

**ENVIRONMENTAL IMPACT ASSESSMENT  
PRACTICAL GUIDELINES TOOLKIT FOR MARINE FISH FARMING**

**Prepared For**

**SCOTTISH AQUACULTURE RESEARCH FORUM  
THE HIGHLAND COUNCIL  
AND  
THE SCOTTISH EXECUTIVE**



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## MARINE FISH FARM PRACTICAL GUIDELINES

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## **Disclaimer**

The guidance and templates are provided in good faith and on the basis of best available information. The authors, RPS, Epsilon Resource Management Limited and the sponsors of the project accept no responsibility for the way the document or the templates are used or interpreted.

# 1 Introduction

1. This document presents a series of Practical Guidelines, designed to assist developers, planners, environmental practitioners and regulators in their approach to marine fish farm Environmental Impact Assessments (EIA). The Guidelines are accompanied by a series of templates for use by applicants, and are the result of a collaborative process directed and assisted by a steering group, and input from a number of key individuals from industry, government and regulators. The individuals and representative organisations involved in the process are provided in Annex A and Annex B respectively.

## 1.1 Use of the Practical Guidelines

2. The templates and Practical Guidelines are designed to standardise and streamline the EIA process under the Environmental Impact Assessment (Scotland) Regulations 1999 and amendments (SSI 1999/1), in line with a well-tested slight modification to traditional EIA methodology, detailed in the flow chart below<sup>1</sup>. The templates are designed for on-line completion, and where necessary cross-reference back to the Practical Guidelines.

### Box 1

Shaded boxes highlight key areas identified during the review of the effectiveness of the existing EIA process as key areas for improvement in the current system. Ensuring guidance is followed in these areas should promote a more efficient, timely and robust EIA process.

## 1.2 Structure of the Practical Guidelines

3. The document is structured into 6 different sections providing a general overview of the EIA process:

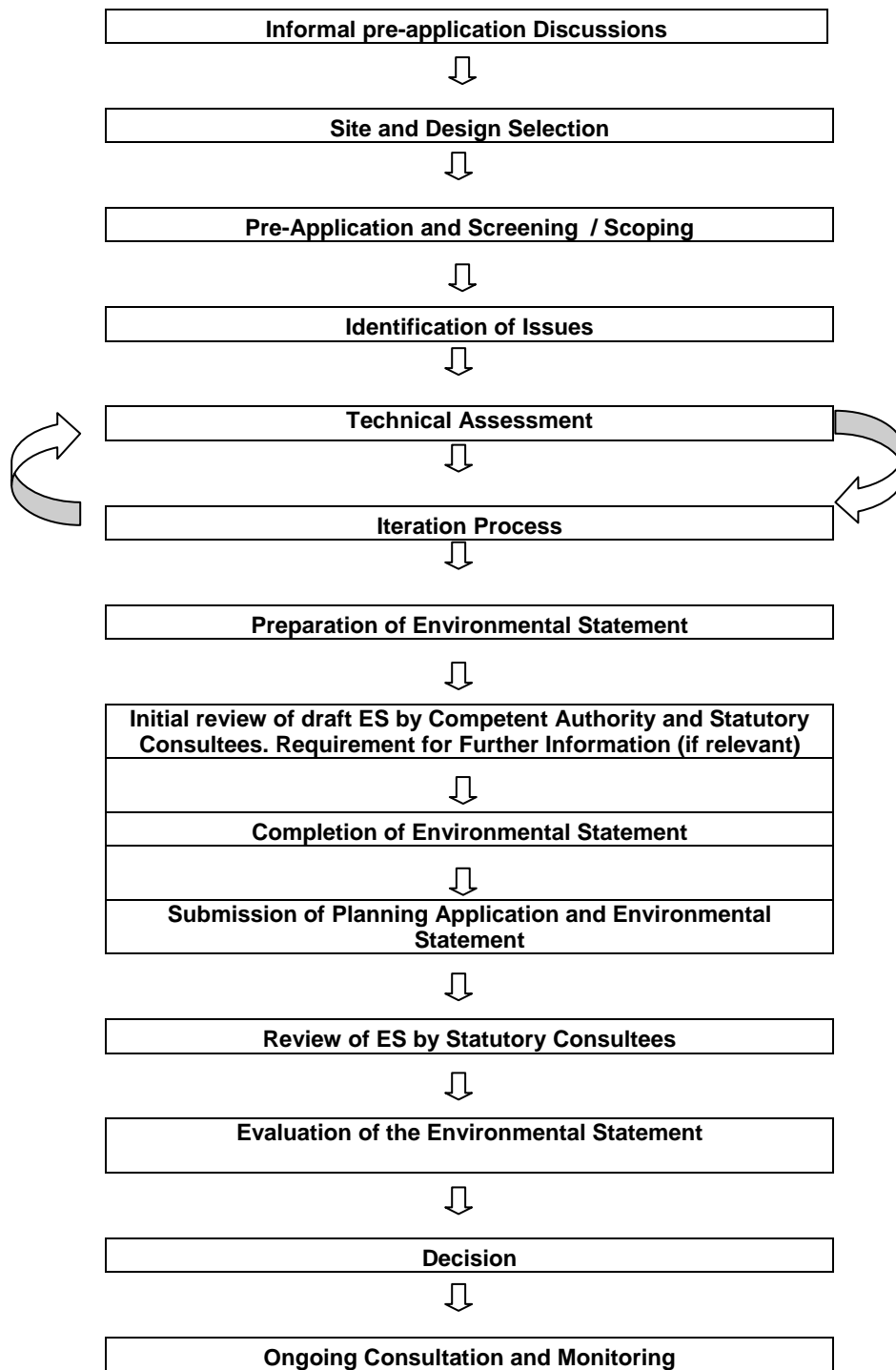
- **Section 1** - Introduction to EIA and the background to the Practical Guidelines;
- **Section 2** - Flow diagram giving an overview of the process;
- **Section 3** - The EIA Process provides advice on pre-application, screening and scoping;
- **Section 4** - Preparation of the ES and guidance on the impact assessment process
- **Section 5** – Detail on the decision-making process.
- **Section 6** – Additional guidance on using the templates.

4. Comprehensive guidance on detailed aspects of the EIA process are provided in the annexes, along with other relevant information such as an example list of consultees, extracts from relevant legislation, definitions, etc.

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<sup>1</sup> See Annex C for further detail on the status of the EIA Regulations.

## 2 Overview of EIA Process for Marine Fish Farms



## 3 The EIA Process

### 3.1 EIA Pre-Application Consultation

5. Prospective developers are advised to discuss their proposals with relevant planning authorities in the first instance as early as possible. The planning authority should be able to identify whether the proposal can proceed directly to formal planning application, or whether the developer should proceed to non-statutory but structured EIA pre-application consultation. There is also the possibility that the planning authority will recommend direct progression to formal Screening/Scoping, or even directly to formal Scoping. The structured pre-application consultation process, if utilised, is an opportunity for the developer to identify the main constraints and potential issues associated with a development. Key stakeholders should be involved in this process, however the extent of discussions will vary depending on the proposals. Contact with the statutory consultees at this stage in the project is recommended as a starting point. Roles and responsibilities of key consultees are provided in Annex D.

#### Box 2 CONSULTATION AND THE LAW

The Planning etc. (Scotland) Act 2006 contains separate provisions for formalising pre-application consultation with the community prior to submitting planning applications. Guidance and secondary legislation will be published during 2007 / 2008, which will set out the legal requirement for the consultation process prior to submission of a planning application.

The Scottish Executive has also recently published *Planning Advice Note (PAN) 81: Community Engagement*, detailing how people can become more involved in planning decisions. The PAN reflects the requirements of the new planning system, which will be determined by secondary legislation developed during 2007/2008. Under the new system, applicants will have a statutory duty to consult with local communities before an application is made for certain types of developments [(likely to include those requiring an EIA)]. Planning authorities can refuse to register applications where pre-application consultation has not been carried out as required.

6. At this stage there are a number of key documents available, which will assist in initial site feasibility studies and initial discussions:

- Existing Aquaculture Framework Plans and Optimisation Plans;
- Relevant development plans, structure plans and local plans where available;
- *SPP 22: Planning for Fish Farming*;
- Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters: Category 1, 2 and 3 areas designated on the basis of FRS Predictive Models to Estimate Environmental Sensitivity of Sea Lochs. FRS. March 2007;
- Scottish Executive Locational Guidance for Fish Farming: Predicted Levels of Nutrient Enhancement and Benthic Impact. Scottish Fisheries Research Report Number 63 / 2002. FRS, Marine Laboratory. PA Gillibrand, MJ Gubbins, C Greathead and IM Davies. 2002; and
- SNH digital records of natural heritage designations.

#### **Site Meetings**

7. Some proposals (e.g. a large site rationalisation, or where there are complex environmental issues) may benefit from a site meeting with one or various consultees.

These can be considered useful at differing stages of the process e.g. at screening in reaching consensus regarding the need for an ES, at scoping to agree methodologies or throughout the EIA process as new information arises. These can be an effective way to reach agreement on specific technical issues.

### **Box 3 IMPORTANCE OF EARLY CONSULTATION**

Benefits of pre-application consultation include:

- Appraising the compatibility of proposals with existing environment e.g. aquaculture framework plans;
- Opportunity to develop a network of contacts and relationships with key organisations;
- Gaining an appreciation of any significant environmental issues that would result in any objections to the development;
- Securing advice on information to include, in addition to information not to include in surveys; and
- Gaining early agreement on methodologies and presentation.

Contact at the pre-application phase for an informal opinion on a proposed development could address many of these issues prior to commencement of the EIA.

**If the applicant can demonstrate that there has been a significant attempt to avoid impacts at the earliest opportunity and fit the development sensitively this will benefit the project.**

## **3.2 Site Selection and Design Criteria**

8. Environmental and servicing considerations, and the need to safeguard the interests of other users of coastal waters, can often impose constraints on the development of marine fish farms. In considering potential sites, a number of factors are particularly relevant, and the applicant should be aware that these would be a material consideration when assessing individual proposals. Factors which may require to be taken into account in determining the acceptability of development proposals, include:

- Cumulative interactions with other fish farms and existing area management agreements;
- Proximity to nature conservation interests, including wild fish populations;
- Methods of operation (e.g. lighting impacts, associated noise etc);
- Planning context (local plans, coastal zone designations) including existing aquaculture framework plans or other marine spatial planning frameworks;
- Potential impacts on landscape and visual amenity;
- Availability of any access and necessary infrastructure;
- Impact and proximity to areas of MOD occupation, activity or restriction;
- Effects on recreation and tourism; and
- Impact on navigation and fisheries interests.

#### **Box 4 HISTORY**

The final report for project SARF005 ([http://www.sarf.org.uk/Project\\_index.htm](http://www.sarf.org.uk/Project_index.htm)) provides an indication of the main issues that have led to the rejection of 36 fish farm applications from 1999 to 2004 (under all regulatory regimes, not just EIA regulations):

Navigation	19.0%
Other Farms	3.5%
Fishing	10.0%
Landscape and Amenity	32.0%
Conservation	9.0%
Anchorage and Sailing	3.5%
Other	16.0%
Access and Servicing	3.5%
Salmon Fishery	0.0%
Pollution	3.5%

Additional information from the Crown Estate suggests that from 1999 to 2007, of those completed applications that required production of an Environmental Statement (a minority of all the applications during the period, since many did not require to produce an ES), 8 out of 41 applications were rejected after presentation of the Environmental Statement.

9. For new sites, the process of site selection is an integral part of the EIA process, and the applicant should include details of the decision making process in the ES, with justification of any consideration of alternative sites. A similar set of criteria can, in some cases, be applied to site modifications or rationalisations.

### **3.3 EIA Screening and Scoping**

10. The screening and scoping process is combined into one step to encourage an efficient approach to consultation and decision-making by Statutory Consultees. The purpose of this process can be summarised as follows:

- An opportunity to allow the planning authority to determine the need for an EIA i.e. the potential for significant effects; and
- If an EIA is required, to allow the planning authority to determine the scope, content and focus of the EIA.

11. Providing the information specified in the associated template will ensure compliance with the legal obligations specified in the Regulations. It is important that all the necessary information indicated on the accompanying template is provided to the planning authority in order to make an informed decision. In circumstances where full information is not provided, the planning authority may request further information or adopt a 'worst-case-scenario' approach and request an EIA.

### **Determining the Need for EIA (Screening)**

12. The process of screening is undertaken in order to determine whether a development proposal requires an Environmental Impact Assessment. This determination is referred to as a 'screening opinion'.

13. Marine fish farming can fall within the type of development described in Schedule II to the Regulations. To determine the need for EIA, the planning authority refers to a set of 'selection criteria' (Schedule 3 to the Regulations) also provided in Annex E<sup>2</sup> to judge the 'significance of effects'. Extensive guidance on determining whether EIA is required is also contained in *Circular 15/1999, The Environmental Impact Assessment (Scotland) Regulations 1999*. In summary, the basic test for the requirement of EIA is based on the following question:

*'Would this particular development be likely to have significant effects on the environment?'*

14. Figure 1 provides an indication of the procedure to be followed when determining a screening opinion. A Planning Authority may decide not to request a full EIA if the Regulations do not require it, however sufficient environmental information may need to be submitted in support of a planning application.

#### *Alterations, Extensions and Change of Use*

15. Development that comprises a change or extension may only require EIA if the change or extension is likely to have significant environmental effects. These must be considered in the context of the existing development. The thresholds specified in Schedule 2 do not easily deal with this kind of incremental development and an expansion of the same size as a previous expansion will not automatically lead to the same determination on the need for EIA because the environment may have altered since the question was last addressed.

16. If a development is already present and the operations comply with the suite of existing regulatory control, then further assessment of potential impacts covered by these regimes may not be necessary (subject to the opinion of other statutory consultees). In deciding whether an ES should be requested for an existing site, the Planning Authority should consider existing regulatory regimes as detailed in Annex F.

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<sup>2</sup> The European Commission has also published a generic screening 'checklist' which may assist planning authorities determination. <http://ec.europa.eu/environment/eia/eia-support.htm>

### **Box 5 PLANNING AND ENVIRONMENTAL PROTECTION REGIMES**

The policy basis for the relationship between planning and environmental protection is provided in *Scottish Planning Policy 1 – The Planning System*. In summary it states that planning decisions should be made on planning grounds in the public interest and should not be used to secure objectives achievable under other legislation or powers. However, these may be material considerations. This is expressed in Paragraph 57 as:

*“The planning system should not be used to secure objectives that are more properly achieved under other legislation. The grant of planning permission does not remove the need to seek other statutory consents, nor does it imply that these consents will be forthcoming. Even where legal or administrative measures outwith the planning system may exist for controlling a specific activity, this can still be a consideration to which weight is given in reaching a decision. If a consideration is material in planning terms, it must be taken into account when reaching a decision”*

Paragraphs 38 – 44 of *Planning Advice Note 51 (Revised 2006); Planning, Environmental Protection and Regulation*, establishes the general principles of the relationship between planning authorities and environmental protection regimes. Guidance is provided on how EIA should address developments where other environmental regimes apply, and clarifies their respective roles by examining the relative abilities of the planning system and other protection regimes to secure environmental objectives.

**17. A review of existing guidance, previous ES's and consultation, have indicated that the following topics may be key areas where the potential for significant environmental impacts may exist:**

- Hydrography/ Water Quality and Modelling;
- Marine Ecology;
  - Benthic and Water Column Impacts;
  - Sensitive Sites and Species;
  - Interaction with Predators;
  - Interaction with Wild Salmonids;
- Navigation, Anchorage, Commercial Fisheries and other non-Recreational Maritime Uses (MOD);
- Landscape and Visual Impact Assessment;
- Noise;
- Marine Cultural Heritage;
- Waste Management (non-fish);
- Socioeconomic, Access and Recreation;
- Traffic and Transport.

18. Reference to the information contained in these may be useful throughout all stages of the EIA process.

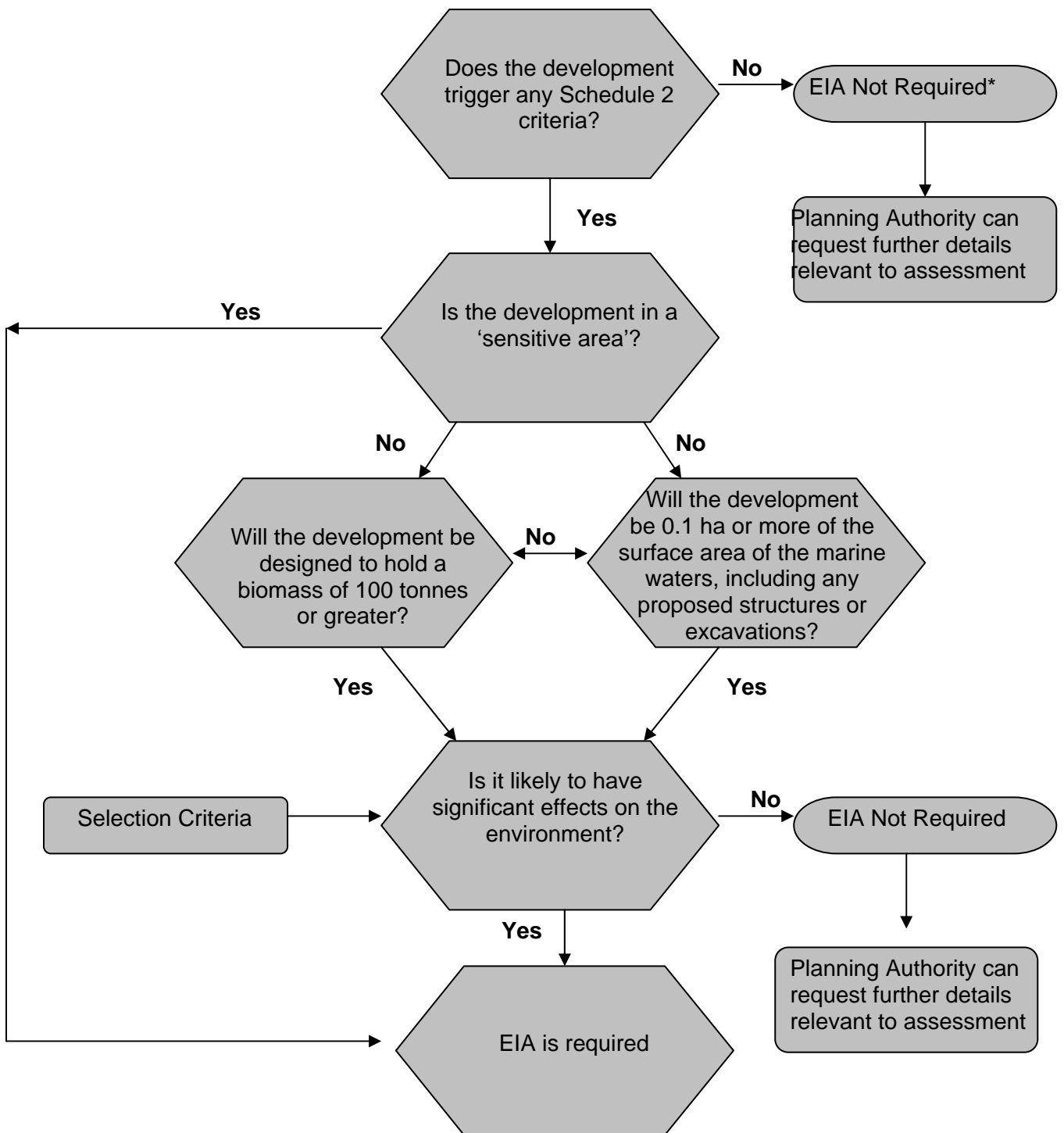


Figure 1. Decision process for consideration whether a marine fish farm development requires EIA. Modified from *The Environmental Impact Assessment (Scotland) Regulations 1999 Circular 15/1999*

\*Development falling below the thresholds does not require EIA. However there may be circumstances in which small developments may give rise to significant environmental effects. In these rare circumstances, Scottish Ministers can use their powers to direct that EIA is required.

### **Determining the Scope of the Assessment (Scoping)**

19. Scoping is the process undertaken to identify the main issues to be addressed by an EIA, the baseline studies that should be carried out and the methodology that should be used to evaluate their significance.

20. The list of aspects of the environment, which may be significantly affected by a marine fish farming proposal, is extensive, and potential impacts are covered in Annex G. Consideration should also be given to the likely significant effects resulting from use of natural resources, the emission of pollutants, the creation of nuisances and the elimination of waste. In addition to the direct effects of a development, the ES should also cover the following classes of effects;

- Indirect;
- Secondary;
- Cumulative;
- Short, medium and long-term;
- Permanent and temporary; and
- Positive and negative effects.

21. These are comprehensive lists, and a particular project may of course give rise to significant effects, and require full and detailed assessment, in only one or two respects<sup>3</sup>.

### ***Timescales***

22. The relevant planning authority has eight weeks in total to respond to the developer with a screening / scoping opinion. During this period the relevant planning authority will contact the statutory consultees to obtain their opinion<sup>4</sup>. Additional consultation with non-statutory Consultees will already have been undertaken by the developer during the structured pre-application phase, and the evidence gathered will be available in the same on-line template.

#### **Box 6 CONSULTÉE RESPONSES TO SCOPING**

*Environmental Case Law (Sullivan J, R-v-Rochdale MBC ex parte Milne(2000)) indicates that an ES does not have to describe every environmental effect, however minor, but only the main effects or 'likely significant effects'. An ES that attempts to describe every environmental affect would be so voluminous that there is a real danger of 'losing the wood for the trees'.*

While every ES should provide a full factual description of the development, the emphasis of Schedule 4 of the Regulations is on the 'main' or 'significant' environmental effects. In many cases, only a few of the effects will be significant and will require discussion in the ES in any great depth. Other impacts may be of little or no significance for the particular development in question, and will need only very brief treatment, to indicate that their possible relevance has been considered.

<sup>3</sup> Full guidance is provided in The Environmental Impact Assessment (Scotland) Regulations 1999 *Circular 15/1999*.

<sup>4</sup> The planning authority has no legal obligation to contact additional non-statutory consultees. The onus of consultation lies with the developer.

## 4 Preparation of the Environmental Statement

23. The pre-application discussions, screening and scoping exercises will identify the key issues that should be addressed in the EIA. The applicant should now initiate the appropriate baseline studies and begin collation of existing data according to the outcome of these processes.

### Box 7 EFFICIENT EIA

There are a number of methods to promote efficient use of time and resources:

- In some specific cases, running surveys together (hydrographic, water quality and benthic) may be a useful way to improve effectiveness;
- Joint consultation meetings for particularly complex sites;
- Ensuring the requirements of the scoping review is covered; and
- Maintaining contact with statutory consultees where methods may change and to ensure prompt resolution of problems and issues encountered during the EIA

24. The key requirements for each aspect of the EIA process are:

- Confirm the nature of the proposal including any alternatives under consideration;
- Identify the range of key likely effects on the environment with reference to scoping responses;
- Identify the extent to which these effects need to be investigated;
- Identify and agree methodologies to be employed;
- Define data availability and further data gathering required;
- Set the indicative thresholds and significance criteria to be used in evaluation of impacts;
- Identify broad mitigation measures; and
- Agree the above with statutory bodies.

25. When considering the environmental consequences of a particular fish farm, the impact of mitigation measures, which will form an integral part of the proposal, should also be considered. Collecting the information may involve, in the first instance, desk studies of existing records. Where information does not exist or is inadequate for the purposes of making accurate predictions about potential impacts, additional field surveys may need to be undertaken. The data collected should include that which relates to the indicators selected for the scoping responses.

26. The accompanying template provides a structure to ensure adherence to a logical progression from identification of receptors at scoping to these suggestions, ensuring that the reader has a clear understanding of the process and rationale behind the outcome of the impact assessment.

### 4.1 Reporting the Results of Scoping

27. The applicant should summarise the source and content of the relevant scoping response as a basis for the assessment that follows. Providing the results of scoping allows the reader to follow a clear progression through the stages of the EIA and provides a means to systematically set out the structure of the ES.

## 4.2 Baseline

28. The purpose of the baseline studies are to determine and describe the environmental conditions against which any changes – in particular the proposed development that is the subject of EIA - can be measured, predicted or assessed. Without an adequate baseline, there will be an insufficient basis to determine the impacts of a proposal.

29. It is necessary to indicate clearly, how characterisation of the baseline environment was derived for the issues that were initially identified as likely to result in a significant negative environmental effect. Consultees may be able to supply relevant information, and statutory agencies are under an obligation to do so for a reasonable charge for the purpose of EIA. Desk studies, field surveys, modelling and consultation are all relevant methods to characterise the baseline environment. An evaluation or subjective interpretation of technical reports may be required, and applicants should seek to avoid overbalancing the ES with information regarding the baseline conditions, always bearing in mind that the purpose of an ES is to describe the main or significant effects.

30. Other relevant developments, which are planned or have received planning permission, should be considered in a cumulative assessment. General advice on undertaking relevant baseline studies for each technical discipline is provided in Annex G.

## 4.3 Identification of Receptors

31. Receptors may comprise resources such as protected habitat or species, water quality, an archaeological feature and the value of worth as identified by legislation or public perception. Applicants may experience problems in assessing the sensitivity of a receptor in the absence of prescriptive guidance, and subjective measurements may be required. *The Handbook on Environmental Impact Assessment, Guidance for Competent Authorities, Consultees and others involved in the Environmental Impact Assessment Process in Scotland* published by SNH and Natural Heritage Management (2005) provides a number of examples of assessing the sensitivity of receptors.

## 4.4 Assessment of Impacts

32. The assessment of the environmental impact of a development is the main focus of the EIA and therefore the methods used to predict and evaluate the impact are critical to the credibility of the EIA. The assessments should therefore be set out in a clear and structured manner in order to clarify how judgments have been reached. The assessment stage of the EIA should follow a clear progression from the characterisation of the impacts to the assessment of the significance of the effect. It is important that a consistent approach to terminology is used as confusion often occurs over the difference between impact and effect. The use of the terms should be explained clearly within the report.

33. The impacts should be described and characterised in order to allow the significance of the effects to be determined based on frequency, duration, reversibility, and probability of the impact occurring. Additionally it is considered good practice to quantify all impacts where possible.

### **Box 8 IMPACT PREDICTION**

Prediction and describing environmental effects is a statutory requirement and must be included in an ES. One of the main purposes of an ES is to clearly identify the impacts of a proposal. As a minimum, competent authorities and consultees should ensure that an ES describes:

- a) The sensitivity of the environmental resource;
- b) The magnitude of change;
- c) The likelihood of the impacts occurring;
- d) The certainty with which impacts have been identified;
- e) The comparison with the do nothing / future use of site; and
- f) The significance of the impacts based on factors (a) – (d) above.

34. In considering the nature of impacts, the assessment will need to consider whether each is:

- Direct - arising as a result of the proposal itself (e.g. changes in water quality, or land take to construct land based infrastructure);
- Indirect - arising from effects associated with measures required to accommodate the proposal (e.g. land take for planting required to screen a new facility);
- Secondary/induced - arising from development or induced by the proposal;
- Short, medium or long term - the duration of effects where short term may be less than one year, medium term one to five years and long term over five years;
- Permanent or temporary - whether or not change is reversible or irreversible, given mitigation measures, or whether the effect is for a limited duration;
- Positive or negative - whether the effects are beneficial or detrimental to resources or receptors; and
- Cumulative - arising from the combined effect of a number of effects .

35. The basis for the evaluation of impact significance must be clearly set out for each topic in each section of the environmental statement and supporting documentation listed. In most cases, impact significance is a function of the impact magnitude and the sensitivity and proximity of a receptor. For example, a small-scale proposal in an area of unremarkable landscape may not be significant in terms of landscape quality whereas the same proposal in a National Scenic Area may be evaluated as having a major impact. Small increases in noise levels may not be significant where noise levels are already high, but could be significant in a quiet rural village.

36. It is proposed that a range of definitions be adopted for assessing the predicted magnitude of impacts on each of the criteria:

- High
- Medium
- Low

37. Once the magnitudes of impacts have been identified, impacts must be evaluated so that their significance can be determined. It is proposed that significance should be recorded, using the suggested references described above:

- No impact;
- Minor impact (positive/negative);
- Moderate impact (positive/negative); and
- Major impact (positive/negative).

38. All risks and uncertainties associated with a proposal need to be fully taken into account within the appraisal process. Only after this has been done will planners be able to obtain robust estimates of the costs and benefits of each option.

## 4.5 Cumulative Impacts

### *Purpose*

39. The cumulative effect of new or modified fish farms on the environment and landscape should be assessed with respect to other projects, plans, developments and existing facilities. Assessing cumulative impacts is an important aspect of EIA's for marine fish farming as there is a potential for individually minor actions to become significant when considered in combination with other major or minor actions, particularly in a sea loch or voe basis. The cumulative impact depends on the capacity of areas to accommodate development, in the context of, for example: existing area management agreements or farm management agreements; statutory development plans; Locational Guidelines; and local non-statutory fish farming or coastal management framework plans.

### *Contents*

40. The cumulative impact assessment should focus on the receptor as opposed to the environmental effect, and looks at the capacity of the receptor to adapt to additional change. The cumulative impact assessment may consider issues that have been scoped out of the EIA because they are not considered to be significant individually, but may be significant when considered in combination with others. Consideration should be given to Locational Guidance issued by the FRS<sup>5,6</sup> and existing Area Management Agreements and other arrangements. Applicants should take into account information from the Crown Estate on both existing leases for development that may have not yet been developed and also lease applications that may be under consideration.

## 4.6 Mitigation Measures

41. Mitigation refers to the reduction or removal of environmental effects/impacts of a project and instigation of mitigation measures is one of the major benefits of undertaking an EIA. Mitigation measures are most successful when they are considered from the outset of the project rather than as a late stage solution to an identified problem. This can allow the design of the facility to include solutions to potential environmental problems rather than finding a solution, which fits with the design. Mitigation measures should therefore be considered from the outset of the project and discussions on the appropriate mitigation measures will likely continue after submission of the ES as planning conditions are agreed upon. An appropriate specialist who has assessed the impacts usually suggests mitigation measures.

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<sup>5</sup> Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters: Category 1, 2 and 3 areas designated on the basis of FRS Predictive Models to Estimate Environmental Sensitivity of Sea Lochs. FRS. March 2007. <http://www.marlab.ac.uk/FRS.Web/Uploads/Documents/LocG%20tables%20Mar%202007b.pdf>

<sup>6</sup> Scottish Executive Locational Guidance for Fish Farming: Predicted Levels of Nutrient Enhancement and Benthic Impact. Scottish Fisheries Research Report Number 63 / 2002. FRS, Marine Laboratory. PA Gillibrand, MJ Gubbins, C Greathead and IM Davies. 2002. <http://govdocs.aquaculture.org/cgi/reprint/2004/524/5240210.pdf>

42. Mitigation can take varying forms including in order of best practice first:

- Avoidance - this would require the project to be designed or the site selected to avoid any environmental impacts.
- Reduction - this can be achieved by the addition of mitigation measures such as bunding, screening, or applying abatement technology;
- Compensation - where impacts have been unavoidable this method can be used and can involve the improvement of a related environmental issue for example replanting of a deforested area in an alternative location.
- Remediation - this option would involve the clean up and restoration of an area where the environmental impact is unavoidable; and
- Enhancement - this method involves the improvement of the site beyond the existing baseline.

43. Mitigation measures for a site will be highly specific for each development. It is recommended that the developer provides detailed information about each of the mitigation measures including, what is proposed, where and when it will be proposed, duration of the measure, how effective the measures will be, and responsibilities for monitoring the measure. Additionally, any uncertainty in the effectiveness of the measures should be noted in the ES. It is good practice to provide a section pulling together all proposed mitigation measures for each of the potentially significant impacts; this can be of immense use for the process of identifying and agreeing planning conditions. This also demonstrates that the findings of the ES have been considered in an integrated manner.

44. When considering mitigation, consideration should be given to 'design' mitigation and site specific mitigation. Compliance with the Code of Good Practice for Scottish Finfish Aquaculture is essential when considering mitigation.

## **4.7 Non-technical Summary**

45. The non-technical summary (NTS) is a legal obligation and forms an important part of the application. The NTS will be read by both the public and decision makers and therefore plays an important role in the EIA. The NTS should:

- Be a fair reflection of the main ES and cover all aspects of the EIA process and not just provide a summary of the impacts;
- Be available as a separate document;
- Be written in non-technical language;
- Inform people of the environmental effects of the project rather than concentrating on the measures to reduce environmental effects; and
- Ideally be free of charge to members of the public and other interested parties.

## **4.8 Submission of the Environmental Statement**

46. The Practical Guidelines recommend a slight departure from the traditional approach to this stage of the EIA process, although one with precedent from other sectors. When the developer or their agents have completed the ES according to the principles set out above, the Competent Authority and Statutory Consultees should be notified by email. They will review the on-line version of the ES, and revert to the developer within four weeks if they require any further information to be included in the ES. The developer or their agent will take notice of these requests, and amend the ES accordingly. The ES should now contain sufficient information for all Consultees and the Competent Authority to reach an evaluation decision.

47. The submission of the ES should be arranged in advance with the relevant planning authority. The template is effectively an Annex to a formal Planning Application. The relevant planning authority may request five copies of the environmental statement, but it is anticipated that access to the on-line file will be sufficient for the requirements of the planning authority. The relevant planning authority will then be responsible for passing the ES on to the statutory Consultees, or notifying them of its location on-line.

#### *Publicity*

48. The Regulations require the EIA to be made available to the public and the applicant must publish details of the development in a local newspaper and in the Edinburgh Gazette. The notice should state:

- That copies of the ES and other documents submitted with the application, may, during the period of four weeks after the first publication of the notice be inspected in:
  - The specified office of the relevant planning authority, being the closest to the proposed development; and
  - A specified Post Office, being the closest to the proposed development; and
  - On-line at a web address made available on the planning authority's website.
- The address at which copies of the application and ES may be obtained;
- The cost of a copy of the ES;
- That representations may be made to the relevant planning authority at the office referred to above; and
- The nature of possible decisions.

49. The applicant shall pay the cost of the advertisement incurred by the relevant authority.

#### *Availability*

50. Although not a legal obligation, the developer should be prepared to issue copies of the ES or non-technical summary to interested parties. The Regulations stipulate that the ES must be made available for a reasonable charge. On-line access should achieve this objective, but there should be provision for downloading and printing the ES or the non-technical summary.

## **4.9 Quality Control**

51. In order to ensure that the ES satisfies the legal requirements and is consistent with good practice, these guidelines recommend that the ES should be subjected to review. This is essentially a quality control check prior to using the information as a basis for a decision and for associated condition setting and is the responsibility of the applicant. Quality control should also cover subcontractors, and SEPA provides detailed guidance in relation to specific monitoring and sampling protocols.

## **5 Decision Making By the Relevant Planning Authority**

52. Following submission of the Environmental Statement the relevant planning authority is required to take into consideration the ES and other environmental information in order to reach a decision on whether or not to proceed. The other environmental information can be in the form of comments from the statutory consultees, the public and other organisations. There is a period of 28 days currently set for the consultation. The Regulations state that the relevant planning authority should determine the planning application within 4 months from the date of receipt of the statement or such extended time as may be agreed upon in writing between the applicant and the authority.

53. The Regulations state that the relevant planning authority shall not grant consent unless they have first taken environmental information into consideration. The test of the definition of significant effect will be the key issue to be addressed in any appeals or legal proceedings.

54. The relevant planning authority should then inform the applicant and the statutory consultees consulted of the decision and subsequent conditions. The public should also be informed by publishing a notice in a local newspaper (or other reasonable means). A statement should be made freely available detailing:

- The content of the decision and any conditions attached;
- The main reasons and considerations on which the decision is based;
- A description, where necessary, of the main measures to avoid, reduce and if possible, offset the major adverse effects of the development.

### **5.1 Implementation / Follow up**

55. Following a positive determination the developer will be required to implement various measures depending on the planning conditions set by the relevant planning authority. This could include:

- Implementation of mitigation and compensation measures;
- Implementation of an Environmental Management System if the developer agrees to this provision;
- Monitoring;
- Review, reassessment and remedial measures; and
- Reporting.

56. The implementation phase is important in the EIA process as it can demonstrate that the developer has a commitment to the EIA process. It is beneficial to include a section in the EIA that indicates how the implementation phase will be undertaken. This information will not necessarily be particularly detailed as some details may be dependent on the outcome of the planning process but generic information can be included which could include information such as:

- Responsibilities for implementation;
- When the activity will be undertaken; and
- Procedures for undertaking an action.

## 6 Using the Templates

### 6.1 EIA Pre-Application Consultation and Screening & Scoping Template

#### *Pre-Application Consultation*

57. Developers should hold initial discussions with the relevant planning authority.

- If the proposed change to an existing fish farm is relatively minor, the planning authority will indicate this to be the case, and advise the developer to proceed straight to completion of the Planning Application form.
- If the proposed development is a major change to an existing fish farm, or a new fish farm, the planning authority will advise that progression to this Pre-Application and Screening & Scoping Template should take place as a matter of best practice.

58. If proceeding to the Pre-Application and Screening & Scoping Template, the developer should download and paste the appropriate Planning Application form from the planning authority. This will be treated as a non-statutory use of the Application Form at this stage.

59. The potential areas for environmental impact from aquaculture are listed in para. 17 of the Practical Guidelines. The main purpose of this pre-application template is to seek Consultees' views on the presence of potentially sensitive receptors that might be impacted by the proposed development. Initial suggestions for practical project design modifications, in order to reduce any scale of impact, are also an important aspect of the use of this template.

60. Developers and consultees should remain aware that many aspects of aquaculture are **regulated under other legislation**, including: water quality and benthic impact; cumulative water quality and benthic impact; sea lice; escapes and containment; navigation safety; health & safety; food safety; etc. The Practical Guidelines refer to clear government policy that presumes against duplication of regulation, whether through the Planning Regulations or Environmental Impact Assessment Regulations. (See Box 5)

#### *Screening & Scoping*

61. The screening and scoping process is combined into **one step** to encourage an efficient approach to consultation and decision-making by Statutory Consultees.

62. The Planning Regulations state that the relevant planning authority shall not grant consent for fish farming in marine waters where the project is likely to have significant effects on the environment. This Screening and Scoping Template is designed to identify those specific interactions with a receptor that might cause a significant negative impact on the environment.

63. Environmental Case Law (Sullivan J, R-v-Rochdale MBC ex parte Milne (2000)) indicates that an ES does not have to describe every environmental effect, however minor, but only the main effects or 'likely significant effects'.

64. The template has been structured to assist Statutory Consultees in identifying those areas where they have a clear statutory remit to comment. In areas where

there might be an overlap of statutory obligation, Consultees should provide appropriate reference to evidence of having liaised with the other appropriate Consultees before making entries in this template.

### **Important Web Links**

65. The templates are protected documents, which renders embedded hyperlinks inoperative. There are some important external web links which should be used to consult key databases concerning sensitive areas, species and habitats, held by statutory bodies. These include:

- **Sensitive Areas** <http://www.snh.org.uk/snhi/>
- **FRS Locational Guidelines** <http://www.marlab.ac.uk>
- **Sensitive Species or Habitat** <http://www.ukbap.org.uk>

66. Local Authority Planning Application forms, for insertion at the front of both templates, can be located at:

Western Isles Council:

<http://www.w-isles.gov.uk/planapps/planforms.htm>

The Highland Council:

<http://www.highland.gov.uk/yourenvironment/planning/planningapplicationsandbuildingwarrantforms-and-guidance.htm>

Argyll and Bute Council:

<http://www.argyll-bute.gov.uk/content/planning/developmentcontrol/devcontappforms/94marinefishfarmapplication/?s=3187158&a=0>

Orkney Islands Council:

[http://www.orkney.gov.uk/nqcontent.cfm?a\\_id=3948&tt=orkneyv2](http://www.orkney.gov.uk/nqcontent.cfm?a_id=3948&tt=orkneyv2)

Shetland Council:

<http://www.shetland.gov.uk/planningcontrol/applicationforms/default.asp>

North Ayrshire Council:

<http://www.north-ayrshire.gov.uk/na/FormsDB.nsf/index/AD47EA88A616B6838025700B004B19BD?OpenDocument&MenuType=Environment&DocDisplay=NoDoc&DFBC=Planning&CatLevel=1>

## **6.2 EIA Environmental Statement Template**

67. This template provides best practice guidance on a consistent layout for an Environmental Statement (ES). It also prompts a **two-stage** approach to ES:

1. When the on-line ES has been initially completed, but before the Planning Application has been formally signed and submitted to the planning authority, statutory consultees and the planning authority will be notified by email. They will examine the ES, and indicate to the developer whether any further information that falls within their statutory competence is required, and explain why.
2. When any requests for further information have been incorporated within the ES, it is then intended to be used in conjunction with the formal submission of a Planning Application to the relevant planning authority. The Environmental

Statement produced by the developer, or on the developer's behalf by a third party, forms an Annex to the Application Form.

68. When statutory consultees respond to this Environmental Statement, they should limit their responses to areas for which they have statutory obligations. In areas where there might be an overlap of statutory obligation, consultees must show evidence of having liaised with the other appropriate consultees before completing their response.

69. The preparation of a robust Environmental Statement requires access to a substantial amount of information about the proposed development, and about the receiving environment. All statutory bodies that hold information about the environment are obliged to divulge this to developers for which they may make a charge, but they are not to undertake any new research. Developers may also have undertaken some fundamental research/surveying/monitoring in order to complete Section 7. In all cases, challenges to providing factual information should be noted here in Section 6.

70. The key to the outcome of an Environmental Statement is the judgement about the significance of one or more adverse environmental impacts. Definition of significance is prescribed by a varying degree by statute and policy. In many cases, such guidance is general in nature and practitioners have been obliged to develop definitions for specific topics and projects. Where this guidance is 'general in nature', it might be difficult for developers or their consultants to engage in objective consideration of significance. Where this proves to be the case it should be clearly recorded in Section 6, representing a growing body of case evidence.

71. Requests for information in this ES, or subsequent to its submission, which indicate a lack of communication and data sharing between statutory consultees, should also be clearly recorded in Section 6.

## ANNEX A

### STEERING GROUP

<b>Mark James (Chair)</b>	Scottish Aquaculture Research Forum (SARF) / Fisheries Resource Management Ltd.
<b>John O'Brien</b>	Scottish Executive Development Department
<b>Judith White</b>	Scottish Executive Environment and Rural Affairs Department
<b>SEERAD / SARF</b>	
<b>George Hamilton</b>	The Highland Council / SARF
<b>James Bromham</b>	The Highland Council
<b>Ewan Gillespie</b>	Scottish Environment Protection Agency / SARF
<b>Richard Slaski</b>	Federation of Scottish Aquaculture Producers / SARF (withdrew 22/2/06)
<b>George Lees</b>	Scottish Natural Heritage /SARF
<b>John Webster</b>	Scottish Salmon Producers Organisation (co-opted to replace
<b>Richard Slaski)</b>	

## ANNEX B

### WORKSHOP ATTENDEES

The following individuals attended the Environmental Impact Assessment for Marine Fish Farms - Review and Guidance Workshop held in 13<sup>th</sup> March 2007 at The Highland Council, Inverness.

Andrew Rodger	Western Isles Aquaculture Association
Averil Wilson	SAMS
David Sandison	Shetland Aquaculture
David West	MOD - Defence Estates
Douglas Sinclair	SEPA
Douglas Watson	Aurora Environmental Ltd.
Ewan Gillespie	SEPA
George Hamilton	The Highland Council
George Lees	SNH
Helen Atkin	Stirling University
Iain Sutherland	Highlands and Islands Enterprise
Ian Macintyre	Argyll and Bute Council
James Bromham	The Highland Council
Jim Mackay	SEPA
John O'Brien	SEDD
Judith White	SEERAD
Laura Carse	RPS Planning and Development
Lindsay MacDonald	Marine Harvest
Mark Gray	Sea Fish
Mark James	FRM
Matthew Gubbins	MARLAB
Mr N McKay	Argyll and Bute Council
Natalie Strongman	Terence O'Rourke
Peter Cunningham	Wester Ross Fisheries Trust
Peter Gordon	RSPB
Peter Moore	Terence O'Rourke
Philip Robertson	Historic Scotland
Richard Corner	Stirling University
Richard Slaski	FSAP
Shona McCauley	Marine Harvest
Suzanne Henderson	SNH
Zoe Cairns	Aurora Environmental Ltd.

The EIA Practical Guidelines were also circulated for comment to the following:

Dr Katherine Ross	Western Isles Fisheries Trust
Martin Holmes	Shetland Islands Council
Captain Ron Bailey	Clydeport Operations Ltd
Kenneth Daly	MOD - Defence Estates
Andrea Tyrer	Fishvet
Paul Bancks	Crown Estate

## **ANNEX C DETAIL ON REGULATIONS AND THE PLANNING FRAMEWORK**

### ***Previous Planning Regime for Aquaculture***

Aquaculture in mainland Scotland and the Western Isles has been governed by a series of decision-making regimes since the late eighties. In 1986, and in response to a requirement for a formal mechanism to deal with the expanding number of applications being received by the Crown Estate, a procedure for the consideration of marine fish farm lease applications was introduced. The new procedure was introduced on the basis that a formal statutory process for the consideration of applications would be established in the future. Over ten years later, in November 1997, the Scottish Office proposed that the planning role should be transferred from the Crown Estate to the local authorities. Following this announcement, an 'Interim Scheme' was introduced by the Scottish Executive as a temporary measure prior to the formal transfer of the planning role to local authorities. Under the interim scheme, the initial application to develop a new site, vary or renew an existing site was made to the Crown Estate. A different situation applied in Shetland and Orkney where a 'works licence' system, which was operated by the respective Councils, was used in a similar way as the Interim Scheme elsewhere in Scotland. Locational guidance and an advice note were issued by the Scottish Executive (revised 2003) to establish a national context for guiding the location of future fish farms. For both regimes, the proposals were advertised in the local press and Post Office and copied to statutory consultees<sup>7</sup>. All responses were sent to the local authority for consideration and the local authority then made a recommendation to the Crown Estate as to whether consent should be granted<sup>8</sup>. In Shetland and Orkney, it was the local authorities which made the decisions themselves on whether a works licence should be granted.

### ***Current Status of the EIA Regulations***

Within Scotland, the requirements of the European Council Directive 85/337/EEC (as amended by Council Directive 2003/35/EC) on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EC, are transposed by the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). The 1999 Regulations cover, through Schedule 2 developments, 'intensive fish farming'. In the specific case of marine fish farms, these were previously included under the Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999.

Article 11 of the Town and Country Planning (Marine Fish Farming)(Scotland) Order 2007 amends the 1999 Regulations to make minor changes to those regulations to suit the particular considerations that arise in relation to development in marine waters. Developers, statutory consultees and planning authorities should be aware that there are some differences between the 1999 Regulations and the Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999 which previously implemented the relevant Directives, particularly relating to consultation timescales. The main change for developers will be the introduction of a mechanism for the Scottish Ministers to issue a screening direction where the planning authority has issued a screening opinion to the effect that the development is EIA development.

The Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999 will remain in force in waters adjacent to Scotland to cover the transitional arrangements set out in article 14 of the 2007 Order. They will apply to the Crown Estate and for applications lodged with them before 1 April 2007 but not approved or rejected by them by that date.

The Orkney County Council Act 1974 and the Zetland County Council Act 1974 give powers to local authorities to authorise development through "works licences" arrangements. These have been amended through Articles 6 and 7 of the 2007 Order. These Acts can no longer be used to grant works licences for fish farm development in marine waters.

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<sup>7</sup> The competent authority, SEPA, SNH, the district salmon fishery board (where constituted) and the Scottish Executive.

<sup>8</sup> The Crown Estate is not, however, a relevant planning authority and has no authority to impose planning conditions.

## ANNEX D

### ROLES AND RESPONSIBILITIES

**The Crown Estate**- the Crown Estate is responsible for the management of the territorial seabed out to 12 nautical miles and around 50% of the Scottish foreshore between high and low water mark. Anyone wishing to establish a marine fish farm must apply to the Crown Estate for a lease of the seabed (and foreshore where appropriate) within which the marine fish farm will operate. It also maintains a register of marine fish farm leases and is able to supply non-commercial information on request.

**District Salmon Fishery Boards** - salmon fisheries management is devolved to district salmon fishery boards under the terms of the Salmon Act 1986. It is an offence for a person intentionally to introduce salmon or salmon eggs into inland waters in a salmon fishery district for which there is a board unless he has the written permission of the board or the waters constitute or are a fish farm within the meaning of the Diseases of Fish Act 1937, as amended.

**Fisheries Research Services (FRS) (See also SEERAD)** - establishing a fish or shellfish farm requires that the business and site are registered with the FRS for fish health purposes, to help maintain and improve the fish health status of Scottish waters. FRS has provided a modelling framework for determining the sensitivity and capacity of sea loch systems to organic waste and nutrients. The Aquaculture & Fisheries Bill will provide FRS with a statutory 'operational' regulatory responsibility for sea lice and containment measures as follows:

- Introduce a duty on fish farmers to collect, retain and make available for inspection information relating to fish parasites and containment of fish;
- Give powers to take samples of stock and measure levels of parasites;
- Allow enforcement action to be taken where farms do not have satisfactory measures in place to control parasites or contain fish;
- Regulate live fish movements into specified areas in marine waters;
- Allow Ministers to establish a scheme to make payments for any fish destroyed for the purposes of disease controls; and
- Increase powers to fund initiatives relating to sea fisheries, freshwater fisheries, aquaculture and inshore fisheries.

**Fisheries Trusts** - a number of Fishery Trusts, which are charitable organisations, have been set up to promote and undertake research to provide scientific advice on the fisheries resources particularly in the west and north of Scotland. The Trustees are drawn from, among others, local owners of fishing rights and the fish farming industry. Support is provided by a number of organisations including SNH, SEPA and the Scottish Executive through the Freshwater Fisheries Laboratory, Pitlochry.

**Harbour Authorities** - harbour authorities, in designated harbour areas, issue licences for the operation of marine fish farms. Applications for works licences require to be advertised and are subject to consultation procedures. Applicants should consult their local harbour authority on the particular procedures that apply.

**Health and Safety Executive (HSE)** – under the terms of the Health and Safety at Work Act 1974, the HSE inspects installations and facilities at marine fish farms. HSE has issued advice on minimum health and safety standards for the construction and use of floating fish farm installations used for finfish in inshore waters.

**Historic Scotland** – is an executive agency of the Scottish Executive, responsible for discharging Scottish Ministers functions in relation to the historic environment out to the 12 nautical mile limit of territorial seas. These responsibilities extend to administration of laws to protect Scotland's most important marine historic assets and Environmental Impact Assessment under the EIA (Scotland) Regulations 1999. Historic Scotland has had no previous involvement in marine aquaculture EIA.

**Ministry of Defence (MOD)** - fish farming is one of a number of activities which are excluded under byelaws from the Ministry of Defence. Certain controlled areas are used extensively by the UK, NATO and Allied nations for training purposes. The Ministry of Defence also administers the *Protection of Military Remains Act 1986*. This provides for the protection of military remains of any nationality in UK waters and includes vessels and aircraft lost at sea.

**Planning Authorities** – In April 2007 local planning authorities became responsible (the competent authority) for the marine fish farm proposals within designated planning zones and now assess Environmental statements as part of the process of consideration of planning applications. Prior to 1 April 2007, planning authorities advised the Crown Estate on marine fish farm proposals under the interim arrangements and pending the transfer of control to them under proposed changes to land use planning legislation. Under the Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007, planning authorities will prepare statutory development plans in connection with marine fish farming under 23 marine planning zones. Loch Lomond and Trossachs National Park Authority will also have powers to include marine fish farming activities within the marine planning zone for which it has authority.

**Scottish Environment Protection Agency (SEPA)** – SEPA has a general duty and powers to minimise, remedy or mitigate the effects of pollution of the environment. SEPA authorises discharges of effluent, including medicine residues from fish farms to the marine and freshwater environments under licensing provisions of the Water Environment (Controlled Activities) (Scotland) Regulations 2005. SEPA's licensing process is informed by matters such as the characteristics of tidal flow and bathymetry at the site as well as natural heritage designations. SEPA has a role in both environmental regulation and in influencing other regimes such as land use planning in order to deliver defined outcomes. SEPA is a statutory consultee in marine fish-farming EIA's.

**Scottish Executive's Enterprise, Transport and Lifelong Learning Department (SEETLLD)** - where obstruction or danger to navigation is caused or is likely to result from a development, the prior written consent of the Scottish Ministers is required. SEETLLD administers this function. The Crown Estate assists by consulting with a wide range of navigational interests, including MCA, the Northern Lighthouse Board and the Royal Yachting Association as part of site application process. This division is also responsible for trunk roads and may need to be consulted where trunk roads is required.

**Scottish Executive Development Department (SEDD)** – publishes Scottish Planning Policies (SPPs) and Planning Advice Notes (PANs). These documents are considered as material considerations for planning authorities. PANs provide advice on good practice and other relevant information. Scottish Planning Policy 22 Planning for Fish Farming was published on 1 April 2007 and provides statements of Scottish Executive policy on nationally important use of the marine environment.

**Scottish Executive Environment Rural Affairs Department (SEERAD)** – is responsible for statutory measures under the Diseases of Fish Acts 1937 and 1983 and related EC Fish Health Legislation to prevent the introduction and spread of serious pests and diseased of fish and shellfish which may affect farmed and wild stocks. All fish farms must be registered with SEERAD's Fisheries Research Services (FRS) for disease control purpose. SEERAD is the formal point of contact for statutory notifications of escapes of farmed fish. In addition, SEERAD also has the following functions:

- Issues licences under Part II of the Food and Environment Protection Act 1985 for proposals, which extend below the mean high water mark on spring tides;
- Undertakes investigations to inform Ministerial decisions; and
- Wider responsibilities in relation to the protection of fish, fisheries and the marine environment. SEERAD's Fisheries Research Services carries out a wide range of marine fish farm research and offers advice on aspects of production and disease control.

**Scottish Executive Directorate for Planning and Environmental Appeals-** in certain cases where development consent is refused, appeals against refusal of planning permission, or against the attachment of conditions, can be made to Scottish Ministers by the applicant. The appeal is lodged with the Directorate for Planning and Environmental Appeals, formerly the Scottish Executive Inquiry Reporters Unit (SEIRU).

**Scottish Natural Heritage (SNH)** – SNH is a statutory consultee under the regulations. SNH takes into account the proximity to and potential impact on wildlife, habitats and landscape. The factors considered include:

- Areas designated for natural heritage purposes, such as Sites of Special Scientific Interests, National Nature Reserves, SACs, SPAs and National Scenic Areas;
- Species protected by legislation, including the Wildlife and Countryside Act 1981 and Habitats and Species Directive (Annexes II, IV and V);
- Visual and landscape implications;
- The potential impact on remote or wild land qualities;
- Impact on general environmental quality and biodiversity;
- Impacts on natural heritage interest from pharmaceutical and other compounds used in aquaculture;
- The risk of genetic contamination of native stocks, particularly of Atlantic salmon; and
- The risk of introducing alien species and the likely consequences for wild animal and plant communities.

**Shetland and Orkney Islands Councils** – prior to 1 April 2007, these councils had powers to licence works in coastal waters, which they exercised in conjunction with their powers as relevant planning authority. Shetland operated under the Zetland County Council Act 1974 and anyone wishing to undertake marine fish farm development required a works licence from the Council. Under the Orkney County Council Act 1974, the Council exercised works licensing powers within certain designated harbour areas. The Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007 amends these Acts to remove the requirement for a works licence for the placing or assembly of marine fish farming equipment in marine waters.

**West Coast Fisheries Trusts** – are charitable organisations which have been set up to promote and undertake research to provide scientific advice on the fisheries resources in the west and north of mainland Scotland. Support is provided by a number of organisations including statutory consultees.

## ANNEX E

### SELECTION CRITERIA

In providing a screening opinion, the relevant planning authority should take into account the following criteria as relevant to the proposed development.

#### Characteristics of the Development

The characteristics of developments must be considered having regard, in particular, to:

- (a) The size of the development;
- (b) The cumulation with other developments;
- (c) The use of natural resources;
- (d) The production of waste;
- (e) Pollution and nuisances; and
- (f) The risk of accidents, with particular regard to substances or technologies used.

#### Location of Developments

The environmental sensitivity of geographical areas likely to be affected by development must be considered, having regard, in particular, to;

- (a) The existing seabed use;
- (b) The relative abundance, quality and regenerative capacity of natural resources in the area; and
- (c) The absorption capacity of the natural environment, paying particular attention to the following areas:
  - (d) Wetlands;
  - (e) Coastal zones;
  - (f) Mountain and forest areas;
  - (g) Nature reserves and parks;
  - (h) Areas classified or protected under Member States' legislation: special protection areas designated by Member States pursuant to Council Directive 79/409/EEC on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna;
    - a. Areas in which the environmental quality standards laid down in Community legislation have already been exceeded;
    - b. Densely populated areas; and
    - c. Landscapes of historical, cultural or archaeological significance.

#### Characteristics of the Potential Impact

The potential significant effects of developments must be considered in relation to criteria set out under paragraphs 1 and 2, and having regard in particular to—

- (a) The extent of the impact (geographical area and size of the affected population);
- (b) The transfrontier nature of the impact;
- (c) The magnitude and complexity of the impact;
- (d) The probability of the impact; and
- (e) The duration, frequency and reversibility of the impact.

## **APPENDIX F**

### **REGULATORY REGIMES**

- The requirement for a discharge consent from SEPA, previously obtained under section 34 of the Control of Pollution Act 1974, this has been replaced by a licence under the Controlled Activities Regulations under the Water Environment (Controlled Activities) (Scotland) Regulations 2005;
- Consent for navigation and anchorages from the Scottish Executive Enterprise, Transport and Lifelong Learning Department under section 34 of the Coast Protection Act 1949 (CPA);
- A licence under Part II of the Food and Environment Protection Act 1985 (FEPA).
- All fish farm businesses are required to register with SEERAD for disease control under the Disease of Fish Legislation;
- All fish farm businesses are required to notify SEERAD of any suspected fish escape, or circumstances which give rise to a significant risk of an escape under The Registration of Fish Farming and Shellfish Farming Business Order 1985;
- A seabed lease is required from the Crown Estate; and
- Ongoing regulatory controls under the Aquaculture and Fisheries (Scotland) Act 2007, enforced by FRS, cover sea lice management and containment measures.

**ANNEX G**  
**SUMMARY OF POTENTIAL**  
**IMPACTS ARISING FROM MARINE FISH FARMING**

## **Policy Context**

### *Purpose*

As with other forms of development, planning authorities must assess each application for planning permission for a proposed aquaculture development against relevant policies. This assessment must recognise material planning considerations including the wide range of available National and Scottish publications.

### **National Planning Policy Guidelines / Scottish Planning Policies**

National Planning Policy Guidelines (NPPGs) are in the process of being replaced by Scottish Planning Policies (SPPs). These provide statements of Scottish Executive Policy on nationally important land use and other planning matters. Existing NPPGs are a material consideration, and have continued relevance to decision making until such times as they are replaced by a SPP. These policies emphasise the importance of promoting and guiding development to suitable locations. *SPP 22: Planning for Fish Farming*<sup>9</sup> has recently been published by the Scottish Executive, and is the most relevant to marine fish farming. This policy provides guidance on particular factors to be taken into account when considering fish farm proposals and establishes the national planning context for the preparation of development plans for guiding the location of future fish farms. Other policies, for example *SPP 15: Rural Development* and *NPPG 13: Coastal Planning*, may also be useful in justifying the location of a development<sup>10</sup>.

### **Development Plans and Policy Guidance**

Development plans will provide the policy framework within which the fish farming industry can develop in a sustainable manner. A development plan is made up of a structure plan and local plan(s) and are prepared by each planning authority. Structure plans provide a long-term vision for an area while local plans set out detailed policies and proposals for the

#### **THE PLANNING ETC. (SCOTLAND) ACT 2006**

The Act states that the current system of Structure Plans and Local Plans is to be replaced by Strategic Development Plans for the four main city regions, and Local Development Plans for each local authority that will set out detailed policies and proposals for development and land use.

development and use of land that should guide day-to-day planning decisions.

Planning Applications generally are currently assessed against the policies contained within the relevant development plan. If a proposal complies with the terms of the relevant policies in both of these documents, the development is likely to be viewed favourably.

### **Framework Plans**

A number of local authorities have produced non-statutory framework plans<sup>11</sup>. These set out the planning authority's approach to fish farming development in specific areas. They can provide supplementary planning guidance on fish farming and can support development plan policies on fish farming. They may also provide interim policy guidance until appropriate policies have been adopted in the relevant development plan. As supplementary planning

<sup>9</sup> This SPP should be read in conjunction with the imminent circular 'Planning Controls for Marine Fish Farming'.

<sup>10</sup> A full list of Legislation, Planning Policies and Guidelines are published on the Scottish Executive Website <http://www.scottishexecutive.gov.uk/Topics/Planning/PolicyLegislation/Legislation>.

<sup>11</sup> To date, Aquaculture Framework Plans have been published by the Highland Council. Argyll and Bute are in the process of developing these and a Loch Optimisation Plan (Loch Roag) has been published by the Western Isles Council.

guidance, framework plans are material considerations in determining applications and appeals. The applicant should reference these plans were relevant.

## **Hydrography / Marine Modelling / Water Quality**

### *Purpose*

Sustainable marine fish farming requires that the levels of nutrient and chemical inputs should not exceed the 'assimilative capacity' or relevant Environmental Quality Standards (EQS's) of the surrounding aquatic environment. The Scottish Environment Protection Agency (SEPA) is responsible for regulating discharges to the environment including nutrient inputs from waste feed and faecal material, and chemicals, which may be discharged to the surrounding waters. If the relevant planning authority and / or statutory consultees determine at the screening or scoping stage that this section is required in an ES, then this section is likely to require a range of site-specific surveys and modelling software to determine the baseline environment and predict effects of the proposed development. The applicant should consider that the primary purpose for the collection of hydrographic data and undertaking modelling is to meet the requirements of the CAR application process regulated by SEPA which may also form the EIA process.

### *Content*

The baseline assessment and associated modelling is likely to comprise of detailed technical information gathered from field surveys. The applicant should consider submitting this information as an Annex to the ES and summarising the main findings in the ES chapter with sympathetic interpretation of diagrams. It is important that the applicant considers the readership when collating the findings within the ES. The applicant should be prepared to limit the size of the farm or the quantities of therapeutic chemicals to prevent environmental quality standards from being exceeded. Tables G.1 and G.2 below<sup>12</sup> provide a general guide to the content of this chapter. It is important to note that the Marine Cage Fish Farming Manual referenced below is the definitive guidance document providing details on proposed methodologies for these aspects and consultation with SEPA<sup>13</sup> is essential to ensure appropriate surveys are conducted.

### **THE WATER FRAMEWORK DIRECTIVE**

The Water Framework Directive (WFD) represents a change to the management of water quality, including coastal waterbodies out to the 3 nautical mile limit. The objectives of the Directive include:

- The prevention of deterioration of waterbodies;
- Protection and enhancement of the status of aquatic ecosystems;
- Achievement of 'Good Status' (or potentially good, for bodies of water which as a result of physical alterations by human activity are substantially changed in character) by 2015.

Applications and Planning Authorities should be aware of the objectives of WFD when reviewing the environmental impacts of marine fish farming.

<sup>12</sup> Based on 'Environmental Statements for Marine Fish Farms – Informal SEPA Information Checklist'. SEPA. February 2005.

<sup>13</sup> Applicants should also be aware that SNH and SEPA are currently investigating common information, data acquisition and survey requirements to streamline the application process.

**Table G.1 Baseline Survey Requirements**

<b>BASELINE SURVEYS</b>	
<b>Survey Type</b>	<b>Comments</b>
Benthic Survey	There is a standard methodology for this survey available from SEPA; certain substrate types are not suitable for infaunal surveys. Under these circumstances it is important that SEPA is contacted directly for advice on alternative methods e.g. video or photographic.
Hydrographic Survey	Hydrographic data meeting the requirements set out in the Marine Cage Fish Farming Manual referenced below. Full methodologies should be provided.
REDOX	This should be accompanied by an exact procedural description of the methodology for correcting millivolt readings to redox potentials and details of any standard solutions used.
Nutrients	The applicant should provide the necessary information and suitable calculations on the present levels of nutrients in the water column of the site. It is important to consider: <ul style="list-style-type: none"> <li>• Proximity to other fish farms; and</li> <li>• Potential anthropogenic inputs arising from point source (e.g. consented discharges such as sewage outfalls) and /or diffuse pollution (e.g. farming or forestry).</li> </ul>

*Modelling and Predictions*

Following collation of the baseline data, predictions of effects based on standard modelling procedures defined in the Marine Cage Fish Farming Manual can be undertaken. The combination of reliable nutrient data and knowledge of the additional nutrient loading should facilitate the use of appropriate box models to predict enhancement. The modelling approach should also consider the cumulative nutrient enhancement to the wider area of the sea loch / voe. The subsequent results should be placed in the context of the OSPAR thresholds<sup>14</sup>.

**Table G.2 Quantification of Impacts**

<b>QUANTIFICATION OF IMPACTS</b>	
<b>Material Released</b>	<b>Comments</b>
Carbon	The release of carbon should be assessed.
Chemicals including medicines and other List I and List II substances	The release of these chemicals should be assessed, giving predicted amounts and rates of release.
Quantification of nutrient outputs to the Loch system.	The additional loading which the development will impose and the potential implications on the trophic levels should be considered. This calculation should take into account: <ul style="list-style-type: none"> <li>• The expected Feed Conversion Ratio (FCR);</li> <li>• The protein content of the feed to be used;</li> <li>• The production tonnage of the fish proposed;</li> <li>• The feedback loop system proposed for the feed application;</li> <li>• Excretion of ammonia and indigestible feed to the water; and</li> <li>• Prediction of waste amounts from cages.</li> </ul>

<sup>14</sup> For assistance in this, see OSPAR Eutrophication Assessment of Aquaculture Hotspot in Scottish Coastal Waters, Gubbins, M.J. *et al* FRS Collaborative Report No. 07/03.

The output of these assessments may interact with other assessments e.g. natural heritage issues and recreation. These are considered in subsequent sections.

#### *Assessment and Mitigation*

It is important to provide an overall evaluation of the significance of the results derived from baseline monitoring and modelling. In contrast to other assessments, where the prediction of impacts is largely an objective step, the modelling output should provide a detailed indication of the level, extent and footprint of any potential degradation in the quality of a receptor (e.g. water quality in a sea loch or voe system) and establish the rationale for the evaluation of significance. The significance of cumulative and / or in-combination effects should also be considered. The output of the baseline assessment will also inform the assessment of impacts on natural heritage interests which may be potentially affected and this should be addressed in line with Section 6.4. Section 7 of these Practical Guidelines, and Section 8 of the SNH EIA Guidance<sup>15</sup> provide further generic details on assessing significance.

#### *Water Environment (Controlled Activities) (Scotland) Regulations 2005*

The hydrography, marine modelling and water quality data that will be presented in this section of the ES will have a large component in common with the application for licence to discharge from SEPA under the Water Environment (Controlled Activities)(Scotland) Regulations 2005, often referred to as the Controlled Activities Regulations (or 'CAR Regs'). The developer has a number of options at this point to continue with a sequential application process, i.e. seeking CAR consent prior to, or following the EIA process, or submit the ES and CAR application as a parallel application. As SEPA, and a number of other potential consultees, may benefit from the data gathered and streamlined determination that may arise, parallel submissions of EIA and CAR applications are recommended.

#### **Key Legislation and Statutory Instruments:**

The *Water Environment and Water Services (Scotland) Act 2003* has replaced previous legislation, Control of Pollution Act (as amended) 1974. The associated statutory instrument is now the *Water Environment (Controlled Activities) (Scotland) Regulations 2005*, commonly known as the CAR Regulations.

#### **Key Consultees:**

- SEPA;
- FRS Marine Laboratory in Aberdeen; and
- SNH.

Environmental quality standards (EQS's) have been established for a range of potentially toxic chemicals, to ensure that concentrations remain below the level at which adverse ecological effects are detectable. Advice on these standards and the carrying capacities of marine locations can be obtained from the above consultees.

#### **Key Documents:**

SEPA has published detailed guidance on the legislation, policies and procedures, which should be considered when regulating Scotland's marine cage fish farming industry. These can be accessed at:

<http://www.sepa.org.uk/aquaculture/index.htm>

Regulation and Monitoring of Marine Cage Fish Farming in Scotland – a manual of procedures.

SEERAD published *Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters in 2003*. Within these guidelines development potential was set out in category 1, 2, and 3 areas. The category areas are designated on the basis of FRS predictive modelling to estimate nutrient enhancement and benthic impact in sea lochs or

<sup>15</sup> A Handbook on Environmental Impact Assessment, Guidance for Competent Authorities, Consultees and others involved in the Environmental Impact Assessment Process in Scotland. Natural Heritage Management. 2005 .

similar water bodies supporting aquaculture. The criteria for assessment and the category area maps can be found at the following website and are regularly updated: <http://www.marlab.ac.uk>

**Policies**

[No. 17](#) - Sea lice treatment chemicals for cage fish farms: provisional environmental quality standards for Azamethiphos;

[No. 29](#) - Calicide (teflubenzuron) - authorisation for use as an in-feed sea lice treatment in marine cage salmon farms; and

[No. 40](#) - Regulation and expansion of caged fish farming of salmon in Scotland Emamectin Benzoate: An Environmental Risk Assessment.

## Marine Ecology

### *Purpose*

Scotland's coastline provides a wide range of important habitats for wildlife. The potential effects of marine fish farming on flora and fauna are numerous, encompassing interactions with predator species, disturbance to wildlife such as seabirds, herons, seals and otters, interaction with wild stocks of salmon and sea trout and degradation of important habitats and species.

### **EFFECTS ON THE MARINE ENVIRONMENT**

In contrast with terrestrial interests, there are few published EIA techniques or specific good practice documents available for the ecological impact assessment of the marine environment. Unless a 'sensitive area' is involved, the assessments and consequent appraisal of impacts presented in an ES often neglect to assess the existing benthic environment. It is crucial to initiate early contact with SNH and SEPA to agree survey methodologies, assessments and presentation of data. Expensive, but unnecessary or inappropriate surveys can often be undertaken resulting in delays arising from requests for additional information and costs to the applicant.

### *Content*

This chapter is subdivided into the following sections to ensure full coverage of natural heritage interests:

- Benthic and Water Column Impacts;
- Sensitive Sites and Species;
- Interaction with Predators; and
- Interaction with Wild Salmonids.

### **APPROPRIATE ASSESSMENT**

If the applicant's proposals are likely to have a significant effect, either individually or in combination with other plans and or projects on a European Site (SAC, SPA or RAMSAR site), this will be subject to an *appropriate assessment*. This is the term used for the process and statement, which indicates whether a proposed development would, or would not; affect the qualifying features of a European site.

The 'competent authority' must undertake the appropriate assessment (i.e. the relevant planning authority as of 1 April 2007). However, the onus is on the applicant to provide the necessary information for the relevant planning authority to carry out the assessment.

The process of appropriate assessment can be complex. If proposals are likely to have a potential impact on a site either individually or cumulatively, advice should be sought from SNH.

### *Assessment and Mitigation*

Collection of baseline data must inform the assessment of significance for sensitive receptors. The overall objective should be to maintain biodiversity in the study area, including wildlife habitats and species and to improve the status of rare and vulnerable species wherever possible. Proposals should therefore be designed:

- To avoid harmful development affecting protected habitats e.g. SAC's, SPA's, SSSI's etc;

- To guide development in relation to the special biodiversity interests of sensitive habitats e.g. Marine Consultation Areas, Scottish Biodiversity List, UK Biodiversity Action Plans, Local Biodiversity Action Plans; and
- To consider adopting the 'no net effect' principle, which means providing full compensation for lost biodiversity values where loss is unavoidable. This may be in the form of habitat enhancement initiatives elsewhere.

Generally, SNH would consider marine impacts to be significant where, either alone or in combination with other projects, the project would lead to:

- Adverse or beneficial impacts on the systems or processes or features for which a site had been notified or designated;
- Permanent or long term change that would affect the integrity and long term sustainable management of natural coastal processes and other natural marine systems; and
- Permanent or long term change to the quality of the natural heritage locally or regionally as a result of the destruction or enhancement or widespread or extensive degradation or improvement of marine habitats, species populations or features<sup>16</sup>.

**Key Legislation:**

*Birds Directive (79/409/EEC) and the Habitats Directive (92/43/EEC)*

A number of marine species are listed in the *EC Habitats Directive (92/43/EEC)* as species being in need of strict protection.

*The Wildlife and Countryside Act 1981*

*The Nature Conservation (Scotland) Act 2004*

Under the *Conservation of Seals Act 1970*, Scottish seals are provided with a degree of protection during their main moulting and breeding periods.

*The Conservation (Natural Habitats) Regulations 1994*

*The Conservation (Natural Habitats) Amendment (Scotland) Regulations 2004*

*The Convention on Wetlands, RAMSAR, Iran, 1971*

**Key Consultees:**

- SNH;
- SEPA;
- Scottish Wildlife Trust;
- Local Authority;
- Scottish Executive;
- FRS;
- JNCC;
- Sea Mammal Research Unit <http://smub.st-and.ac.uk/>
- Local wildlife groups;
- Marine Conservation Society;
- District Salmon Fisheries Board; and
- Fisheries Trusts.

**Key Documents and Information Sources:**

- National Planning Policy Guideline 14; Natural Heritage

<sup>16</sup>Scottish Natural Heritage Environmental Assessment Handbook. Guidance on the Environmental Impact Assessment Process. Appendix 7. (2005). <http://www.snh.org.uk/publications/on-line/heritagemanagement/EIA/>

- Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters. March 2007. FRS
- Biodiversity Action Plans (local and national);
- SNH Information Service; <http://www.snh.org.uk/snhi/>;
- Multi-Agency Geographic Information for the Countryside (MAGIC): <http://www.magic.gov.uk/>;
- Local Plans;
- Macaulay Land Use Research Institute;
- Marine Biological Association of the UK, Marine Life Information Network;
- National Biodiversity Network (NBN Gateway);
- Scottish Executive, Planning Advice Note 60 "Planning for Natural Heritage";
- Ratcliffe D.A. (ed) (1997), A Nature Conservation Review, Cambridge University Press;
- Nature Conservancy Council (1990), Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit;
- Regulation and Monitoring of Marine Cage Fish Farming in Scotland - a procedures manual, Extended baseline survey APS EXT BASE 001; and
- Fisheries Sensitivity Maps: [http://www.cefas.co.uk/Publications/fsmaps/sensi\\_maps.pdf](http://www.cefas.co.uk/Publications/fsmaps/sensi_maps.pdf) (mainly commercial pelagic fisheries).

## Benthic Impacts

### *Purpose*

Inputs of organic matter into fish farm systems may be lost to the environment through unconsumed food, fish excretion, faeces production and respiration. This can result in high sediment oxygen demand, anoxic sediments, production of toxic gases and as a consequence, a decrease in benthic diversity. These impacts may be exacerbated by use of chemicals and antifoulants. This section should address the potential issues and possible mitigation measures.

### *Contents*

The applicant may be required to undertake field surveys in cases where natural heritage impacts are likely to be significant or effects cannot be predicted at scoping stage. This section will require background information to be gathered on the benthic community and will also require information from the hydrology assessment to quantify potential impacts on the water column flora and fauna. Standard protocols are available from SNH<sup>17</sup> for the baseline benthic survey and there may be a close relationship between the surveys and modelling carried out by SEPA. The applicant may wish to discuss the proposals jointly or run surveys together to increase efficiency. The applicant should ensure that survey protocol requirements from both SEPA and SNH are agreed in conjunction.

The applicant should consider potential effects of a project on marine interests<sup>18</sup>: These may include:

- Landtake with consequent loss of habitat from intertidal or subtidal areas, including severance, fragmentation or loss of habitats;
- Burial of marine flora and fauna via depositional inputs or installation;
- Impacts on habitats and species due to smothering / nutrient change and chemical residues;
- Disturbance of habitats and species due to factors such as noise and light pollution; and
- Changes in sediment budgets and water quality.

<sup>17</sup> SNH standards are for video surveys to assess presence and extent/distribution of important habitats and species. SNH video survey standards are currently under review.

<sup>18</sup> From SNH. 2005. A Handbook on Environmental Impact Assessment. Guidance for Competent Authorities, Consultees and Others involved in the EIA Process in Scotland. Natural Heritage Management.

## IMPACT ASSESSMENT FOR MARINE ECOLOGY

Failure to adequately assess the impact on the marine ecology, particularly the benthos, despite availability of good baseline data is common. Applicants should ensure that the impacts of the finfish farming activities on the integrity of the benthic community are evaluated to determine the significance of the impact. Effects are likely to expand beyond the immediate footprint of the site. Marine habitat surveys should extend to the AZE / limit of impact as determined by modelling.

### Sensitive Sites and Species

#### *Purpose*

Sites of particular value for nature conservation have statutory protection as National Nature Reserves (NNRs) or Sites of Special Scientific Interest (SSSIs)<sup>19</sup>. Some of these are also protected under EC legislation or international agreements. A number of sites of particular importance for bird populations have been designated as Special Protection Areas (SPAs), while wetlands of international importance as waterfowl habitats are protected under the Ramsar Convention. Special Areas of Conservation (SACs) are designated as habitats under Annexes I and II of the Habitats Directive and include species such as grey or common seals, and habitats such as mudflats and sandbanks.

The absence of statutory designations in any area does not indicate that the marine ecology of the receiving environment is not of a high quality. There are also a number of sensitive sites and species without statutory protection e.g. Marine Consultation Areas (MCA)s, Scottish Biodiversity List, UK Biodiversity Action Plans (UK BAPs), Wildlife Sites and Local Biodiversity Action Plans (LBAPs). Although these do not have statutory protection, these designations can often make a significant contribution to conserving habitats and species. The EIA should identify important, rare or vulnerable examples of marine natural heritage and provide enhanced protection where these are vulnerable to impacts from proposals.

The applicant should be aware that designations are only examples of valuable features and many important areas are not covered under any international, statutory or non-statutory designations. Survey information may indicate the presence of habitats communities or species known to be sensitive to marine fish farm developments.

#### *Content*

This section should systematically identify any protected habitats or species in the area. If the site has the potential to impact positively or negatively on a Natura 2000 (SPAs and SAC's) site then an 'appropriate assessment' may be necessary (see Box 'Appropriate Assessment' above). The applicant should be aware that even although an appropriate assessment may be based on the same information used to prepare the ES, this is a distinct task and is a statutory obligation upon the competent authority.

## COASTAL AND MARINE NATIONAL PARKS

The National Parks (Scotland) Act 2000 contains statutory process for establishing a Coastal and Marine National Parks and a consultation process on proposals to establish Scotland's first Coastal and Marine National Park was launched on 11 October 2006. The consultation process closed early 2007 and, following further consultation and Parliamentary scrutiny, applicants should be aware that Ministers expect the first park designation in late 2008.

<sup>19</sup> NNR's primary land use is for the protection and management of wildlife of Scotland with opportunities for people to visit and enjoy the special natural heritage. SSSI's are also designated to protect natural heritage, but may have other land use activities.

The applicant should provide baseline data indicating the proximity to protected areas. SNH holds comprehensive digital data sets for terrestrial and marine protected areas, which can be accessed via [www.snh.org.uk](http://www.snh.org.uk). Different impacts arising from finfish farm activities may impact the integrity of a protected site or species, and depending on the qualifying features. Key impacts may arise from marine litter, nutrient enrichment, discharge of chemical sea lice treatments, marine traffic, boat maintenance and antifoulant use.

In addition, the local authority will hold information relating to Local Biodiversity Action Plans and other sites of local importance, which have not been designated under any statutory legislation. The sensitivity of these receptors should be characterised in line with the guidance provided in Part 5.

### IMPACT ASSESSMENT FOR PROTECTED AREAS

If a development is likely to impact a protected area, the applicant should consider, in conjunction with SNH, the potential main effects on features. These can include terrestrial areas. The following examples provide an indication of potential impacts for differing features:

**Coastal lagoons, mudflats and sandbanks** – marine fish farming may cause changes through water quality, smothering from waste material and physical disturbance from mooring systems. Accidental introduction of new non-native species can also increase the spread of existing non-native plants and animals (e.g. *Caprella mutica* Japanese skeleton shrimp), with consequent impacts on community structure and quality.

**Otters** – marine fish farming sites may cause disturbance to resident otters from noise and boat usage. In addition, the construction, use and maintenance of shore bases built to support finfish farms may disturb otters and cause deterioration of their habitats through destruction and physical damage to shoreline holts.

Different effects may be experienced at different stages of the proposal (installation, construction, decommissioning) and the ES should clearly set out the impact assessment and significance of the impact for each aspect of the marine environment expected to be impacted by the proposals.

#### **Interactions with Predators**

##### *Purpose*

High densities of fish and feed at fish farms can attract scavenging and predatory species (including cormorants, herons, shags, gulls and seals<sup>20</sup>). In addition to damage to stocks and equipment, predators and scavengers can spread disease or sufficiently stress farmed stock to affect production. There is also evidence to indicate that many birds and mammals are killed on farms, either deliberately or by accident<sup>21</sup>.

Sound is also important to whales, dolphins, porpoises and other marine species for navigation, communication and finding food. These animals often rely on sounds as their primary sense for navigation, and interaction with the surrounding environment.

##### *Content*

The applicant, in consultation with SNH, may be required to conduct field surveys to establish baseline information. More commonly, applicants provide a desk study based on investigation of existing records. Unpublished data may be available from sources gathered from the consultees provided in the advice box accompanying this section.

<sup>20</sup> The Scottish Executive has responsibility for the conservation, protection and management of both seals and cetaceans found within Scottish waters.

<sup>21</sup> A full discussion is provided in Beveridge, M.C.M. Aquaculture and wildlife interactions. Institute of Aquaculture, University of Stirling. <http://resources.ciheam.org/om/pdf/c55/01600220.pdf>

With respect to underwater noise, neither the Scottish Executive nor the UK Government publishes any specific advice or guidance on the impacts of underwater noise on fauna. Similarly, within the EU legislation, underwater noise is neither regulated nor clearly identified as a source of pollution. However, under regulation 39 of the Conservation (Natural Habitats) Regulations 1994 (as amended 2004) it is an offence to deliberately or recklessly disturb any dolphin, porpoise or whale. Some research has shown that acoustic deterrent devices (ADDs) can exclude cetaceans from particular areas depending on local conditions and topography, therefore in certain situations it can be concluded that the use of ADDs may contravene this regulation. In these cases, a licence will be required from the Scottish Executive. SNH can advise on areas that are likely to be sensitive for cetaceans; these are most likely to be straits, sounds, narrows and embayments where cetaceans may concentrate and where ADDs may cause a barrier to passage.

Effective predator control is site specific and subject to legislation. Mitigation measures should include details of management measures taken to deter or exclude predators anticipated from the baseline study. The *Code of Good Practice for Scottish Finfish Aquaculture* provides specific suggestions for mitigation for birds and seals in section 5.2.9. Adequate preventative measures should be considered and every effort should be used to propose humane and non-destructive means.

### **Interactions with Wild Fisheries**

*Planning authorities and statutory consultees should note that powers under the imminent Aquaculture & Fisheries legislation will provide FRS with a statutory responsibility for sea lice and containment measures as follows:*

- *Introduce a duty on fish farmers to collect, retain and make available for inspection information relating to fish parasites and containment of fish;*
- *Give powers to take samples of stock and measure levels of parasites;*
- *Allow enforcement action to be taken where farms do not have satisfactory measures in place to control parasites or contain fish;*
- *Regulate live fish movements into specified areas in marine waters;*
- *Allow Ministers to establish a scheme to make payments for any fish destroyed for the purposes of disease controls; and*
- *Increase powers to fund initiatives relating to sea fisheries, freshwater fisheries, aquaculture and inshore fisheries.*

### *Purpose*

Scotland<sup>22</sup> has a considerable resource of wild salmon and sea trout stocks, often of high economic and social value and the populations of wild fish in the catchments of many salmon and sea trout rivers are considered to be genetically distinct. The potential effects from commercial salmon farming on wild stocks include:

- Successful breeding of escaped farmed fish may reduce the genetic diversity and vigour of wild salmon and sea trout populations; and
- Transmission of disease and parasites from farmed to wild fish.

Atlantic salmon is an Annex II and V species under the Habitats Directive<sup>23</sup>. In addition, wild salmonids act as hosts for the young larval stages of the freshwater pearl mussel (also protected under Annex II). In areas where freshwater pearl mussels are found, any activities, which threaten wild salmon and sea trout populations, may also pose a threat to pearl mussel populations.

### *Contents*

The baseline section should identify the existing salmonid resources and the proximity of the proposals to important catchments. Further assessment may be deemed necessary following

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<sup>22</sup> The potential impacts from salmonids are not currently as relevant to Orkney and Shetland Island Councils.

<sup>23</sup> In practice, this level of protection means that there is a general duty to prevent the deterioration of habitats.

consultations and completion of the screening/scoping exercise. Specific advice on fishing interests can be obtained from:

- SEERAD / FRS;
- The Scottish Fishermen's Federation;
- District Salmon Fishery Boards;
- Local fishermen's organisations; and
- The Salmon Net Fishery Association of Scotland can provide advice in relation to salmon net fishing stations;
- Scottish Fisheries Protection Agency (SFPA); and
- The Rivers and Fisheries Trust of Scotland (RAFTS).

#### *Assessment and Mitigation*

The applicant should independently evaluate the sensitivity of any wild fisheries receptors and develop appropriate mitigation. Evidence of commitment to disease management and enhanced ability to control diseases/parasites such as sea-lice and furunculosis must be provided. Effective containment is a fundamental aspect of good management and if necessary, the ES may have to provide detail on mitigation measures required to achieve this. These may include:

- Pen Systems;
- Mooring systems;
- Design and construction of pen nets;
- Inspection and testing of nets and net attachments; and
- Anti-predator measures; and
- Commitment to Area Management Agreements.

## Navigation, Anchorage, Commercial Fisheries and MOD

### *Purpose*

Fish farm developments have the potential to create hazards on navigation routes, impact anchorages and restrict coastal fisheries e.g. creeling, scallop diving etc. Submarine power cables or piping may also be present and the MOD<sup>24</sup> also has a variety of interests in the marine environment. Potential conflicts of use can arise specifically with respect to:

- Marine Exercise Areas;
- Dockyards, ports and other MOD establishments;
- Bombing Ranges; and
- Undersea Submarine Testing.

### *Content*

The responses from a comprehensive scoping exercise should dictate the extent and scale of this assessment. Consultation with a range of non-statutory consultees is essential in this respect and can address serious conflicts early in the process. The MOD should also be contacted early to address potential conflicts with military uses.

The baseline survey should present evidence of shipping movements, anchorages in the proximity of the fish farm, and the fishing intensity within an area of interest. In general, no single data source is sufficient for this assessment and several sources, including Government statistics and liaison with local fishermen's organisations, will be required. The advice box below provides an indication of potential sources of information.

### *Assessment and Mitigation*

The impact assessment should also consider likely changes in movements resulting from the installation, the constraints imposed upon local navigation by the installation and, if considered a risk, the danger of passing vessels colliding with the installation. Examples of potential impacts can include:

- Impacts on increased pier / pontoon usages;
- Impacts from servicing cages;
- Interaction with boat movements, including ferries, recreational impacts etc;
- Reduction of areas for creeling / bait fishing;
- Marking of fallowed sites; and
- Provision of mooring facilities (a positive impact).

The assessment of significance should focus on the extent of conflict with navigation, anchorage etc. Any benefits, for example, the provision of new mooring facilities should also be identified and assessed. Mitigation is likely to comprise measures incorporated into the design of a development (cage orientation and location), however operation factors such as navigational lighting will also be relevant.

#### **Key Legislation:**

- Coast Protection Act 1949; and
- MOD Byelaws.

#### **Key Consultees:**

- Ministry of Defence and their Defence Estates;
- SEETLLD<sup>25</sup>;

<sup>24</sup> The most significant of these areas include the Dockyard Ports of The Gareloch, Loch Long, Loch Goil, the Holy Loch and Rosyth. Similar prohibitions also exist at the British Underwater Test and Evaluation Centre (BUTEC) and the Rona Noise Range. Minelaying and Minehunting operations are located around military facilities on the west coast, and the presence of submarine exercise areas militate against the provision of fish farm moorings in some areas. There are also live firing range safety areas at Kirkudbright, West Freugh, Benbecula, Cape Wrath, Wick, Tain, Fort George, Black Dog and Barry Buddon. Approaches to the airbases at Kinloss, Lossiemouth and Leuchars may also be significant.

<sup>25</sup> This Department has responsibility for ensuring that works in tidal waters do not constitute a hazard to navigation. Consent for the installation of marine fish farming equipment in sea areas must be obtained.

- Local Harbours and Port Authorities;
- Maritime and Coastguard Agency;
- Northern Lighthouse Board;
- Local Fisheries organisations/ Fishermen's associations;
- Local shellfish interests (farmers, fishermen, divers);
- The Scottish Fisherman's Federation;
- The UK Hydrographic Office <http://www.ukho.gov.uk>
- Scottish Executive Environmental and Rural Affairs Department Fisheries Group (SEERAD); and
- Fisheries Research Services.

**Key Documents:**

- Admiralty Charts contain information on anchorages;
- Clyde Cruising Club Sailing Directions; and
- Details of specific MOD prohibited areas can be found in the relevant sections of the West of Scotland Pilot and are normally indicated on the large scale Admiralty Charts. The MOD may have other activities and areas of interest that are not shown on Admiralty Charts.

## Landscape and Visual Impact Assessment (including lighting)

### *Purpose*

Scotland has a wide range of landscapes, many of which are highly valued and some being of national or international importance. These have been analysed and classified in the national programme of Landscape Character Assessment, organised by SNH. Landscapes regarded as being of national importance have been designated by SNH as National Scenic Areas, whilst landscapes of regional or local importance have been designated by local authorities, and are identified in development plans. Many coastal areas are valued for their fine views and their wild and remote qualities; and certain aquaculture developments may have a significant impact on these qualities.

### LANDSCAPE AND VISUAL ASSESSMENTS

The impacts of marine fish farms on landscape often has significant local importance, and is one of the key issues surrounding these developments. Often applicants do not focus effort proportionately on this assessment, resulting in requests for additional information. Guidance issued by SNH<sup>32</sup> provides details of a straightforward approach, and applicants should consult directly with SNH for clarification on the methodology. Additional guidance regarding landscape carrying capacity is due for publication by SNH in 2007.

### *Contents*

The contents of the landscape and visual assessment, and the level of detail that will be required, will be dependent on the location and nature of the development. This will be determined in the screening / scoping response. In rural areas, particularly those popular for outdoor recreation, it will be important to identify key viewpoints and publicly accessible areas, which might be affected by a proposal as well as residential areas and transport routes.

Scottish Natural Heritage has published specific guidance on landscape and visual impacts for the marine aquaculture industry, including design guidance and mitigation<sup>26</sup>. This guidance compliments the broader guidance used for landscape and visual impact assessment that has been written by the Institute of Environmental Assessment and the Landscape Institute<sup>27</sup>. SNH will also be publishing additional guidance in 2007 titled '*Landscape / Seascapes Carrying Capacity for Aquaculture*' which will provide guidance on the landscape carrying capacity assessment process.

Following the screening /scoping exercise, and any additional discussions, the applicant should have a clear idea of the landscape interests which need to be addressed in the ES.

The baseline assessment should comprise of a 'landscape assessment', which should be undertaken with reference to SNH's landscape character assessment programme. The baseline assessment should also identify landscapes designated for national or local importance. In line with the *Guidelines for Landscape and Visual Assessment*<sup>30</sup> described above, each landscape feature should be described in relation to any designated areas within, or close to which the site, and the impact it will have on the qualities for which the areas have been designated, these include:

- The impact on visual and aesthetic characteristics;
- The impact on individual landscape features;

<sup>26</sup> Scottish Natural Heritage 2000, Marine Aquaculture and the Landscape: The siting and design of marine aquaculture developments in the landscape.

<sup>27</sup> Landscape Institute and Institute for Environmental Management and Assessment (2001); Guidelines for Landscape and Visual Assessment

- Where the fish farm will be seen from, and how it will appear e.g. from settlements, roads, footpaths, ferries and key water routes;
- Impact of lighting including sub surface anti maturation (grilsing) lights;
- Visibility of water and land based components considering topography, vegetation, and possible screening or camouflage; and
- If the proposal is to be located in a remote area, or an area valued for its wild land qualities, there should be an assessment of how it will affect these qualities.

In the mitigation measures, the applicant may wish to set out:

- How acceptable the changes are likely to be;
- Any remedial measures which can be taken to reduce impact;
- Choice of materials and colours used;
- If appropriate, an explanation of how the proposal will avoid creating an adverse cumulative impact on the landscape;
- Mitigation measures to reduce landscape impacts such as cage orientation, size, design and layout;
- Use of feed barges and ancillary terrestrial infrastructure;
- The options that have been considered for locating the proposed development with respect to landscape and visual impacts; and
- An explanation of how the proposed scheme relates to the landscape character of the area.

#### *Supporting Diagrams*

The readership of this assessment may extend to individuals unfamiliar with the site. Provision of good quality figures and photographs is important. A map indicating key viewpoints, accompanied by illustrations such as photomontages, sketches or acetate overlays on photographs should illustrate how the proposal will be seen in context. Maps could also be used to demonstrate the extent to which the potential development is visible from settlements, roads, footpaths, ferries and key water routes.

#### *Assessment and Mitigation*

The following key documents published by SNH provide straightforward guidance for a visual impact assessment:

- Marine Aquaculture and the Landscape: The siting and design of marine aquaculture developments in the landscape, Scottish Natural Heritage, 2000; and
- Technical Appendix 1 in A Handbook on Environmental Impact Assessment; Guidance for Competent Authorities, Consultees and Others involved in the EIA Process in Scotland. SNH. 2005

The latter guidance provides sample field sheets and a checklist to assist in a clear and systematic approach to assessing the visual impact. The former document provides guidance on mitigation options for detailed design suggestions specifically for aquaculture developments.

#### **Key Legislation:**

There is a requirement in the *Environmental Impact Assessment (Scotland) Regulations 1999* to assess the impacts on landscape.

#### **Key Consultees:**

- SNH - Information on designated landscapes (National Parks and National Scenic Areas) and landscape character assessments;
- Local Council - Information on local landscape designations, Regional Parks, Country Parks and other areas designated for planning purposes;
- National Trust for Scotland - Details of landscapes held in trust for the benefit of the nation;
- Garden History Society for Scotland - Information on historic and designed

landscapes; and

- Historic Scotland - Information on Scheduled Ancient Monuments / Listed Buildings (where setting can be an important issue) and Inventory Gardens and Designated Landscapes.

**Key Documents:**

- Scottish Natural Heritage 2000, Marine Aquaculture and the Landscape: The siting and design of marine aquaculture developments in the landscape;
- Landscape Institute and Institute for Environmental Management and Assessment (2001): Guidelines for Landscape and Visual Assessment;
- SEERAD (2003): Advice Note: Marine Fish Farming and the Environment;
- National Planning Policy Guideline 13: Coastal Planning identifies the basis for policy on coastal development. Advice on the criteria to be used in classifying the coast is set out in Policy Advice Note 53: Classifying the Coast for Planning Purposes; and
- SNH. 2005. A Handbook on Environmental Impact Assessment. Guidance for Competent Authorities, Consultees and Others involved in the EIA Process in Scotland. Natural Heritage Management.

## Noise

### *Purpose*

Fish farms have the potential to be a source of noise pollution due to activities associated with the construction and operation of the facility. Noise exposure can have an adverse impact on human health and the perceived quality of life in a local environment. Nuisance arising from noise exposure varies greatly between individuals, but generally at the community level there is a reasonable correlation between physical measurements of noise and nuisance response. In addition to surface noise, acoustic deterrents may cause discomfort and disorientation to divers and MOD activities. There are also potential impacts from deterrents on non-target species; these are dealt with in Section 4.4.

### *Content*

Fish farms are generally located in rural areas, however where activities are predicted to occur in close proximity to sensitive receptors, the applicant should contact the local authority in the first instance (and potentially the MOD where an interest is identified) to agree an appropriate methodology to assess potential impacts. Potential sensitive receptors may include dwellings and other noise-sensitive properties such as schools, hospitals, places of worship and other community facilities.

Consideration must also be given to existing quiet community amenity areas, conservation areas and other areas of landscape and wildlife importance and the potential impacts of noise and vibration on important wildlife habitats. Planning authorities will need to consider whether the special nature of an area may change due to the development. The applicant should note the potential for varying impacts during different phases of the development. During installation or decommissioning the construction of offshore pens and onshore facilities may generate noise and potentially vibration. Vessel and traffic noise should also be considered. During operation, noise associated with the operation of the development may include:

- Onshore facilities – potential impacts from industrial type facilities, such as noise from processing machinery, ventilation and other mechanical plant;
- Onshore road traffic – potential noise impacts arising from increased traffic due to delivery of feed, delivery of the product and disposal of waste materials;
- Offshore – potential impacts from noise of an industrial nature from equipment such as mechanised feed systems; and
- Offshore boat traffic – potential noise impacts from additional boat traffic servicing the fish farm facility, delivering feed etc.

### *Assessment and Mitigation*

The significance of potential noise impacts can be defined based on the proximity of audible activities to noise receptors and in rare cases, baseline monitoring may be requested. The EIA should take into account the significance of noise impacts during installation, operation and decommissioning, in addition to night and day operations. Mitigation should be agreed with the relevant planning authority and other consultees if appropriate<sup>28</sup>. There may be a requirement to commit to specific operational hours or alternative traffic routes if this is determined.

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<sup>28</sup> MOD, SNH, dive clubs etc.

**Key Legislation:**

Part III of *Environmental Protection Act (as Amended) 1990* contains the main legislation relating to statutory nuisance.

**Key Consultees:**

- Local Authorities (Environmental Health Officer);
- MOD;
- Local Dive Clubs; and
- SNH.

**Key Documents:**

- BS4142: 1997 Method for rating industrial Noise Affecting mixed residential and industrial areas;
- BS 5228: 1997 Noise and vibration control on construction and open sites;
- Circular 10/1999: Planning and Noise; and
- Planning Advice Note PAN 56: Planning and Noise.

## Historic Environment

### *Purpose*

There are a rich variety of remains from every historical period in the marine environment. Marine cultural heritage features include the remains of ships and aircrafts lost at sea, harbours, lighthouses and other structures relating to transport and trade by sea and remains of human settlement at the coastal fringe. In some cases, extensive areas may be sufficiently characterised by archaeological features as to constitute marine cultural landscapes.

Potential impacts on the historic environment from aquaculture developments include:

- Physical, chemical and / or biological impacts on terrestrial and submerged sites of archaeological interest or potential;
- Increased visual intrusion;
- Increases in noise and disturbance;
- Changes in original landscapes and settings; and
- Loss of amenity.

### *ROLE OF HISTORIC SCOTLAND*

Historic Scotland (HS) is an executive agency of the Scottish Executive, responsible for discharging Scottish Ministers responsibilities in relation to the historic environment out to the 12 nautical mile limit of territorial seas. These responsibilities extend to administration of laws to protect Scotland's most significant marine historic assets and EIA under the EIA (Scotland) Regulations 1999. However Historic Scotland has had no involvement in marine fish farming EIA to date.

### *Contents*

The contents of the Historic Environment section will be dependent on the outcome of the scoping exercise. As a minimum it will be necessary to identify known historic assets including the relevant heritage designations in the study area and to make a qualitative assessment of the likely impact of the proposal on the importance and integrity of the resource. These should be recorded in terms of their international, national, regional and local / other importance, so that a more balanced view can be taken of likely impacts. This information may have already been provided at the scoping stage and if so this should be noted in the ES.

### *Assessment and Mitigation*

Historic Scotland is beginning to investigate the significance of the effects of aquaculture on marine cultural heritage resources and may issue its own guidance in due course. Pending publication of specific guidance, the *JNAPC Code of Practice for Seabed Development* (referenced below) provides guidance for all seabed development, applicable UK-wide, and assessment of significance and mitigation should be carried out in consultation with Historic Scotland. Applicants should also be aware that the MOD protects a number of military remains (certain vessels and aircrafts lost at sea) and can be consulted for information.

**Key Legislation:**

Under the *Protection of Military Remains Act 1986*, administered by the MOD, provision is made for the protection of military remains of any nationality in UK waters and includes vessels and aircraft lost at sea.

Under the *Protection of Wrecks Act 1973*, administered by Historic Scotland, wreck sites of particular historic, artistic or archaeological importance can be protected (designated wreck sites). A licensing regime operated by Scottish Ministers through Historic Scotland, controls activities within a protected area.

Under the *Ancient Monuments and Archaeological Areas Act 1979*, Historic Scotland administers the responsibilities of the Scottish Ministers for the scheduling and protection of monuments, including the consent procedures. These duties extend to the limit of territorial seas (12-nautical mile limit) and include powers to schedule monuments on the land and on the seabed.

Under the *Planning (Listed Buildings and Conservation Areas) (Scotland) 1997 Act*, Historic Scotland administers the responsibilities of Scottish Ministers for the listing and protection of historic buildings. The scope of the 1997 Act stops at the low water mark.

**Key Consultees:**

- Historic Scotland — advice on the sites and settings of scheduled monuments and listed buildings, designated wreck sites, gardens and designed landscapes in the inventory.
- MOD protects military remains;
- Royal Commission of Ancient and Historical Monuments of Scotland — database of monuments and listed buildings;
- Council for Scottish Archaeology — information on sites of interest;
- Scottish Trust for Underwater Archaeology;
- Architectural Heritage Society— information on sites of interest;
- Planning authorities — boundaries of Conservation Areas;
- Regional Archaeologists should be consulted regarding the existence, importance and sensitivity of archaeological sites and areas;
- Local Diving Groups; and
- Local marine archaeology groups.

**Key Documents:**

- The CANMORE database (<http://www.rcahms.gov.uk>) allows on-line access to the National Monuments Record of Scotland (NMRS). The database contains details of archaeological sites, monuments, buildings and maritime sites in Scotland. It also enables this data to be searched by location (place name, area or Ordnance Survey 1:10,000 map sheet) by type (the classification or function of a site, monument or building) or by keyword.
- *JNAPC Code of Practice for Seabed Development* is published by the JNAPC and Crown Estate. This document provides generic guidance for developers looking to undertake activities on the seabed.  
[http://www.thecrownestate.co.uk/jnipc\\_code\\_of\\_practice.pdf](http://www.thecrownestate.co.uk/jnipc_code_of_practice.pdf)
- *Historic Scotland Policy Paper HP6: Conserving the Underwater Heritage* is also of relevance. (<http://www.historic-scotland.gov.uk/underwater.pdf>.)
- Scottish Executive *National Planning Policy Guideline 5 "Planning and Archaeology"*;
- Scottish Executive *National Planning Policy Guideline 18 "Planning and the Historic Environment"*; and
- Scottish Office Environment Department *Planning Advice Note 42 "Planning and Archaeology"*.
- Planning Advice Note 58 Environmental Impact Assessment. September 1999.
- Flemming, N.C., 2003, *The scope of Strategic Environmental Assessment of*

*Continental Shelf Area SEA4 in regard to prehistoric archaeological remains.* Copy available at [http://www.offshore-sea.org.uk/consultations/SEA\\_4/SEA4\\_TR\\_Archaeology\\_NFC.pdf](http://www.offshore-sea.org.uk/consultations/SEA_4/SEA4_TR_Archaeology_NFC.pdf)

- Flemming, N.C., 2003, *The scope of Strategic Environmental Assessment of Continental Shelf Area SEA6 in regard to prehistoric archaeological remains.* Copy available at [http://www.offshore-sea.org.uk/consultations/SEA\\_6/SEA6\\_Archaeology\\_NCF.pdf](http://www.offshore-sea.org.uk/consultations/SEA_6/SEA6_Archaeology_NCF.pdf)
- Wessex Archaeology, 2005, *Strategic environmental assessment: SEA 6, Irish Sea. Maritime Archaeology.* Technical report. Copy available at [http://www.offshore-sea.org.uk/consultations/SEA\\_6/SEA6\\_Archaeology\\_Wessex.pdf](http://www.offshore-sea.org.uk/consultations/SEA_6/SEA6_Archaeology_Wessex.pdf)
- Wessex Archaeology, 2005, *Strategic environmental assessment: SEA 7, Irish Sea. Maritime Archaeology.* Technical report. Copy available at [http://www.offshore-sea.org.uk/consultations/SEA\\_7/SEA7\\_Archaeology\\_Wessex.pdf](http://www.offshore-sea.org.uk/consultations/SEA_7/SEA7_Archaeology_Wessex.pdf)
- Wickham Jones, C., & Dawson, S., 2006 *The scope of Strategic Environmental Assessment of Continental Shelf Area SEA7 in regard to prehistoric archaeological remains.* Copy available at

[http://www.offshoresea.org.uk/consultations/SEA\\_7/SEA7\\_PreArchaeology\\_CWJ.pdf](http://www.offshoresea.org.uk/consultations/SEA_7/SEA7_PreArchaeology_CWJ.pdf)

## Waste Management (Non-fish)

### *Purpose*

The Regulations state that a description of the likely significant effects of the development on the environment should cover the elimination of waste<sup>29</sup>. The purpose of this section is to identify the potential impacts of waste (non-fish)<sup>30</sup> from the development on the environment. SEPA has a statutory role as waste regulator and other consultees may consider this assessment necessary with increasing responsibilities relating to waste management, waste minimisation and recycling in line with European Directives, national statute, local recycling targets and the National Waste Strategy.

### *Contents*

The waste management section should assess the waste emissions providing details such as the type, quantity, composition and destination of the waste. The section should also include or reference the data from dispersion modelling/prediction modelling of solid and diffuse waste. Consideration should be given to the disposal of:

- Feed bags;
- Harvest plastics;
- Chemical containers;
- Fish mortalities and ensiling;
- Cages, tanks and redundant equipment;
- Cage nets;
- Wooden pallets;
- Energy use; and
- Handling materials and wastes.

The section should discuss the methods that will be employed to minimise and manage the waste generated on site. This can include methods of minimising inputs to reduce overall consumption and hence reduce waste output. Good practice guidance on waste management is available in the Scottish Salmon Producers Organisation (SSPO) code of practice<sup>31</sup> and in SEPA guidelines<sup>32</sup>.

### *Assessment and Mitigation*

The significance of any impacts arising from waste will be subject to handling, management and disposal. To mitigate potential impacts, consideration should be given to opportunities to reduce, reuse or recycle waste.

#### **Key Legislation:**

- The Animal By-Products (Scotland) Regulations 2003;
- EC 1999/31/EC Landfill Directive;
- Waste and Emissions Trading Act 2003 and partly by the Landfill (Scotland) Regulations 2003, as amended;
- UK Environmental Protection Act 1990;
- UK Food and Environment Protection Act (1985) (FEPA); and
- UK Food Hygiene (Fishery Products and Live Shellfish (Hygiene) Regulations.

#### **Key Consultees:**

<sup>29</sup> Part I, Schedule 4, this is left to the discretion of the relevant planning authority.

<sup>30</sup> Discharges of nonfish waste to sea are regulated under the Food and Environment Protection Act 1985 Part II Deposits in the Sea, as amended by the Environment Protection Act 1990 (FEPA) and are issued by Fisheries Research Services (FRS). This section should refer to any applications made and may use information that is required for the above applications. It is important that the information provided in the environmental impact assessment compliments other applications made.

<sup>31</sup> SSPO (2006), A Code of Good Practice for Scottish Finfish Aquaculture.

<sup>32</sup> SEPA; Regulation and Monitoring of Marine Cage Fish Farm:  
<http://www.sepa.org.uk/guidance/fishfarmmanual/manual.asp>

- SEPA;
- Local Authorities; and
- Fisheries research Services (FEPA Licence).

**Key Documents:**

- SSPO (2006), A Code of Good Practice for Scottish Finfish Aquaculture; and
- SEPA; Regulation and Monitoring of Marine Cage Fish Farm:  
<http://www.sepa.org.uk/guidance/fishfarmmanual/manual.asp>

SEPA has also published the *Aquaculture Waste Minimisation Guide*. This guide deals with all non-fish wastes arising from a freshwater or offshore site. It covers practical ideas on how to reduce, reuse and recycle wastes, based on case study examples of good practice from farms throughout Scotland. Available on [www.sepa.org.uk/aquaculture](http://www.sepa.org.uk/aquaculture)

## Socioeconomic, Access and Recreation Impacts

### *Purpose*

A growing range of recreational interests depend on coastal areas, and water-based activities make an important contribution to the economies of many rural communities. In addition, the Regulations state that an ES should include a '*description of the likely significant effects...of the proposed environment on human beings, the landscape and the interaction of these with each other and wildlife, the air, soils and climate*'; subsequently outdoor access interests may be considered an important component of certain EIA's. Similarly, the increasing recreational use of the sea and the introduction of endurance breathing equipment is focusing attention on the risk of underwater noise impacts on divers and swimmers<sup>33</sup>. These may become significant issues when acoustic deterrents (devices which deliberately generate high levels of tonal signals) are in close proximity to diving or swimming sites<sup>34</sup>.

### *Contents*

The baseline assessment should include the economic benefits and a brief characterisation of the existing environment. This will include job creation, inward investment, social benefits, the promotion of the area, and tourism. The assessment should consider the potential effects of the proposed development on the local economy, the community (potential for job creation), local businesses and social conditions.

The baseline recreational assessment should consider the information collated during the consultation and screening / scoping phases. Input from the local authority access officer may be sought.

### *Assessment and Mitigation*

The socio-economic impacts can be assessed for significance using criteria based on fundamental or material changes in population, structure of the local community, local service and/or employment.

Guidance is available from SNH<sup>35</sup> for assessing outdoor access impacts, including the assessment of significance. The impact on facilities provided by SNH or under statutory powers are considered particularly significant. Due attention must be given to public safety considerations and care should be taken to avoid impeding access to the foreshore for recreational purposes. Where appropriate, consideration should be given to the scope for providing joint access for fish farming and recreational activities. The consultees listed below can provide advice in relation to interactions with recreational activities. The applicant should also consider underwater impacts for example noise or turbidity impacts on popular diving sites.

The contents of this chapter should include an assessment of all phases of the development.

#### **Key Legislation:**

The *Countryside (Scotland) Act 1967* and its enabling legislation the *Natural Heritage (Scotland) Act 1991* established SNH with responsibilities for facilitating the enjoyment of natural heritage.

The *Land Reform (Scotland) Act 2003* established statutory rights to most land and inland waters.

#### **Key Consultees:**

Most marine recreational activities have some representation at national level. The authorities and organisations listed below are able to give information on local representatives and contacts in the relevant area:

<sup>33</sup> National Physics Laboratory [www.npl.co.uk](http://www.npl.co.uk)

<sup>34</sup> The MOD also undertakes underwater activity, especially around existing MOD sites. See Section 6.5 for further information regarding MOD activity.

<sup>35</sup> Scottish Natural Heritage – A Handbook on Environmental Impact Assessment (Annex 5 - Countryside Access Impact Assessment), February 2006

- Local Council (Access Officer);
- British Subaqua Club
- Visit Scotland;
- Scottish Natural Heritage;
- Scottish Enterprise;
- SNH (if the recreational activity is associated with a natural heritage designation);
- Scottish Sports Council;
- Royal Yachting Association;
- Scottish Canoe Association;
- International Sea Kayak Association;
- Scottish Water Ski Association;
- Scottish Sub-Aqua Club;
- Scottish Trust for Underwater Archaeology;
- MOD
- National Association for Outdoor Recreation; and
- Marine Conservation Society.

**Key Documents and Information Sources:**

- Scottish Natural Heritage – A Handbook on Environmental Impact Assessment (Annex 5 - Countryside Access Impact Assessment), January 2002;
- Scottish Natural Heritage, Marine Aquaculture and the landscape: The siting and design of marine developments in the landscape; and
- Scottish Census results online.

Work has been carried out on the impacts of underwater noise on divers / swimmers, however no known work has been carried out on the effects of acoustic deterrents on divers / swimmers. For further information on underwater ambient noise, refer to:

- SEA 6 Technical report: Underwater ambient noise. March 2005. QunitiQ  
[http://www.offshore-sea.org.uk/consultations/SEA\\_6/SEA6\\_Noise\\_QinetiQ.pdf](http://www.offshore-sea.org.uk/consultations/SEA_6/SEA6_Noise_QinetiQ.pdf)
- National Physics Laboratory  
[www.npl.co.uk](http://www.npl.co.uk)

## Traffic and Transport

### *Purpose*

The traffic generated by marine fish farms may place pressure on narrow rural roads and the consequential wear and tear has implications for the maintenance budgets of roads authorities. There may be need for consultation with the local authority to assess if the council is capable of providing the level of maintenance that will be required. The assessment of impacts arising from other forms of transport (feeding barges, vessel traffic) is considered in Section 4.5.

### *Content*

This section should assess the current baseline of traffic. Where practicable transport of harvested fish by sea or rail rather than road should be considered. The applicant should be aware that planning permission for onshore facilities might be refused if the capacity of local roads is insufficient to accommodate service traffic.

#### **Key Legislation:**

- Transport (Scotland) Act 2001.

#### **Key Consultees:**

- Local Authorities – Roads and Transport.

#### **Key Documents:**

- Scottish Planning Policy (SPP) 17: Planning for Transport;
- Planning Advice Note (PAN) 75: Planning for Transport;
- Guidelines for the Environmental Assessment of Road Traffic, Institute of Environmental Assessment, 1993; and
- Design Manual for Roads and Bridges, Volume 11 – Environmental Assessment.

## ANNEX H

### DEFINITIONS

Background definitions to the main stages of the Planning and EIA process have been supplied for reference purposes. These are set out in alphabetical order.

**Anchorage:** A location that gives natural shelter, good anchor holding ground and suitable depth of water to vessels seeking refuge in adverse winds and tides. Anchorages may also be areas of good holding used for overnight stops when on passage.

**Appropriate Assessment:** This type of assessment is required under Article 6 (3) and (4) of the Habitats Directive 92/43/EEC and is the term used for the assessment process to determine whether a plan would, either alone or in combination with other plans and projects be likely to have a significant effect on a European Site<sup>36</sup>.

**Area Management Agreement:** A framework agreement between salmon farming and wild fisheries interests sets out the general principles whereby the Area Management Groups can establish Area Management Agreement (AMA's). The primary aim of the AMA's is to develop practical measures to facilitate the promotion and maintenance of healthy wild salmonid fish and farmed salmon stocks at local levels.

**Assimilative Capacity:** the ability of an area to maintain a healthy environment to accommodate wastes (see also Carrying Capacity and Environmental Capacity).

**Carrying Capacity:** the potential maximum production a species or population can maintain in relation to available food resources within an area (see also Environmental Capacity and Assimilative Capacity). Guidance will be published in 2007 to address the landscape carrying capacity.

**Consultation:** A formal or informal request for information relevant to a proposed development site, which may influence the EIA or Planning Application.

**Cumulative Effect:** The total sum of a number of individual environmental effects within a given area (usually enclosed), and the potential magnification of their effects.

**Environmental Appraisal:** An environmental appraisal of a development, which does not fall within the EIA Regulations. This could result from a developer choosing to further assess the development after the screening opinion has indicated no requirement for EIA.

**Environmental Capacity:** the ability of the environment to accommodate a particular activity or rate of activity without unacceptable change (see also Carrying Capacity and Assimilative Capacity).

**Environmental Impact Assessment (EIA):** The systematic, reproducible and interdisciplinary identification, prediction and evaluation, mitigation and management of significant impacts from a proposed development and its reasonable alternatives. The need for a planning application to be accompanied by EIA can be established with reference to The Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

**Environmental Information:** means the Environmental Statement, including any further information, any representations made by any body required by the Regulations to be invited to make representations duly made by any other person about the environmental effects of the development.

**Environmental Statement (ES):** This is the written record of the EIA. Information for inclusion within an ES is contained within Schedule 4 to the EIA Regulations.

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<sup>36</sup> European site is classified as a Special Protection Area (SPA) and Special Area of Conservation (SAC), but this assessment is also required, as a matter of Government Policy for potential SPA's, candidate SAC's and RAMSAR Sites.

**Good Status:** under WFD, 'good status' means 'good ecological status' and 'good chemical status'. These are encompassing terms relating to biological, chemical and morphological conditions associated with **no** or **very low** human pressure. Assessment of quality is based on the extent of deviation from these reference conditions. 'Good status' means 'slight' deviation, 'moderate status' means 'moderate' deviation etc. These definitions are expanded in Annex V to the WFD.

**Mitigation Measures:** Methods employed to avoid, reduce, remedy or compensate for significant adverse impacts of development proposals.

**Seabed Lease:** Provided by the Crown Estate in relation to marine developments attached to the seabed.

**Special Area of Conservation (SAC):** These are protected sites designated under the EC Habitats Directive. The Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended).

**Special Protection Area (SPA):** Protected sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), also known as the Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species.

**Significance:** Definition of when an effect is significant is a key aspect of EIA since an ES is only required to report significant effects. Definition of significance is prescribed by a varying degree by statute and policy. In many cases, such guidance is general in nature and practitioners have been obliged to develop definitions for specific topics and projects. It is broadly accepted, however, that the significance and severity of an effect reflects the relationship between the magnitude of an impact and sensitivity of receptor. Significance has a different definition under the Habitats Directive.

**Site of Special Scientific Interest (SSSI):** A series of nationally important sites in Great Britain. In Scotland SSSI's are notified by SNH.

**Screening Opinion:** The process carried out by the relevant planning authority to determine if a development requires an EIA. The Environmental Impact Assessment (Scotland) Regulations 1999 (as amended) state that the developer should normally be able to supply sufficient information to enable the planning authority to form a judgement and give a ruling on the need for EIA. Only very exceptionally, will planning authorities seek advice from one or more of the consultation bodies or non-statutory bodies. There is therefore no legal requirement that statutory consultees must be consulted before the planning authority determines if EIA is required.

**Scoping Opinion:** The process of identifying the issues to be addressed by the EIA. It is a method of ensuring that the EIA focuses on the important issues. The scoping process also provides a forum for consultants to comment / provide information on proposed methods.

**Site Selection and Project Design:** This process may form a material consideration as part of the Planning Application and/or the EIA, and must therefore be both robust and transparent.

**Works Licence:** Prior to 1 April 2007, the Shetland or Orkney Islands Councils granted these for marine fish farm developments.

## ANNEX I

### DEVELOPMENT IN A SENSITIVE AREA

The relationship between a proposed development and its location is a crucial consideration. The more environmentally sensitive the location, the more likely it is that the effects will be significant and will require EIA. The following guidance is adapted from *Circular 15/1999 on the Environmental Impact Assessment (Scotland) Regulations 1999*. Certain designated sites are defined in regulation 2(1) as 'sensitive areas' and the thresholds/criteria in the second column of Schedule 2 do not apply there. All Schedule 2 developments to be located in such areas must be screened for the need for EIA. These are:

- Sites of Special Scientific Interest;
- Land subject to Nature Conservation Orders;
- International Conservation Sites (SPA, SAC, RAMSAR Sites);
- National Scenic Areas;
- World Heritage Sites;
- Scheduled Ancient Monuments; and
- National Parks.

Special considerations apply to all of these sensitive areas, especially those which are also international conservation sites, such as classified and proposed Special Protection Areas (SPA) under the Wild Birds Directive 79/404/EEC and designated and candidate Special areas of Conservation (SAC) under the Habitats Directive 92/43/EEC.

In practice, the likely environmental effects of Schedule 2 development will often be such as to require EIA if it is to be located in or close to sensitive sites. Whenever planning authorities are uncertain about the significance of a development's likely effects on a sensitive area, they should consult the relevant statutory body such as Scottish Natural Heritage or Historic Scotland. Other non-statutory bodies may have relevant information and can be consulted if it is thought this would be helpful.

For marine fish farms, EIA is more likely to be required if it affects the special character of any of the other types of 'sensitive area' listed above. However, it does not follow that every Schedule 2 development in (or affecting) these areas will automatically require EIA. In each case, it will be necessary to judge whether the likely effects on the environment of that particular development will be significant in that particular location. Any views expressed by the consultation bodies should be taken into account, and authorities should consult them in the cases where there is a doubt about the significance of a development's likely effects on a sensitive area.

In certain cases other statutory and non-statutory designations which are not included in the definition of 'sensitive areas' but which are nonetheless environmentally sensitive may also be relevant in determining whether EIA is required. Where relevant, Local Biodiversity Action Plans will be of assistance in determining the sensitivity of a location.

In considering the sensitivity of a particular location, regard should also be given to whether any national or internationally agreed environmental standards are already being approached or exceeded. Examples include air quality, drinking water and bathing water. Where there are local standards for other aspects of the environment, consideration should be given to whether the proposed development would affect these standards or levels.

The Regulations do not alter the relationship between planning authorities' responsibilities and the separate statutory responsibilities exercised by local authorities and other regulatory regimes. However, they do strengthen the need for appropriate consultations with the relevant bodies at the planning application stage. Advice on the role of the planning system in controlling pollution is set out in Planning Advice Note (PAN) 51, "Planning, Environmental Protection and Regulation".

**ANNEX J**

**THE EIA PRE-APPLICATION CONSULTATION AND SCREENING/SCOPING TEMPLATE**

These templates are examples of the electronic templates which will be available on-line and should not be used in place of the on-line versions.

Created by:



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# EIA TEMPLATES FOR PRE-APPLICATION, SCREENING & SCOPING

## MARINE PEN FISH FARMING

The template is designed to be completed by relevant groups off-line. Transfer of partially-completed versions of an active template project between groups will be undertaken by email attachment where possible, or by posting of the file on CD-ROM. Guidance on transfer points and responsibilities appears throughout the template.

## FILLING IN THE TEMPLATE

At the points where you wish add text, insert the cursor over the grey 'text form field'. Simply start typing. Text should wrap down the page, and main form boxes will expand to accommodate. Please attempt to keep responses brief and factual. **Save your version of the master file with your own unique filename.**

For 'check boxes', double click when the cursor is on the box, and click the '*default value – checked*' option.

# 1. EIA PRE-APPLICATION CONSULTATION TEMPLATE

## 1.1. DEVELOPER AND ADMINISTRATION DETAILS

***Insert the appropriate planning application form on the next page.***

*Only complete, at this stage, the boxes that relate to identification of the developer, and details about the proposed development.*

*Do not complete, at this stage, the boxes that relate to later stages of formal planning application, i.e. Land Ownership, Fees and signed Declarations.*

*Note: provision is made for insertion of plans, maps and diagrams after the pasted-in Planning Application form (see Section 1.2).*

**Planning Applications Forms can be located at the website links shown below:**

Western Isles Council:

<http://www.w-isles.gov.uk/planapps/planforms.htm>

Highland Council:

<http://www.highland.gov.uk/yourenvironment/planning/planningapplicationsandbuildingwarrants/forms-and-guidance.htm>

Argyll and Bute Council:

<http://www.argyll-bute.gov.uk/content/planning/developmentcontrol/devcontappforms/94marinefishfarmapplication/?s=3187158&a=0>

Orkney Islands Council:

[http://www.orkney.gov.uk/nqcontent.cfm?a\\_id=3948&amp;tt=orkneyv2](http://www.orkney.gov.uk/nqcontent.cfm?a_id=3948&amp;tt=orkneyv2)

Shetland Council:

<http://www.shetland.gov.uk/planningcontrol/applicationforms/default.asp>

North Ayrshire Council:

<http://www.north-ayrshire.gov.uk/na/FormsDB.nsf/index/AD47EA88A616B6838025700B004B19BD?OpenDocument&MenuType=Environment&DocDisplay=NoDoc&DFBC=Planning&CatLevel=1>

***INSERT APPROPRIATE PLANNING APPLICATION FORM  
HERE:***

## 1.2. ADDITIONAL DETAILS OF THE PROPOSAL

*The Developer should complete this Section, and refer particularly to Note 8 in the Planning Application Form Guidance.*

Insert a map showing location of farm, or range of location options if the development is for a new farm. If possible, also indicate the location of the relevant shore base on the map, and if known, the locations of other fish farm sites in the area.

**'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'**

Insert a map showing configuration of proposed pens and moorings and identify the coordinate of the NE corner of each group.

*'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'*

Insert any other relevant graphical information.

*'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'*

Insert any other relevant textual information concerning either the design or the operational characteristics of the proposed development.

## 1.3. IDENTIFICATION OF SENSITIVE RECEPTORS

### 1.3.1 Initial Assessment of Presence of Sensitive Environmental Receptors

The **developer** should complete sections 1.3.1.1 to 1.3.1.4. to the best of their ability and knowledge. Links to important websites concerning sections 1.3.1.1. to 1.3.1.3. can be found in the Practical Guidelines, Section 6.1.

#### 1.3.1.1. Sensitive Areas (see <http://www.snh.org.uk/snhi/>)

Is the proposed development located in or adjacent to any of the following:

*Note that the most widely used definition of 'adjacent to' the boundary of an SAC is: 0.5 km for all SACs, except for those designated for mobile species such as Atlantic salmon, where 5 km is considered more appropriate.*

- |   |                          |
|---|--------------------------|
| Site of Special Scientific Interest             | <input type="checkbox"/> |
| Land subject to Nature Conservation Orders      | <input type="checkbox"/> |
| International Conservation Sites (e.g. SAC etc) | <input type="checkbox"/> |
| National Scenic Areas                           | <input type="checkbox"/> |
| World Heritage Sites                            | <input type="checkbox"/> |
| Scheduled Monuments                             | <input type="checkbox"/> |
| National Park                                   | <input type="checkbox"/> |

#### 1.3.1.2. FRS Locational Guidelines (see <http://www.marlab.ac.uk>)

*Ensure that the most recently published Locational Guidelines have been consulted.*

In terms of Locational Guidelines, is the location:

- |               |                          |
|---------------|--------------------------|
| Category 1    | <input type="checkbox"/> |
| Category 2    | <input type="checkbox"/> |
| Category 3    | <input type="checkbox"/> |
| Uncategorised | <input type="checkbox"/> |

#### 1.3.1.3. Sensitive Species or Habitat (see <http://www.ukbap.org.uk>)

Is the proposed development located near to any identified sensitive species or habitat?  
Identify:

#### 1.3.1.4. Any Other Relevant Sensitive Receptor

Is the proposed development located near to any other sensitive receptor?  
Identify:

### TEMPLATE TRANSFER GUIDANCE - 1

*After the developer has completed all relevant sections up to this point, the current version of the master template **should be emailed to consultees** (both statutory and non-statutory) identified by the developer as having a pre-application interest in the proposal. An indicative list of possible consultees is shown in Annex 1.1.*

*The template should have a unique file name, which might usefully include the date at which*

*this version is emailed to consultees. The covering email should explain that this is a non-statutory pre-application request for feedback from the consultee, within 6 weeks.*

**NOTE:** *It is possible that the template file size might be too large for emailing, perhaps to some consultees and not others. If file transfer error messages are received, the developer should copy the file onto a **CD-ROM, and post** it to the consultee. The covering letter will be similar in nature to the email message described above.*

### **1.3.2 Details of Relevant Sensitive Receptors**

*In the following fields, **Consultees** should describe what is known about the sensitive receptors within which (or adjacent to) the proposed development falls. These could of course be because of a Sensitive Area, proximity to a Sensitive Species or Habitat, or any other type of sensitive receptor. The descriptions below should make clear which of these categories are being discussed.*

*Explain briefly how you think the 'sensitivity' of the receptor might be affected by the proposed aquaculture development, and where relevant, speculate about the significance of an adverse impact at the location of the proposed development. If possible provide references or evidence to support your judgement. Offer practical and feasible suggestions as to how the proposal might be modified in order to reduce its impact(s) below the level of 'significant'.*

*Consultees should also briefly indicate what information they have on file about the proposed development location, and how and when that information could be shared with the developer and other consultees.*

*It would be considered good practice for individual consultees to contact other consultees during the six week period, in order to ascertain whether they hold additional information about the location that might be helpful in forming opinions. Consultees should only comment upon issues where they have expertise and/or statutory interests.*

*Consultees should note that this is non-statutory pre-application consultation. Positive collaboration is to be encouraged, but this process in no way detracts from the opportunity to submit additional information that might come to light, if the proposal proceeds to formal EIA Screening & Scoping.*

### **STATUTORY AND NON STATUTORY CONSULTEE INPUT**

Name of organisation:

Contact name:

Telephone number:

Email:

We have considered this proposed development during this pre-application assessment and offer the following comments in good faith and without prejudice to the formal screening and scoping process. Our views may be modified in the light of new information becoming available during screening, but at this stage:

- We have no major concerns about significant impact
- We have some concerns, which could be addressed during Planning or by other means.

**We provide the following information:**

What are the main sensitive receptors of which you are aware?

Is there a lack of relevant and specific information, and how might that be rectified?

The following (named) consultees were contacted in relation to additional information (described).

Possible impacts of the proposed development, at the identified location, with respect to the main receptors identified above.

Do you consider, based on available evidence, that there is a significant risk of negative impact on the receptor? Discuss details.

Are there any feasible or practical options that may reduce impacts?

Provide details of information you have on file about the location and environmental receptors, and indicate how this information can be accessed.

*Please note that all responses statutory consultees make in this Section of the Template might also be entirely appropriate for the EIA Screening & Scoping (if required) later. There is therefore an opportunity to add further details at that point if you wish, but as this box is part of the same Template file, there will be no need to reinsert data, nor to copy & paste.*

## TEMPLATE TRANSFER GUIDANCE - 2

*After each consultee has completed all relevant parts of Section 1.3.2, their new current version of the master template **should be emailed back to the developer**, within the six week period.*

*This new consultee version template should have a unique file name, which might usefully include the consultees name and the date at which this version is emailed back to the developer.*

**NOTE:** *It is possible that the template file size might be too large for emailing, or might have originally been received from the developer on CD-ROM. In either case the consultee should copy the file onto a **CD-ROM, and post** it back to the developer.*

**NOTE:** *Consultees should make every effort to use the template boxes for their replies, but if there is an overwhelming requirement to send responses in some other form of hard copy, this could be accommodated. [The developer, when receiving hard copy by post, should **scan** the responses and insert the scanned image in the master electronic version of the template – see 1.4.1].*

## 1.4. PRE-APPLICATION SUMMARY AND CONCLUSIONS

### 1.4.1 Developer Summary

*Developers should complete this summary once they have received responses from Consultees.*

We have undertaken this **pre-application consultation** process in good faith. We contacted Consultees (see Annex 1.1). From these consultations we received responses. They were: *(list consultees who responded)*

We have **pasted all consultee responses into Annex 1.2** below, and now invite the Competent Authority to review the individual consultee submissions and our summary.

On the basis of consultee responses, we have amended or modified our proposed development in the following ways:

Any other relevant details or comments:

Electronic signature:

Date:

### TEMPLATE TRANSFER GUIDANCE - 3

*After the developer has completed Section 1.4.1, the current version of the master template **should be emailed or posted on CD-ROM to the competent authority** (local authority planning department).*

*The template should again have a unique file name, which might usefully include the date at which this version is emailed/posted to the competent authority. The covering email/letter should explain that this is a non-statutory pre-application assessment, and request feedback from the competent authority.*

### 1.4.2 Competent Authority Summary

*Planning Authorities should complete this summary once they have reviewed the template completed to 1.4.1, as emailed or posted by the developer. A reply to the developer within **2 weeks** would be anticipated.*

We have received this pre-application template from the developer, and have reviewed the information provided by the consultees. We conclude:

The developer should proceed immediately to formal planning application

The developer should proceed to planning application, taking account of the following specific issues arising from pre-application consultation:

The developer should complete the Screening & Scoping Sections

The developer and all statutory consultees should proceed directly to Scoping

In the latter case the key potential for environmental impacts have been identified, and we will request specific Scoping advice from all the relevant statutory consultees in due course. They key issue(s) are:

Electronic signature:

Date:

#### TEMPLATE TRANSFER GUIDANCE - 4

*After the competent authority (local authority planning department) has completed Section 1.4.2, the new current version of the master template **should be emailed or posted on CD-ROM to the developer.***

*The template should again have a unique file name, which might usefully include the date at which this version is emailed/posted to the developer.*

**NOTE:** *If the decision is taken that a Scoping Opinion will definitely be required, the competent authority should refrain from contacting statutory consultees at this stage. It will be the **developer's responsibility** to proceed to the Screening & Scoping sections of this template.*

#### 1.5. NEXT STEPS

Developers will either:

- Cease with the proposed development at this stage
- Complete the full stand-alone planning application form, using the details already entered in this template
- Complete the full stand-alone planning application form, using the details already entered in this template and adding further details as requested above
- Proceed with the use of this template, to Screening & Scoping or directly to a request for a Scoping Opinion.

## ANNEX 1.1 POSSIBLE STATUTORY AND NON-STATUTORY CONSULTEES

*Developers should decide which consultees are important (for pre-application consultation) in their location, and amend the following list accordingly. Note the list is indicative only, and developers should either delete from or add to this list as they see fit.*

*NOTE: Community consultation will be a statutory requirement in due course, under Planning Regulations.*

### **Statutory Consultees:**

Scottish Environment Protection Agency (SEPA);  
Scottish Ministers;  
Scottish Natural Heritage (SNH);  
District Salmon Fisheries Board.

### **Non-Statutory Consultees:**

Crown Estate;

Community Councils;  
Other fish and shellfish farms in the area;  
Association of Scottish Shellfish Growers;  
Association of West Coast Fisheries Trusts;  
Atlantic Salmon Trust;  
Federation of Scottish Aquaculture Producers  
Fisheries Research Services;  
HM Coastguard;  
Highlands and Islands Enterprise;  
Mallaig and North West Fisherman's Association;  
MOD;  
Northern Lighthouse Board;  
Orkney Fishermans Society Ltd.;  
Royal Yachting Association;  
Salmon and Trout Association;  
Scottish Association of Marine Science;  
Scottish Federation of Sea Anglers;  
Scottish Fishermens Federation;  
Scottish Salmon Producers Association  
Scottish Sports Council;  
Scottish Tourist Board;  
Scottish Trust for Underwater Archeology;  
Scottish Wildlife and Countryside Link;  
Sea Fish Industry;  
Sea Mammal Research Unit;  
Shetland Fishermens Association;  
Shetland Aquaculture & Seafood Shetland;  
Western Isles Fishermens Association.

## ANNEX 1.2 CONSULTEE RESPONSES TO SECTION 1.3.2

*Developers should copy/paste all consultee responses to Section 1.3.2. into this part of the template. If hard copy responses have been received, these should be scanned and pasted in here – clearly identifying who the consultee is. This process should be completed **before** emailing/posting the template to the competent authority, requesting its response to Section 1.4.2.*

## 2. EIA SCREENING & SCOPING OPINION TEMPLATE

**Note:** The remaining portions of this template are being completed and assessed under the terms of the Environmental Impact Assessment (Scotland) Regulations 1999 and any amendments.

**Note:** The developer **initiates** the completion of this part of the template, by:

- Completing its relevant boxes in Section 2.1 – Screening & Scoping Checklist
- Preparing, inserting and summarising (below) any attachments
- Electronically signing the Developer Opening Statement below

<b>ATTACHMENTS AND ENCLOSURES</b>	
The developer considers that some additional information, presented in the form of Annexes to this Template, will be of assistance to the competent authority and statutory consultees. These are listed below:	
Details of Attachment:	Annex Number:

<b>DEVELOPER OPENING STATEMENT</b>	
On the basis of the competent authority's recommendations in Section 1.4.2, we submit our sections of this portion of the template, together with additional material as described above, on the basis that:	
<ul style="list-style-type: none"> <li>• A combined Screening and Scoping analysis is required</li> <li>• A Scoping opinion is required</li> </ul>	<input type="checkbox"/> <input type="checkbox"/>
Electronic signature:	
Date:	

<b>TEMPLATE TRANSFER GUIDANCE - 5</b>
<i>When the developer has completed its version of Section 2.1, inserted any attachments, and electronically signed the opening statement, the developer emails or posts (on CD-ROM x 6 copies) the current version of the template to the competent authority.</i>
<i>When the competent authority receives the template, the <b>formal timeline for combined Screening &amp; Scoping of 8 weeks commences.</b></i>

**Note:** From receipt of the developer's submission of the template, the competent authority is responsible for the management of the remainder of the EIA Screening & Scoping process.

<b>TEMPLATE TRANSFER GUIDANCE - 6</b>
<i>As soon as the competent authority receives the current version of the template, signed and partially completed by the developer, it <b>sends (or emails) copies to the relevant offices of</b></i>

**the statutory consultees.** It should ask them:

- To provide expert opinion in the Screening & Scoping Checklist (Section 2.1) – where necessary
- To provide a summary Screening and/or Scoping Opinion in Sections 2.2.1 – 2.2.4
- To provide these within a period of 6 weeks (in order to leave 2 weeks for competent authority consideration)

**NOTE:** It will be necessary to email/post the **entire template** file, including the completed Section 1 (pre-application assessment). Statutory consultees will not, at this stage, have seen the full results of pre-application assessment.

## 2.1. SCREENING & SCOPING CHECKLIST

### NOTE:

The competent authority might wish to take account of the following potential impacts of fish farming in relation to existing regulatory regimes. In some cases the impacts are generally dealt with by other regulations, but the competent authority should still accept some additional comments from statutory consultees where appropriate.

*Where a statutory consultee is also the Regulator, they should clearly state this and briefly summarise the scope of their powers to regulate the impact in question.*

*On the very rare occasions where is a trans-boundary aspect to the proposed development, more than one Planning Authority might wish to comment. In that case, an additional table row can be inserted where appropriate. Each Planning Authority (Competent Authority) should identify itself wherever text is entered.*

IMPACT	EXISTING REGULATORY REGIMES
1. Benthic Impacts	Already regulated by SEPA under CAR and advised by FRS under Locational Guidelines. SEPA is also responsible in cases of presence in or near a Sensitive Area.
2. Water Column Impacts	Already regulated by SEPA under CAR and advised by FRS under Locational Guidelines. SEPA is also responsible in cases of presence in or near a Sensitive Area.
3. Interaction with Predators;	FRS will regulate predator-related containment issues under The Aquaculture and Fisheries (Scotland) Act 2007. It will also be the primary regulator with respect to Sensitive Areas. FRS is not a Regulator in any other regard with respect to predatory species.
4. Interaction with Wild Salmonids	FRS will regulate sea lice management under The Aquaculture and Fisheries (Scotland) Act 2007. It will have ongoing operational control of this aspect of the industry, and a range of tools that it can use to ensure lice numbers are strictly controlled.
5. Impacts upon species or habitats of conservation importance, including Sensitive Sites	All public bodies have a statutory obligation in this regard, and where one particular body is responsible for the specific area of impact on a receptor, its regulatory regime is already ensuring that environmental effects are below the threshold of significance.
6. Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)	ETLLD regulates navigation safety under the Coast Protection Act Section 34 consenting system.
7. Landscape and Visual Impact Assessment	
8. Noise	
9. Marine Cultural Heritage	
10. Waste Management (non-fish);	
11. Socioeconomic, Access and Recreation	
12. Traffic and Transport	
13. Any other issue	

### Screening & Scoping Checklist

For each of the numbered potential impacts in the left hand column, consideration should be given to the following points:

- A. Will the impact have an effect on any of the receptors identified in Sections 1.3.2. Explain.
- B. Is the impact covered by other regulation? State your reasons for wishing to discuss it further in this document.
- C. Is there potential for cumulative or indirect impact on an identified receptor. Explain.
- D. SCREENING ADVICE. Is the impact on receptor(s) likely to have a significant effect. Explain.
- E. SCOPING ADVICE. If so, what details of additional information required and methodology

*Provide concise information, and refer it specifically to elements A to E where appropriate. Only complete boxes if you feel it is **absolutely necessary** – the emphasis on this EIA Screening & Scoping exercise is to identify the key impact/receptor interaction(s) that are: potentially highly significant; not completely reassured by another regulatory regime; and requiring further consideration in an Environmental Statement. **See Annex G in the Practical Guidelines.***

*Where this Template is being used primarily for SCOPING, all parties should avoid any unnecessary screening comments in the form below, but should focus on the key issues that have been identified as requiring Scoping advice for the preparation of an Environmental Statement.*

### NOTE: Statutory consultee exchanges and collaboration

*One of the major advantages of a future on-line EIA screening & scoping template will be the ability of each statutory consultee to see what other consultees are saying about specific issues where there might be an overlap of interest – at the click of a button.*

*In this email/post test version of the templates, there is no automatic or easy provision for this. Nevertheless it is considered essential that consultees **do** engage in dialogue during the 6 week period. Telephone or email exchanges are to be encouraged, and it is entirely feasible for consultees to copy/paste the relevant sections of this template, providing smaller files that can be readily shared by email.*

IMPACT TYPE	INSERT YOUR COMMENTS IN THE APPROPRIATE ROW
<b>1. Benthic Impacts</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>2. Water Column Impacts</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>3. Interaction with Predators</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	

SNH	
DSFB	
<b>4. Interaction with Wild Salmonids</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>5. Impacts upon species or habitats of conservation importance, including Sensitive Sites</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>6. Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>7. Landscape and Visual Impacts</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>8. Noise</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>9. Marine Cultural Heritage</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	

SEPA	
SNH	
DSFB	
<b>10. Waste Management (non-fish)</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>11. Socioeconomic, Access and Recreation</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>12. Traffic and Transport</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	
<b>13. Any other issue</b>	
DEVELOPER	
COMPETENT AUTHORITY	
SCOTTISH MINISTERS	
SEPA	
SNH	
DSFB	

## 2.2. SUMMARIES & STATEMENTS

<b>2.2.1. Scottish Ministers Summary</b>
Contact name: Telephone number: Email:
<p>We have considered this proposed development in terms of formal EIA Screening and Scoping, and have completed our assessment of the significance of potential environmental impacts (2.1).</p> <p><i>Check or complete the following fields as required.</i></p> <p>We obtained supplementary information from the Developer during our</p>

consideration <input type="checkbox"/>  We consulted with other Statutory Consultees during our consideration <input type="checkbox"/>  Our Screening opinion is summarised as:   Our Scoping opinion and advice is summarised as:
Electronic signature: Date:

<b>2.2.2. SEPA Summary</b>
Contact name: Telephone number: Email:
We have considered this proposed development in terms of formal EIA Screening and Scoping, and have completed our assessment of the significance of potential environmental impacts (2.1).  <i>Check or complete the following fields as required.</i>  We obtained supplementary information from the Developer during our consideration <input type="checkbox"/>  We consulted with other statutory consultees during our consideration <input type="checkbox"/>  Our Screening opinion is summarised as:   Our Scoping opinion and advice is summarised as:
Electronic signature: Date:

<b>2.2.3. SNH Summary</b>
Contact name: Telephone number: Email:
We have considered this proposed development in terms of formal EIA Screening and Scoping, and have completed our assessment of the significance of potential environmental impacts (2.1).  <i>Check or complete the following fields as required.</i>  We obtained supplementary information from the developer during our

consideration

We consulted with other statutory consultees during our consideration

Our Screening opinion is summarised as:

Our Scoping opinion and advice is summarised as:

Electronic signature:  
Date:

**2.2.4. DSFB Summary**

Name of organisation:

Contact name:  
Telephone number:  
Email:

We have considered this proposed development in terms of formal EIA Screening and Scoping, and have completed our assessment of the significance of potential environmental impacts (2.1).

*Check or complete the following fields as required.*

We obtained supplementary information from the developer during our consideration

We consulted with other statutory consultees during our consideration

Our Screening opinion is summarised as:

Our Scoping opinion and advice is summarised as:

Electronic signature:  
Date:

**TEMPLATE TRANSFER GUIDANCE - 7**

*Each statutory consultee, once it has completed Sections 2.1 and 2.2.1 – 2.2.4 (as appropriate), should email or post (on CD-ROM) their own version of this template back to the competent authority. Save the file with an appropriate unique file name.*

**NOTE:** *Since the competent authority is obliged to copy/paste responses from statutory consultees into a master file, and since the statutory consultees have not been asked to make any other changes in the template, it is entirely possible that the most efficient approach is for statutory consultees to email (by attachment) **only** Sections 2.1 through to 2.2.4.*

The competent authority, upon receiving the responses from the statutory consultees, should copy and paste these into the appropriate boxes (2.1 to 2.2.4.), such that a **single** master file is created, containing all input to this stage.

### 2.2.5. SCREENING OPINION - Competent Authority Summary

We have considered this proposed development in terms of formal EIA Screening, and have completed our assessment of the significance of potential environmental impacts (2.1), and the advice offered by statutory consultees where relevant. We conclude:

1. No EIA is required for this proposed development
2. We will seek further information on some details during the planning process
3. An ES will be required for this proposal. Scoping details in 2.2.6.

*In the event of checking box 2 above, please enter further information here.*

We would wish to see the planning application take account of the following detailed points:

Electronic signature:  
Date:

### 2.2.6. SCOPING OPINION - Competent Authority Summary

We have received advice by way of completed versions of this Template, from all relevant statutory consultees. We conclude that an Environmental Statement should be prepared and submitted with the formal planning application. The specific issues we would wish to see addressed in the ES are summarised below, together with the collated Scoping advice.

*Complete as required. Copy/Paste additional sections if required.*

1. Summary of the specific concern about significant negative environmental impact, and summary of details required in the Environmental Statement.
2. Summary of the specific concern about significant negative environmental impact, and summary of details required in the Environmental Statement.

Any other comments:

Electronic signature:  
Date:

### TEMPLATE TRANSFER GUIDANCE - 8

*The competent authority should now send (email or post on CD-ROM) this completed template*

*to the developer, within the 8 week deadline period.*

*The competent authority should **also** send the completed template to statutory consultees.*

### 2.3. NEXT STEPS

Developers will now proceed to either lodge a formal planning application, or will commence the process of gathering information to be included in an Environmental Statement. It is recommended that the EIA ES Template, available from the SARF website, be used.

***Insert any annexes here.***

***Summarise them in the opening box of Section 2.***

**ANNEX K**

**THE ENVIRONMENTAL STATEMENT TEMPLATE**

**These templates are examples of the electronic templates which will be available on-line and should not be used in place of the on-line versions.**

**Created by:**



**EPSILON RESOURCE MANAGEMENT  
LIMITED**

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**PLANNING APPLICATION  
AND  
EIA TEMPLATE FOR ENVIRONMENTAL  
STATEMENTS**

**MARINE PEN FISH FARMING**

## A. GUIDANCE FOR ALL USERS OF THIS TEMPLATE

This template provides best practice guidance on a consistent layout for an Environmental Statement (ES). It also prompts a **two-stage** approach to ES:

1. When the ES has been initially completed, but **before** the planning application has been formally signed and submitted to the Planning Authority, statutory consultees and the Planning Authority will be sent copies on CD-ROM. They will examine the ES, and indicate to the developer whether any further information that falls within their statutory competence is required, and explain why.
2. When any requests for further information have been incorporated within the ES, it is then intended to be used in conjunction with the formal submission of a Planning Application to the relevant Planning Authority. The Environmental Statement produced by the developer, or on the developer's behalf by a third party, forms an Annex to the Application Form.

## B. FILLING IN THE TEMPLATE

At the points where you wish to add text, insert the cursor over the grey 'text form field' or in the appropriate place in a table or box. Simply start typing. Text should wrap down the page, and main form boxes will expand to accommodate. Please attempt to keep responses brief and factual. **Save your version of the master file with your own unique filename.**

For 'check boxes', double click when the cursor is on the box, and click the '*default value – checked*' option.

## C. DEVELOPER AND ADMINISTRATION DETAILS

***Insert the appropriate planning application form on the next page.***

### **Stage 1**

*Only complete, at this stage, the boxes that relate to identification of the developer, and details about the proposed development. Do not complete, at this stage, the boxes that relate to later stages of formal planning application, i.e. Land Ownership, Fees and signed Declarations.*

### **Stage 2**

*When ready to proceed to planning application, complete the entire Application Form, sign it electronically, and submit it to the Planning Authority together with evidence that the appropriate fees have also been paid.*

**Note:** *unless there have been changes to the details contained within the Pre-Application and Screening & Scoping Template (if used), details from the Application Form part of that Template can be entered into this one electronically by copy/pasting.*

**Note:** *provision is made for insertion of plans, maps and diagrams within the ES Template (see Section 2).*

**Planning Applications Forms can be located at the website links below:**

Western Isles Council:

<http://www.w-isles.gov.uk/planapps/planforms.htm>

Highland Council:

<http://www.highland.gov.uk/yourenvironment/planning/planningapplicationsandbuildingwarrants/forms-and-guidance.htm>

Argyll and Bute Council:

<http://www.argyll-bute.gov.uk/content/planning/developmentcontrol/devcontappforms/94marinefishfarmapplication/?s=3187158&a=0>

Orkney Islands Council:

[http://www.orkney.gov.uk/nqcontent.cfm?a\\_id=3948&tt=orkneyv2](http://www.orkney.gov.uk/nqcontent.cfm?a_id=3948&tt=orkneyv2)

Shetland Council:

<http://www.shetland.gov.uk/planningcontrol/applicationforms/default.asp>

North Ayrshire Council:

<http://www.north-ayrshire.gov.uk/na/FormsDB.nsf/index/AD47EA88A616B6838025700B004B19BD?OpenDocument&MenuType=Environment&DocDisplay=NoDoc&DFBC=Planning&CatLevel=1>

***INSERT APPROPRIATE PLANNING APPLICATION FORM HERE:***

**ENVIRONMENTAL STATEMENT TEMPLATE**  
**MARINE PEN FISH FARMING**

## D. CONTENTS OF THIS ENVIRONMENTAL STATEMENT

### PART I

1. Non-technical summary (NTS) of the information provided in Sections 2 to 5 and Section 7.
2. Description of the development, including in particular:
  - 2.1. A description of the physical characteristics of the whole development
  - 2.2. Operational characteristics of the development
3. Alternatives considered.
4. General description of aquaculture impacts on the environment
  - 4.1. Benthic Impacts
  - 4.2. Water Column Impacts
  - 4.3. Interaction with Predators;
  - 4.4. Interaction with Wild Salmonids
  - 4.5. Impacts upon species or habitats of conservation importance, including Sensitive Sites
  - 4.6. Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)
  - 4.7. Landscape and Visual Impact Assessment
  - 4.8. Noise
  - 4.9. Marine Cultural Heritage
  - 4.10. Waste Management (non-fish);
  - 4.11. Socioeconomic, Access and Recreation
  - 4.12. Traffic and Transport
  - 4.13. Any other issue
5. Main sensitive receptors and impact assessment including mitigation
6. Difficulties in preparing this Environmental Statement

### PART II

7. Technical report - the data required to identify and assess the main effects which the development is likely to have on the environment.

### ANNEX 1

Summary boxes for Developer, Competent Authority and Statutory Consultees

**Note 1:**

The developer has initial lead role in the completion of this template, through Sections 1 to 7.

**Note 2:**

This template is designed to expand form fields, tables and boxes when required. It is therefore not possible to include page number indicators in the Contents Page. However, the document can be readily navigated by using Section Headings and Sub-Headings. In addition, the key potentially **significant** impacts of this particular development are highlighted in Section E, and discussed primarily in Sections 5 and 7.

## E. POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS

The scope of this Environmental Statement is guided by the Scoping Opinions provided by (the Competent Authority) and other statutory consultees. In both Parts I and II it responds to the Scoping Opinions by providing analysis and conclusions (Part I) and background data (Part II). The Statement's **main focus** is on the areas identified by the Competent Authority and statutory consultees as potentially leading to **significant** adverse effects on the environment as a result of this proposed development.

The Competent Authority recommended that this Environmental Statement focus on the following areas. Details of these areas can be found in the appropriate parts of this document, particularly Section 5 and Section 7.

*Insert a very brief description of each potentially significant environmental effect, by summarizing the key Screening and Scoping Opinions. Identify which part of Section 5 considers each of these effects in more detail. Full Scoping Opinions will be discussed in Section 5.*

No.	Potentially Significant Impact
1	
2	
3	

# PART I

## 1. NON TECHNICAL SUMMARY

This summary covers the information provided in Sections 2 to 5 and Section 7 of the full Environmental Statement.

*It is recommended that this NTS should occupy no more than 6 sides of A4. It should be capable of being extracted and published separately. It must use non-technical language.*

<b>Name of Developer</b>
<b>Description of the Development</b>  <i>Note: use of maps, diagrams and photographic information can be particularly helpful in a non-technical summary.</i>
<b>Alternatives Considered</b>
<b>General Aquaculture Interaction With The Environment</b>
<b>Assessment Of Potentially Significant Negative Effects</b>
<b>Conclusions</b>

**2. DESCRIPTION OF THE DEVELOPMENT**

The developer should complete this Section. Note that the Planning Application Form contains much of the details concerning the proposed development, and these should **not** be repeated here. This section should contain any **supplemental** graphical or operational information.

**2.1 Physical Characteristics of the Development**

Insert a map showing location of farm, or range of location options if the development is for a new farm. If possible, also indicate the location of the relevant shore base on the map, and if known, the locations of other fish farm sites in the area.

*'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'*

Insert a map showing configuration of proposed pens and moorings and identify the coordinate of the NE corner of each group.

*'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'*

Insert any other relevant graphical information.

*'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'*

Insert any other relevant textual information concerning the design of the proposed development.

**2.2 Operational Characteristics of the Development**

Any **additional** relevant aspects of the operational characteristics of the proposed development not included in the Planning Application Form should be briefly recorded here.

### **3. ALTERNATIVES CONSIDERED**

*Complete either box as appropriate. This section should contain brief details of alternative development options considered before, during, and after the pre-application consultation and the EIA Screening & Scoping exercise. Specific aspects of mitigation should be omitted from Section 3, but included in Sections 5 and 7.*

#### **3.1 Change to an Existing Farm**

#### **3.2 Development of a New Farm**

## 4. GENERAL AQUACULTURE INTERACTION WITH THE ENVIRONMENT

Section 4 considers briefly **all** the potential areas of interaction between aquaculture and the environment, because these are of general interest to recipients of this Environmental Statement. However, they have not been identified during Screening as likely to cause a significant negative impact on the environment, and therefore coverage is **concise** but hopefully informative. In all applicable cases the interaction is briefly discussed according to accepted EIA methodology:

- **Source** – which organisation(s) identified the specific interaction as being of interest
- **Scoping** – what were the main elements of Scoping guidance, if relevant
- **Baseline** – a description of the baseline environment of interest
- **Receptor** – identification of the specific receptor of interest/relevance in the environment
- **Assessment** – an attempt to describe and quantify the effect of any impact on the receptor
- **Mitigation** – approaches that might be taken to mitigate the effect of any impact
- **Summary** – a quantitative attempt to summarise the effect of the impact

This approach is exactly the same as that taken in Section 5, which considers in **much greater detail** the key areas of potential concern identified during Screening and Scoping, and summarised in Section E.

*Provide brief details of how each potential impact could affect receptors in the environment. Include, where relevant, a brief statement about other regulatory regimes that serve to ensure the specific interaction is managed safely. Consider briefly the possibility of cumulative or indirect effects on the environment. Clearly identify which of the Section 4 interactions will be considered in more detail in Section 5.*

4.1.	<b>Benthic Impacts</b>
4.2.	<b>Water Column Impacts</b>
4.3.	<b>Interaction with Predators</b>
4.4.	<b>Interaction with Wild Salmonids</b>
4.5.	<b>Impacts upon species or habitats of conservation importance, including Sensitive Sites</b>
4.6.	<b>Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)</b>
4.7.	<b>Landscape and Visual Impact Assessment</b>
4.8.	<b>Noise</b>
4.9.	<b>Marine Cultural Heritage</b>
4.10.	<b>Waste Management (non-fish)</b>

<b>4.11.</b>	<b>Socioeconomic, Access and Recreation</b>
<b>4.12.</b>	<b>Traffic and Transport</b>
<b>4.13</b>	<b>Any other issues (e.g. restoration of the site)</b>

## 5. ASSESSMENT OF POTENTIALLY SIGNIFICANT NEGATIVE EFFECTS

Section 5 considers **in detail** the potential areas of interaction between the proposed development and the environment that were identified during Screening as likely to cause a **significant** negative impact. These were summarised in Section E. Each identified concern is discussed sequentially, in Sections 5.1, 5.2, etc.

In each case the interaction of concern is discussed according to accepted EIA methodology:

- **Source** – which organisation(s) identified the specific interaction as being of interest
- **Scoping** – what were the main elements of Scoping guidance, if relevant
- **Baseline** – a description of the baseline environment of interest
- **Receptor** – identification of the specific receptor of interest/relevance in the environment
- **Assessment** – an attempt to describe and quantify the effect of any impact on the receptor
- **Mitigation** – approaches that might be taken to mitigate the effect of any impact
- **Summary** – a quantitative attempt to summarise the effect of the impact

*Complete the following series of tables, for each of the risk areas identified in Section E. Refer to data and other evidence contained in Section 7. Two sets of tables for Section 5 are included below, but further sets can be created by copying and pasting.*

### 5.1 Potential Significant Adverse Environmental Impact 1

#### 5.1.1. Source

*Identify the organisation(s) that expressed concern about the potential significance of the interaction*

#### 5.1.2. Scoping

*Summarise the Scoping advice that was given, and where appropriate comment upon how the advice was followed. (Refer to specific methodologies or approaches, which should be set out in detail in the Technical Report, Section 7)*

#### 5.1.3. Baseline

*Provide a concise summary of the baseline environment, focussing on the particular aspects that are relevant to the presence of potentially sensitive receptors to aquaculture impacts. Refer to background methodology used, and any raw data, which should be included in the Technical Report, Section 7.*

#### 5.1.4. Receptor

*Discuss in sufficient detail:*

- *What is known about the receptor, its scale, scope and sensitivity or resilience to impacts*
- *What is known about how the impact from the proposed development will have an effect on the receptor, particularly bearing in mind the location and scale of the development*

--

**5.1.5. Mitigation**

*The Guidance Documents provides guidance on options for mitigation*

*Describe how mitigation relates to the identified environmental risk area in this case.*

**5.1.6 Assessment**

*Taking into account all the information provided above, assess the magnitude of the impact on the sensitive receptor.*

<b>Character or Nature of the Impact</b>	<b>Discuss and Quantify where Possible</b>	<b>Magnitude of Impact</b>
<i>Consider the impact/receptor interaction according to the following criteria:</i>	<i>Discuss the impact/receptor according to the criteria on the left. Attempt to quantify wherever possible, and discuss the implications of the quantification. A good example would be where an impact had a predicted effect on a percentage of a receptor in the area, and there was evidence (Section 7) to suggest that percentage is enough to affect the integrity of the entire receptor category in that area – an ecosystem approach.</i>	<i>Assign a Score: <b>High</b> <b>Medium</b> <b>Low</b></i>
<b>Frequency</b> How often might the interaction occur		
<b>Reversibility</b>		
<b>Probability</b>		
<b>Duration</b>		
<b>Direct</b> Arising as a result of the proposal itself (e.g. changes in water quality, or land take to construct land based infrastructure)		
<b>Indirect</b> Arising from effects associated with measures required to accommodate the proposal (e.g. land take for planting required to screen a new facility)		
<b>Secondary/induced</b> Arising from development or induced by the proposal		
<b>Short, medium or long term</b> The duration of effects where short term may be less than one year, medium term one to five years and long term over five years		
<b>Permanent or temporary</b> Whether or not change is reversible or irreversible, given mitigation measures, or whether the effect is for a limited duration		
<b>Positive or negative</b> Whether the effects are		

beneficial or detrimental to resources or receptors		
<b>Cumulative</b> Arising from the combined effect of a number of effects		

**5.1.7. Summary - Assessment of Significant Effect**

Briefly summarise the outcomes from 5.1.6. and provide a concluding statement as to significance of the likely impact of the development upon the receptor being considered. Check the appropriate box:

	Positive	Negative
No impact	<input type="checkbox"/>	<input type="checkbox"/>
Minor impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>
Moderate impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>
Major impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>

Concluding statement:

**5.2 Potential Significant Adverse Environmental Impact 2**

**5.2.1. Source**

Identify the organisation(s) that expressed concern about the potential significance of the interaction

**5.2.2. Scoping**

Summarise the Scoping advice that was given, and where appropriate comment upon how the advice was followed. (Refer to specific methodologies or approaches, which should be set out in detail in the Technical Report, Section 7)

**5.2.3. Baseline**

Provide a concise summary of the baseline environment, focussing on the particular aspects that are relevant to the presence of potentially sensitive receptors to aquaculture impacts. Refer to background methodology used, and any raw data, which should be included in the Technical Report, Section 7.

**5.2.4. Receptor**

Discuss in sufficient detail:

- What is known about the receptor, its scale, scope and sensitivity or resilience to impacts
- What is known about how the impact from the proposed development will have an effect on the receptor, particularly bearing in mind the location and scale of the development

**5.2.5. Mitigation**

*The Guidance Documents provides guidance on options for mitigation*

*Describe how mitigation relates to the identified environmental risk area in this case.*

**5.2.6 Assessment**

*Taking into account all the information provided above, assess the magnitude of the impact on the sensitive receptor.*

<b>Character or Nature of the Impact</b>	<b>Discuss and Quantify where Possible</b>	<b>Magnitude of Impact</b>
<i>Consider the impact/receptor interaction according to the following criteria:</i>	<i>Discuss the impact/receptor according to the criteria on the left. Attempt to quantify wherever possible, and discuss the implications of the quantification. A good example would be where an impact had a predicted effect on a percentage of a receptor in the area, and there was evidence (Section 7) to suggest that percentage is enough to affect the integrity of the entire receptor category in that area – an ecosystem approach.</i>	<i>Assign a Score: High Medium Low</i>
<b>Frequency</b> How often might the interaction occur		
<b>Reversibility</b>		
<b>Probability</b>		
<b>Duration</b>		
<b>Direct</b> Arising as a result of the proposal itself (e.g. changes in water quality, or land take to construct land based infrastructure)		
<b>Indirect</b> Arising from effects associated with measures required to accommodate the proposal (e.g. land take for planting required to screen a new facility)		
<b>Secondary/induced</b> Arising from development or induced by the proposal		
<b>Short, medium or long term</b> The duration of effects where short term may be less than one year, medium term one to five years and long term over five years		
<b>Permanent or temporary</b> Whether or not change is reversible or irreversible, given mitigation measures, or whether the effect is for a limited duration		
<b>Positive or negative</b> Whether the effects are beneficial or detrimental to resources or receptors		

<b>Cumulative</b> Arising from the combined effect of a number of effects		
--	--	--

**5.2.7. Summary - Assessment of Significant Effect**

*Briefly summarise the outcomes from 5.2.6. and provide a concluding statement as to significance of the likely impact of the development upon the receptor being considered. Check the appropriate box:*

	<b>Positive</b>	<b>Negative</b>
No impact	<input type="checkbox"/>	<input type="checkbox"/>
Minor impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>
Moderate impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>
Major impact (positive/negative)	<input type="checkbox"/>	<input type="checkbox"/>

Concluding statement:

## 6. DIFFICULTIES IN PREPARING THIS ENVIRONMENTAL STATEMENT

The preparation of a robust Environmental Statement requires access to a substantial amount of information about the proposed development, and about the receiving environment. All statutory bodies that hold information about the environment are obliged to divulge this to developers for which they may make a charge, but they are not to undertake any new research. Developers may also have undertaken some fundamental research/surveying/monitoring in order to complete Section 7. In all cases, challenges to providing factual information should be noted here.

The key to the outcome of an Environmental Statement is the judgement about the significance of one or more adverse environmental impacts. Definition of significance is prescribed by a varying degree by statute and policy. In many cases, such guidance is general in nature and practitioners have been obliged to develop definitions for specific topics and projects. Where this guidance is 'general in nature', it might be difficult for developers or their consultants to engage in objective consideration of significance. Where this proves to be the case it should be clearly recorded here, representing a growing body of case evidence.

Requests for information in this ES, or subsequent to its submission, which indicate a lack of communication and data sharing between statutory consultees, should also be clearly recorded here.

### **Difficulties in Preparing this Environmental Statement**

## PART II

## 7. THE TECHNICAL REPORT

This section of the Environmental Statement is designed to provide confirmation that the judgements made in Part I are based upon firm evidence and robust analysis. The section is not prescriptive in terms of layout and structure.

The information provided herein relates primarily to the potentially significant adverse environmental effects described in Section E, and discussed in detail in Section 5.

*Insert technical details as required, including: data gathered and analysed from literature sources; data gathered and analysed from direct surveys; full references. The Guidelines provide substantial guidance on methodologies to be applied, or refers to other sources of guidance. See Annex G in the Practical Guidelines.*

## ANNEX 1

### A.1 Developer Summary - Stage1

We have completed this Environmental Statement (ES), and now notify this to the Competent Authority and Statutory Consultees. We request they examine this ES and inform us, by completing the following boxes, whether any further information is required. Please respond within **4 weeks**.

***Note:** The process in A1 and A2 is an informal opportunity for the Competent Authority and statutory consultees to check that the subjects identified in Scoping have been covered within the ES, and to warn of any shortcomings before the process proceeds to Planning Application. It does not replace the formal need to fully analyse and comment upon the details of the ES once it has been lodged with the Planning Application.*

Electronic signature:

Date:

### TEMPLATE TRANSFER GUIDANCE - 1

*After the developer has completed **all** relevant sections up to this point, the current version of the master ES template **should be posted on CD-ROM** to the competent authority and the statutory consultees listed below. The covering letter should allude to the EIA Steering Group's approval of this informal pre-submission consultation, and should request a response within **4 weeks**.*

### A.2 Consultee Responses to Stage 1

**Competent Authority** (identify: )

We believe this ES contains sufficient information for our requirements

We require additional information in the ES, as outlined below:

Contact name:

Electronic signature:

Date:

**Scottish Environment Protection Agency**

We believe this ES contains sufficient information for our requirements

We require additional information in the ES, as outlined below:

Contact name:

Electronic signature:

Date:

**Scottish Ministers**

<p>We believe this ES contains sufficient information for our requirements <input type="checkbox"/></p> <p>We require additional information in the ES, as outlined below:</p> <p>Contact name: Electronic signature: Date:</p>
<p><b>Scottish Natural Heritage</b></p> <p>We believe this ES contains sufficient information for our requirements <input type="checkbox"/></p> <p>We require additional information in the ES, as outlined below:</p> <p>Contact name: Electronic signature: Date:</p>
<p><b>District Salmon Fisheries Board</b> (identify:            )</p> <p>We believe this ES contains sufficient information for our requirements <input type="checkbox"/></p> <p>We require additional information in the ES, as outlined below:</p> <p>Contact name: Electronic signature: Date:</p>

**TEMPLATE TRANSFER GUIDANCE - 2**

*When the competent authority and statutory consultee has completed initial assessment of the draft ES, and completed the appropriate section in A.2 above, they should provide their response to the developer.*

*NOTE: In this instance there is no requirement to send the entire ES file back to the developer. The consultee should simply copy its unique A.2 response box onto a blank MS Word document, save with an appropriate file name, and return to the developer as an email attachment.*

<b>A.3 Developer Summary - Stage 2</b>
<p><b>SUBMISSION:</b></p> <p>We understand the issues of concern that were raised in the Scoping Opinion (Section E). We believe these have been addressed in good faith in this Environmental Statement. We have provided all statutory consultees with an opportunity to request further information in the ES, and responded to any such request as appropriate.</p>

After due consideration we submit that there is no risk of any **significant** adverse environmental effect arising from this proposed development.

On balance we believe there is no reason this project should not be granted planning permission under the terms of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Any other comments:

Electronic signature:

Date:

### TEMPLATE TRANSFER GUIDANCE - 3

*Signature of box A.3 above signifies formal submission of the planning application and accompanying environmental statement. Developers should ensure they have:*

- *Completed the final sections of the Planning Application form*
- *Shown evidence of payment of the planning application fee*

***Developers should now post the completed template (on CD-ROM x 6) to the planning authority.***

*(Developers are hereby confirming that they also have spare copies of the ES available on CD-ROM, and bound hard copies of the NTS available at their office.)*

### TEMPLATE TRANSFER GUIDANCE - 4

*On receipt of the template, which at this stage is a formal planning application and accompanying ES, the planning authority (competent authority) should:*

- *Immediately post CD-ROM copies of the template to statutory consultees, requesting responses (to be completed within the template structure A.4) within the statutory period*
- *Immediately advertise the application and ES in the normal way, and ensure that interested non-statutory consultees are able to gain access to the ES template (on CD-ROM) or the NTS (in hard copy, or on CD-ROM, or by email attachment).*
- *Await responses from all consultees within the statutory period*

## A.4 Statutory or Non-Statutory Consultee Summary

**Name of Consultee:**

We have considered this proposed development in light of the Environmental Statement contained herein.

We offer the following summary comments:

We advise the Competent Authority that the proposed development:

1. May be granted planning permission under EIA Regulations
2. May be granted planning permission **subject to conditions**  A4.1.
3. Be refused planning permission under EIA Regulations  A4.2.

**A4.1.** We would wish to see the Planning Application take account of the following detailed points:

**A4.2.** We advise against this development proceeding on grounds that are relevant to the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). Our grounds for objection are outlined below:

Electronic signature:

Date:

### TEMPLATE TRANSFER GUIDANCE - 5

*This is guidance for **all** consultees. It relates specifically to contents of the environmental statement (ES).*

*Once you have completed your assessment of the ES, and completed your version of Section A4. above, please:*

- *Copy the boxes from your completed A4, and paste onto a blank MS Word document*
- *Save this file with a unique file name*
- *Email this back to the planning authority within the statutory period*
- *(Alternatively, your response could be printed out and posted in hard copy, if that is more suitable for you. However, please use the A4. box structure to guide your writing, as this provides for consistency)*

*The competent authority, upon receiving the responses from the statutory and non-statutory consultees, should copy and paste these into Annex 2), such that a **single** master file is created, containing all input to this stage.*

### **A.5 Competent Authority Final Summary**

We have received advice by way of completed versions of this Template, from all relevant statutory consultees and as a result of wider public consultation. These are available on the appropriate database. On the basis of our interpretation of this advice and our own expert judgement, we conclude, in terms of The Environmental Impact Assessment (Scotland) Regulations 1999 (as amended):

1. There is no reason for the development not to proceed
2. There are good reasons why the development should not proceed  A5.1.

**A5.1.** We are minded to refuse this application, during formal planning application procedures, on grounds that are relevant to the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). Our grounds for this decision are summarised below:

Electronic signature:

Date:

#### **TEMPLATE TRANSFER GUIDANCE - 6**

*The competent authority should post the completed template, on CD-ROM, back to the developer.*

**NOTE:** *Consideration of the planning application is a separate exercise.*

*Paste consultee responses (copies of Section A.4) at this point.*