

Coastal Squeeze

Implications for Flood Management

The Requirements of The European Birds and Habitats Directives

Defra Policy Guidance

1. Background and purpose

Flood risk and coastal erosion management measures have an enormous effect on wetland and coastal environments and their conservation interest. It is therefore understandable that stakeholders, including government and non-governmental conservation organisations, are concerned that the planning of, and investment in, flood risk management and coastal protection is consistent with the requirements of the European Birds and Habitats Directives¹ and associated domestic legislation².

Operating authorities, particularly the Environment Agency, have asked for further guidance on the appraisal and assessment of their plans and projects in areas where there is an ongoing loss of habitat in European sites due to a combination of flood risk management and sea level rise. Concerns have focused on how flood risk management plans and projects should be assessed in such situations and how any compensatory requirements that may be necessary to protect the coherence of Natura 2000 are established.

This paper aims to clarify those specific points. (It replaces Defra's note '*Coastal Squeeze and Habitat Replacement – An Interim Position*' which was issued on 17 October 2003.) It does not provide comprehensive guidance on the obligations of flood and coastal defence operating authorities under European or domestic legislation. In specific cases and for wider advice operating authorities will need to continue to seek the guidance of their own specialist staff and the appropriate nature conservation body³ bearing in mind the effects of their operations on the environment.

¹ Directive 79/409/EEC The conservation of wild birds and Directive 92/43/EC The conservation of natural habitats and of wild flora and fauna. Further detailed guidance on statutory obligation under these directives is provided by Defra Circular 01/2005 *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact on the Planning System*.

² Particularly The Conservation (Natural Habitats, &c.) Regulations 1994

The target audience includes policy specialists in operating authorities, staff and consultants appraising flood risk management options, English Nature staff and relevant authorities that consent flood risk and coastal erosion management plans and projects.

2. **General requirements**⁴:

Competent authorities must make an appropriate assessment of any plan or project if it cannot be excluded, on the basis of objective information, that it will have a significant effect on a European site⁵ [either alone or in combination with other plans & projects] unless it is directly connected with or necessary for the management of the site. In the light of the assessment, and having had regard to the advice of the relevant nature conservation body, the plan or project may be authorised if the competent authority is *certain* that it will not adversely affect the site (meaning there is no reasonable scientific doubt as to the absence of such effects). If not, it may only proceed if:

- there are no alternative solutions, and
- it is necessary for imperative reasons of overriding public interest, and
- any necessary compensatory measures are secured to ensure that the overall coherence of Natura 2000 is protected.

3. **Roles and responsibilities**:

Competent authorities are responsible for:

- making an appropriate assessment before deciding to undertake, or give any consent, permission or other authorisation for a plan or project likely to have a significant effect on a European site, either alone or in combination with other plans & projects,
- for the purposes of the assessment, consulting the appropriate nature conservation body and having regard to its representations, and
- ensuring that if there is a negative assessment of a plan or project, agreement to that plan or project is only given if there are no alternative solutions, it must be carried out for imperative reasons of over-riding public interest, and any compensatory measures that may be required are secured.

³ English Nature in England. However, if a plan or project is likely to have a significant effect on sites in Wales and Scotland, the Countryside Council for Wales or Scottish Natural Heritage respectively should also be involved.

⁴ Refer to Defra Circular 01/2005 for further details.

⁵ European Site has the same meaning in this guidance as regulation 10(1) of The Conservation (Natural Habitats, &c.) Regulations.

Operating authorities / developers are responsible for:

- providing such information as the competent authority may reasonably require for the purpose of an appropriate assessment, and
- providing any necessary compensatory measures.

The appropriate nature conservation body will:

- provide advice on whether plans and projects are likely to have a significant effect [either alone or in combination with other plans and projects] when requested to do so,
- advise competent authorities whether a plan or project is necessary for the management of the site,
- comment on appropriate assessments,
- provide advice on the ecological requirements of any compensatory measures, and
- provide advice on the suitability of any proposed compensatory measures.

The Secretary of State is responsible for:

- securing that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected,
- confirming that any compensatory measures are sufficient to maintain the coherence of Natura 2000, and
- informing the Commission of the measures adopted.

4. Practical effect on flood and coastal management decisions:

Any flood management plan or project⁶ likely to cause a significant effect on a European site must be considered against the requirements of the Habitats Regulations and the Habitats Directive (see above). Where coastal squeeze is occurring and the plan or project is likely to have a significant effect, either alone or in combination with other plans or projects *and* is not directly connected with or necessary for the management of the site, an appropriate assessment must be made. (A plan or project to stop maintaining a defence structure would need to be subject to an appropriate assessment if it were likely to have a significant effect on a European site.) Assessments must be made on a case-by-case basis in the light of the particular facts of the case. However, when considering plans and

⁶ The term “plan or project” is not defined in the Habitats Directive, or its implementing legislation in England and Wales. However, guidance provided by European Commission concludes that the term “project” should be given a wide interpretation “to include both construction works and other interventions in the natural environment”.

projects at estuarine and coastal locations that are suffering a loss of intertidal habitats due to sea level rise there are two distinct scenarios:

(A) Where the landward boundary of a European site is more or less coincident with the position of a seawall the competent authority will need to consider, in the light of the particular facts of the case, whether a plan or project to maintain or improve a defence structure in the face of sea level rise is likely to have a significant effect on the site⁷. If the plan or project is likely to have a significant effect (meaning that on the basis of objective information, it cannot be established it will not) an appropriate assessment must be made. In the light of the conclusions of the assessment, the authority may only agree the plan or project if it ascertains that it will not adversely affect the integrity of a European site (meaning there is no reasonable scientific doubt as to the absence of such effects). If not, it may only proceed if:

- there are no alternative solutions and
- it is necessary for imperative reasons of overriding public interest, and
- any necessary compensatory measures are secured to ensure that the overall coherence of Natura 2000 is protected.

(B) Where the boundary of the European site extends significantly landward of the position of the seawall the same consideration must be given to any plan or project. However, in this case an alternative solution may be to realign the defence to prevent damage to intertidal or supra-tidal features. Occasionally this may be deemed necessary for the conservation management of a site and have no significant effect on any other European site⁸. If so, no appropriate assessment is required. However, this is an unlikely combination of circumstances. Therefore, in most cases it will be necessary to undertake an appropriate assessment. In these cases it is likely that it will not be possible to ascertain that the plan or project will not adversely affect the integrity of the site, particularly if it contains designated terrestrial or freshwater features. If so, and there are no alternative solutions, the realignment may still be justified on the grounds of overriding public interest but compensatory measures would be necessary to ensure that the overall coherence of Natura 2000 is protected⁹. In the case of such dilemmas, where it is not

⁷ Taking account, for example, of an analysis of wave reflection, wider hydro-geomorphological effects and any other relevant factors, all of which are likely to be difficult to distinguish from the impacts of sea level rise. In such circumstance, where it is proposed that the line of defence is maintained in the face of sea level rise, experience has shown that it is difficult to conclude that there is not likely to be a significant effect.

⁸ The appropriate nature conservation body will advise.

⁹ For example, the creation of freshwater habitats elsewhere.

possible to sustain all the features for which the site(s) has been designated on the existing site(s), the relevant nature conservation body will advise operating authorities as to the preferred option¹⁰.

5. Compensatory measures:

Where flood management works are to be permitted in spite of a negative assessment of the implications for a European site, any compensatory measures necessary to protect the overall coherence of Natura 2000 must be secured before undertaking works or granting consent, permission or any other authorisation. Such measures are likely to include habitat creation to offset or replace habitat losses from European sites. The adequacy of these measures will be considered on a case-by-case basis by Defra in the light of the advice of the appropriate nature conservation body and the certainty of the effects on the European site(s). Projects should only be approved if sufficient compensatory measures are in place that will provide fully the ecological functions that they are intended to compensate for.

In order to help conserve sites currently subject to coastal squeeze and to avoid delays in the implementation of justified flood management works, operating authorities are encouraged to develop a strategic approach to the planning and delivery of any habitat creation measures that they anticipate will be required before undertaking or seeking consent for plans or projects. Wherever possible, Shoreline Management Plans, Catchment Flood Management Plans and flood management strategies should be used to help anticipate habitat creation requirements and opportunities. This approach should provide the necessary business case, strategic framework and rationale for undertaking habitat creation as part of compensatory measures and allow any synergies with sustainable coastal management to be realised¹¹.

The adequacy of compensatory requirements will be judged on a case-by-case basis. However, in order to aid forward planning by operating authorities and help ensure that legal requirements for habitat creation are met in a timely, strategic and cost effective manner, Defra will provide an indication of the likely regional distribution and extent of habitat creation that it anticipates will be necessary to meet legal requirements.

¹⁰ This may involve iterative discussions, between the nature conservation body and the operating authority, to embrace the technical and economic realities of the situation.

¹¹ Coastal Habitat Management Plans (CHaMPs), where they have been completed, should already have informed flood and coastal defence planning and therefore help secure a strategic approach to compliance with the requirement of the European Directives.

Operating authorities are encouraged to develop habitat creation programmes (such as the Environment Agency's Anglian Regional Habitat Creation Programme) to plan and manage the delivery of compensatory habitat creation. To ensure that such plans for delivery are acceptable, operating authorities will need to also establish a clear system of recording, reporting and accounting for habitat created to meet the requirements the Habitats Regulations and Article 6(4) of the Habitats Directive. The system will need to be readily auditable and transparent so that the statutory drivers and outcomes are clear. This will be necessary to allow Government to inform the European Commission of any compensatory measures adopted.

Defra's initial assessment is that the creation of an annual average of at least 100 ha of intertidal habitat associated with European sites in England that are subject to coastal squeeze, together with any more specifically identified measures to replace losses of terrestrial and supra-tidal habitats, is likely to be sufficient to protect the overall coherence of the Natura 2000 network. This assessment takes account of intertidal habitat loss from European sites in England that is caused by a combination of all flood risk management structures and sea level rise. The assessment will be kept under review taking account of the certainty of any adverse effects and monitoring of the actual impacts of plans and projects.

Since intertidal habitat loss is mainly occurring in the south and east of the country, between the Humber and Severn, the preferred areas for intertidal habitat creation will also be in that part of the country; preferably associated with the Natura 2000 sites where habitat is being lost due to coastal squeeze. More specific requirements will be agreed on a case-by-case basis. English Nature has agreed to work with the Environment Agency to help identify opportunities for habitat creation through the development of Shoreline Management Plans, Catchment Flood Management Plans and flood management strategies.

6. Avoiding deterioration of European sites

Appropriate steps must be taken to avoid flood management structures or activities causing the deterioration of natural habitats, or the habitats of protected species, within European sites or the disturbance of species for which the site has been designated that could be significant in relation to the objectives of the Habitats Directive. This is required by Article 6(2) of the Directive. In relation to marine areas¹², operating authorities are required to exercise their functions relevant to marine conservation¹³ so as to secure compliance with the requirements of the Habitats Directive¹⁴. The nature of the steps taken to meet these requirements will depend on what is necessary and appropriate to avoid detrimental effects on European sites. English Nature has agreed to work with operating authorities to help identify where flood and coastal management work (including managed realignment) is needed to avoid the deterioration of natural habitats in European sites.

7. Article 3 of the Wild Birds Directive

Article 3 of the Wild Birds Directive requires Member States to take measures “*to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1*” of the Directive. This obligation should not be confused with the requirements under Article 6 of the Habitats Directive, which are directly linked to the Natura 2000 network. However, any compensatory measures secured to protect coherence of Natura 2000 and steps taken to avoid the deterioration European sites under Article 6 of the Habitats Directive might be expected to contribute to meeting obligations under Article 3. The adequacy of these measures will be kept under review.

Defra Flood Management Division

September 2005

¹² Marine areas are defined as ‘land covered (continuously or intermittently) by tidal waters or any part of the sea in or adjacent to Great Britain up to the seaward limit of territorial waters’. This definition therefore includes intertidal areas.

¹³ Including functions exercised under the Water Resources Act 1991 and Land Drainage Act 1991

¹⁴ Regulation 3(3) of the Habitats Regulations requires competent authorities to exercise their functions relevant to marine conservation so as to secure compliance with the requirements of the Habitats Directive. Regulation 3(4) requires competent authorities, without prejudice to regulation 3(3) in the exercise of any of their functions, to have regard to the requirements of the Habitats Directive so far as they may be affected by the exercise of those functions.