SEPA
Scottish Environment Protection Agency

The river basin management plan for the Scotland river basin district 2009–2015

Appropriate Assessment

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Introduction

The Appropriate Assessment (Appropriate Assessment) contained in this document has been prepared by SEPA as a consequence of the preparation of the Scotland river basin management plan (RBMP), to assist in meeting the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

The ultimate purpose of the appropriate assessment is to see whether it can be ascertained that a proposal will not adversely affect the integrity of any European site. The appropriate assessment, following on from an identified Likely significant Effect on European sites of implementing the policies and proposals of the national measures contained in the RBMPs, identifies the potential for adverse effects on the integrity of European sites that may arise from measures, and approaches to mitigation that will be adopted to avoid these.

The appropriate assessment is developed from, and builds upon, a scoping report completed by the environmental consultancy company, Enfusion, as part of the SEPA-funded contract to undertake the Strategic Environmental Assessments (SEAs) of the Scotland and Solway Tweed RBMPs. The original scoping report is included as Appendix E to the SEAs for the Scotland and Solway Tweed RBMPs.[1]

The purpose of the RBMP is to set the framework for protecting and enhancing the water environment from 2009 to 2015, with the aim of achieving 'good status' for surface and ground water bodies by 2015, in accordance with the European Water Framework Directive. Specific overarching objectives of the RBMP are to:

- prevent deterioration and enhance the condition (status) of aquatic ecosystems, including wetlands and groundwater;
- promote sustainable water use;
- reduce pollution;
- contribute to the mitigation of floods and droughts.

National, regional and local measures were identified for the Scotland river basin district. This report provides a high level screening assessment of the national measures contained in the RBMP, highlighting where further assessment may be required. This will help to guide the subsequent project-level assessment of more specific regional and local measures, when further detailed information is available regarding the application of those measures.

Requirement for Appropriate Assessment

The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the habitats directive) protects habitats and species of European nature conservation importance. The habitats directive establishes a network of internationally important sites designated for their ecological status. These are referred to as European sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) (which are classified under the Council Directive 79/409/EEC on the conservation of wild birds)

Article 6 (3) of the habitats directive requires appropriate assessment to be undertaken on proposed plans or projects which are not directly connected with or necessary for the management of the site but which are likely to have a significant effect on one or more

[1] For example, MWH/, Sistech, Enfusion for SEPA/EA (July 2008) Scotland river basin management plan Environmental Report

Natura 2000 sites either individually, or in combination with other plans and projects.[2] This requirement is transposed into Scottish law through Regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It should be noted that the amendments since 1994 have led to some differences in the legislation north and south of the border. However, these are not relevant here and will not be considered further.

Government guidance requires that Ramsar sites (which support internationally important wetland habitats) and are listed under the Convention on Wetlands of International Importance (Ramsar Convention 1971) are included within Appropriate Assessment. Scottish Government policy requires that candidate European sites also be considered.

In accordance with Regulation 48 of the 1994 Regulations, a competent authority must agree to the plan or project only after having ascertained that it will not adversely affect the integrity of any European site. The RBMPs for Scotland and the Solway Tweed must, therefore, be subject to an Appropriate Assessment in order to seek to conclude that neither plan will have an adverse effect on the integrity of one or more European sites.

The purpose of Appropriate Assessment is to assess the impacts of a plan or project, in combination with the effects of other plans and projects, against the conservation objectives of a European site to see if it can be ascertained that it would not adversely affect the integrity[3] of that site. Where this can not be ascertained, alternative options or mitigation measures should be examined to avoid any potential damaging effects. It should be noted that consideration of alternatives at this stage is not the same as consideration of alternatives under regulation 49. The scope of the Appropriate Assessment is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European sites under consideration.

The purpose of this report is to:

- identify the justification for undertaking an Appropriate Assessment;
- undertake the Appropriate Assessment;
- for the purposes of mitigating any adverse effects on site integrity, guide further assessment of regional and local measures (for example at project level and for measures not subject to regulatory control).

Broader environmental/habitat issues that are related to, but are not directly implicated in, Appropriate Assessment requirements, are referred to in the Strategic Environmental Assessment report that has been produced alongside the river basin management plan. Where possible, the findings of the SEA have been considered in undertaking this Appropriate Assessment.

[2] Determining whether an effect is 'significant' is undertaken in relation to the qualifying interest features and conservation objectives of the European site. Where information is limited, the precautionary principle applies and significant effects should be assumed until evidence exists to the contrary. [This reflects the Scottish Government guidance – Assessing Development plans (2006) – which states, at paragraph 12: "As a guide, any element of a plan which has the potential to affect the interests of the site should initially be considered significant and an appropriate assessment undertaken."]

[3] In Scotland, the integrity is described thus: "The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or levels of populations of the species for which it was classified, (Circular 6/1995 as revised June 2000)'.

Scotland river basin district and European sites

With a total of 483 European sites in the two river basin districts (RBD) covering Scotland, and given the strategic nature of this exercise, it is not practical to provide detailed information about individual sites; a summary of numbers of sites in the Scotland RBD is provided below and further detailed information is available at the Scottish Natural Heritage website at: www.snh.org.uk.

Scotland RBD:

240 SACs
152 SPAs
46 Ramsar sites

Following is a description of the Scotland river basin district, including general information on the European sites within the RBD.

The Scotland RBD

The Scotland RBD covers around 113,920 km2 of land and water from Shetland in the north to Glasgow, Ayr and Edinburgh in the south. Around 4.8 million people live in the District, mostly in the central belt between Glasgow and Edinburgh. The landscape is varied – from the mountainous Highlands and the extensive coastline to the urban and industrial areas around Glasgow and Edinburgh. The Highlands are mountain ranges of sandstone and granite, rising to Britain's highest mountain, Ben Nevis. Much of the Scottish uplands are characterised by large tracts of blanket bog which are more extensive in Scotland and Ireland than elsewhere in Europe. The oceanic climate and varied topography of the western Highlands and Islands give rise to a diverse and rich botany. The district supports important habitats and wildlife including 235 water-dependent Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).[4]

Overall, the District has fewer environmental problems than the rest of the UK. However, there are significant environmental problems in parts of the District – in particular around the larger population centres of Glasgow and Edinburgh. Although many large rivers and estuaries, such as the Clyde in the west and the Forth in the east have seen marked improvements over the last 20 years, water quality problems remain. Land use in the north eastern part of the District is largely agricultural, which can give rise to a range of environmental problems including diffuse pollution. The Scotland RBD has a relatively high rainfall in relation to the rest of the UK, particularly in the west. About 90% of drinking water supplies come from surface waters, the remainder from groundwater.

Method

Introduction

The undertaking of Appropriate Assessment of RBMPs is a new process, and there is no precedent available to inform this work. Likewise, there are few examples of Appropriate Assessment being carried out on high-level strategic plans of this nature. The development of a method has, therefore, required an iterative process, informed by the continued development of the RBMPs themselves and, during the earlier scoping study for this Appropriate Assessment, undertaken by Enfusion as part of the process of

[4] MWH/, Sistech, Enfusion for SEPA/EA (July 2008) Scotland River basin management plan Environmental Report

completing Strategic Environmental Assessments (SEA) for the two RBMPs, discussion with the project team and with SEPA's Conservation Policy team.

Experience in undertaking Appropriate Assessment of land use plans across England and Wales, and in undertaking the SEA of the RBMPS in England helped to inform the process of assessing Likely significant Effects, as did discussions with the Scottish Government team undertaking Appropriate Assessment of the Scottish National Planning Framework, NPF2. Alongside good practice, we have referred to a range of guidance throughout the process; it was, however, considered that a bespoke method would be required. A list of documents consulted is provided in the reference list at the end of this document.

The Conservation (Natural Habitats, &c.) Regulations 1994 as amended require the plan-making competent authority (in this case, SEPA) to consult the appropriate nature conservation statutory body. Scottish Natural Heritage (SNH) was consulted at the SEA scoping stage, and provided useful comments on the scope, which have all been incorporated into this document.

Consideration of Likely significant Effect

In developing the Appropriate Assessment, an initial stage involved considering the Likely significant Effects of a plan of this nature. The main intention of the measures in the RBMPs is to prevent deterioration and enhance the condition of aquatic ecosystems, in line with the Water Framework Directive, whose objectives are closely aligned with the habitats directive. Due to these synergies, it was considered that the overall effect of the national RBMP measures on European sites would be positive.

It was considered, however, that there may be instances whereby the measures, or a combination of measures (either alone or in-combination with other plans and programmes) could have potentially significant effects at European sites, as an unintended consequence of the plan. For example, in allowing the natural retreat of a coastline (which is, for example, a measure under consideration in the SE England RBMP), the result could be inundation or saline flooding of an estuarine European site which could adversely affect the conservation objectives of the site. Likewise, physical modifications may lead to changes in water flow which can impact on sites that are sensitive to water-levels. These effects may not only be confined to water-sensitive sites. For example, the fencing of areas and removal of cattle may affect grassland sites dependent on particular grazing regimes.

This is generally consistent with the findings of the Strategic Environmental Assessment of the RBMPs, which found that there were likely to be positive and negative effects on biodiversity:

"There are a number of measures that have both positive and negative effects on biodiversity, flora & fauna. They include the remediation of water and sediment, regulating the flow regime and reducing the impacts of invasive non-native species. These measures provide benefits in a targeted water body, but could have negative effects in another. For example, while the remediation of sediment and water is generally positive for the water body undergoing remediation (e.g. improves biodiversity, amenity value, ecological condition), there are potential negative effects associated with the disposal of contaminated sediment, while the disturbance of contaminated sediment may release toxic metals into the water body to be carried downstream. Further, while measures to regulate flow in a water body are generally positive for the water body concerned (e.g. improves biodiversity, amenity value and ecological condition), it may require the identification of new sources of supply or an alternative supply source to meet the current demand. The effect of the measure may be to simply shift the locus of

the problem to a new area/water body. The negative effects of both of these measures can be largely mitigated by finding an appropriate local/regional solution that considers the entire water cycle such as a Water Cycle Strategy (WCS).

"The national regulatory measures to deal with invasive non-native species in the Scotland RBD are the GB Framework Strategy and Implementation Plans to reduce the impacts of invasive non-native species. The environmental effects of this measure are positive for biodiversity, flora & fauna where the invasive non-native species infestation is being controlled. However, there are risks that areas of new infestation may be created in transporting the invasive non-native species to disposal points, while the use of herbicides to eradicate invasive non-native species may also eradicate native plants if used injudiciously (although this is subject to regulation to avoid such impacts)".[5]

It was therefore considered that it was not possible to state uniformly that all effects of RBMP measures will be positive for all European sites. It was considered that the Appropriate Assessment should instead focus on identifying those measures that have the potential to cause unintended effects and cumulative effects.

Given the strategic and non-location specific nature of the national measures, it was not considered possible to assess the impact of the measures on specific European sites at this stage. Rather, professional judgement, alongside the findings of the SEA of the measures, was used in the assessment to rule out measures that would not have a Likely significant Effect on any European sites across the Scotland RBD, regardless of any European site's location. The process adopted is described below.

Assessment of Likely significant Effect

A number of the proposed measures are subject to separate licensing activities, for example under CAR (Controlled Activities Regulations). These measures were all screened-in to the appropriate assessment. Where such activities are subject to individual plan- or project-level Conservation Regulations requirements (which would lead, in some cases, to Appropriate Assessment), this was noted in the final column of the assessment table in Appendix 1.

The national measures were subjected to an initial screen. The aim of this exercise was to identify those measures that are not likely to have a significant effect on European sites, leaving a reduced list of measures that may require further assessment. This approach was informed by emerging practice in the Appropriate Assessment of land use plans in the UK.[6] Measures were screened out of the process if they were considered to meet the following criteria:

Criterion A: No-effect measures

These are measures that are considered to have no likely effect, as they will not lead directly to action. These measures may relate to:

- campaign/awareness raising;
- partnerships/publicity/forums;
- monitoring;
- 'Review and assess' measures.

[5] MWH, Sistech, Enfusion for SEPA/EA (July 2008) Scotland river basin management plan Environmental Report

[6] The Assessment of Regional Spatial Strategies and Sub-regional strategies under the Provisions of the Habitats Regulations: Draft (David Tyldesley Associate, for English Nature, 2006).

Criterion B: Positive measures

These are measures that will lead to an improvement of European sites, with no predicted adverse effects. A range of activities were identified that would result in improved water quality, and would be highly unlikely to yield unintended negative effects. Often these measures relate to a reduction of pollutants or sediments at-source. They include:

- measures to reduce point-source or diffuse pollution through controls on supply/use of polluting substances;
- measures that promote sustainable drainage systems;
- measures to reduce sedimentation and other pollution from development/ construction impacts;
- measures to reduce pollution from aquaculture;
- measures to reduce source pollution from mining;
- measures that reduce stress on the water environment.

The list should potentially also include measures identified by the statutory conservation agency (Scottish Natural Heritage, SNH) as directly connected with or necessary to the conservation management of a European site. No such measures have currently been proposed in Scotland.

The findings of the Likely significant Effects (LSE) assessment for the river basin District are recorded in matrices, listed by sector, in Appednix 1. A column records whether each measure is screened in for further consideration in Appropriate Assessment (eg at subsequent or project-level), and a further column records a justification for the judgement. Where the generic effects of a proposed measure on European sites cannot be ascertained, this is also recorded. An excerpt from the matrices is provided in Table 1 below, for illustrative purposes.

Table 1: Excerpt from Appendix 1 Likely Significant Effect Assessment Table

	Appendix 1a: Likely Significant Effect screening of National RBMP Measures (Scotland RBMP)					
		National measures		Appropriate Assessment		
Pressure	Sector	Option 2: RBMP measures	Option 3: Closing the gap	Screen- in? Yes (LSE) or No (No LSE)? or Don't know? (LSE assumed)	Reason	For screened-in measures, is the measure already subject to LSE/ Appropriate Assessment requirements?
Diffuse pollution	All sectors	Reduce diffuse source inputs: **non-urban land management issues**		**NO**	Positive measure- reduces pollution at source	
		Reduce diffuse source inputs: **provide first time sewerage**		**YES**	May have construction impacts- dependent on location/ proximity to European sites. Potential increase of nutrients/pollutants at discharge points.	Yes, for CAR and Town and Country Planning regimes, project level LSE/ Appropriate Assessment requirements apply
		Reduce diffuse source inputs: **reduce sources from built environment**		**NO**	Positive measure- reduces pollution at source	
		Reduce diffuse source inputs: **retrofit/improve existing SuDs**		**NO**	Positive measure- reduces pollution at source	
	Agriculture (regulatory)	CAR 2005: **GBR - diffuse pollution**		**NO**	Positive measure- reduces pollution at source. GBRs are low level activity as regards potential environmental impact.	
		Silage, Slurry and Fuel Oil (SSAFO) Regulation (SSAFO amendments)		**YES**	Licensing activity	No

Plans and programs in combination effects

It is a requirement of Regulation 48(1) of the Conservation Regulations 1994 that the competent authority examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans and projects. A pragmatic approach to this task is required, given the extensive range of plans and projects that may affect the European sites within the plan areas. At this LSE stage, the key types of plans/projects that have the potential for in-combination effects have been considered and are listed below. Generally, Appropriate Assessment is required of these plans, and

the results of available Appropriate Assessment's would help to inform Appropriate Assessments of individual RBMP measures undertaken at the project-level.

PPs to be considered for in-combination effects in Appropriate Assessments may include:

Plan or project	**Is Appropriate Assessment required?**
National Planning Framework (Scotland)	Yes, completed
Development Plans	Yes (some completed)
Energy strategies and projects, for example wind farm proposals	Yes, including project-level Appropriate Assessment
Transport, Minerals and Waste Local Development Frameworks.	Yes

Outcome of Likely significant Effect assessment

On the whole, the effects of the Scotland River basin management plan on European sites would be overwhelmingly positive, resulting in improved conditions for aquatic ecosystems. Appendix 1 presents the assessment for Likely Significant Effects for the total list of National measures and delivery mechanisms assessed.

Appendix 1 presents those National measures included in the Scotland RBMP.

The majority of measures for the RBMP, as described in Appendix 1, met either Criterion A (would have no effect) or Criterion B (were likely to have a positive effect only). Further Appropriate Assessment of these measures is, therefore, not considered necessary. These screened-out measures are listed below:

National RBMP measures: Screened-out of Appropriate Assessment process

Measures assessed as having no Likely significant Effects/ no further assessment required:

- Reduce diffuse source inputs: non-urban land management issues
- Reduce diffuse source inputs: reduce sources from built environment
- Reduce diffuse source inputs: retrofit/improve existing SuDs
- CAR 2005: GBR - diffuse pollution
- CAR 2005: GBRs for diffuse pollution
- CAR 2005: GBRs require SuDs for new surface water discharges - Q&S investment programme, Q&S retrofitting of SuDs to industrial areas
- PPC/CAR: reduce at source (where new standards)
- Scottish Water Controls (Water Industry Scotland Act): trade effluent discharges to sewer
- Scottish Government: use of polluting substances in products
- Scottish Government: low P detergents
- Scottish Water Charging schemes: provides incentives for industry to reduce the amount of trade effluent they discharge to sewer
- Habitats Directive review of consents
- Water company AMPs/Quality & Standards
- CAR 2005: rate or scale of discharges arising from fish farms
- CAR 2005: Priority substances (2008)
- Campaign awareness raising and promotion of best practice: HAZREFD - reduce use of hazardous raw materials
- Campaign awareness raising and promotion of best practice: SEPA minimising water pollution
- Non-coal Restoration Regulations: The SG is considering restoration regulations to give SEPA powers to intervene to treat discharge from non-coal mines
- Economic incentive: additional funding for coal authority to treat polluting discharges from coal mines
- Investment programmes: additional funding for SEPA to initiate work to provide treatment for pollutin non-coal mines CAR control abstraction: improve water efficiency (e.g. abstraction matches need) or reduce need
- CAR control abstraction: reduce leakage
- CAR control abstraction: reduce risk of fish mortality in intakes or screens
- CAR control abstraction: provide higher flows as appropriate to enable fish migration downstream of impoundment
- CAR control abstraction: provide higher flows as appropriate to maintain/improve habitat downstream of impoundment

- CAR control abstraction: reduce impact on DO levels downstream of impoundment
- CAR control abstraction: reduce impact on temperature conditions downstream of impoundment
- CAR control abstraction: appropriate management of rate and range of artificial drawdown
- CAR control abstraction: appropriate baseline flow regime downstream of impoundment
- CAR 2005: Fishery (Electricity) Committee advice - fisheries protection via SEPA licences
- CAR 2005 Charging schemes: incentives for efficient water use by industry
- CAR 2005: SEPA imposes controls on volume of water that can be abstracted and the time over which it can be abstracted, through CAR
- Restoration regulations: new funding frameworks for taking forward restoration work
- EIA
- Control alien species: capture & remove
- Control alien species: prevent introduction

For some measures, Likely significant Effects on European sites were identified, or could not be ruled out (often due to uncertainty in the application of the measure). These were screened-in to the appropriate assessment and are listed in the following table:

National RBMP measures: Screened-in to Appropriate Assessment process

Measures assessed as having Likely significant Effects:

- Reduce diffuse source inputs: provide first time sewerage
- Silage, Slurry and Fuel Oil (SSAFO) Regulation (SSAFO amendments)
- PPC/CAR: increase treatment (where new standards)
- PPC/CAR: transfer all or part of discharge (where new standards)
- PPC/CAR: remediation of sediments and/or water (either by removal or by treating in situ) (where new standards)
- PPC/CAR: change timing or frequency of discharge (where new standards)
- CAR 2005: waste water discharge to rivers, lochs etc.
- CAR: First time rural sewerage programmes
- CAR control abstraction: use alternative source/relocate abstraction
- CAR control abstraction: control pattern/timing of abstraction (hands off flow/utilisation of storage (new/existing))
- CAR control abstraction: provide appropriate baseline flow regime downstream of impoundment
- CAR control abstraction: provide for fish access between reservoir and tributaries
- CAR control abstraction: appropriate management of seasonal variation of water level changes behind the impoundment
- CAR 2005: SEPA controls on licensed hydropower schemes
- CAR 2005: levels of abstraction, management of dams and efficient use of water
- Improve modified habitat: removal of barriers or provision of mechanisms to enable fish migration
- Improve modified habitat: removal of engineering structures
- Improve modified habitat: improvements to condition of channel/bed and/or banks/shoreline
- Improve modified habitat: improvements to condition of riparian zone and/or wetland habitats
- Improve modified habitat: changes to sediment management maintenance regime
- FEPA (Food and Environmental Protection Act)
- CAR 2005: CAR prevent new damage to the water environment from engineering works on rivers (including maintenance regimes)
- Floods Directive: Development of Flood Risk Management Plans
- CAR 2005: CAR prevent new damage to the water environment by engineering works on rivers (Agriculture sector)

- Restoration regulations: new restoration regulations would allow investment to remove abandoned structures such as old embankments
- CAR 2005: CAR prevent new damage to the water environment by engineering works on rivers (Forestry sector)

Measures that could not be screened-out due to uncertainty:

- Economic Incentive: Scottish Rural Development Programmes: 2008–2014 (covers agriculture, forestry, land management)
- Economic incentive: SRDP 2008–2014
- Control alien species: contain to prevent spread
- Control alien species: eradicate in situ

The detailed screening findings for each measure are provided in Appendix 1; a precautionary approach has been adopted, and the list may be refined prior to undertaking further Appropriate Assessment, and once further details are available on some of the measures.

Whilst many (35) of the measures were screened-out, 25 of the national measures were considered likely to have significant effects, and a further four could not be ruled out, due to uncertainty. Many of the measures that could not be screened out related to abstraction and flow regulation or changes to morphology. However, it is noted that any such measures, when applied on the ground, would require further detailed environmental assessment and likely project-level HRA to address the effects.

The types of possible effects identified included:

- potential construction impacts (eg for sewerage schemes)- dependent on location/proximity to European sites;
- changes to water levels may negatively affect water-dependent sites;
- potential increase in spread of alien species;
- potential release of sediment into water bodies to be carried downstream with effects on water-dependent sites;
- potential disturbances to habitat structure;
- disturbances of contaminated sediment may release toxic metals into the water body to be carried downstream;
- flood risk measures may affect European sites.

Conclusions from Likely significant Effect assessment

At this strategic level, it is not possible to predict or assess with any degree of certainty (particularly where no geographic location is specified) the impacts of the national measures on specific European sites. It has been possible to screen-out measures where there was a high level of certainty that they would have no Likely significant Effect, either because they would not lead directly to action/s or that any Likely significant Effects on European sites would certainly be positive. This has allowed the removal of a large number of national measures from further assessment.

On the whole, the likely effects of the Scotland river basin management plan on European sites was found to be likely to be overwhelmingly positive, resulting in improved conditions for aquatic ecosystems. In undertaking the Likely significant Effects assessment of National RBMP measures, 25 measures were considered to have the potential for Likely significant Effects, and a further four could not be ruled out due to uncertainty. Many of the measures that could not be screened out related to abstraction and flow regulation or changes to morphology. It is noted that any such measures, when applied on the ground, would require further detailed environmental assessment and likely project-level consideration of conservation regulations requirements to address the effects.

Full appropriate assessment is only really effective when specific geographic locations are known and the nature of the impact can be tied down in relation to a specific European site. At higher/ strategic levels, the emphasis must be on appropriate [policy] mitigation that avoids the likelihood of effects arising from implementation. The following section will, as part of the appropriate assessment, identify the appropriate policy-level responses to address the screened-in measures.

Appropriate Assessment and approaches to mitigate against adverse effects on integrity of European sites

National measures

For those national measures in Appendix 1 where it was not possible to conclude that they would have no Likely significant Effect on any European site, it is necessary to consider whether there are existing arrangements that provide mitigation against any adverse effects on the integrity of any European site.

Many of those national measures screened in for further appropriate assessment reflect the existence through national legislation, of regulatory regimes. Due to the strategic and non-location-specific nature of the national measures, and the dependency of many of those measures on lower-tier plans and development or environmental licensing approval processes, this appropriate assessment stage is necessarily focused on the provision of mitigation measures and specific recommendations for further application of the Conservation (Natural Habitats, &c.) Regulations 1994 requirements at subsequent regional or local measure/project level.

For those National measures screened-in for this appropriate assessment, the right hand column of the Appendix 1 table provides an assessment of whether that measure is already subject, at the project-level, to a decision-making process that takes account of the requirements of Regulation 48 of the Conservation Regulations 1994, for the assessment of Likely significant Effects and appropriate assessment. For those covered by the Controlled Activity Regulations (CAR) in particular, the licensing process requires the application to pass a conservation test that incorporates these requirements

Appendix 1 indicates that 22 of the 25 National measures are already subject to SEPA's CAR procedures incorporating the requirements of conservation regulation 48 . SEPA has also been working closely with SNH during 2009 to improve the process through agreement over which Water Framework Directive standards are necessary to protect each qualifying interest for freshwater European sites. One of these (the provision of first-time sewage) is also covered by a similar responsibility placed by regulation 48 on the Town and Country Planning Authority (in most cases, the local authority or National park Authority). All local authorities in Scotland reflect regulation 48 requirements in both their development plan policies and their development management decision-making procedures.

A further measure (licensing under the Food and Environment Protection Act (1985)) is subject to similar consideration by the relevant competent authority, Marine Scotland. Another measure will be subject to plan-level consideration when flood risk management plans are drawn up for the first time.

There is one remaining "screened-in" National measure not accounted for by these mechanisms: the Silage, Slurry and Fuel Oil (SSAFO) Regulation (SSAFO amendments)

This is essentially a positive measure which results in the reduction of pollution at source, it but has been included in the appropriate assessment as non-compliance increases the risk of pollutant impacts on European sites. As such, as a regime which it is necessary for farmers to comply with but which is not subject to licensing per se (and hence unlikely to be subjected to regulation 48 requirements through that route), it will be further considered for mitigation below in the discussion of measures not subject to regulatory controls.

Regional/local measures

Project-level assessment of the regional and local measures will be required to determine if Appropriate Assessment is required of those measures. However, to undertake this work, further detail regarding the application and geographical location and scale of these measures is required. Appendix 1 of this assessment will provide guidance on those generic National measures that require to be subjected to this assessment when they are implemented "on the ground" through regional or local measures. At the individual project level, there is usually flexibility over the location of, or approach to, individual components of a project. Coupled with presence of existing policy responses and regulatory and other mechanisms, this should ensure that regional and local measures that implement National measures identified as having a Likely Significant Effect on a European site will meet the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994.

Measures not subject to regulatory controls

For the remaining four national measures classed as "Don't know", which are not subject to a direct regulatory mechanism, existing mechanisms must be employed as mitigation to ensure that the implementation of the measures will not adversely affect the integrity of any European site (SAC or SPA). For the two "Economic incentive" measures, for the forestry and agricultural sectors, involving the provision of funding through the Scottish Rural Development Programme (SRDP), any application relating to any SAC or SPA will either have an SNH case officer or, where the case officer is from RPID or FCS, SNH will be consulted. In addition, SNH is represented on all of the Regional Proposal Assessment Committees (RPACs) which select the proposals to recommend to Scottish Ministers for funding, and so a further check is in place in terms of scrutiny provided of possible adverse effects on SACs or SPAs. In addition, in terms of encouraging activities that meet National targets, activities proposed for SRDP funding which will bring the notified special features of Scotland's nationally important nature sites (SSSIs, SACs, SPAs and Ramsar sites) into favourable condition by 2010, or maintain them in favourable condition, will be scored more highly.

Additionally for forestry schemes under SRDP:

- these are also considered under the forestry EIA regulations;
- all works are expected to use the forests and water guidelines as best practice;
- Forestry Commission Scotland seek input from SEARS partners such as SNH on European and other designated sites (and European protected species);
- it is incumbent on applicants to abide by all relevant legislation.

There are two remaining "Unknown" measures:

- control alien species: contain to prevent spread;
- control alien species: eradicate in situ.

The reason for the "Unknown" status of these actions is that there is no one specific approach to containing the spread or eradicating the alien species for which measures are being proposed. There are existing mechanisms related to the implementation, by SEPA, of the Control of Pesticide regulations where the use of herbicide is proposed in or near water, which provides an opportunity to assess the likelihood of significant effects on any European site. Where SRDP funding is employed, the mechanisms outlined in section 6.8 above would apply.

For other containment or eradication activities (eg trapping, hand-pulling, grazing, cutting, etc), the best available mitigation approach is the promotion of best practice, yet to be developed, under the Scottish implementation of the GB strategy for invasive non-native species, led on by Scottish Government. SEPA and SNH representatives on the Scottish Working Group for invasive non-native species will promote the inclusion of considerations of Likely Significant Effect and Appropriate Assessment as part of that best practice guidance.

There was one remaining national measure: “Silage, Slurry and Fuel Oil (SSAFO) Regulations (SSAFO amendments)”, under the “Agriculture (regulatory)” heading, where there is no specific licensing process undertaken by SEPA through which Likely Significant Effects/Appropriate Assessment requirements could be ensured. This measure is essentially a positive one, reducing pollution at source, was included in the appropriate assessment as non-compliance with the requirements of the Regulations would increase the risk of impacts on European sites from releases of silage, slurry or fuel oils into the water environment. The aim of the regulations is to reduce the number of silage and slurry related water pollution incidents in Scotland.

It is SEPA’s publically expressed view that they have been very successful in the dairy sector and that they continue to provide an important safeguard for the water environment. The regulations require that suitably sited, designed and constructed facilities are put in place to collect, store and manage manures and slurries. They also set minimum standards for new, substantially reconstructed, or enlarged structures, such as silos and slurry stores. The regulations allow for some discretion on how to construct relevant structures, provided the minimum criteria are met and are discussed with SEPA. The agricultural fuel oil aspect of the 2003 regulations were revoked in 2006, and are now covered by the Water Environment (Oil Storage) (Scotland) Regulations 2006.

In light of SEPA’s views that the regulations are generally operated successfully, the water environment is adequately protected, and that SEPA is involved in discussing design issues for new facilities, it is SEPA’s view that this national measure will not adversely affect the integrity of any European site.

Conclusions from Appropriate Assessment

In coming to a conclusion on the appropriate assessment of the Scotland river basin management plan, SEPA has taken into account:

- the overwhelmingly positive effect that the Scotland RBMP is likely to have through the maintenance of existing good status water bodies, and improved conditions for aquatic ecosystems suffering from pressures;
- the large proportion of the proposed RBMP measures identified as having no Likely significant Effects on any European site, indeed mostly being positive measures, such as reducing pollution at source;
- the flexibility over the location of individual components coupled with presence of existing policy responses and regulatory and other mechanisms should ensure that regional and local measures that implement national measures identified as having a Likely Significant Effect on a European site will meet the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994.

In consequence, SEPA has concluded that it is beyond reasonable scientific doubt that the implementation of the Scotland river basin management plan in Scotland will not have an adverse effect on the integrity of any European site in Great Britain.

It is recognised that the conclusions of this appropriate assessment do not remove the need for full consideration under the Conservation (Natural Habitats, &c.) Regulations 1994 as and when individual projects are brought forward.

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Appendix 1: Likely Significant Effect screening of national RBMP measures (Scotland RBMP)

Pressure	Sector	National measures		Appropriate Assessment		
		Option 2: RBMP measures	**Option 3: Closing the gap**	**Screen- in? Yes or no? or ?**	**Reason**	**For screened-in measures, is the measure already subject to LSE/ Appropriate Assessment requirements?**
Diffuse pollution	All sectors	Reduce diffuse source inputs: **non-urban land management issues**		**NO**	Positive measure- reduces pollution at source	
		Reduce diffuse source inputs: **provide first time sewerage**		**YES**	May have construction impacts- dependent on location/ proximity to European sites. Potential increase of nutrients/pollutants at discharge points.	Yes, for CAR and Town and Country Planning regimes, project level LSE/ Appropriate Assessment requirements apply
		Reduce diffuse source inputs: **reduce sources from built environment**		**NO**	Positive measure- reduces pollution at source	
		Reduce diffuse source inputs: **retrofit/improve existing SuDs**		**NO**	Positive measure- reduces pollution at source	
	Agriculture (regulatory)	CAR 2005: **GBR - diffuse pollution**		**NO**	Positive measure- reduces pollution at source. GBRs are low level activity as regards potential environmental impact.	
		Silage, Slurry and Fuel Oil (SSAFO) Regulation (SSAFO amendments)		**YES**	SEPA enforcement activity	No – essentially a Positive measure- reduces pollution at source – but included as non-compliance increases risk of impacts on European sites
	Agriculture (non-regulatory)	Economic Incentive: Scottish Rural Development Programmes: **2008-2014 (covers agriculture, forestry, land management)**		**Don't Know?**	Dependent on further detail	

	Forestry (regulatory)	CAR 2005: GBRs for diffuse pollution		**NO**	Positive measure- reduces pollution at source. GBRs are low level activity as regards potential environmental impact.	
	Forestry (non-regulatory)	Economic incentive: **SRDP 2008 to 2014**		**Don't Know?**	Dependent on further detail	
	Urban development (regulatory)	CAR 2005: **GBRs require SuDs for new surface water discharges - Q&S investment programme, Q&S retrofitting of SuDs to industrial areas**		**NO**	No effect measure- provided actions are undertaken in accordance with the terms of the GBR. GBRs are low level activity with regards environmental impact.	
Point source pollution	All sectors	PPC/CAR: **reduce at source (*where new standards*)**		**NO**	Positive measure- reduces pollution at source (harm reduction measure).	
		PPC/CAR: **increase treatment *(where new standards)***		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		PPC/CAR: **transfer all or part of discharge *(where new standards)***		**YES**	May impact on water-dependent sites	Yes- requires project-level LSE/Appropriate Assessment consideration
		PPC/CAR: **remediation of sediments and/or water (either by removal or by treating *in situ*) (*where new standards)***		**YES**	May impact on water-dependent sites	Yes- requires project-level LSE/Appropriate Assessment consideration
		PPC/CAR: **change timing or frequency of discharge *(where new standards)***		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
	Sewage disposal (regulatory)	CAR 2005: **waste water discharge to rivers, lochs etc.**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration

		Scottish Water Controls (Water Industry Scotland Act): **trade effluent discharges to sewer**		**NO**	Positive measures- reduces pollution at source	No, although subsequent discharge from treatment works may require LSE/Appropriate Assessment consideration, as covered by the relevant measures elsewhere in this Appendix
		Scottish Government: **use of polluting substances in products**		**NO**	Positive measure- reduces pollution at source	
			Scottish Government: **low P detergents**	**NO**	Positive measure- reduces pollution at source	
		Scottish Water Charging schemes: **provides incentives for industry to reduce the amount of trade effluent they discharge to sewer**		**NO**	Positive measure- reduces pollution at source	
		Habitats Directive review of consents		**NO**	Positive measure- review of existing consents to ensure compliance	
		Quality & Standards process		**NO**	Positive measure-will improve water quality	Resultant new or modified discharges from treatment works may require LSE/Appropriate Assessment consideration, as covered by the relevant measures elsewhere in this Appendix
		CAR: **First time rural sewerage programmes**		**YES**	May have construction impacts- dependent on location/ proximity to European sites. Potential increase of nutrients /pollutants at discharge points.	Yes- requires project-level LSE/Appropriate Assessment consideration

	Aquaculture/fish farming (regulatory)	CAR 2005: **rate or scale of discharges arising from fish farms**		**NO**	Positive measure-reduces pollution at source	
	Manufacturing (regulatory)	CAR 2005: **Priority substances (2008)**		**NO**	Positive measure-reduces pollution at source	
	Manufacturing (non-regulatory)	Campaign awareness raising and promotion of best practice: **HAZREFD - reduce use of hazardous raw materials**		**NO**	No-effect measure-(campaign/awareness raising)	
		Campaign awareness raising and promotion of best practice: **SEPA minimising water pollution**		**NO**	No effect measure-(campaign/awareness raising)	
	Mining and quarrying (regulatory)		Non-coal Restoration Regulations: T**he SG is considering restoration regulations to give SEPA powers to intervene to treat discharge from non-coal mines**	**NO**	Positive measure-reduces pollution at source	
	Mining and quarrying (non-regulatory)		Economic incentive: **additional funding for coal authority to treat polluting discharges from coal mines**	**NO**	Positive measure-reduces pollution at source	
			Investment programmes: **additional funding for SEPA to initiate work to provide treatment for polluting non-coal mines**	**NO**	Positive measure-reduces pollution at source	
Abstraction and flow regulation	All sectors	CAR control abstraction: **use alternative source/relocate abstraction**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR control abstraction: **improve water efficiency (e.g. abstraction matches need) or reduce need**		**NO**	Positive measure-will reduce stress on the water environment	
		CAR control abstraction: **reduce leakage**		**NO**	Positive measure-will reduce stress on the water environment	

		CAR control abstraction: **control pattern/timing of abstraction (hands off flow/utilisation of storage (new/existing))**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR control abstraction: **reduce risk of fish mortality in intakes or screens**		**NO**	Positive measure-reducing fish mortality	
		CAR control abstraction: **provide appropriate baseline flow regime downstream of impoundment**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR control abstraction: **provide higher flows as appropriate to enable fish migration downstream of impoundment**		**NO**	Positive measure-will reduce stress on the water environment	
		CAR control abstraction: **provide higher flows as appropriate to maintain/improve habitat downstream of impoundment**		**NO**	Positive measure-will reduce stress on the water environment	
		CAR control abstraction: **provide for fish access between reservoir and tributaries**		**YES**	Yes- may involve physical works with potential consequences for European sites	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR control abstraction: **reduce impact on DO levels downstream of impoundment**		**NO**	Positive measure-will reduce stress on the water environment	
		CAR control abstraction: **reduce impact on temperature conditions downstream of impoundment**		**NO**	Positive measure-will reduce stress on the water environment	
		CAR control abstraction: **appropriate management of rate and range of artificial drawdown**		**NO**	Positive measure-will reduce stress on the water environment	

		CAR control abstraction: **appropriate management of seasonal variation of water level changes behind the impoundment**		**YES**	May have some implications for European sites, e.g. on nesting water birds	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR control abstraction: **appropriate baseline flow regime downstream of impoundment**		**NO**	Positive measure-will reduce stress on the water environment	
	Electricity generation (regulatory)	CAR 2005: SEPA **controls on licensed hydropower schemes**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR 2005: **Fishery (Electricity) Committee advice - fisheries protection via SEPA licences**		**NO**	Positive measure-provision of advice on the protection of fish will protect Appendix 2 river species in SAC and certain piscivorous Birds Directive bird species interests in SPAs	
	Water supply activities (regulatory)	CAR 2005: **levels of abstraction, management of dams and efficient use of water**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		CAR 2005 Charging schemes: **incentives for efficient water use by industry**		**NO**	Positive measure-will reduce stress on the water environment	
	Agriculture irrigation (regulatory)	CAR 2005: **SEPA imposes controls on volume of water that can be abstracted and the time over which it can be abstracted, through CAR**		**NO**	Positive measure-will reduce stress on the water environment	
Changes to morphology	All sectors	Improve modified habitat: **removal of barriers or provision of mechanisms to enable fish migration**		**YES**	Has potential to increase spread of alien species; potential impacts from associated engineering	Yes- requires project-level LSE/Appropriate Assessment consideration
		Improve modified habitat: **removal of engineering structures**		**YES**	Potential impacts from associated engineering	Yes- requires project-level LSE/Appropriate Assessment consideration
		Improve modified habitat: **improvements to condition of channel/bed and/or banks/shoreline**		**YES**	Improvements to condition of channel/bed may release sediment into the water body to be carried downstream with potential effects on water-dependent sites	Yes- requires project-level LSE/Appropriate Assessment consideration

		Improve modified habitat: **improvements to condition of riparian zone and/or wetland habitats**		**YES**	May result in disturbance to habitat structure- potential for unintended effects	Certain improvement activities will require regulation under CAR and will require project-level LSE/Appropriate Assessment consideration. But it is possible that some may be unregulated, funded through SRDP or achieved through unregulated changes in land management practice.
		Improve modified habitat: **changes to sediment management maintenance regime**		**YES**	Disturbance of contaminated sediment may release toxic metals into the water body to be carried downstream	Certain improvement activities will require regulation under CAR and will require project-level LSE/Appropriate Assessment consideration
	Historical engineering activities & urban development (regulatory)	CAR 2005: **CAR prevent new damage to the water environment from engineering works on rivers (including maintenance regimes)**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
		FEPA (Food and Environmental Protection Act)		**YES**	Licensing activity (Marine Scotland)	Yes- requires project-level LSE/Appropriate Assessment consideration by Marine Scotland
		Floods Directive: **Development of Flood Risk Management Plans (FRMPs)**		**YES**	FRMPs have potential to promote activity that may adversely affect European sites	Yes- requires Plan-level LSE/Appropriate Assessment consideration
			Restoration regulations: **new funding frameworks for taking forward restoration work**	**NO**	Funding only- no direct effect	
	Agriculture (regulatory)	CAR 2005: **CAR prevent new damage to the water environment by engineering works on rivers**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
			Restoration regulations: **new restoration regulations would allow investment to remove abandoned structures such as old embankments**	**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
	Forestry (regulatory)	CAR 2005: **CAR prevent new damage to the water environment by engineering works on rivers**		**YES**	SEPA Licensing activity	Yes- requires project-level LSE/Appropriate Assessment consideration
			EIA	**NO**	Application of existing process.	

Alien species	All sectors	Control alien species: **contain to prevent spread**		**Don't Know?**	Dependent on containment measures	
		Control alien species: **eradicate in situ**		**Don't Know?**	Dependent on eradication measure adopted	
		Control alien species: **capture & remove**		**NO**	Positive measure- control of alien species (through physical means)	
		Control alien species: **prevent introduction**		**NO**	Positive measure- Controlling alien species at source	

KEY:	
NO	Screened-out- no further screening or assessment required
YES	Screened-in- further screening or assessment may be required
?	Uncertain- dependent on further detail on measure.

Colour code	
RBMP mechanisms:	**Related policy/mechanism:**
Contribute to the 1st RBMP delivery and have been introduced to support meeting WFD objectives (M)	Required under another driver/government policy other than the WFD and viewed as providing significant benefits of co-delivery (note - also likely to be considered as a part of the future baseline) (FB)
Potentially contributes to RBMP delivery, if approved by government. This has been identified by which cycle it may influence (i.e. RBMP 1, 2, 3) - RBMP GAP (AM)	