Guidance on establishing a species and habitats baseline for the Environmental Damage/Liability Regulations 2009

GUIDANCE ON ESTABLISHING A SPECIES AND HABITATS BASELINE FOR THE ENVIRONMENTAL DAMAGE/LIABILITY REGULATIONS 2009

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FOREWORD

This publication provides guidance on establishing a species and habitat baseline to assist sites to comply with the EU Environmental Liabilities Directive (ELD), implemented into UK law in 2009. The guidance explains how to develop a species and habitats baseline, allowing a focus to help direct damage prevention efforts accordingly and to build reference information against which any damage can be measured. While the guide is likely to be most useful to production and manufacturing sites, the principles and guidance are equally applicable to smaller sites with areas of interest being scaled accordingly.

The intent is that this guidance is used to build over time a 'living baseline', such that the natural variation in key species and habitats local to the site becomes better understood. Many of the techniques described are relatively simple and low cost, and used as part of a phased approach will help characterise the local environment. The baseline information can inform the compliance aspect, providing some assurance, without which the impact of the site may be open to conjecture and false perception.

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1 INTRODUCTION

The European Environmental Liabilities Directive (ELD) was implemented into UK law by the UK government and regional assemblies in 2009. The ELD primarily seeks to discourage the causing of environmental damage[1] by applying stringent, and potentially costly, remedial measures to address such damage.

In Scotland the implementing regulations specify that damage should be assessed against a pre-determined baseline condition. In the case of England, Wales and Northern Ireland the regulations are less specific about the term baseline condition but require remediation and restoration of the environment to a pre-damage condition which, in effect is the baseline. Whether mandated or not, the benefit of establishing a species and habitats baseline condition should prove valuable for the following reasons:

1. By understanding the potential impacts to species and habitats that an incident, event or emission could cause, operating companies can direct their preventative efforts to be most effective to prevent damage from occurring.
2. In the event of environmental damage, an operator can use his understanding of the species and habitats baseline to reduce the damage.
3. The remedial measures must return an area to a pre-damage condition, which in the case of ecology can be a highly variable reference point. In the absence of evidence to the contrary, it is possible that regulators could apply significantly tougher remediation actions on the assumption of a more pristine pre-damage condition than is actually the case.

The object of this guidance is to explain how to develop a species and habitats baseline, to direct damage prevention efforts accordingly and to provide reference information against which damage can be measured, if it occurs. An overview of the environmental damage process is provided in Figure 1 based on DEFRA's guidance (see DEFRA, 2009) and with the addition of a species and habitats baseline assessment.

1.1 AIM

The guidance is intended to be a practical handbook for users to identify, through simple desk-based research, whether protected habitats and/or protected species are present on and around their facilities. Where this is the case, the guidance goes on to explain how to build a model of the species and habitats baseline for the facility and where necessary, actively manage the data that are used to form the baseline.

The guidance aims to:

– Explain the main concepts introduced in the Environmental Damage/Liability Regulations.
– Provide a phased approach to identify whether a species and habitats baseline is necessary and explain how in practical terms, facility operating companies can use publicly available information to establish a low cost species and habitats baseline.
– Provide advice on how to build the baseline around existing data and, if required for more sensitive or complex situations, through surveys or other methods.
– Provide guidance on keeping the baseline up to date, and identify reasonable and proportionate costs for setting up and maintaining a baseline.

1 Environmental damage is defined as damage to species or habitats; damage to water; or risks to human health from contamination of land.

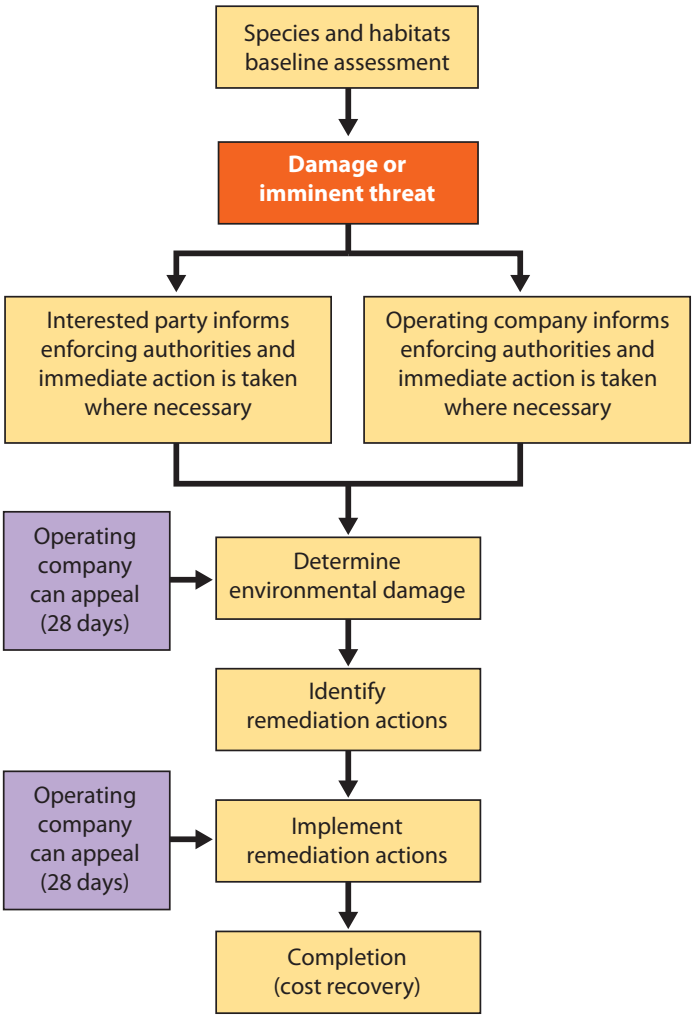

Figure 1 The environmental damage process (adapted from DEFRA (see DEFRA, 2009))

1.2 SCOPE

The scope of this guide is as follows:

– The guide focuses on European protected species (EPS), European and nationally conserved habitats and is not intended for general ecological assessment but is specific to meeting compliance with these Environmental Damage/Liability Regulations. It is therefore only applicable to facilities within the UK but the principles can be used to inform actions in other European Union countries.

– The term 'facility' is used to mean large-scale industrial operations through to small-scale commercial properties, inclusive of off-site infrastructure, including petroleum refineries; large storage and blend sites; and chemical (base product) manufacturing sites. However, retail filling station sites and offshore facilities are not within the scope.

- Species and habitats here are specific to the protected species and conserved habitats defined in the Regulations.
- The assessment of baselines for water or land damage is not in scope, unless the protected species or habitat is linked to a water body. However, it should be borne in mind that environmental damage is not exclusive to any one compartment so baseline assessments for land or water damage may need to be conducted in parallel using appropriate guidance.
- The emphasis is on hazardous contamination of the environment. Other influences can affect the environment, such as land conversion, which should be taken into account in baseline assessments but they are not the focus of this publication.
- A single snapshot in time will limit the usefulness of baseline information because species and habitats naturally vary in both spatial and temporal terms. The process of baseline assessment in this publication is an iterative one requiring the more frequent measurement of biological indicators of baseline condition, whereas unchanging indicators such as bedrock geology are a one-off measurement.
- Early stages of baseline assessment are commonplace in general environmental management and should be familiar to users. However, qualified professionals (i.e. certified ecologists) may be needed for the more detailed assessment.
- When approaching a baseline assessment potential operational impacts and potential species and habitats outside the site boundary should be considered.

1.3 OVERVIEW

The structure of the guidance is as follows:

Section 2	Provides a brief description of the Environmental Damage/Liability Regulations. More details can be found in the EI *Introductory guide to environmental damage*. Details are also given on the rationale for species and habitats baseline assessment.
Section 3	Describes the process for establishing a species and habitats baseline. Using a step-wise approach, including the data required to characterise the baseline.
Section 4	Identifies information sources where data can be retrieved for characterising the baseline.
Section 5	Provides advice on the frequency with which a baseline should be updated, along with indicative costs.
Section 6	Gives a brief overview of the quantification of remediation action, including useful tools such as net environmental benefit analysis (Efroymson et al. 2004).