the response units, and hence obtain maximum environmental benefit from the response operations
- enable individual statutory agencies within the EG to fulfil their obligations in relation to the incident
- provide accurate, real-time information on any public health and environmental impacts of an incident to politicians, the media and the general public
- enable any short, medium and long-term impacts of a pollution incident to be described, quantified and evaluated

D2 DATA REQUIREMENTS

D2.1 EVOLUTION OF DATA REQUIREMENTS

Data requirements during and after an incident resulting in marine pollution are likely to evolve from the early to later stages of the incident, depending on the scale of the incident, the nature of the pollutant, the response operations and scale of impact assessment.

The immediate and urgent tasks at the start of an incident are, in order of priority:

- determination of human population at risk
- real-time 'stock assessments' of environment and wildlife threatened by contamination
- (re)establishment of data baselines to inform later impact assessment (requirements should be identified in planning stage)
- collection of data on immediate acute impacts on health and wildlife

The work of field data collectors will evolve as the incident progresses and may rapidly become impact assessment only. Collection of data in support of impact assessment of the chronic health effects, subtidal and water column, and intertidal sediment and biota must be anticipated as lasting for a significantly longer period than the at-sea and shoreline operational responses respectively.

D2.2 TYPES OF DATA

Data requirements are likely to fall into the following broad categories:

- pre-incident baseline data
- data required for operational purposes (including: fate and behaviour of pollutant, risk assessment, provision of environmental advice, monitoring progress of the incident and of response / clean-up operations)
- data on the effects of the incident. Although primarily required for impact assessment in the short, medium and long-term (human health and natural environment), these data also provides vital feedback to operational advice

D2.2.1 PRE-INCIDENT BASELINE DATA

Consideration should be given to the collation of the following physical, biological and environmental health information:

Human health

- Population distribution and potential exposure to pollutant (including aerosols)
- epidemiology

Will require advice from a health specialist.

Physical environment

- tides, currents, inshore bathymetry
- geomorphology and topography of shorelines, coastal hinterland and nearshore seabed.

Conservation designations

- international and national nature conservation designations (including: SAC, SPA, Ramsar, Biosphere reserve, MNR, NNR, SSSI, ASSI, GCR etc)
- National Parks, Regional Parks
- Scheduled Ancient Monuments
- local conservation and other designations (AONB, RIGs, LNR, Heritage Coast,)
- other sites of nature conservation or cultural importance / sensitivity

Geological features

- Geological Conservation Review (GCR) sites boundaries, priority areas and any associated images and data.
- Regionally Important Geological Sites (RIGS) – boundaries, priority areas and any associated images and data.
- Contact data for involving appropriate geological expertise
- All available shore profile data

Biological information:

Distribution, size and seasonal variations in populations of:

- marine mammals (cetaceans, seals) & otters
- birds (seabirds, seaduck, wetland birds {wildfowl and waders})
- herptiles (marine turtles)
- fish
- shellfish and other marine invertebrates
- flora (eelgrass, algae, saltmarsh plants)
- potentially vulnerable terrestrial flora (including lichens) and fauna

Human and ecological food chains:

- livestock distribution & potential exposure to pollutant (including aerosols)
- fisheries

Habitats

- Distribution of major intertidal and nearshore subtidal rock & sediment habitats (N.B.: inaccessible shores as well as beaches).
- Distribution of major coastal and terrestrial habitats on backshore and in coastal hinterland (e.g. dunes, saltmarsh, cliffs)

Archaeology

- Coastal, intertidal and subtidal structures of national and local archaeological and historical importance (e.g. wrecks, sunken forests, harbour / quay walls, lime kilns, iron age forts, burial chambers) also fossils such as dinosaur footprints?

Cultural features

- Historic landscapes, listed buildings

Pollutant benchmarks

- Background data on contaminant levels and variation in sediment, water, air, soil, biota (fish, shellfish, avian, mammal, terrestrial vegetation)

Background information

In addition to specific datasets, a range of background information will be of potential value to the Environment Group**.**

- generic technical information
  - potential effects of different pollutants
  - response techniques and their physical and chemical effects
  - oil and chemical hazard data sheets
- sensitivity of environmental features
  - synthesised site specific assessments and predicted effects of pollutants and response / clean-up techniques on environmental features based on generic information and previous local & / or other relevant experience to support NEBA
- response contingency planning
  - access, booming, temporary waste holding etc
- legal information

- legal requirements and obligations (e.g. FEPA, fisheries closure orders, consultation requirements for dispersant use within marine SACs, MNRs)

D2.2.2 OPERATIONAL DATA REQUIREMENTS

Prevailing physical conditions

- weather and sea conditions
- specific tidal flow information

Fate & behaviour of pollutant

The following data are essential to the determination of operational advice and impact assessment by the EG:

- the type & properties, position, extent, amount, condition and behaviour of pollutant at sea in real time
- actual and predicted future track of pollutant at sea over time
- areas of shoreline polluted and predicted as likely to become polluted and the predicted timings
- actual and predicted distribution and concentration of airborne pollutant and aerosols
- position, extent, amount, condition, behaviour and evolution of pollutant on shore

Wildlife resource

Compilation of baseline data should identify most resources. However, part of that resource may be mobile or seasonal. Also baseline data may be sparse or not recent. Therefore, real-time 'stock' and risk assessments of wildlife and environmental features potentially at risk of impact may be necessary to support the provision of operational advice. Where necessary and when time permits, establishment of additional baseline data for locations threatened by pollution may be valuable to support later impact assessment.

Depending on local circumstances, the highest priorities for real time wildlife stock assessments are likely to include marine mammals, seabirds, seaduck at sea, and waders and wildfowl in estuaries and on the open coast.

Response to salvage and pollution

Timely information on salvage and response options and plans, and their predicted outcome, from the SCU, MRC, OCU and / or SCG/TCG as appropriate is vital to enable the best possible advice to be provided to the response units by the EG / ELO's.

Prompt feedback on the efficacy and outcome of response actions taken is also vital.

D2.2.3 DATA ON THE EFFECTS OF POLLUTION INCIDENT

Wildlife casualties

After human health, the greatest public and political demand for information will be the immediate, acute, effects of the incident on wildlife, especially bird and mammal casualties. The same information will also be vital for impact assessment.

Fish, shellfish and other human foodstuffs

Data will be urgently required to ensure the safety of any species used as human food which may be liable to contamination by the pollutant. In addition to the clearly obvious fish and shellfish, this may include species of seaweed or other intertidal plants, and agricultural livestock in the proximity of contaminated shorelines or downwind of and exposed to pollutant aerosols.

Biological and habitat contamination and effects / impacts / mortalities

Data on the contamination of subtidal, intertidal and terrestrial habitats and their associated animals and plants will be required to enable:

- preplanned identification of environmental priorities for response or cleaning
- preplanned identification of environmental features requiring safeguard from inappropriate response and cleaning
- quantification and assessment of ecological impacts of incident, including human and non-human food chain effects

Although feedback from response units will provide a broad description of the contamination, it should be anticipated that, depending on local circumstances, specific data will also be required from an

environmental perspective. The requirement for this data to inform impact assessment will almost certainly have a longer time scale than the response.

Although the specific purpose of SCAT is to provide shoreline clean-up assessments to an SCG/TCG, the information they generate will also be required for impact assessment.

'Secondary' effects on wildlife and habitats arising from operational response
Data on the effects of response and cleaning actions on subtidal, intertidal and terrestrial habitats and their associated animals and plants will be required to enable:

- reassessment and refinement of EG advice
- determination of when agreed end points for clean-up response have been met
- quantification and assessment of human health and ecological impacts of the response (including effects on human and non-human food chains)

The requirement for these data to inform impact assessment will almost certainly have a longer time scale than the response.

Effects of pollutant and subsequent response on geology, geomorphology, archaeology and cultural artefacts
Data on the contamination, effects of contamination and the effects of response and cleaning actions will be required to enable:

- identification of environmental priorities for response and advice on appropriate response
- identification of features requiring safeguard from inappropriate response and cleaning
- quantification and assessment of impacts of an incident

Specific data to support impact assessment
Assessment of the impact of a pollution incident will depend on the comprehensiveness and quality of the data listed above. Assessment will also depend on medium to long term monitoring of:

- pollutant contamination of water column, subtidal & intertidal sediment and biota**,** including species in human and marine food chains
- lethal and sublethal effects on species of ecological importance
- specific data reflecting local circumstances may be necessary; as far as possible, the scope of these data requirements should be identified in local EG contingency plans

D2.3 MANAGEMENT OF DATA

D2.3.1 OPERATIONAL DATA SOURCES

Operational data acquired by the EG will fall into three broad categories:

- data supplied by the MCA and response units
- data collected by EG member bodies, support organisations or contractors
- unsolicited data and information from the general public

D2.3.2 MANAGEMENT OF DATA COLLECTION BY ENVIRONMENT GROUP

It is essential that the collection of data be carefully integrated within and between statutory agencies to minimise overlap, duplication of field effort and missing events and information. This integration is a vital part of contingency planning at both local and national scales.

APPENDIX E - COMMUNICATIONS

E1 Communication links

Environment Group contingency plans should include planning for good communications. Communication systems must be rapidly put into place and activated, in order to facilitate the efficient flow of information on all aspects of the incident that concerns the Environment Group, from the very beginning. Caution should be exercised, to avoid the appointment of too many individuals with liaison-only functions: direct links between key players will increase efficiency and understanding within the Environment Group and between the group and response centres, parent organisations and others.

In a marine pollution incident, the main communications links are likely to be:

- between the Environment Group members and between "components" of the Group (e.g. core Environment Group; wider Environment Group; Impact Assessment Group; support group) and response units (SCU, MRC, OCU, SCG/TCG, port or harbour Command and Control Centre) via ELO's
- between Environment Group members and their parent organisations (to ensure that there is common understanding and consensus between the group and "parent" organisations)
- between the Environment Group and organisations carrying our surveys of affected areas to ensure accurate recording of wildlife casualties
- between the Environment Group and field workers, including SCAT members, consultants and contractors working to or on behalf of the group (debriefing/briefing; collation of field data; project management)
- between the Environment Group, the media centre and (where appropriate) other media links

E1.2 Planning for good communications

Environment Group contingency plans should:

- clearly identify communications roles and responsibilities, and identify direct communications links between, the Chair and deputy Chair and the ELO's/deputy ELO's.
- clearly identify members (in addition to the Chair, ELO's and their deputies) who would have a key role to play in communications within and beyond the Environment Group. Their roles, tasks and who they should communicate with and report to should be made clear.
- include alert procedures and identify who will be responsible for alerting members of the group. Contact lists (to include office and out-of-hours contact details) should be compiled and kept up-to-date.
- include an agreed protocol for record-keeping throughout the incident: all communications made within the group, and between the group and response units and other external individuals and organisations should be recorded. It is vital that logs are kept of the following:
    - all telephone calls made and received;
    - all faxes sent and received;
    - all e-mails sent and received.
- Identify the facilities required for effective communication. The scale of technical and administrative resources needed in a major incident should not be underestimated. Consideration should be given to the following:
    - assessment of existing telephone and fax lines in rooms identified for use by the Environment Group. Plans for installing additional telephone and fax lines should be drawn up if the existing facilities are considered to be inadequate. (Note: where possible, land lines should be used for calls so that logging systems are not by-passed).
    - dedicated, unlisted lines should be made available for ELO's in response units and the Chair/deputy Chair of the group.
    - provision of (or access to) teleconferencing facilities;
    - provision of e-mail facilities;
    - provision of administrative support, including access to photocopying facilities.
- Identify areas where reception on mobile phones is poor and investigate alternative means of communication e.g. VHF radio links, to ensure efficient communications between the group and people working in the field on its behalf.

APPENDIX F - RECORD KEEPING

F1 Introduction

It is essential that during any counter pollution operation all those involved keep records of what was done, when and why, to provide an audit trail. There will inevitably be pressure, frequently severe, to deal with new issues and problems and to relegate record keeping to a lesser priority. However, the importance of contemporary records cannot be over-emphasised. It is simply not realistic to rely on memory to reconstruct events in a fast moving and possibly lengthy incident. Responders must therefore arrange to keep adequate contemporary records which can be used to re-construct the incident at a later date when it may be necessary to fully justify advice provided by the EG or to recover costs (see Appendix K).

F1.2 Records

The precise form of records will vary according to circumstances. There are two principal points to keep in mind:

- records may have to serve a variety of purposes and are the source material from which much information will be drawn
- since responders cannot predict every purpose that records will serve in advance, record keeping should err on the side of too much rather than too little detail.

As a minimum, records should clearly show the information received, orders given, and any action taken as well as date and time details.

An EG should keep records of the following during the course of a maritime pollution incident:

- incoming and outgoing telephone calls
- faxes received and sent
- email messages received and sent
- text messages received and sent
- radio messages received and sent
- photographs/ video taken or received
- copies of all HMCG pollution reports received
- minutes of meetings of the EG and its component sub-groups
- records of decisions taken by the EG
- records of advice provided to response units and action taken in response to the advice provided
- records of all costs incurred by the Group
- copies of all relevant press releases
- media reports (including video-recordings of TV news coverage)

F1.3 Incident Log

The EG should maintain an incident log which should include timely reports on the condition of the casualty, nature of pollution and rate of discharge, location and behaviour of pollutant, action by response units etc, since this information will be a major factor in determining the advice provided to response Groups and in impact assessment planning. Charts should be maintained to record the extent of pollution and any response activity and copies should be taken at regular intervals to ensure there is a visual record of how the incident progressed.

F1.4 Recording decisions taken by the group

The EG should maintain a record of decisions made by the Group including:

- the views of individual Group members
- resolution of conflicting views
- accurate minutes of all EG meetings
- options/strategies considered

F1.5 Environmental advice provided to response units

The development and agreement of the EG views should be concisely and accurately recorded in writing. Records of how EG advice was received and acted upon by response units must be maintained.

In the case of a request for dispersant use, written notification will be provided to the marine response centre (MRC), copied to the EG, either authorising or declining the request to use dispersants. Written approval may include conditions associated with that approval, and where the request has been declined, the reasons why it is considered that dispersants should not be used.

ELO's should keep specific records of:

- advice provided to response units and how that advice was received and acted upon,
- requests for information made by response units, how the information was provided and when
- requests for information made to the core EG on behalf of response units.

F1.6 Financial Records

Although the EG will not itself incur expenditure, its membership will do so and any collaborative EG activities likely to incur expense must be recorded. Records will be used to corroborate claims for reasonable expenditure.

Detailed financial records must be kept of:

- manpower (staff grades, rates of pay, time worked, location, work activity)
- resource costs (equipment, charge out rates, IT costs, communications)
- expenses incurred by EG members
- externally placed contract costs (specialist surveys, secretariat)

For the purpose of:

- cost recovery (see Appendix K)
- financial audit trail
- support of archive records
- official reports on spending by the public and private sector.

Comprehensive documentation and record keeping will assist the prompt preparation and payment of claims for compensation for expenditure incurred by EG members. As with any operation involving the expenditure of large sums of money, the usual rules of proprietary, accountability and the need for an audit trail apply.

F1.7 Record collation and archiving/ storage/ disposal

All EG records must be properly collated archived and stored. Procedures, responsibilities and archive location should be identified during standing EG planning.

APPENDIX G - WILDLIFE WELFARE

G1 Management of Wildlife Welfare

In the event that wildlife is affected by a pollution incident there will be public expectation and demand for action to take contaminated animals into captivity for cleaning and rehabilitation. It is imperative that actions taken in pursuit of wildlife welfare be:

- compatible with wider environmental safeguard requirements;
- minimise any risk of increasing impacts on uncontaminated or low risk wildlife;
- compatible with wildlife conservation.

The lead agencies for wildlife welfare action and management will be the RSPCA (England & Wales) SSPCA (Scotland) and USPCA (Northern Ireland) except where special local arrangements are in place (e.g. Shetland). These organisations have well developed and high standards for capture, cleaning and rehabilitation. It is important that the EG direct the welfare efforts of third-parties toward the recognised welfare bodies to ensure the maximum benefit for wildlife conservation.
The Royal Society for the Protection of Birds (RSPB) will be involved in coordination of response to oiled wildlife.

G2 Marking and Release of Rehabilitated Wildlife

G2.1 Birds

- It is vital that numbers of all birds taken in by rehabilitation centres are recorded and their fate logged through the initial holding and eventual cleaning and release process.
- It is vital that rehabilitated and released birds are ringed (with detailed records kept of their condition and ringing information) so that if they are subsequently found, they will not be attributed to a new pollution incident. This is also essential for increasing our understanding of the effectiveness of the rehabilitation process and the success of different methods of rehabilitation.
- The RSPCA should consider advice from the EG (or statutory nature conservation agency if no EG is established) over the release of cleaned birds to be rehabilitated. Release locations should be in areas where the risk is minimal, and where there are suitable food supplies nearby.

G2.2 Marine mammals

- Agreed criteria and protocols for tagging / marking and release of rehabilitated marine mammals must be followed.
- Animals must be released in the areas from which they were taken if possible, or elsewhere with advice from the EG (or statutory nature conservation agency if no EG is established) with advice from the Sea Mammal Research Unit.

APPENDIX H - CHECK LIST FOR REAL TIME RESPONSE

ENVIRONMENT GROUP
E.G. CHAIR GENERIC & BASIC ACTION CHECKLIST FOR MARITIME POLLUTION INCIDENTS

Incident	**Date**

On receipt of confirmed alert of incident requiring establishment of an Environment Group:		
ACTION		**Date / time completed**
1	**Establish & keep a log**	
2	**Obtain comprehensive briefing from MCA – see *ESSENTIAL INFORMATION CHECKLIST***	
3	**Determine scale of incident: does EG need to be convened?** **YES – go to A** **NO – go to B**	
A	**INCIDENT REQUIRES EG TO BE CONVENED**	
A1	**Establish contact with core EG members** - **brief / receive briefing** - **agree initial advice to MCA / response units** - **agree nominations for ELO's** - **agree location of EG** - **agree time to convene**	
A2	**Alert, brief and mobilise ELO's** - **SCU** - **OCU** - **MRC** - **SCG/TCG**	
A3	**Provide initial advice to MCA / response units**	
A4	**Ensure alert of all relevant bodies and individuals is initiated – Each SEG should have prepared a NOTIFICATION CHECKLIST including all organisations who may be required in an incident.**	
A5	**Mobilise basic admin support**	
A6	**Relocate to EG location at agreed time**	
A7	**Obtain updated briefing from MCA or other key source of information**	
A8	**Establish & maintain direct communications with ELO's**	
A9	**Convene meeting of core EG – see *GENERIC FIRST MEETING AGENDA***	
A10	**Provide comprehensive briefing, via ELO's, on health and environmental priorities and advice to response units.**	
A11	**Ensure all other identified & agreed tasks are actioned.**	
A12	**Ensure all essential EG information requirements are identified.**	
A13	**Ensure all essential information and data acquisition to inform operational advice is actioned.**	
A14	**Ensure an Impact Assessment process appropriate to the scale and potential effect of the incident is initiated.**	
A15	**Ensure further alert and mobilisation of additional staff and resources continue as required.**	
A16	**Ensure nominated and additional deputies / substitutes for EG key & support roles are notified and alerted in good time.**	

A17	**Ensure establishment and mobilisation of necessary health and scientific personnel**	
A18	**Obtain regular briefings from MCA & ELO's**	
A19	**Give regular briefings to EG and room-briefs to support staff**	
A20	**Maintain close liaison with Impact Assessment Coordinator.**	
A21	**Ensure Health & Safety procedures for fieldworkers are implemented and managed**	
B	**INCIDENT DOES NOT REQUIRE EG TO BE CONVENED**	
B1	**Establish contact with core EG members and other key organisations relevant to incident.** - **brief / receive briefing** **use *ESSENTIAL INFORMATION CHECKLIST*** - **agree initial advice to MCA / response units** - **agree procedure in the event that incident escalates.**	
B2	**Provide initial advice to MCA / response units.**	
B3	**Ensure alert of all relevant bodies and individuals is initiated – see *NOTIFICATION CHECKLIST.***	
B4	**Establish and maintain routine exchange of information with MCA or appropriate response unit(s).**	
B5	**Consider transferring Chair to more relevant lead body if appropriate**	
B6	**Establish and maintain routine exchange of information with key EG members relevant to incident.**	
B7	**Provide comprehensive briefing on health and environmental priorities and advice to response unit(s).**	
B8	**Revise and update advice to MCA or appropriate response unit(s) as appropriate.**	
B9	**Stand by to increase alert and mobilisation of key personnel in the event that incident escalates.**	

APPENDIX I - GENERIC FIRST MEETING AGENDA

1. Introductions

    1.1. Personnel

    1.2. EG accommodation – domestics / H&S issues

2. Incident briefing – *use ESSENTIAL INFORMATION CHECKLIST*

3. Key roles

    3.1. Allocation of key roles & confirmation of role holders

    3.2. Briefing to EG on identities and locations of ELO's

4. Identification & analysis of immediate risks and threats

    4.1. Identification of public health risks

    4.2. Identification of immediate environmental threats

    4.3. Identification of immediate information requirements

    - fate & behaviour of pollutant
    - environmental resources at risk (habitats, species etc.)
    - immediate operational advice requirements
    - immediate impact assessment requirements

    4.4. Identification of health and environmental priorities and initial advice to response units.

    4.5. Identification of immediate tasks & allocation of tasks

    4.6. Identification of further personnel and resources required

5. Establish timetable for Group briefings / meetings and standing agenda items

6. Establish communications protocol

7. Establish working procedure

APPENDIX J - CHECKLIST OF ESSENTIAL INFORMATION

ENVIRONMENT GROUP CHECKLIST OF ESSENTIAL INFORMATION TO BE OBTAINED DURING INITIAL ALERT FOR MARITIME POLLUTION INCIDENTS

Incident	**Date**

Questions to MCA or notifying organisation:	
What is the nature of the incident?	
What is the pollutant? • **specific name** • **composition**	
What is the scale of pollution?	
What is the exact location of the incident?	
What time did the incident occur?	
What is the current extent of the pollution? • **aerial** • **at sea** • **on shore**	
Is there a known risk to human health?	
What is the risk of further pollution?	
What is the risk of the casualty / source of pollution moving elsewhere?	
What response action has been taken?	
What response action is planned?	
Who has been notified? **- record on *NOTIFICATION CHECKLIST***	
What is the potential risk to the environment – habitats, species, fisheries etc.?	
Request copies of chemical / hazard data sheets for pollutant and all other potential pollutants which may be released following incident.	

APPENDIX K - COST RECOVERY AND RECORD KEEPING

This appendix contains information on how those who respond to, or are affected by, marine pollution incidents should best go about recovering the costs that they incur regardless of source.

It is essential that during any counter pollution or salvage operation all those involved keep records of what they did, when and why they did it and what resources they used. There is often pressure to neglect record keeping in order to deal with new issues and problems. However, the importance of records cannot be over emphasised. It is simply not realistic to rely on memory to reconstruct events in a fast moving and possibly lengthy incident. Responders must therefore arrange to keep adequate records.

Joint Claims

For smaller incidents the MCA are prepared to lead on cost recovery action across the public sector and specifically for bodies identified in this NCP. However, it is still necessary for claimants to follow the advice provided in this document. The decision for the MCA to lead is taken on a case by case basis and subject to agreement by all parties at the time.

The MCA's extensive experience in claims suggests the following items of best practice:

- any expense must actually have been incurred and third party invoices provided;
- response measures must be reasonable, proportionate and justifiable;
- there needs to be a summary of events – a description and justification of the work carried out at sea, in coastal waters and on shore – together with an explanation of why the various working methods were selected;
- for chartered vessels, investigate the rates quoted and look at the SCOPIC tariff rates;
- apply the industry standard of 100% of hire rate for in-use and 50% rate for stand-by;
- ensure MCA's contractors, or local authorities acting on behalf of the Agency, apply the MCA policy for equipment hire charges when acting on behalf of MCA in response to an incident;
- keep a record of the dates on which work was carried out at each site; in this context, date and time stamped photographs are extremely useful;
- keep a record of the number and categories of response personnel, regular or overtime rates of pay and who is paying them;
- keep a record of the travel, accommodation and living costs for response personnel;
- keep a record of the equipment costs for each site: types of equipment used, rate of hire or costs of purchase (bearing in mind residual values to be deducted), quantity used, period of use (in use or standby);
- ensure that any damaged equipment is photographed and assessed by an independent body prior to repair or replacement;
- during cleaning or restoration of equipment or vessels, they should not be brought to a state better than at the commencement of the hire/charter;
- keep a record of materials consumed in the response, for example, sorbent and dispersant;
- keep a record of the cost of temporary storage, transport, treatment and disposal of waste; and
- keep a record of any other incident specific cost relating to the response in any way, e.g. oil analysis, reinstatement, impact assessments, etc.

Record keeping

For the purpose of financial record keeping, it is essential to appoint a financial controller at a very early stage in the incident to keep adequate records and control expenditure. Responders should not discard any relevant document (including status board information and maps used). All data should be backed up and catalogued on a regular basis – at least daily.

It is not possible to specify the precise form of records, this varies with the circumstances. However, there are two points to keep in mind:

- records of any incident act as the source material for many incident related purposes; and
- since responders cannot know the particular purpose that records will serve in advance, record keeping should err on the side of too much rather than too little detail.

The record should clearly show information received, decisions taken, orders given, and action taken. For example, responders may use aircraft for reconnaissance. In this case, there should be a record not only of when they called the aircraft out but of take-off times, landing times, details of any oil found, the area searched, who was on board the aircraft, who received the information and when. For dispersant spraying operations, records should specify the area of operations and indicate the duration of spraying, the amount, type, age, and efficacy of dispersant used, and the results obtained.

As a further indication of the level of records required one example would be for the hiring-in of an item of equipment, the hirer should seek to clarify the following items:

- member of staff that authorised and placed the order;
- the reason for hiring the equipment;
- date and time item actually hired;
- organisation hired from;
- evidence of any research relating to cost of hire
- quantity of each item actually hired;
- for larger pieces of equipment (particularly chartered vessels) it would be useful to take photographs of the condition of the item prior to use for response activities;
- if more than one item of any type is hired, devise a system for unique identification;
- how it was delivered / transported;
- where it was actually delivered to;
- who took delivery;
- a daily activity record of what the item was used for, including the location of use;
- if item is damaged – photograph damage;
- brief description of how the damage occurred;
- do not repair until approval or advice has been reached with an insurance representative on site (i.e. the SCR or a surveyor appointed by the insurers);
- dates actually used for the response;
- dates the item was on standby at the scene of the incident;
- date off-hired;
- condition of the item when returned to owner; and
- no betterment of equipment on return to owners.

Record keeping requires a heavy commitment in terms of minute takers, message takers, procurement specialists and financial experts. There are specialist firms that offer tracking and recording services for clean up operations and the appointment of such a firm may be justifiable following a major spill from an oil tanker. In such a case it should be possible to recover the cost of using such firms, or temporary agency staff, from the shipowner, insurer and/or the IOPC Fund.

It is important to record decisions and the opinions of all the parties involved in addition to agreements or points of disagreement. This applies equally to ITOPF who report to ship owners, P&I Clubs and the IOPC Fund and are likely to offer advice to all parties involved in the response on counter pollution operations. It applies also to others such as cargo owners, local authorities and the Environment Group. The records should show whether they agree or express no opinion. If they disagree, the records should identify the reasons, if possible. Records should distinguish criticism made at the time of an incident from criticism made with the benefit of hindsight.

Like any operation involving the expenditure of large sums of money, the usual rules of proprietary, accountability and the need for a fully detailed audit trail apply.

Time limits for claims arising from pollution from tankers

Claimants should aim to produce their claim at the earliest opportunity – if need be in draft form initially. Claimants should be aware that there are time limits for claims under the 1992 Civil Liability Convention, the Fund Convention and the 2001 Bunkers Convention. The conventions provide that claimants must secure their claims by taking legal action against the shipowners within three years of the date on which loss or damage occurred and in any case within six years of the date of the incident.

Wherever possible, claimants should seek to have their claims settled within these periods. If this is not possible, claimants may protect their claims by taking legal action against the tanker owner, the owner's insurer and the IOPC Fund. Should this be necessary, claimants should seek legal advice.

Formal legal action to enforce a claim is usually the last resort. In most cases, informal negotiations result in a settlement. Given the time limits for legal enforcement of claims, it is in everybody's interest for claimants to submit claims as soon as possible after the incident. Often, considerable time is required to compile a claim and all the substantiating evidence. If claimants anticipate delays, they should notify the tanker owner's insurers and the IOPC Fund at an early date of the intention to submit a claim at a later stage.

Time limits for claims arising from pollution by persistent oil carried in ships other than tankers
Again, claimants should aim to produce their claim at the earliest opportunity as there are time limits for claims under the 2001 Bunker Convention. Claimants must secure their claims by taking legal action against the shipowners within three years of the date on which the loss or damage occurred and in any case within six years of the date of the incident. Where the incident consists of a series of occurrences, the six-years' period shall run from the date of the first such occurrence.

Submitting a claim
Claimants should initially submit claims for clean up costs to the ship owner and/or to the relevant P&I Club. If claimants have any difficulty obtaining this information, they should seek advice from MCA's CPS Branch (telephone 0203 817 2482 or DfT's Maritime Safety and Environment Division (telephone: 0207 944 5452).

The P&I Clubs do not publish formal guidance on their requirements for submitting claims, but the guidance in this appendix and the IOPC Fund's claims manual should generally be appropriate. Claimants may also find the EU Claims Management Guidelines useful. This document can be accessed here:
http://emsa.europa.eu/publications/guidelines-manuals-and-inventories/download/2145/720/23.html

Where relevant the IOPC Fund co-operates closely with the relevant P&I Club in assessing and settling claims. In an incident involving the IOPC Fund, claimants should submit full supporting documentation to the tanker owner, the P&I Club or the IOPC Fund. Claimants should notify the IOPC Fund of any claim they have submitted to the owner or P&I Club.

When an incident gives rise to a large number of claims, the P&I Club and the IOPC Fund may jointly set up a local claims office to process claims more easily. If such a claims office is established at the scene of an incident, claimants should submit their claims to that office. The local press should carry details of how to submit claims. The designated surveyor and the joint claims office refer claims to the P&I Club and to the IOPC Fund for decisions on their admissibility.

The IOPC Fund Claims manual can be accessed at http://www.iopcfund.org/publications.htm

PROCEDURE IN OTHER CASES – NON TANKERS
Most of the above guidance is just as relevant to claims for compensation arising from all types of marine pollution. However, as the liability and compensation arrangements in such cases are different, such as time limits and requirements for evidence, the claims procedures are likely to vary. Claimants should therefore seek early guidance from the polluter (ship owner or operator) or the relevant insurer, as well as from their own legal advisers.

GENERAL – ALL CLAIMS
Claims should be in writing and must contain the following particulars:
- the name and address of the claimant, and of any representative;
- the identity of the ship or offshore installation involved in the incident;
- the date, place and specific details of the incident if known;
- the type of pollution damage sustained
- the nature of the operations, or response measures, for which the claimant is seeking compensation; and
- the amount of compensation sought.

Supporting documentation should link all the expenses (including disposal) to the actions taken at specific sites (see Figure K1 – Example of Cost Recovery Claim Record).

FINANCIAL SECURITY
When an incident occurs, the accident and all details available, are given promptly to the insurers and owners of the casualty. The MCA Resource and Claims Manager informs the insurer at this early stage that the MCA's intention is to make a claim and requests financial security for the money that the MCA is committing. From experience, this is generally achieved verbally by telephone from the scene of an incident. If it is subsequently found that the financial security requested was inappropriate or unnecessary, the security would be returned to the insurer, i.e. Bunkers Convention or Civil Liability Convention applies.

This financial security can take several forms but in most cases is a Protection and Indemnity (P&I) insurer's Letter of Undertaking (LOU). The wording of this Letter needs to be amended according to the type of charter / ownership of the vessel and legal advice should be sought if necessary. This document makes the MCA's position clear to the insurers and shipowners. If the MCA are not provided with financial security during the incident, as a last resort, legal action would be taken to underwrite the financial exposure by arrest of the casualty or freezing of the hull assets. In certain circumstances it is also possible that a harbour authority or similar body involved in an incident may request an LOU.

Two possible forms of financial security are a Letter of Undertaking and a Bank Draft, each of which require an amount of money to be included in the document. The MCA estimates a figure based on previous incidents, the estimated length of response and a figure for refurbishment and return of resources to the appropriate site. Generally, at this stage an uplift is included in the level of financial security requested from the P&I for unforeseen costs. Most P&I personnel are experienced and are well aware that the estimation of costs at this stage is not an exact science but it helps later settlement discussions if the figure given here is as close as possible to the quantum of the final claim.

This procedure is followed as a matter of routine for MCA personnel for incidents that fall outside the scope of application of the Civil Liability Convention as they are adequately covered by International Conventions. Depending on the provider of the financial security, the preferred form of security might be a bank draft.

The LOU also clarifies the jurisdiction for any subsequent legal action to recover costs, and the MCA's preference for any such action would be the UK.

When the MCA response team return to headquarters it is necessary, to back up the financial security provided, by forwarding a letter to the ship owners, with a copy to the relevant P&I Club, informing them that a claim under the Merchant Shipping Act will follow in due course.

Claims arising from Oil Pollution from Offshore Installations and Pipelines
Initially claimants should submit their claim to the operator involved. Following this all claims are subject to the OPOL Agreement and in particular to the OPOL guidelines for claimants' brochure which can be found on the OPOL website www.opol.org.uk.

Claims arising from an unidentified source
Generally, claimants can only obtain compensation if they know its precise source. However, there is one exception to this. The IOPC Fund pays compensation for pollution damage if the claimant can prove (for example, by sophisticated chemical analysis) that the pollution resulted from a spill of persistent oil from an unidentified tanker. In most cases the MCA would commission a chemical analysis in an attempt to determine the source of the pollution.

Incident Name

* Time start and end could have several start and ends, i.e. 0900-1000 and 1500-1630. Total 2:30
**As much detail as possible in the Activity Section

Date	Name	Role Title	Time Start	Time End	Total Hours*	Where Worked / Location	Hourly /Daily Rate	Total Cost	Activity**
29/08/1997	*Joe Bloggs (example)*	*Environmental Specialist*	*09:00*	*16:00*	*9.00*	*Office*	*£80.00*	*£720.00*	*Contingency Planning with LA. Producing Risk Assessment. Boom planning*
						Total Staff Costs		£0.00	

Figure K1 – Example of Cost Recovery Claim Record