Habitats Regulations Assessment

River Basin Management Plan for the Solway Tweed River Basin District

Summary

The Environment Agency and Scottish Environment Protection Agency (SEPA) are jointly responsible for producing the Solway Tweed River Basin Management Plan.

A Habitats Regulations Assessment of the River Basin Management Plan for Solway Tweed River Basin District, as implemented in England, has been carried out to consider whether it is likely to have a significant effect on any European sites. The assessment was done by the Environment Agency, in consultation with Natural England.

The Scottish Environment Protection Agency (SEPA) has undertaken the assessment required under the Habitats Regulations of the plan as implemented in Scotland[1,2].

We have concluded that the RBMP, as implemented in England, is unlikely to have any significant negative effects on any European sites; it does not require further assessment under the Habitats Regulations. This conclusion does not remove the need for later Habitats Regulations assessment of any other plans, projects, or permissions associated with, or arising out of, the measures identified in the plan.

[1] MWH, Sistech, Enfusion for SEPA/EA (July 2008) Solway Tweed River Basin Management Plan Environmental Report.
[2] SEPA Appropriate Assessment for the Solway-Tweed River Basin Management Plan

Consultation with Natural England

Is there agreement with the conclusion?

Yes / No

(Please provide summary and explanation for answer given)

Name:

Date:

Signed:

Habitats Regulations Assessment

River Basin Management Plan for the Solway Tweed River Basin District

1. Introduction

This assessment considers if the River Basin Management Plan (RBMP) for Solway Tweed River Basin District (RBD), as implemented in England[3], is likely to have a significant effect on any European sites[4]. This is a distinct step separate from an 'Appropriate Assessment' which is to establish whether a plan will have an adverse effect on the integrity of a European site.

2. Details about the plan

The RBMP describes the RBD, and the pressures that the water environment faces. It shows what this means for the current state of the water environment, and what actions will be taken to address the pressures. It sets out what improvements are possible by 2015 and how the actions will make a difference to the local environment.

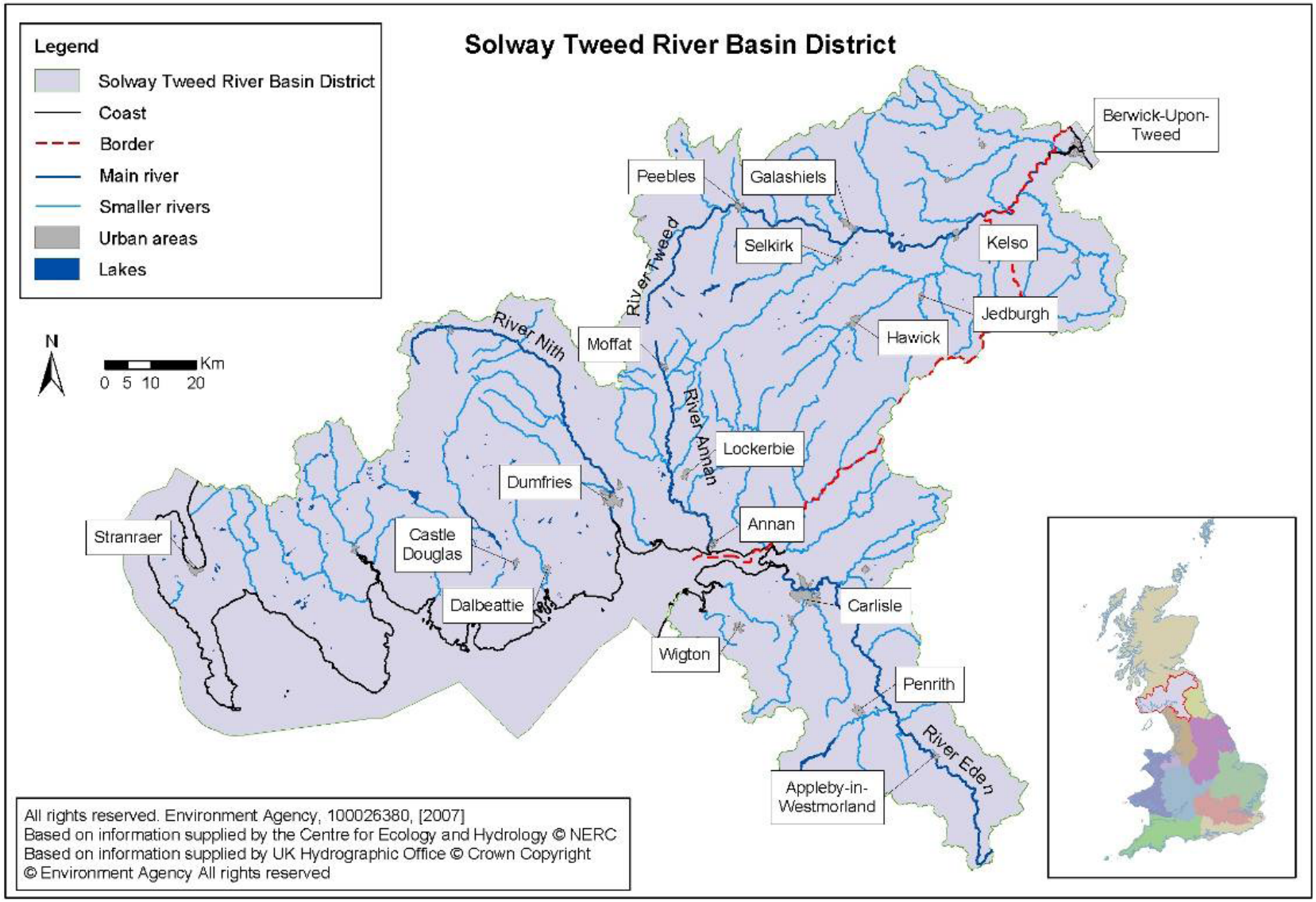
The RBMP (England information) is available on the Environment Agency website: http://www.environment-agency.gov.uk. You can find out more about the Solway Tweed RBD on the SEPA website: www.sepa.org.uk.

The Solway Tweed RBD is shown in Figure 1.

Some of the measures in the plan will contribute to improving the water or water-dependent environment to the extent necessary to maintain at or restore to favourable conservation status the water dependent habitats and species for which Natura 2000 Protected Areas[5] are designated. The Water Framework Directive (WFD) introduces the 2015 deadline for achieving this objective, it is therefore one of the priorities for the first cycle of river basin planning.

[3] Any references in this assessment to the RBMP (or the 'plan') refer to the Solway Tweed River Basin Management Plan as implemented in England only.
[4] In this assessment the term 'European sites' is used to refer to: Special Areas of Conservation (SAC), including candidate SACs (cSACs); Special Protection Areas (SPA), including potential SPAs (pSPAs); Sites of Community Importance (SCI) and designated Ramsar sites.
[5] Natura 2000 Protected Areas is the collective term used in this assessment for water dependent SACs and SPAs; these sites are 'Protected Areas' for the purposes of the Water Framework Directive.

Figure 1. **Map of the Solway Tweed River Basin District**



2.1 Water body status objectives

Annex B '*Water body status objectives for the Solway Tweed (England only)*' gives the status objectives for each water body[6] in the England Solway Tweed ; any water bodies that are coincident with Natura 2000 Protected Areas are identified in the water body tables. Alternative objectives for the water body status may have been applied if conditions in Article 4 of the WFD have been met. The plan makes it clear that the Natura 2000 Protected Area objectives in Annex D '*Protected Area Objectives'* must be met, even where alternative objectives have been set for water body status in Annex B. It is therefore considered that the water body status objectives do not require assessment in terms of potential effects on Natura 2000 sites.

2.2 Actions to deliver objectives

The plan is about the measures that will protect and improve the water environment. It is considered that the overall effect of implementing the measures will be positive for European sites; however, it is possible that in their implementation, there could be direct or indirect negative effects, alone or in combination, on European sites.

2.2.1 Annex A 'Actions to deliver objectives'

Annex A 'Actions to deliver objectives (England only)' sets out the actions planned (the 'programmes of measures') to manage the pressures on the water environment and achieve the objectives of the RBMP.

Actions are the on the ground activities that will be implemented to manage the pressures on the water environment and achieve the objectives of the RBMP.

2.2.2 Annex D 'Protected Area objectives'

Annex D 'Protected Area objectives' includes site condition assessments, target objectives and site specific measures for Special Areas of Conservation and Special Protection Areas currently classed as at unfavourable status. Natural England (NE) has identified the measures that need to be taken to maintain at, or restore to, favourable conservation status. These measures are also summarised in Annex A.

3. About the Habitats Regulations assessment

3.1 Background to Habitats Regulations assessment

EC Directive (92/43/EEC) on the Conservation of natural habitats and of wild flora and fauna ('Habitats Directive') is implemented (with the Birds Directive (79/409/EEC)) in the UK as 'The Conservation (Natural Habitats, &c.) Regulations 1994'. This legislation provides the legal framework for the protection of habitats and species of European importance.

Article 6(3) of the Habitats Directive sets out the decision-making tests for plans and projects likely to affect Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); collectively these sites are referred to as Natura 2000 sites.

> *Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the sites conservation objectives.*

[6] The water environment has been divided into units called 'water bodies'. A water body is a manageable unit of surface water, being the whole (or part) of a stream, river or canal, lake or reservoir, transitional water (estuary) or stretch of coastal water. A 'body of groundwater' is a distinct volume of underground water within an aquifer.

This applies to all SACs and SPAs, including candidate SACs and Sites of Community Importance (SCI). As a matter of policy, we are also applying this approach to potential SPAs and designated Ramsar sites[7]. Collectively these sites will be referred to as 'European sites' for the purposes of this assessment.

The assessment is underpinned by the precautionary principle, especially in the assessment of potential impacts and their resolution. If it is not possible to rule out the risk of harm on the evidence available then it is assumed that a risk may exist and it needs to be dealt with in the assessment process, preferably through changes to the proposed measure or through options such as avoidance or control measures. If this is not possible the plan will be subject to an 'Appropriate Assessment'.

3.2 Approach to Habitats Regulations assessment of the RBMP

The undertaking of Habitats Regulations assessment of RBMPs is a new process, and there is no precedent available to inform this work. Likewise, there are few examples of Habitats Regulations assessments being carried out on high-level plans of this nature.

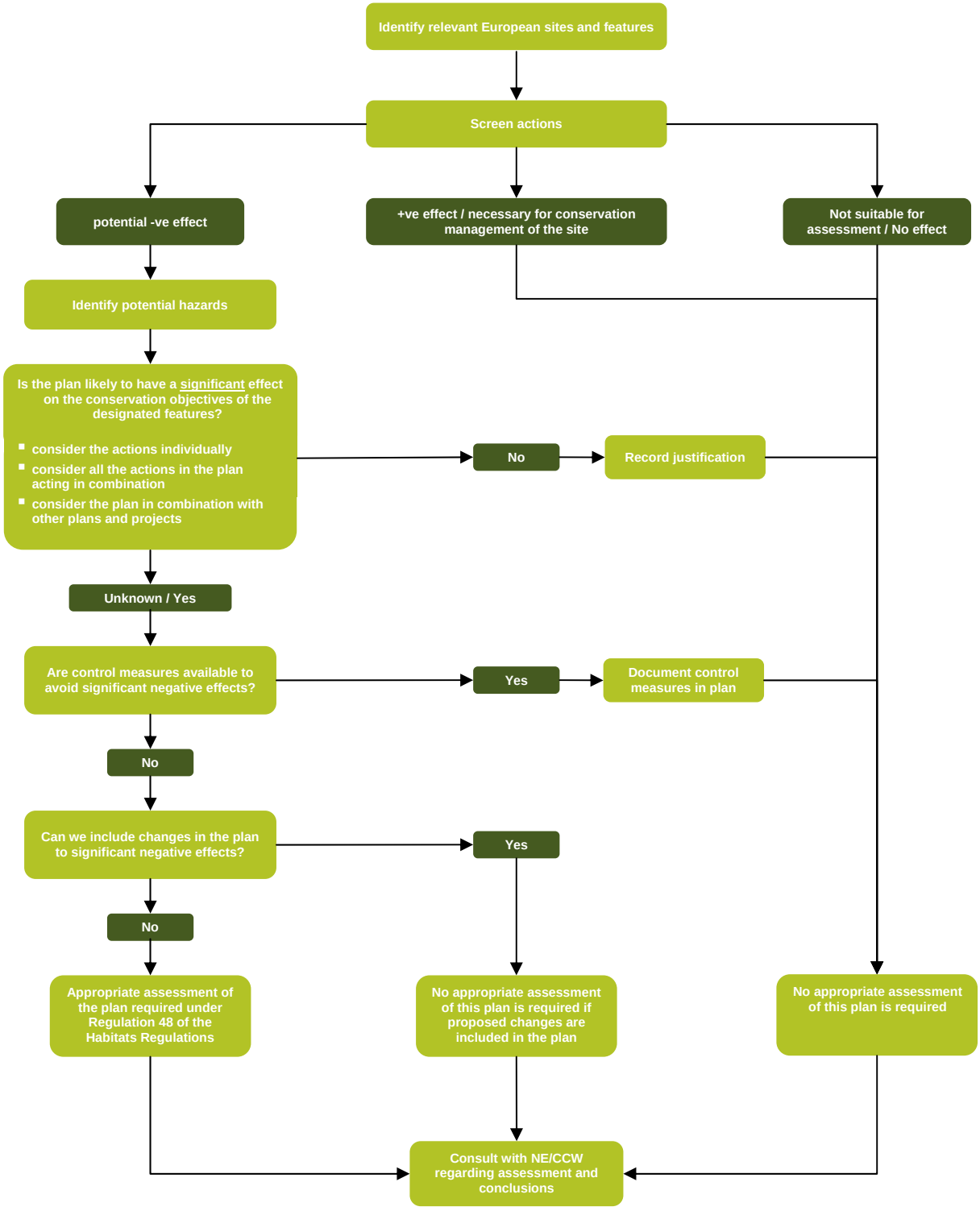
NE has been consulted for their specialist advice and opinion on the approach to this assessment and a list of documents consulted in the development of this approach is provided in the reference list at the end of this document.

A summary of the procedure used for determining whether the RBMP requires 'Appropriate Assessment' is shown in Figure 2 below.

The judgement of likely significant effect has been made by the Environment Agency as the competent authority using professional judgement and reasonable assumptions about the potential effects of a measure.

[7] In general, Ramsar sites overlap with SACs and/or SPAs. It is Government Policy to afford them the same protection as European sites. The requirements of Article 6(3) do not apply as a matter of law or government policy to draft SACs or proposed Ramsar sites.

Figure 2. **Summary of the procedure for determining whether the RBMP requires Appropriate Assessment**



4. Habitats Regulations Assessment

4.1 Identification of relevant sites

Assessment under the Habitats Regulations requires consideration of all European sites that have potential to be impacted by the plan. The detail of many of the measures in the plan is not available; it will not be developed until the measures progress towards implementation. It has been assumed that any of the measures could potentially be implemented anywhere with the RBD, therefore all European sites within or near the RBD have been identified as relevant.

The effects of a plan may not necessarily be confined to those European sites lying within the plan boundary. The plan is about actions to improve the water environment and the plan boundaries are based on river catchments, therefore it is considered that identification of all sites within or near the plan boundary will cover those that could be impacted as this will capture any potential downstream effects.

All European sites within or near the RBD are listed in Table 1 and their location is shown in Figure 3. European sites that are also Natura 2000 Protected Areas, for purposes of the WFD, are indicated with an asterisk (*).

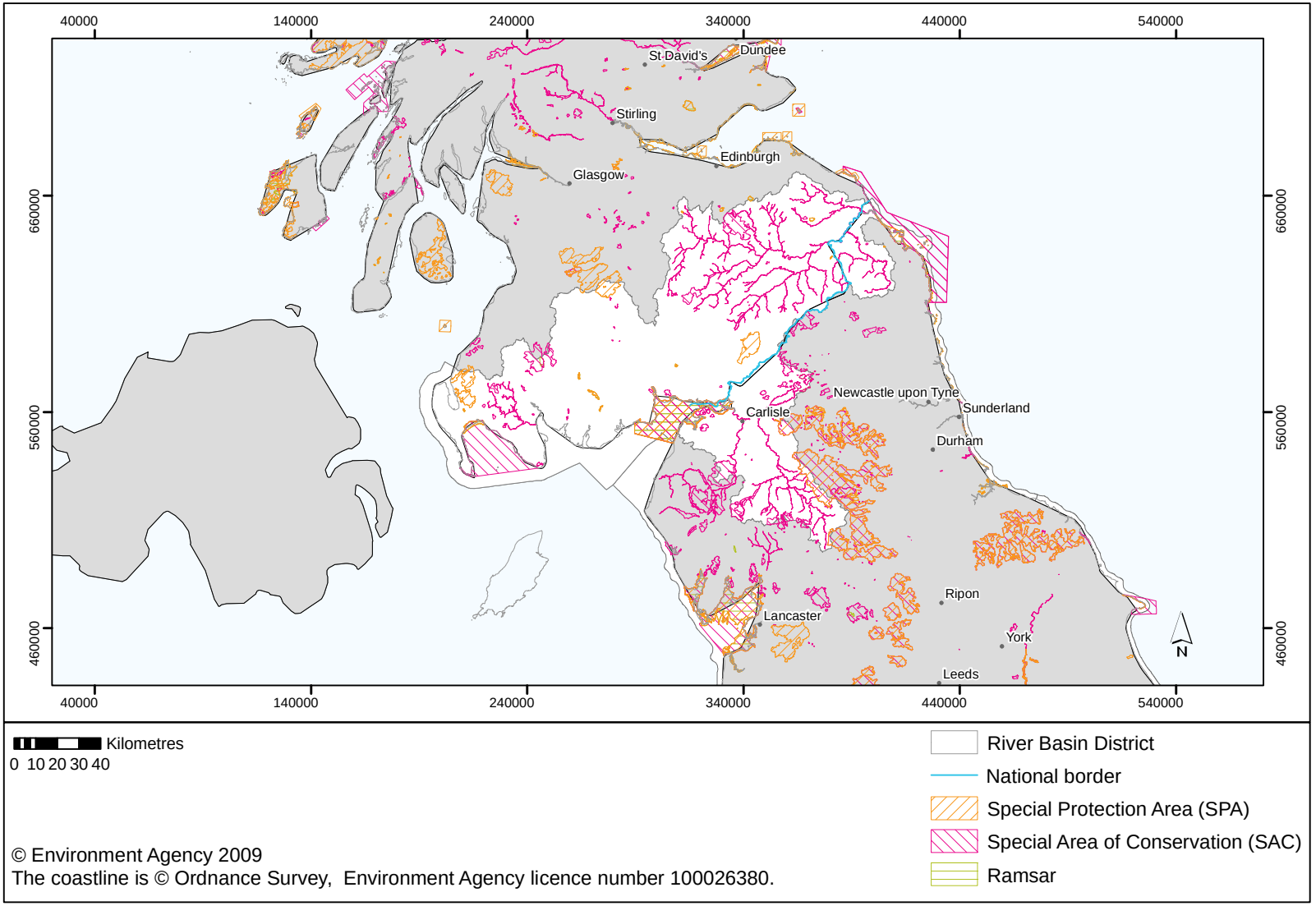
Table 1. **Relevant European sites**

European Site	**Designation**
Asby Complex*	SAC
Berwickshire & North Northumberland Coast*	SAC
Bolton Fell Moss*	SAC
Border Mires, Kielder-Butterburn*	SAC
Cumbrian Marsh Fritillary Site*	SAC
Ford Moss*	SAC
Helbeck & Swindale Woods	SAC
Holburn Lake & Moss*	SPA
Lake District High Fells*	SAC
Moor House-Upper Teesdale	SAC
Naddle Forest*	SAC
North Pennine Dales Meadows	SAC
North Pennine Moors*	SAC
North Pennine Moors*	SPA
Northumbria Coast*	SPA
River Eden*	SAC
River Tweed*	SAC
Solway Firth*	SAC
South Solway Mosses*	SAC
Tarn Moss*	SAC
Tweed Estuary*	SAC
Ullswater Oakwoods	SAC
Upper Solway Flats & Marshes*	SPA
Walton Moss*	SAC

Further detail about these sites is provided in Appendix 1, including the features associated with each of the Natura 2000 sites and the unique water body identification code where Natura 2000 sites include a water body.

Given the high-level nature of this assessment, it is not practical to provide detailed information about each of these sites. Further information about the site features is available on the Joint Nature Conservation Committee (JNCC) website: www.jncc.gov.uk. Information on status, condition and conservation objectives is available from NE: www.naturalengland.org.uk and Scottish Natural Heritage (SNH): www.snh.org.uk.

Figure 3. **Map of all European sites within the Solway Tweed RBD**



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The coastline is © Ordnance Survey, Environment Agency licence number 100026380.

4.2 Screening of measures

A coarse initial screening exercise was applied to the measures identified in the RBMP, the aim was to:

- identify those measures that, because of their nature, could not conceivably have a negative effect or are not suitable for assessment;
- identify those measures that are necessary for the conservation management of Natura 2000 sites.

These measures were screened out, leaving a reduced list of measures that require further assessment.

4.2.1 Measures that could not conceivably have a negative effect or are not suitable for assessment

The types of measure that could not conceivably have an effect or are not suitable for assessment are summarised in Table 2.

Table 2. **Summary of types of measure that have been screened out and do not require further assessment**

Type of measure	Reason for screening out of further assessment	Example measures
Education, awareness, influence, encourage, promote, advise, provide guidance	These types of measure are expected to contribute to achieving WFD objectives through raising awareness. Due to their intangible nature, assessment of these with regard to European sites has not been included.	Promote and encourage uptake of agri-environment schemes in catchments most at risk Raise awareness of the of the risks of transferring non-native species to the wild
Research, monitor, investigate, collect data/information, review	These types of measure improve our understanding of the environment. These actions are concerned with information gathering rather than taking any concrete actions and as such have not been assessed. They will however contribute to making sure that water management actions are fully informed and based on good evidence.	Carry out additional diatom monitoring to understand sources of phosphorus
Introduction of plan, programme, strategy, scheme, code of practice, code of conduct	There are a number of plans, programmes, schemes etc identified as part of the RBMP in order to address specific issues or pressures. Where the measures provide no indication of what will be involved these measures are not suitable for assessment at this stage.	Highways Agency programme to investigate soakaways Establish and implement water level management plan
Regulation, legal requirement	Measures that identify existing legislation or proposed new regulation have not been assessed.	Implement new regulatory approach (via Environmental Permitting Regulations) through new Groundwater Directive

Type of measure	Reason for screening out of further assessment	Example measures
Partnerships, working together, sharing information, co-ordinated approach	These describe ways of working rather than physical actions and are not suitable for assessment.	Better co-ordinate cross-border abstraction control
Funding	These measures are concerned with funding and support rather than taking any physical action so are not assessed.	Establish and maintain agri-environment and environmental stewardship schemes, including payments for best practice to limit nitrate input and control agri-chemicals

4.2.2 Measures necessary for the conservation management of Natura 2000 sites

The measures in Annex D have been identified by NE to improve the water or water-dependent environment to the extent necessary to maintain at or restore to favourable conservation status the water-dependent habitats and species for which a Natura 2000 Protected Area is designated.

Measures that are for the nature conservation management of a site could have negative effects on the site features if carried out in the wrong place within a site, or at the wrong time of year. It is also possible that measures for the management of one habitat or species may have negative effects on another. The spatial scale, location, timing and nature of these actions is critical. The organisations responsible for these measures have agreed to these measures through consultation with NE. There is also a requirement to get NE consent before any operations are undertaken, or permitted, that are likely to damage these sites[8]. The risk of negative effects from the measures in Annex D is very low, it was therefore agreed with NE that these actions could be screened out of the assessment.

4.3 Identify hazards to Natura 2000 habitats or species

The aim of this part of the assessment is to consider the remaining measures in further detail and to identify the hazards that implementation of the measures could pose to European sites.

The hazards that have been considered are based on those used in Environment Agency's EU Habitats Directive Handbook[9], they are described in Appendix 2, which also includes a table showing the features that occur on Natura 2000 sites within the Solway Tweed RBD and types of hazards to which they are sensitive.

Hazards are not limited to water dependent habitats or species. Actions do not have to be implemented within a European site to pose a hazard, for example works to a river downstream of a site designated for fish spawning my affect the ability of fish to travel upstream to that site.

All measures that can reasonably be predicted to pose hazards to European sites have been identified; the results of the screening and hazard identification for all measures in Annex C

[8] Wildlife and Countryside Act 1981 Section 28 (4)(b) substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

[9] The principal hazards associated with the main types of activity authorised by the Environment Agency and the broad sensitivities of groups of interest features are identified in the sensitivity matrices in the Functional Appendices 1-10 of the EU Habitats Directive Handbook. These sensitivities are based on the judgement of staff in the Environment Agency, NE and CCW.

are recorded in Appendix 3. The measures that could pose hazards can be grouped into a number of measure types.

- Habitat creation
- Connecting water bodies, improving flood plain connectivity
- Changes to river channel e.g. to increase channel morphological diversity (alteration of channel bed, reintroducing meanders, riffles, buffers)
- Changes to river bank e.g. bank side rehabilitation/re-profiling, replacing hard structures with earth banks
- Invasive species control
- Habitat restoration through blocking of ditches or moorland grips
- Changes to habitat management
- Tree planting

The hazards associated with these types of measures are summarised in Table 3.

Table 3. **Potential hazards associated with types of measures in Solway Tweed RBD**

	Hazard																				
Measure Type	Acidification	Change in water levels or table	Changed water chemistry	Changes in flow or velocity regime	Changes in physical regime	Competition from non-native species	Disturbance (noise or visual)	Entrapment	Habitat loss	Killing/injury or removal of fish or other animals	Nutrient enrichment	PH	Physical damage	Predation	Reduced dilution capacity	Salinity	Siltation	Smothering	Surface water flooding changes	Thermal regime changes	Toxic contamination	Turbidity
Habitat creation									■													
Connecting water bodies, improving flood plain connectivity		■	■	■	■	■	■		■				■				■		■			■
Changes to river channel e.g. to increase channel morphological diversity (alteration of channel bed, reintroducing meanders, riffles, buffers)				■	■		■		■				■				■					■
Changes to river bank e.g. bank side rehabilitation/re-profiling, replacing hard structures with				■	■		■		■				■				■					■

	Hazard																				
Measure Type	Acidification	Change in water levels or table	Changed water chemistry	Changes in flow or velocity regime	Changes in physical regime	Competition from non-native species	Disturbance (noise or visual)	Entrapment	Habitat loss	Killing/injury or removal of fish or other animals	Nutrient enrichment	PH	Physical damage	Predation	Reduced dilution capacity	Salinity	Siltation	Smothering	Surface water flooding changes	Thermal regime changes	Toxic contamination	Turbidity
earth banks				■	■		■		■				■				■					■
Invasive species control			■				■						■								■	
Habitat restoration through blocking of ditches or moorland grips		■			■		■						■						■			
Changes to habitat management									■				■									
Tree planting							■		■													

4.4 Assessment of likely significant effect

A plan is likely to have a significant effect if it may reasonably be predicted to affect the conservation objectives of the features for which a European site was designated. This excludes trivial or inconsequential effects.

Determining whether there will be a 'likely significant effect' does not imply that there will be such an effect or even that an effect is more likely than not.

4.4.1 Considering likely significant effect of an individual measure

Issues that would normally be considered to judge whether actions could have a significant effect on the conservation objectives of designated features are:

- The distribution of the designated features across the site in relation to the predicted hazard.
- The location, timing and duration of the proposed activity.
- The level of understanding of the effect, for instance has the effect been recorded before and based on current ecological knowledge can it be expected to operate at the site in question?

The RBMP is a high-level plan, it identifies measures, but the detail of exactly where and how the individual measures will be implemented will be developed at a later stage when the measure is progressed towards implementation. The RBMP does not constrain how the measure is implemented. It is not possible to undertake a meaningful assessment of whether the measure is likely to have a significant effect at this stage.

4.4.2 Interaction of the individual measures in the plan

When considering whether a measure is likely to have a significant effect, it is necessary to consider the interaction of all the measures in the plan. It is possible that the measures could act in combination to have a significant effect on the interest features of European sites. To make a meaningful assessment, further information about all the measures would be needed; this detail will not become available until the measures progresses towards implementation.

4.4.3 In combination assessment with other plans or projects

When considering whether a measure is likely to have a significant effect, it is necessary to consider the interaction of the plan in combination with other plans or projects. Given the extensive range of plans and projects that may affect European sites within the plan area a pragmatic approach to the in combination assessment is required. Only the key types of plans/projects that have potential for in combination effects have been considered.

Other competent authorities have not been consulted for information on other plans and projects as part of this Habitats Regulations assessment because the Strategic Environmental Assessment (SEA) of the draft RBMP for the Solway Tweed RBD[10] identifies other plans that may be relevant. This includes relevant policies, guidelines, plans and programmes which may influence or be influenced by the Solway Tweed River Basin Management Plan. It covers International, UK National, Scottish National, UK Regional, English Local, Scottish Regional and local levels of information to ensure all relevant documents have been considered.

[10] MWH, Sistech, Enfusion for SEPA/EA (July 2008) Solway Tweed River Basin Management Plan Environmental Report.

The plans identified in the SEA as relevant in relation to biodiversity, flora & fauna are:

- A Forward Strategy for Scottish Agriculture – Next Steps
- Scottish Forestry Strategy
- Scottish Water - Strategic Asset Capacity and Development Plan
- Scottish Water - Quality and Standards 3
- Scottish Water - Water Resource Plan
- Scottish Water – Sewage Sludge Strategy
- Scottish Biodiversity Strategy "Scotland's Biodiversity: It's in Your Hands"
- Scottish Government's Strategic Framework for Scottish Freshwater Fisheries Consultation, 2007
- North West Regional Waste Strategy
- Eden Catchment Flood Management Plan
- Northumbrian Water – What customers can expect in 2005 to 2010 our delivery plan
- United Utilities Draft Statutory Drought Plan
- Eden and Esk Catchment Abstraction Management Plan
- United Utilities Biodiversity Strategy Working for Wildlife
- United Utilities/RSPB Sustainable Catchment Management Programme
- Restoring Eden Project – Eden Rivers Trust

Generally, Appropriate Assessment is required of these plans, and the results of available assessments would help to inform Habitats Regulations assessments of individual RBMP measures undertaken at the lower tier plan, project or permission stage.

4.4.4 Prevailing environmental conditions

The assessment of likely significant effect also needs to be made in the context of the prevailing environmental conditions, this includes background/diffuse contributions to the site and the residual effects of plans and projects that have been completed/implemented.

At this high-level plan stage it is not appropriate to consider the prevailing environmental conditions at each European site – this would not add anything useful to the assessment as the plan does not include detail or constrain where the measures will be implemented.

4.4.5 Summary of in combination assessment

This risk of negative effects in combination with other plans and projects is very low as the measures in the plan are intended to secure no deterioration in status across the water environment in the context of these prevailing conditions. The measures are expected to reduce negative effects of the prevailing environmental conditions.

It is not possible to make a meaningful assessment of whether the plan is likely to have a significant effect in combination with other plans or projects without further information about the effects of implementing the measures, the detail required to do this will not become available until the measures progress towards implementation, however in combination assessments will be required as part of the Habitats Regulations assessment of the measures undertaken at the lower tier plan, project or permission stage.

4.5 Control measures to avoid likely significant effects

The assessment has shown that some measures could pose hazards to European sites. It has not been possible to make a meaningful assessment of likely significant effect due to uncertainty about where and how the measures will be implemented.

The Habitats Regulations require a precautionary approach, it could be suggested that as it has not been possible to rule out likely significant effect the plan must be subject to Appropriate Assessment. However, Appropriate Assessment is only effective when specific geographical locations are known and the nature of the impact can be identified in relation to a specific European site. At the high-level plan stage this is not possible. It is considered that this approach would be overly-precautionary in this case.

The inclusion of a measure in the RBMP does not place constraints on where or how it will be implemented. As the detail of the measure is developed it is possible to change the nature and/or scale and/or location of the measure in order to avoid the likelihood of any significant negative effects on European sites. This section considers whether appropriate control measures are in place to ensure that negative effects on European sites can be identified and avoided.

4.5.1 Measures that require lower tier plans, projects or permissions before they can be implemented

Most of the types of measures that have been identified as having potential to cause hazards would require lower tier plans, projects or permissions before they can be implemented. A Habitats Regulations assessment of these plans, projects or permissions is required as a matter of law or Government policy. A Habitats Regulations assessment of the lower tier plan will be able to identify more precisely the nature, scale or location of action associated with the measure, and thus its potential effects.

Responsibility for Habitats Regulations assessment of plans, projects or permissions required to implement the measures in this RBMP remains with the relevant competent authority. For example, any measures involving work in a river channel or river bank would not be able to legally go ahead without consent from the Environment Agency under the Water Resources Act 1991 or Land Drainage Act 1991, the Environment Agency would be the competent authority in this case and could not agree to any actions that would have an adverse effect on any European sites. Further examples are provided in Table 4.

4.5.2 Measures that require consent from relevant nature conservation body

Some of types of measure that have been identified as having potential to cause hazards may not necessarily require lower tier plans, projects or permissions before they can be implemented, this may apply to measures involving ‘changes to habitat management’ or ‘tree planting’. The risk of these types of measure causing significant negative effects is very low; this is why they are not subject to regulation. Effects are only likely if carried out on the European sites, this can not be ruled out as the plans do not contain location specific information; however it is unlikely unless this action has been identified as necessary for the nature conservation management of the site.

SPAs and SACs on land or freshwater areas are underpinned by notification as Sites of Special Scientific Interest (SSSIs). The notification includes a list of operations which need consent from NE[11] before they can be carried out on a SSSI or in a location outside the SSSI which may affect the features of interest. A land-owner or occupier must give NE written

[11] Wildlife and Countryside Act 1981 Section 28 (4)(b) substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

notice before beginning any of the operations listed in the notification, or before allowing someone else to carry out these activities. None of the activities can legally go ahead without NE consent. SSSI features are not always exactly the same as the SAC or SPA features, however, given the very low risk it is considered that this provides adequate control for any activities that do not require lower tier plans, projects or permissions.

Table 4 provides information on the types of measures, potential hazards and control measures. It also considers some potential control measures that could be considered at implementation stage.

Table 4. **Control measures for implementing measures that may affect Natura 2000 sites**

Measure Type	Potential hazards	Control Measure	Potential control measures to consider at implementation stage
Habitat creation	Loss of existing habitat. Works themselves may cause physical damage and disturbance.	The plans, projects or permissions required to implement this type of measure may require assessment under the Habitats Regulations as a matter of law or Government policy. Operations affecting SSSI's require consent from NE.	Existing habitat use must be considered and there is a need to ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Appropriate timing of work. Follow established good practice. Seek advice from NE.
Connecting water bodies, improving flood plain connectivity	Increasing connectivity of rivers and improving flood plain connectivity could lead to increases in movement of invasive non-native species. Works themselves may cause physical damage and disturbance and may cause turbidity and lead to smothering as the sediment settles.	The plans, projects or permissions required to implement this type of measure would require assessment under the Habitats Regulations as a matter of law or Government policy. Operations affecting SSSI's require consent from NE.	Existing habitat use must be considered and there is a need to ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Appropriate timing of work. Follow established good practice. Seek advice from NE.
Changes to river channel e.g. to increase channel morphological diversity (alteration of channel bed, reintroducing meanders, riffles, buffers)	Improving habitat for one specific species e.g. creating spawning habitat for fish could have negative effect on other designated features. Works themselves may cause physical damage and disturbance within the water body as well as to adjacent habitats. In-river works may cause turbidity and lead to features being smothered as the sediment settles.	The plans, projects or permissions required to implement this type of measure would require assessment under the Habitats Regulations as a matter of law or Government policy, e.g. this work could not go ahead without consent from the Environment Agency to work in the river under the Water Resources Act 1991 or Land Drainage Act 1991.	Ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Seek advice from NE.

Measure Type	Potential hazards	Control Measure	Potential control measures to consider at implementation stage
		Operations affecting SSSI's require consent from NE.	
Changes to river bank e.g. bank-side rehabilitation/re-profiling, replacing hard structures with earth banks	Improving habitat for one specific species e.g. creating spawning habitat for fish could have negative effect on other designated features. Works themselves may cause physical damage and disturbance to the water body as well as adjacent habitats. In-river works may cause turbidity and lead to features being smothered as the sediment settles.	The plans, projects or permissions required to implement this type of measure would require assessment under the Habitats Regulations as a matter of law or Government policy, e.g. this work could not go ahead without consent from the Environment Agency to work in the river under the Water Resources Act 1991 or Land Drainage Act 1991. Operations affecting SSSI's require consent from NE.	Ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Seek advice from NE.
Invasive species control	Chemical control of invasive plant species may have negative effects on other plant species. Carrying out any physical removal at wrong time of year could disturb fish or birds. Leaving plant debris in the water could affect oxygen levels. Disposal of vegetation on the bank-side could damage other habitat and allow the spread of invasive species.	The Food and Environment Protection Act 1985 (Control of Pesticides Regulations 1986, as amended), sets out the rules on the use of pesticides to control weeds growing in water or on land. Anyone who wants to use herbicides to control aquatic or bank-side weeds must have written agreement to their proposals from the Environment Agency. The Environment Agency will assess these applications to ensure no activities go ahead that would have negative effects on European sites. Operations affecting SSSI's require consent from NE.	Negative effects can be avoided by following best practice e.g. seeking advice on correct management for the specific invasive species and the specific location; removing all plant debris from the water after cutting operations; seeking advice on disposal of plant material. For further information see: Environment Agency '*Guidance for the control of non-native invasive weeds in or near fresh water*'
Habitat restoration through blocking of ditches or moorland grips.	Work may result in disturbance, particularly to birds.	The plans, projects or permissions required to implement this type of	Existing habitat use must be considered and there is a need to

Measure Type	Potential hazards	Control Measure	Potential control measures to consider at implementation stage
	Carrying out any physical work could disturb or damage habitats.	measure would require assessment under the Habitats Regulations as a matter of law or Government policy. Operations affecting SSSI's require consent from NE.	ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Appropriate timing of work. Follow established good practice. Seek advice from NE.
Changes to habitat management	Potential loss of other habitats. Work may result in physical damage and disturbance.	Operations affecting SSSI's require consent from Natural England.	Ensure that implementation has regard for impacts on European sites through appropriate levels of survey, investigation and impact assessment. Seek advice from NE.
Tree planting	Loss of existing habitat.	Operations affecting SSSI's require consent from NE.	Existing habitat use must be considered. Seek advice from NE.

4.6 Conclusion of Habitats Regulations assessment

This assessment has identified potential hazards associated with the measures in the RBMP. It is not possible to predict the effects of implementing the measures in the plan alone or in combination in a meaningful way. This is because the detail of where and how the measures will be implemented has not yet been developed.

The Habitats Regulations are underpinned by the precautionary principle, generally, if it is not possible to rule out the risk of harm on the evidence available then it should be assumed that a risk may exist and further assessment should be carried out. This would be an overly precautionary approach in this case as it has been demonstrated that the measures could not be implemented without further plans, projects or permissions which would require assessment under the Habitats Regulations[12], and/or consent from the relevant nature conservation body.

Because these control measures are in place to avoid any risk of significant effects we can conclude that the RBMP itself is unlikely to have any significant negative effects on any Natura 2000 sites.

5. Conclusion

It is concluded that the RBMP itself is unlikely to have any significant negative effects on any Natura 2000 sites. The RBMP does not require further assessment under the Habitats Regulations.

NE are asked to sign off the RBMP as having no likely significant effect on the basis that this conclusion does not remove the need for later Habitats Regulations assessment of any other plans, projects, or permissions associated with, or arising out of, the measures identified in the plan.

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[12] Deferring Habitats Regulations assessment to lower tier plans is not always appropriate; in some circumstances it can prevent consideration of strategic alternatives. The assessment should be done at the highest possible level and only when the following criteria are met:

The higher tier plan assessment cannot reasonably predict the effects of a plan, alone or in combination with other plans or projects, on a European site in a meaningful way; whereas

The HRA of the lower tier plan, which will identify more precisely the nature, scale or location of development, and thus its potential effects, will be able to change the proposal if an adverse effect on site integrity cannot be ruled out, because the lower tier plan is free to change the nature and/or scale and/or location of the proposal in order to avoid adverse effects on the integrity of any European site (e.g. it is not constrained by location specific policies in a higher tier plan); and

The HRA of the plan or project at the lower tier is required as a matter of law or Government policy.

6. References

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