HUMBERSIDE FIRE AND RESCUE SERVICE

Emergency Response

Operational Environmental Protection

Owner	**Director of Service Delivery Support**
Responsible Person	**GM Emergency Response**
Date written	**December 2017**
Last review	**March 2021**
Date of next review	**March 2023**

CONTENTS

1. INTRODUCTION

Please see Appendix B for an Introduction to Environmental Protection and a review of the Memorandum of Understanding.

The full guidance that has been produced for Operational Environmental Incidents is extensive and covers in detail the elements within this guidance note. Within each element are hyperlinks which enable a review of the full section relating to the particular topic. Within these sections are further hyperlinks to documents that are relevant.

Appendix A shows the Sites of Special Scientific Interest (SSRI's).

2. EQUALITY AND INCLUSION

HFRS aims to continuously improve the standards of service we provide to the community we serve. We recognise the importance of and are committed to promoting equality and inclusion in the provision of our services and to our employees. We are committed to encouraging equality and diversity amongst our workforce and to eliminating unlawful discrimination. We aim for our workforce to be truly representative of the community we serve and for each of our employees to feel respected and to be able to give their best.

3. ECOLOGY

The relationship between plants, animals and the environment is called ecology. Further guidance can be found on the following link. Ecology.

4. POLLUTANTS.

The environment is often considered as three components: air, land and water. These, however, do not exist in isolation from each other. The water component is often divided into sections: oceans, rivers, ground water, lakes, lochs, etc. Elements within the water component are also inter-linked. River pollution can lead to oceanic pollution; surface water pollution can lead to groundwater pollution and groundwater pollution to surface water pollution. Guidance on pollution can be found at: Pollution.

5. INCIDENTS THREATENING THE WATER ENVIRONMENT

UK FRS deal with a variety of emergency incidents where there is often a risk of polluting the water environment. The situation might be a spillage or leak entering a drain, watercourse or seeping into the ground. The highest priority in these situations will always be public and crew safety. However, protection of public and private drinking water supplies and the environment should still be a high priority to Incident Commanders and crews.

Where fire extinguishments or precautionary actions (such as applying a foam blanket to reduce vapour emission) are taken, it may be the FRS actions that are either causing the pollution or contributing to its severity. In these circumstances, UK environmental law requires mitigating actions to be taken by the FRS. Where the risk

to the environment is high, Incident Commanders may decide on a course of action to reduce or eliminate environmental impact completely.

At incidents were large volumes of mains water are in use, every attempt should be made to utilise other water sources such as rivers, lakes or ponds; to recycle water that has been contained and is uncontaminated or to use alternative safe sources of extinguishing agents.

6. RESPONSIBILITIES OF PARTNER AGENCIES

Responsibility for the protection of the environment in the UK rests with a number of different organisations at central and local government levels. Details on the roles of these agencies can be found at: Agencies.

7. ENVIRONMENTAL LAW

At emergency incidents involving potentially polluting situations Incident Commanders **must** be aware of the legal implications of HFRS actions, the duties that environmental legislation places on them and the defences available. This is because HFRS could potentially be prosecuted and/or be liable for clean-up costs if it can be proved they have caused or exacerbated pollution. Every operational incident will affect the environment and it is the responsibility of the Incident Commander (IC) to ensure that the impact is reduced to a level that can be reasonably achieved and/or control the pollutants. Environmental protection should form an integral element of the incident risk assessment process. Details of the applicable legislation can be found at: Legislation.

8. THE SOURCE, PATHWAY, RECEPTOR CHAIN

The selection and deployment of environmental protection equipment is based upon breaking the source, pathway, receptor chain. Further guidance can be found at: Source, Pathway, and Receptor.

9. DRAINAGE AND SEWERAGE SYSTEMS

During emergency incidents involving fire or spillages, contaminated firewater runoff or polluting materials including HazMats may flow towards and then enter drains and drainage systems. These systems will then transport the polluting materials into streams, rivers, lakes, lochs or ground waters, or to sewage treatment works or waste water treatment systems. To facilitate emergency pollution prevention and control strategies effectively, HFRS personnel need to have obtained information about the direction and destination of drainage systems both at planning stage and during incidents. Further guidance can be found at: Drainage Systems.

10. TREATMENT/POLLUTION PREVENTION SYSTEMS

Roadside treatment and/or pollution prevention devices include oil separators, sediment traps, filter drains, wetlands and other vegetated systems. These are located between the collection and disposal elements of the drainage system and may be

remote from the highway. They will generally be signed from the highway and can be used by emergency responders. Further guidance is found at: Treatment systems.

11. MARITIME INCIDENTS

The Maritime and Coastguard Agency (MCA) is the competent UK authority that responds to pollution from shipping and offshore installations. The National Contingency Plan for Marine Pollution from Shipping and Offshore Installation (NCP) sets out command and control procedures for incident response. Marine incidents are normally reported to one of Her Majesty's Coastguard (HMCG) Maritime Rescue Coordination Centres around the UK by various sources. Further guidance is found at: Maritime Incidents.

12. LIAISON AND PLANNING

One key element underpinning the development of the partnerships between environment agencies and the FRS has been the signing of formal agreements. These set out the roles and responsibilities of both parties at emergency incidents and identify the working arrangement when dealing with areas of mutual interest. A Memorandum of Understanding (MOU) has been agreed between HFRS and the Environment Agency (EA); the MOU recognises that there needs to be scope for local flexibility for how HFRS and the EA work together. This is to ensure local needs and circumstances are taken into account within a common National Framework. Pre planning for such occurrences is vital to achieve protection of the environment. Further guidance can be found at: Planning & Prevention.

13. HIGH PRESSURE PIPELINES

A network of high-pressure oil pipelines used for the underground transportation of flammable liquids (products) has been constructed through most regions of the UK. Several of these pipelines are present within the Service area, notably within the Killingholme area**. A high-pressure oil pipeline can extend for hundreds of miles and have branch lines feeding from it, controlled by remotely operated valves.

Guidance on mitigating the effects of a spillage from such pipelines can be found at: High Pressure Pipelines.

14. PESTICIDES AND STORAGE SITES

Detailed guidance is found at: Pesticides & Storage Sites.

15. TRAINING

Very little bespoke training has been undertaken to address the matter of operational environmental considerations. With the withdrawal of statutory examinations, the emphasis on the study of Fire Service manuals has not been as prevalent as in the past, and therefore it is of fundamental importance that **all** HFRS operational personnel receive initial and ongoing training in environment protection issues. Guidance on the roles and responsibilities for training can be found at: Training.

16. HIGH VOLUME PUMPS (HVP)

High-volume pumps (HVPs) have been supplied to HFRS as part of a review of civil contingency arrangements by the UK Government. The primary function of the units is to deal with the movement of water at flooding or other incidents with the potential to cause flooding, e.g. possible embankment failure. Specific procedures have been drawn up between the HFRS and environment agencies for these situations. Further guidance is found at: HVP

17. ENVIRONMENTAL PROTECTION AND EQUIPMENT USAGE AT OPERATIONAL INCIDENTS

HFRS operate a system for notifying environment agencies of incidents that they are attending that have the potential to cause environmental pollution. This is undertaken routinely to comply with an element of the three-part defence required by pollution prevention legislation. Detailed guidance on the current guidelines for reporting incidents and the use of bespoke environmental protection equipment can be found at: Pollution protection and equipment usage.

18. ENVIRONMENT AGENCY INCIDENT RESPONSE

The agencies operate 24-hour communications centres. Calls from the public and emergency services are directed to the communications centres or an area office where they are logged and passed to the appropriate office during office hours, or outside office hours to a standby officer from the relevant function. There are dedicated lines for the emergency services. Once a call has been passed on to a competent agency officer they will make a professional assessment on the seriousness of the incident and decide on the response required. This will often necessitate a return call to HFRS to ascertain further details. Further guidance is found at: EA Incident Response.

19. CONTROLLED BURN STRATEGY

A controlled burn is a defensive operational strategy to prohibit or restrict the use of extinguishing media on fires so that damage to the environment is minimized. In some cases this strategy can act to protect public health, as an Incident Commander may choose to use a controlled burn strategy when there are significant risks to public drinking water supplies. Guidance on this specific operational strategy can be found at: Controlled Burn Strategy.

20. FIREFIGHTING FOAM

The fact that firefighting foams can damage the water environment is now broadly understood by product formulators, suppliers and main users such as the petrochemical, aviation industries and FRS. This should not deter Incident Commanders from using foam at incidents where there is a justifiable need as the operational and environmental advantage can sometimes be substantial (e.g. compared with water use). Further guidance is found at: Firefighting Foam.

21. HAZARDOUS WASTE

At emergency incidents, hazardous waste (also special waste), as defined by the Hazardous Waste Regulations 2005 in England and Wales, is on occasions produced. Production of hazardous waste can be as a result of spillage or leakage of products involved in the incident or produced as a consequence of HFRS intervention. Guidance on the types of waste that may be encountered, can be found at: Hazardous waste.

22. DECONTAMINATION

Decontamination is designed to remove contamination from PPE sufficiently well to ensure that the wearer can be removed from it without them becoming contaminated. An additional consideration when decontaminating is the impact on the environment. It is essential that the appropriate decontamination method is selected that considers both the safety of wearers and the receiving environment. Further guidance is found at: Decontamination.

23. ENVIRONMENTAL MANAGEMENT

Detailed guidance on the management of an operational environmental incident and the appropriate forms to record data, are found at Environmental Management.

APPENDIX A

Sites of Special Scientific Interest (SSSI's)

NAME	AREA (HA)
ALLERTHORPE COMMON	12.83
BARN HILL MEADOWS	8.61
BECKHEAD PLANTATION	3.67
BELSHAW	0.21
BISHOP WILTON DEEP DALE	43.43
BISHOP WILTON POORLAND	2.07
BOYNTON WILLOW GARTH	5.11
BRANTINGHAM DALE	15.77
BREIGHTON MEADOWS	38.08
BROUGHTON ALDER WOOD	0.78
BROUGHTON FAR WOOD	17.79
BRYAN MILLS FIELD	1.28
BURTON BUSHES	11.37
CASTLETHORPE TUFAS	0.52
CINQUEFOIL BROW & WOOD DALE	11.54
CLEATHAM QUARRY	5.75
CLIFF FARM PIT	1.12
CONESBY (YORKSHIRE EAST) QUARRY	0.91
COTTAM WELL DALE	23.87
CROWLE BORROW PITS	4.93
DERWENT INGS	667.71
DIMLINGTON CLIFF	34.15
DREWTON LANE PITS	5.19
EASTOFT MEADOW	0.82
ENTHORPE RAILWAY CUTTING	3.40
EPWORTH TURBARY	32.89
EVERTHORPE QUARRY	3.67
FLAMBOROUGH HEAD	326.92
FLAMBOROUGH RAILWAY CUTTING	1.61
FORDON CHALK GRASSLANDS	55.69
HATFIELD CHASE DITCHES	44.20
HATFIELD MOORS	1420.25
HAXEY GRANGE FEN	13.25
HAXEY TURBARY	14.38
HEWSON'S FIELD	0.48
HODDY COWS SPRING	1.98
HORNSEA MERE	232.25
HORSE DALE & HOLM DALE	43.79
HOTHAM MEADOW	1.80
HUMBER ESTUARY	37000.59

KEASEY DALE	3.64
KELSEY HILL GRAVEL PITS	10.56
KIPLINGCOTES CHALK PIT	4.04
KIRMINGTON PIT	9.09
LAMBWATH MEADOWS	29.59
LEVEN CANAL	21.28
MANTON & TWIGMOOR	88.84
MANTON STONE QUARRY	17.47
MELBOURNE & THORNTON INGS	200.04
MELTON BOTTOM CHALK PIT	87.19
MESSINGHAM HEATH	17.77
MESSINGHAM SAND QUARRY	51.79
MILLINGTON WOOD & PASTURES	343.52
MISSON LINE BANK	20.72
MISSON TRAINING AREA	85.18
NEWBALD BECKSIES	1.94
NEWTON MASK	17.61
NORTH KILLINGHOLME HAVEN PITS	21.62
POCKLINGTON CANAL	21.42
PULFIN BOG	17.04
RIFLE BUTTS QUARRY	0.31
RISBY WARREN	157.10
RIVER DERWENT	408.25
RIVER HULL HEADWATERS	121.99
ROOS BOG	1.92
RUSH FURLONG	0.48
SKIPSEA BAIL MERE	43.84
SOUTH CLIFFE COMMON	61.38
SOUTH FERRIBY CHALK PIT	84.95
THE LAGOONS	70.18
THIXEN DALE & LONG DALE	92.86
THORNE, CROWLE & GOOLE MOORS	1919.04
TOPHILL LOW	34.62
WHITE CARR MEADOW	1.11
WITHOW GAP, SKIPSEA	8.37
WRAWBY MOOR	18.46
WYEDALE	12.48

APPENDIX B

OPERATIONAL ENVIRONMENTAL PROTECTION

1 INTRODUCTION

By working with other agencies, we can provide an effective response to prevent or minimise the environmental impact of pollution incidents. This PGN will provide all operational employees with the essential knowledge required to understand how their actions, both individually and collectively, can safeguard the environment, whilst at the same time undertaking their primary role of protecting life and property.

HFRS will adopt the systems and procedures detailed in Fire Service Manual, Volume 2 Fire Service Operations – Environmental Protection 2008, to ensure that current best practice is adopted and utilised, and that joint emergency service operations are effective.

2 MEMORANDUM OF UNDERSTANDING

HFRS has entered into a memorandum of understanding (MOU) with the Environment Agency, in order to assist each organisation in negating the damage to the environment which may be caused by operational or naturally occurring incidents.

3 INTRODUCTION TO ENVIRONMENTAL PROTECTION

Whilst the primary duty for Humberside Fire and Rescue Service (HFRS) is the protection of life and property, due consideration must be given to the protection of the natural environment in the Authority's area. The Fire and Rescue Service (FRS) in the United Kingdom (UK) plays a vital role in responding to pollution incidents and its actions help to prevent or mitigate damage to the environment.

In both the response and recovery phases of an incident, HFRS intervention can significantly reduce the impact that spillages or firewater run-off containing environmentally damaging materials may have on the environment. Such actions can provide significant public health benefits, as drinking water may be drawn from rivers, lakes, and groundwater. Therefore, by implementing proactive measures to prevent contamination of these waters, HFRS will help safeguard supplies and protect public health.

Whilst HFRS has a legal responsibility to ensure that effective arrangements are in place to deal with an incident that could adversely affect the natural environment through both pre-planning and response, the service also recognises and acts upon its moral responsibility to ensure that the quality of life of the residents within the Service area is not diminished through the acts or omissions of its staff.

HFRS pollution prevention and control activities can therefore be associated with the strategic aim of protecting public safety. This philosophy should be borne in mind when prioritising environmental protection as an objective within the Service strategic, analytical and dynamic risk assessment processes.