



T: +44 (0) 300 2445046  
E: ms.marinelicensing@gov.scot

## **Scottish Government**

### **Marine Scotland - Licensing Operations Team**

**Scoping Opinion adopted by the Scottish Ministers under Part 4 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended)**

## **Falkirk Council**

**Grangemouth Flood Protection Scheme - Proposed Marine Licence Application to Construct Works within the Scottish Marine Area**

**February 2020**

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## 1. Executive Summary

This document sets out the scoping opinion adopted by the Scottish Ministers (“Scoping Opinion”), under Part 4 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (“the 2017 MW Regulations”), as to the scope and level of detail of information to be provided in the Environmental Impact Assessment report (“EIA Report”) for Grangemouth Flood Protection Scheme (“the Scheme”), with specific reference to the proposed construction of flood defences in the Scottish marine area (“the Proposed Works”).

In order to adopt this Scoping Opinion, the Scottish Ministers have taken into account the information provided in the [Environmental Impact Assessment: Screening/Scoping Report](#) dated October 2018 (“the Scoping Report”) submitted by Falkirk Council (also referred to as “the Applicant”) in support of its scoping opinion request dated 01 August 2019, as well as the representations received in response to the scoping consultation undertaken.

The main potential issues identified are:

- Significant effects on designated sites - in particular, the Scheme may adversely affect the integrity of the Firth of Forth Special Protection Area (“SPA”), requiring compensatory measures to be undertaken if it is to be carried out for imperative reasons of overriding public interest (“IROPI”).

Detailed information is provided in the specialist topic sections. Matters are not scoped out unless specifically addressed and justified by the Applicant and confirmed as being scoped out by the Scottish Ministers. Table 1 summarises the Scottish Ministers’ advice on whether topics are to be scoped in or out.



**Table 1: The Scottish Ministers' opinion as to whether topics are to be scoped in or out of the EIA Report.**

Topic	Reason for scoping in / out
<b>Population and Human Health</b>	Scoped OUT. On the basis that, as expected, the purpose of this topic within the EIA Report is to assess the impacts of the Scheme exclusively on terrestrial receptors, the Scottish Ministers are content there are no marine receptor concerns requiring to be addressed under this topic in the EIA Report.
<b>Biodiversity</b>	<p>Scoped IN. Significant marine biodiversity impacts identified, particularly on designated sites, which require to be fully assessed in the EIA Report (to include a Habitats Regulations Appraisal report ("HRA Report")) taking into account the advice provided by Scottish Natural Heritage ("SNH"), Royal Society for the Protection of Birds Scotland ("RSPB Scotland") and Marine Scotland Science ("MSS").</p> <p>Based on SNH advice that it may be difficult to demonstrate beyond reasonable scientific doubt that the Scheme (including the Proposed Works) will not adversely affect the integrity of the Firth of Forth SPA, the Scottish Ministers advise that the HRA Report to be submitted within the EIA Report should include:</p> <ul style="list-style-type: none"> <li>• A comprehensive assessment of the alternative solutions considered;</li> <li>• A robust rationale as to why the Scheme (including the Proposed Works) are considered to be justified for IROPI;</li> <li>• Consideration of available options to provide compensatory habitat; and</li> <li>• Analysis of relevant case studies dealing with similar projects, where there was a loss of similar habitats supporting Natura qualifying interests.</li> </ul>
<b>Noise and Vibration</b>	Scoped OUT. On the basis that the purpose of this topic within the EIA Report is to assess the impact of noise and vibration on terrestrial receptors alone, with the expectation that this is made clear in the EIA Report and that any noise and vibration impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Biodiversity).
<b>Landscape and Visual</b>	Scoped OUT. On the basis that the purpose of this topic within the EIA Report is to assess the landscape and visual impacts of the Scheme on terrestrial receptors alone, with the expectation that this is made clear in the EIA Report and that any visual impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Biodiversity).



<b>Water Environment</b>	Scoped IN. Significant water (including marine) environment and coastal (including sediment transport) processes impacts identified. The potential impacts should be fully assessed as proposed in the Scoping Report whilst also addressing all of the advice provided by the Scottish Environment Protection Agency (“SEPA”) and MSS. In addition, a Water Framework Directive (“WFD”) assessment should be included in the EIA Report.
<b>Land-Use, Geology and Contamination</b>	Scoped OUT. On the basis that the purpose of this topic within the EIA Report is to assess the land-use, geology and contamination impacts of the Scheme on terrestrial receptors alone, with the expectation that this is made clear in the EIA Report and that any contamination impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Water Environment).
<b>Air Quality and Climate</b>	Scoped OUT. On the basis that the purpose of this topic within the EIA Report is to assess the air quality and climate impacts of the Scheme principally on terrestrial receptors, with the expectation that this is made clear in the EIA Report and that any impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Water Environment).
<b>Cultural Heritage</b>	Scoped IN. Potential effects on marine cultural heritage assets, which require to be fully assessed in the EIA Report taking into account the advice provided by Historic Environment Scotland (“HES”).
<b>Traffic and Transport</b>	Scoped OUT. On the basis that the purpose of this topic within the EIA Report is to assess the impacts of the Scheme solely on terrestrial receptors given that no significant marine traffic and transport impacts are anticipated and no significant concerns have been raised by the consultees.

For the avoidance of doubt, the adoption of this Scoping Opinion by the Scottish Ministers does not preclude the Scottish Ministers from requiring the Applicant to submit additional information in connection with any EIA Report submitted with their application for a marine licence relative to the Proposed Works.

In the event that an application is not submitted by the Applicant for the Proposed Works within 12 months of the date of this Scoping Opinion, the Scottish Ministers recommend that the Applicant seeks further advice from them regarding the potential to update the Scoping Opinion.



## **2. Introduction**

### **2.1 Background to Scoping Opinion**

2.1.1 This Scoping Opinion is adopted by the Scottish Ministers in response to the Applicant's request dated 01 August 2019 for a scoping opinion under the 2017 MW Regulations relating to Grangemouth Flood Protection Scheme. In support of their request the Applicant submitted the Scoping Report dated October 2018, which contained a description of the location of the Proposed Works, including a plan sufficient to identify the area in which the works are proposed to be sited, and a description of the nature and purpose of the Proposed Works and their likely impact on the environment. The Scottish Ministers consider that they have been provided with sufficient information to adopt this Scoping Opinion.

### **2.2 The requirement for Environmental Impact Assessment**

2.2.1 Under the 2017 MW Regulations, subject to regulation 8, the Scottish Ministers, as the "consenting authority", must not grant a regulatory approval for an Environmental Impact Assessment ("EIA") project unless an EIA has been carried out in respect of that project and in carrying out such assessment the Scottish Ministers must take the environmental information into account.

2.2.2 The Proposed Works described in the Scoping Report fall under Schedule 2, paragraph 10(m) of the 2017 MW Regulations. The Proposed Works exceed the threshold for paragraph 10(m) described in column 2 of schedule 2 of the 2017 MW Regulations. On consideration of the selection criteria set out in schedule 3 of the 2017 MW Regulations it is considered that the environmental effects of the Proposed Works are likely to be significant and thus should be subjected to an EIA.

2.2.3 Under regulation 8(4) of the 2017 MW Regulations, the Scottish Ministers may direct that the 2017 MW Regulations do not apply if they are satisfied that:

- a) assessment of any effects on the environment of the Proposed Works has already been, is being or is to be carried out by the Scottish Ministers or by another consenting authority; and
- b) such assessment is, or will be, sufficient to meet the requirements of the EIA Directive (2011/92/EU) in relation to the Proposed Works.

Given that the Scheme is likely to have a significant effect on the environment, under The Flood Risk Management (Flood Protection Schemes, Potentially Vulnerable Areas and Local Plan Districts) (Scotland) Regulations 2010 (as amended) ("the 2010 FRM Regulations"), Falkirk Council, as the local authority proposing the Scheme, is required to undertake an EIA for the Scheme. Taking this into account, on receipt of the marine licence application for the Proposed Works, the Scottish Ministers will consider if the

requirements of regulation 8(4) of the 2017 MW Regulations have been met.

### **2.3 The content of the Scoping Opinion**

2.3.1 The Scottish Ministers have, in accordance with the 2017 MW Regulations, considered the information provided to them by the Applicant and the representations made to them by the consultation bodies (see Appendix I) in reaching their Scoping Opinion.

2.3.2 The EIA process is vital in generating an understanding of the biological, chemical and physical processes operating in and around the Proposed Works' location and those that may be impacted by the proposed activities. We would however state that references made within the Scoping Opinion with regard to the significance of impacts should not prejudice the outcome of the EIA process. It is therefore expected that these processes will be fully assessed in the EIA Report unless scoped out.



### **3. Description of the Proposed Works**

#### **3.1 Background to the Proposed Works**

3.1.1 Falkirk Council has proposed a new flood protection scheme in the Grangemouth area to reduce the risk to people, residential and non-residential properties, infrastructure, and environmentally sensitive areas from river and coastal flooding. The main elements of the Scheme will comprise direct flood defences (flood walls or embankments), flood storage (a potential upstream dam structure), tidal barriers/gates and, potentially, some surface water management and drainage network measures to provide a 1 in 200-year standard of flood protection. The Scheme may also incorporate some localised natural flood management measures.

3.1.2 Given the sensitivity of Grangemouth's natural and built environment (including nature conservation and heritage designations of international and national importance), the scale of the Scheme, and its close proximity to residents, Falkirk Council consider that the Scheme is likely to have a significant effect on the environment. Under the 2010 FRM Regulations, Falkirk Council, as the local authority proposing the Scheme, is therefore required to undertake an EIA for the Scheme.

3.1.3 The Scheme as a whole involves the construction of both terrestrial and marine flood defence works over an approximate 5 to 10 year period commencing in 2022. It is anticipated that Falkirk Council Planning will be responsible for regulating the terrestrial concerns of the Scheme. In respect of the aspects of the Scheme which will require a marine licence under the Marine (Scotland) Act 2010, namely the construction of flood defences in the Scottish marine area, Falkirk Council has requested a scoping opinion from the Scottish Minister's under the 2017 MW Regulations.

3.1.4 The works proposed to be carried out in the Scottish marine area include the following:

- Construction of flood defences, in the form of walls and/or embankments, along the banks of the River Carron;
- Construction of flood defences, in the form of embankments, at the mouth of the River Carron and along the banks of the Firth of Forth around Grangemouth Docks;
- Construction of flood defences, in the form of walls, embankments and potentially a tidal barrier, within the Grange Burn;
- Construction of flood defences, in the form of walls and/or embankments, along

the banks of the River Avon;

- Construction of flood defences, in the form of walls and/or embankments, at the mouth of the River Avon and along the banks of the Firth of Forth sitting within/adjacent to the Firth of Forth SPA, along the seaward boundary of the oil refinery.

## **4. Aim of this Scoping Opinion**

### **4.1 The scoping process**

4.1.1 Scoping provides the first identification, and likely significance, of the environmental impacts of a project and the information needed to enable their assessment. The scoping process is designed to identify which impacts will or will not need to be addressed in the EIA Report. This includes the scope of impacts to be addressed and the method of assessment to be used. The scoping process also allows consultees to have early input into the EIA process, to specify their concerns and to supply information that could be pertinent to the EIA process. In association with any comments herein, full regard has been given to the information contained within the documentation submitted in support of the scoping opinion request.

4.1.2 In addition to the EIA requirements, the Scottish Ministers have also used this opportunity to provide advice in relation to the marine licensing requirements (see Appendix II).

## **5. Consultation**

### **5.1 The consultation process**

5.1.1 On receipt of the scoping opinion request, the Scottish Ministers, in accordance with the 2017 MW Regulations, initiated a 30 day consultation process, which commenced on 08 August 2019. The following bodies were consulted and specific advice was sought from the Marine Scotland – Marine Analytical Unit (“MAU”):

- Association of Salmon Fishery Boards
- Falkirk Council
- Falkirk Community Trust
- **Fife Council**
- Fisheries Office Anstruther
- Fisheries Management Scotland
- Forth District Salmon Fisheries Board
- Forth Estuary Forum
- **Forth Port Authority**



- Grangemouth Community Council
- **Historic Environment Scotland (“HES”)**
- Marine Safety Forum
- Marine Planning and Policy
- **Maritime and Coastguard Agency (“MCA”)**
- **Ministry of Defence**
- **Northern Lighthouse Board (“NLB”)**
- Polmont Community Council
- **RSPB Scotland**
- **Royal Yachting Association Scotland (“RYA Scotland”)**
- Salmon and Recreational Fisheries
- Scottish Canals
- **Scottish Environment Protection Agency (“SEPA”)**
- Scottish Fishermen’s Federation
- Scottish Fishermen’s Organisation
- **SNH**
- **Scottish Water**
- Scottish Wildlife Trust
- The Crown Estate
- Transport Scotland
- UK Chamber of Shipping
- **Visit Scotland**
- Whale and Dolphin Conservation

## 5.2 Responses received

5.2.1 From the list above a total of 12 responses (highlighted in bold text) were received. Advice was also provided by the MAU. The purpose of the consultation was to obtain advice and guidance from each consultee or advisor as to which potential effects should be scoped in or out of the EIA Report.

5.2.2 In light of the consultation responses received, on 05 November 2019 specific advice was sought from MSS in relation to ornithological and coastal processes concerns.

5.2.3 The Scottish Ministers are satisfied that the requirements for consultation have been met in accordance with the 2017 MW Regulations. The sections below highlight issues which are of particular importance with regards to the EIA Report and any marine licence application. Copies of the consultation responses received are attached in Appendix I - each should be read in full for detailed requirements from individual consultees. The Scottish Ministers expect all consultee concerns to be addressed in the EIA Report unless otherwise stated.

## **6. Contents of the EIA Report**

### **6.1 Requirements of the 2017 MW Regulations**

6.1.1 The EIA Report must be prepared in accordance with regulation 6 of the 2017 MW Regulations and must include (at least) the following:

- a) a description of the Proposed Works comprising information on the site, design, size and other relevant features of the works;
- b) a description of the likely significant effects of the Proposed Works on the environment;
- c) a description of the features of the Proposed Works and any measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
- d) a description of the reasonable alternatives studied by the Applicant, which are relevant to the Proposed Works and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the Proposed Works on the environment;
- e) a non-technical summary of the information referred to in sub-paragraphs a) to d); and
- f) any other information specified in schedule 4 of the 2017 MW Regulations relevant to the specific characteristics of the Proposed Works or of the type of works in question and to the environmental features likely to be affected.

6.1.2 Regulation 6 also requires that the EIA Report is prepared by competent experts and must be accompanied by a statement from the Applicant outlining the relevant expertise or qualifications of those experts.

6.1.3 Also in accordance with the regulation 6, the EIA Report must be based on this Scoping Opinion and must include the information that may be reasonably required for reaching a reasoned conclusion, which is up to date, on the significant effects of the Proposed Works on the environment, taking into account current knowledge and methods of assessment.

6.1.4 A gap analysis template is attached at Appendix III to record the environmental concerns identified during the scoping process. This template should be completed and used to inform the preparation of the EIA Report.

### **6.2 Non-technical summary**

6.2.1 In regards to the non-technical summary (“NTS”) this should be a concise stand-alone chapter of the EIA Report written in a manner that is appealing to read and easily understood. The NTS must provide a summary of the information required



under paragraphs 1 to 9 of schedule of 4 of the 2017 MW Regulations and should highlight the key findings of the EIA Report.

### 6.3 EU Guidance

6.3.1 [EU guidance](#) identifies some of the main characteristics of a good EIA Report, which includes the following:

- A clear structure with a logical sequence, for example describing existing baseline conditions, predicted impacts (nature, extent and magnitude), scope for mitigation, agreed mitigation measures, significance of unavoidable/residual impacts for each environmental topic;
- A table of contents at the beginning of the document;
- A description of the consent procedure for the Proposed Works and how EIA fits within it;
- Reads as a single document with appropriate cross-referencing;
- Is concise, comprehensive and objective;
- Is written in an impartial manner without bias;
- Includes a full description and comparison of the alternatives studied;
- Makes effective use of diagrams, illustrations, photographs and other graphics to support the text;
- Uses consistent terminology with a glossary;
- References all information sources used;
- Has a clear explanation of complex issues;
- Contains a good description of the methods used for the studies of each environmental topic;
- Covers each environmental topic in a way which is proportionate to its importance;
- Provides evidence of effective consultations (if some consultations have already taken place);
- Provides basis for effective consultations to come;
- Makes a commitment to mitigation (with a programme) and to monitoring;
- Has a NTS which does not contain technical jargon; and
- Contains, where relevant, a reference list detailing the sources used for the description and assessments included in the report.

6.3.2 [EU guidance](#) identifies a good NTS as having the following qualities:

- Is easily identifiable and is accessible within the EIA Report;
- Provides a concise, but comprehensive description of the project, its environment, the effects of the project on the environment, the proposed mitigation measures, and the proposed monitoring arrangements;

- Highlights any significant uncertainties about the project and its environmental effects;
- Explains the consent process for the project and the role of the EIA in that process;
- Provides an overview of the approach to the assessment;
- Is written in non-technical language, avoiding technical terms, detailed data and scientific discussion; and
- Is comprehensible to a lay member of the public.

## **6.4 Mitigation**

6.4.1 Within the EIA Report it is important that all mitigating measures are:

- Clearly stated;
- Accurate;
- Assessed for their environmental effects;
- Assessed for their effectiveness;
- Fully described with regards to their implementation and monitoring; and
- Described in relation to any consents or conditions.

6.4.2 The EIA Report should contain a mitigation table providing details of all proposed mitigation discussed in the various chapters. Refer to Appendix I for consultee comments on specific baseline assessment and mitigation.

6.4.3 Where potential environmental impacts have been fully investigated but found to be of little or no significance, it is sufficient to validate that part of the assessment by detailing in the EIA Report:

- The work that has been undertaken;
- What this has shown i.e. what impact, if any, has been identified; and
- Why it is not significant.

## **6.5 Design Envelope**

6.5.1 The Scottish Ministers note that a final outline design of the Scheme has not yet been agreed, however a wide range of potential options has been explored and assessed through an optioneering process. The Scottish Ministers therefore expect that the EIA Report will include a full summary of the optioneering process undertaken for the Scheme.

6.5.2 The exact nature of the work that is needed to inform the EIA may vary depending on the design choices. Where flexibility in the design envelope is required, this must be defined within the EIA Report and the reasons for requiring such flexibility



clearly stated. To address any uncertainty, the EIA Report must consider the potential impacts associated with each of the different scenarios. The criteria for selecting the worst case, and the most likely scenario, along with the potential impacts arising from these, must also be described. The Scottish Ministers will determine the application based on the worst case scenario. The EIA will reduce the degree of design flexibility required and the detail will be further refined in a Construction Method Statement (“CMS”) to be submitted to the Scottish Ministers, for their approval, before works commence. Please note however, the information provided in Section 10 below regarding multi-stage regulatory consent. The CMS will freeze the design of the project and will be reviewed by the Scottish Ministers to ensure that the worst case scenario described in the EIA Report is not exceeded.

## **7. Habitats & Birds Directives & Habitats Regulations**

### **7.1 Background**

7.1.1 The two most influential pieces of European legislation relating to nature conservation are Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) and Council Directive 2009/147/EC on the conservation of wild birds (“the Birds Directive”).

7.1.2 The Birds Directive protects all wild birds, their nests, eggs and habitats within the European Community. It gives EU member states the power and responsibility to classify SPA to protect birds which are rare or vulnerable in Europe as well as all migratory birds which are regular visitors.

7.1.3 The Habitats Directive builds on the Birds Directive by protecting natural habitats and other species of wild plants and animals. Together with the Birds Directive, it underpins a European network of protected areas known as the “Natura 2000 Network” comprising SPA classified under the Birds Directive and Special Area of Conservation (“SAC”) designated under the Habitats Directive.

7.1.4 The Habitats and the Birds Directive are transposed into domestic law in Scotland by the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 Habitats Regulations”). The term “European site” is used in the 1994 Regulations to refer to SAC or SPA.

### **7.2 Habitats Regulations Appraisal**

7.2.1 An HRA is required to be undertaken when a plan or project is likely to have a significant effect on a European site (either alone in combination with other plans or projects), and is not directly connected with or necessary to the management of the site. Regulation 48(1) of the 1994 Habitats Regulations requires the competent

authority, prior to undertaking, or giving any consent, permission or other authorisation for the plan or project in question, to make an appropriate assessment (“AA”) of the implications for the site in view of that site’s conservation objectives.

7.2.2 Under regulation 48(2) of the 1994 Habitats Regulations, a person applying for any consent, permission or other authorisation for a plan or project subject to HRA, is required to provide such information as the competent authority may reasonably require for the purposes of the assessment. To this end, the Scottish Ministers advise that an HRA Report (containing information to inform the AA) must be submitted along with the EIA Report. It is appropriate for the HRA Report to form a chapter within the EIA Report.

7.2.3 Under the 1994 Habitats Regulations, where a plan or project is likely to have a significant effect on a European site, either individually or in combination with other plans or projects, the competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned.

7.2.4 In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of negative assessment, provided there are no alternative solutions and the plan or project is considered to be justified for IROPI. In such cases appropriate compensatory measures must be undertaken to ensure that the overall coherence of the Natura 2000 Network is protected.

7.2.5 Based on SNH advice that it may be difficult to demonstrate beyond reasonable scientific doubt that the Scheme (including the Proposed Works) will not adversely affect the integrity of the Firth of Forth SPA, the Scottish Ministers advise that the HRA Report to be submitted within the EIA Report should include:

- A comprehensive assessment of the alternative solutions considered;
- A robust rationale as to why the Scheme (including the Proposed Works) are considered to be justified for IROPI;
- Consideration of available options to provide compensatory habitat; and
- Analysis of relevant case studies dealing with similar projects, where there was a loss of similar habitats supporting Natura qualifying interests.

### **7.3 Further information and advice to inform HRA**

7.3.1 The SNH [SiteLink](#) website provides details of the qualifying interests and conservation objectives for Scotland’s SAC and SPA. The [SNH website](#) also provides comprehensive advice on the HRA process, including the quick guide leaflet [Natura sites and the Habitats Regulations](#) and specific guidance in regards to [HRA on the Firth of Forth](#). Further guidance, including clarification of the concepts of alternative solutions, IROPI and compensatory measures, can be found on the [European](#)



[Commission's website](#) and within its [Managing Natura 2000 sites](#) guidance document.

## **8. Interests to be considered within the EIA Report**

### **8.1 Introduction**

8.1.1 This section summarises the key findings of the Scoping Report, which considered the current (or anticipated) environmental baseline for each of the relevant environmental factors set out below, identified the key anticipated impacts and appraised the scope of further study and method required to complete the EIA.

8.1.2 The main points raised by consultees/advisors and the Scottish Ministers' opinion on whether the topics should be scoped in or out of the EIA Report in relation to potential impacts on marine receptors is also included in this section.

8.1.3 Copies of the consultation responses are provided in Appendix I and the Applicant is advised to carefully consider these responses and use the advice and guidance contained within them to inform the content of the EIA Report.

### **8.2 Population and Human Health**

8.2.1 Predictably this topic focuses solely on terrestrial receptors, which falls within the regulatory remit of Falkirk Council Planning. For completeness, specialist advice was sought from the MAU. The MAU advised that the potential disruption to businesses during the construction phase of the Scheme should be scoped in to the EIA Report, as efforts should be made to reduce the magnitude and duration of the disruption. The MAU further advised that in their opinion all the potential socio-economic impacts had been adequately considered in the Scoping Report and clear rationale provided for why some potential impacts were scoped out.

8.2.2 On the basis that, as expected, the purpose of this topic within the EIA Report is to assess the impacts of the Scheme exclusively on terrestrial receptors, the Scottish Ministers are content there are no marine receptor concerns requiring to be addressed under this topic in the EIA Report.

### **8.3 Biodiversity**

8.3.1 The Applicant collated baseline biodiversity data for the area potentially affected by the Proposed Works by undertaking ecological surveys and ground investigation works and referencing existing biological records.

8.3.2 The Applicant identified potential effects on designated sites as being a key issue. The Proposed Works will be carried out within/adjacent to a number of

designated sites including the Firth of Forth SPA, Firth of Forth Site of Special Scientific Interest (“SSSI”), Firth of Forth Ramsar site, Avon Gorge SSSI and Carron Dams SSSI. It is the intention of the Applicant to fully assess the potential impacts of the Proposed Works on the relevant designated sites in the EIA Report with the exception of the Carron Dams SSSI, which is over 100 metres (“m”) from the location of the Proposed Works with no hydrological link and therefore is considered unlikely to be impacted. In addition, the Applicant intends to undertake a HRA to consider any potential to affect the Firth of Forth SPA as well as more distant SPA and SAC as appropriate.

8.3.3 SNH responded to the consultation on 06 September 2019 forwarding a copy of the advice it had previously provided to the Applicant on 08 February 2019 (in response to their scoping consultation to inform the EIA required under the 2010 FRM Regulations). In the response SNH advised that it had been in discussion with the Applicant over a number of years in relation to the potential for impacts on natural heritage interests particularly in regards to potential impacts on the Firth of Forth SPA and the HRA required to assess them. SNH advised it had provided advice to the Applicant on the scope and scale of ornithological surveys needed to inform the HRA process including providing feedback on an HRA Screening and Scoping Report produced by the Applicant in November 2018 (“the HRA Screening and Scoping Report”).

8.3.4 SNH confirmed that part of the Scheme footprint lies within the Firth of Forth SPA, designated for its wintering waterfowl and waders. SNH advised that based on their current understanding of the project, and further to discussions with the Applicant, in its view it may be difficult to demonstrate beyond reasonable scientific doubt the Scheme will not adversely affect the integrity of the Firth of Forth SPA. SNH further advised that if this is the case then the Scheme could only proceed if there are no alternative solutions and also where there are IROPI for doing so. SNH noted that this reasoning would need to be set out clearly in the EIA Report, including why there are no alternative solutions.

8.3.5 SNH advised that should the Scheme be approved on the grounds of IROPI, compensatory measures would need to be secured to ensure that the overall coherence of the Natura 2000 network is protected. SNH noted that the consideration of available options to provide compensatory habitat would consequently require to be included in the EIA Report. SNH highlighted that all necessary provisions must be completed before the plan or project implementation starts so as to prevent any unforeseen delays that may hinder the effectiveness of the measures, as per EU guidance.

8.3.6 SNH is generally content with the range of ornithological surveys, and their assessment, carried out to date by the Applicant but offered the following advice:

- The winter season surveys are sufficient for the HRA, however one more



- breeding bird survey should be carried out;
- The Scheme is not likely to be completed for up to ten years following commencement of construction activities and therefore surveys may become outdated. To take account of this the current survey data should be compared with Wetland Bird Survey (“WeBS”) core count results. If they are broadly comparable then the need for further survey work could be determined by monitoring the WeBS count results in future years – if they start to change then there may be a need for updating the surveys;
  - In the event that the Scheme is approved on the grounds of IROPI, surveys will be required for any areas identified as potential compensation areas;
  - Survey sectors 5-10 have been identified in the HRA Screening and Scoping Report as being relevant to the HRA, with the other sectors having been ‘scoped out’ – sectors 4 and 11 should also be included in the assessment, as they include areas where the Proposed Works are adjacent to the Firth of Forth SPA; and
  - The HRA Screening and Scoping Report also ‘scopes out’ certain bird species due to the proposal not having a likely significant effect (“LSE”) on them, based largely on low counts for those species in certain survey sectors. These species should not be scoped out, as the presence of those species mean that it can be determined that there is LSE. The assessment should therefore focus on whether or not there is an adverse effect on site integrity with respect to those species.

8.3.7 In addition, SNH noted that the current design of the scheme will result in the loss of some habitat within the Firth of Forth SPA. SNH advised that in order to fully assess the importance of these areas to the SPA qualifying interests, and the implications of their loss, biotype surveys of the affected areas should be carried out.

8.3.8 SNH also recommended that analysis of case studies dealing with similar projects, where there was a loss of similar habitats supporting Natura qualifying interests, be included in the EIA Report.

8.3.9 Given the complexity and importance of the project and the legally-binding nature of the HRA process, SNH emphasised its keenness to help advise on any future work on the HRA as it develops, including advising on the potential for, and implications of, any IROPI arguments including compensatory measures.

8.3.10 SNH advised that the Firth of Forth is also designated as a Ramsar Site and SSSI. SNH confirmed it is content that any issues relevant to the Firth of Forth Ramsar site will be adequately addressed through the HRA for the Firth of Forth SPA. SNH noted however that the Firth of Forth SSSI contains additional areas to the SPA and its notified features also include habitats which may be affected by the Proposed Works. SNH advised that a detailed assessment of the impacts on the Firth of Forth

SSSI should therefore be included in the EIA Report.

8.3.11 SNH advised that other Natura sites may be affected by the Proposed Works including Forth Islands SPA, Outer Firth of Forth & St. Andrews Bay Complex proposed SPA, Imperial Dock Lock, Leith SPA, River Teith SAC and Isle of May SAC. SNH advised that although these sites are not located in the vicinity of the proposal, there may still be impacts on their qualifying interests, therefore these should be addressed in the EIA Report and considered as part of the HRA process. SNH noted that it may be possible to easily discount impacts on some of these sites, although the reasons for doing so should be detailed in the EIA Report.

8.3.12 SNH advised that Avon Gorge SSSI and Carron Dams SSSI are also located in close proximity to the Scheme footprint and should therefore be considered in the EIA Report. SNH noted that if there are no impacts then the reasoning should be detailed in the EIA Report.

8.3.13 SNH noted the range of desk studies and protected species surveys already undertaken, and the further surveys planned, by the Applicant to identify any requirement for mitigation and licensing. SNH confirmed it is content that this approach adequately addresses issues relating to protected species and expressed its willingness to provide specific advice during this process if required.

8.3.14 RSPB Scotland advised that the Scheme has the potential to impact on a range of habitats and species either directly or indirectly throughout the whole area where work is proposed. RSPB Scotland advised the potential impacts on the qualifying features of the Firth of Forth SSSI, Ramsar and SPA and other bird species present in estuary-important numbers were of greatest concern. RSPB Scotland identified the most significant forms of impact as being a direct loss of habitat, resulting from the construction of flood defence walls and embankments in the Firth of Forth SSSI/Ramsar/SPA, and the effects of disturbance caused during construction. RSPB Scotland noted that a significant proportion of the anticipated 5 to 10 year construction period would be spent on the interface with the estuary.

8.3.15 RSPB Scotland noted the importance of the mudflats and adjacent land around the Grangemouth industrial area for many bird species including in relation to other parts of the Forth. RSPB Scotland attribute this to the large expansive mudflats which are considered valuable to feeding waders and wildfowl, with relatively undisturbed high tide roosts located close by. RSPB Scotland noted the lack of other suitable habitat in the adjacent area for the birds to move to during consistent disturbance. RSPB Scotland advised that careful consideration should be given to reducing these disturbance impacts during the construction works.

8.3.16 RSPB Scotland identified the following as being key issues with the



expectation that these will be considered in detail as part of the EIA and HRA:

- Calculation of how much direct land take of the designated site will be needed and what habitats will be lost;
- Identification of the designated features and qualifying species likely to be affected, by how much and the most important areas for them;
- Compensation measures for the potential loss of intertidal habitat due to coastal squeeze;
- The direct and indirect geomorphological changes, which could affect the mudflats and the benthic invertebrate that the Firth of Forth SPA birds rely on;
- The impacts of disturbance on the qualifying species of the SPA from noise and personnel during the construction period;
- Proposals for compensation and mitigation based on the overall loss of functionality of the SPA area; and
- The consideration and presentation of alternative options, with explanation as to why these have been discounted.

8.3.17 RSPB Scotland noted that depending on when the EIA is being carried out, more survey data may be needed to update the existing data. With the proposed works starting in 2022, this will be seven years from when the first wintering bird surveys took place in 2015-16. RSPB Scotland suggest that surveys would need to be undertaken to provide updated information to inform mitigation and compensation measures. In this regard the Scottish Ministers agree with the approach proposed by SNH in section 8.3.6 above.

8.3.18 RSPB Scotland request that a breeding bird survey is carried out during mid-April to mid-June to assess the presence of any protected species and to inform any design and mitigation measures. RSPB Scotland note that this should not just be confined to the estuary area but should include all areas where works are being considered. RSPB Scotland expects this to be completed and presented in the EIA Report.

8.3.19 MSS provided specific advice in relation to ornithological concerns on 21 November 2019. MSS agreed with the advice provided by SNH. MSS noted in relation to the survey area directly adjacent to the likely coastal defences, as detailed in the Scoping Report, 7 bird species were observed in numbers of national importance (shelduck, dunlin, redshank, bar-tailed godwit, black-tailed godwit, greenshank and red-breasted merganser), while further species were observed in numbers significant in the context of the Firth of Forth SPA. MSS advised that these observations support SNH's view that it may be difficult to demonstrate beyond reasonable scientific doubt that the Scheme will not adversely affect the integrity of the Firth Of Forth SPA. MSS advised that sufficient appropriate information on these species must be obtained to

properly assess whether the Scheme would adversely affect the integrity of the SPA.

8.3.20 In the event that the Scheme is to be approved on the grounds on IROPI, MSS also agreed with SNH that, once more detailed plans for the Scheme are available, further surveys will be required in relation to areas that are earmarked for possible compensation measures. MSS noted that SNH and RSPB have both requested that further breeding season surveys be performed, with SNH advising that one more breeding bird survey be carried out. RSPB advised that further breeding season surveys should be carried out mid-April to mid-June. MSS agreed with this advice on the basis that this would provide more confidence in the assessment of impact on breeding birds given that the current breeding bird surveys are for May, June and July, which likely miss the early part of the breeding season.

8.3.21 MSS further noted that SNH and RSPB both support biodiversity approaches to development, e.g. SNH mention providing artificial roost structures, while RSPB make a general suggestion that “opportunities for enhancing biodiversity should be taken when designing and delivering the project”. MSS agreed that such approaches could contribute towards mitigating for some aspects of the Scheme and advised that options to deliver mitigation and enhancement should be developed and discussed with relevant stakeholders to identify the most appropriate/effective route to delivery.

8.3.22 The Scottish Ministers are generally in agreement with the Applicant regarding the biodiversity aspects to be scoped in to the EIA Report and the assessment methodologies proposed, except in relation to Carron Dams SSSI; in this regard the Scottish Ministers agree with the approach proposed by SNH in section 8.3.12 above. The Scottish Ministers also expect the advice provided by SNH, RSPB Scotland and MSS in relation to biodiversity concerns (as detailed above) to be adequately addressed in the EIA Report.

## **8.4 Noise and Vibration**

8.4.1 The Applicant states that the Scheme will be passive in nature and there will be no noise or vibration impacts anticipated with its operation other than the planned maintenance works, however it is acknowledged that the construction of the Scheme has the potential to generate noise and vibration impacts.

8.4.2 The Scoping Report focuses on the temporary noise and vibration impacts on terrestrial receptors, which falls within the regulatory remit of Falkirk Council Planning/Environmental Health. Potential noise and vibration impacts on marine receptors have not been considered under this topic.

8.4.3 On the basis that the purpose of this topic within the EIA Report is to assess the impact of noise and vibration on terrestrial receptors alone, with the expectation



that this is made clear in the EIA Report and that any noise and vibration impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Biodiversity), the Scottish Ministers are content that noise and vibration impacts on marine receptors may be scoped out of this topic in the EIA Report.

## **8.5 Landscape and Visual**

8.5.1 The Applicant undertook a landscape and visual desk-based appraisal, as well as a number of walkover site visits and consultation to identify the baseline and to provide a high-level assessment on the potential landscape and visual impacts of the Scheme. Potentially significant landscape and visual impacts on terrestrial receptors were identified. The Applicant has committed to undertaking a full Landscape and Visual Impact Assessment within the EIA Report. Potential impacts on marine receptors have not been considered under this topic; the Applicant has indicated that impacts on designated sites will be assessed under the Biodiversity topic heading.

8.5.2 On the basis that the purpose of this topic within the EIA Report is to assess the landscape and visual impacts of the Scheme on terrestrial receptors alone, with the expectation that this is made clear in the EIA Report and that any visual impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Biodiversity), and given that no significant seascape concerns have been identified in the Scoping Report or raised by any of the consultees, the Scottish Ministers consider that the impacts identified under this topic heading are terrestrial in nature and fall within the regulatory remit of Falkirk Council Planning. The Scottish Ministers are therefore content that impacts on marine receptors may be scoped out of this topic in the EIA Report.

## **8.6 Water Environment**

8.6.1 Through a site walkover and desk-based exercise the Applicant undertook a baseline assessment and considered the impacts of the Scheme upon the water environment, including: the hydrology, geomorphology (fluvial and estuarine) and water quality of surface water bodies, the hydrogeology and water quality of groundwater bodies, flood risk, and groundwater dependent terrestrial ecosystems. The Applicant identified that the Scheme is likely to have significant impacts on the water environment and therefore intends to fully assess these impacts within the EIA Report.

8.6.2 The Applicant has confirmed that the EIA Report will describe the existing water environment baseline in detail in terms of hydrology, geomorphology, groundwater and water quality and identify any further aspects of the water environment (such as abstractions, discharges and smaller water bodies within the

Scheme extents). It will also consider the evolution of the baseline without the Scheme, in terms of climate change, change in sea level and change in flood frequency. The Applicant also intends to review and compare the baseline hydraulic modelling data for the Scheme with the Scheme's anticipated operational conditions to confirm the extent of changes. The Applicant also intends to implement the Morphological Impact Assessment System to undertake an assessment on the baseline water bodies to document any changes in morphological conditions that may impact on the WFD classification. In this regard, the Scottish Ministers advise that a WFD assessment should be included in the EIA Report.

8.6.3 SEPA responded to the consultation on 27 August 2019 forwarding a copy of the advice it had previously provided to the Applicant on 20 February 2019 (in response to their scoping consultation to inform the EIA required under the 2010 FRM Regulations) and a subsequent addendum dated 24 June 2019 covering morphological matters.

8.6.4 SEPA advised that in regards to the Applicant's reference to SEPA having implemented a flood forecasting and warning system for the Rivers Carron and Avon, the Grange Burn and the Forth Estuary, this information was incorrect. SEPA confirmed it currently operates a coastal flood warning service for Grangemouth but that there is no flood warning system in place for the Rivers Carron and Avon or the Grange Burn. SEPA is proposing to develop a fluvial combined with a coastal flood warning scheme for the River Carron by the end of 2020, however it is not currently its intention to develop flood warning schemes for the River Avon or the Grange Burn. SEPA advised that the Applicant may wish to approach SEPA to explore what might be possible in order to operate an effective scheme as there will be a need for some triggers to operate any gates.

8.6.5 SEPA noted that there are some existing embankments that may be incorporated into the Scheme after they have been assessed to identify maintenance/replacement requirements. SEPA advised that the assessment should take account of the intended life expectancy of the Scheme and need for enhancements.

8.6.6 SEPA noted that the statistics for the River Carron at Headswood and for the River Avon at Polmonthill had been taken from the National River Flow Archive website. SEPA advised that the flow record for the River Carron at Headswood is currently under review by SEPA. SEPA noted that the statistics quoted for the River Avon at Polmonthill are for a period of record from 1965 to 2015. SEPA advised that the operating period for this station should be quoted as being from July 1971 (which is consistent with the data held by SEPA) as the source/quality of the earlier part of the flow record is unknown and therefore should be omitted from any hydrological analysis.



8.6.7 SEPA noted that the Scoping Report has several references to existing erosion issues along some of the sections of river reaches and the coastline. SEPA advised that flood defence engineering works in and around watercourses have the potential to exacerbate erosion and deposition within the river channel is therefore SEPA's recommendation that consideration should be given to minimise risks and have a plan to undertake regular post completion inspections to identify any problem areas and address the issues while they remain manageable.

8.6.8 SEPA noted the reference in the Scoping Report to the appropriateness of natural flood management ("NFM") measures. SEPA recognised that as standalone measures, NFM will have limited benefit to flood risk but advised that it should be considered alongside other structural measures as a means of enhancing and improving the environment.

8.6.9 MSS provided specific advice in relation to coastal processes concerns on 19 December 2019. MSS advised that the Scheme has the potential to impact coastal processes in the area and that all aspects of the physical environment, such as sediment transport processes, hydrodynamics (for example changes to tides and current), water quality, coastal processes, and storm surge events should be assessed in the EIA Report.

8.6.10 MSS further advised to properly evaluate the impacts of the Scheme, numerical modelling of the region should be conducted (as proposed by the Applicant), including conditions before the Scheme, future conditions, and the changes that the Proposed Works will have. MSS also advised that a hydrodynamic model of this part of the Firth of Forth might already be available.

8.6.11 MSS advised that the use of a sediment transport module should be implemented to assess the potential for degradation of nearby designated areas and sedimentation rates and that questions such as "what does the dispersion look like over different timescales?" should be answered. In addition, MSS advised that, since there is a possibility that wave action in the area will get altered, a wave module and an assessment of possible changes should also be implemented. Furthermore, MSS advised that the consideration of different storm surge events (for example 50,100, 200 Year Return Period) and investigation of the impact (and mitigation) of future sea level rise should be included. MSS also advised that the effects on the local and wider scale need to be assessed (along with possible mitigation measures) including consideration of any cumulative effects.

8.6.12 On the basis that the Scheme (including the Proposed Works) is likely to have a significant effect on the water (including marine) environment, the Scottish Ministers agree that this topic should be scoped in to the EIA Report and that the potential

impacts should be fully assessed as proposed in the Scoping Report whilst also addressing all of the advice provided by SEPA (as provided in summary above and in full in Appendix I) and MSS (as detailed above). In addition, the Scottish Ministers advise that a WFD assessment should be included in the EIA Report.

## **8.7 Land-use, Geology and Contamination**

8.7.1 The Applicant undertook a desk-based assessment to establish the baseline conditions and to provide a high-level appraisal of the potential land-use, geology and contamination impacts of the Scheme. Potentially significant contamination impacts on terrestrial receptors were identified. Potential impacts on marine receptors were not considered under this topic.

8.7.2 On the basis that the purpose of this topic within the EIA Report is to assess the land-use, geology and contamination impacts of the Scheme on terrestrial receptors alone, with the expectation that this is made clear in the EIA Report and that any contamination impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Water Environment), the Scottish Ministers consider that the impacts identified under this topic heading are terrestrial in nature and fall within the regulatory remit of Falkirk Council Planning. The Scottish Ministers are therefore content that impacts on marine receptors may be scoped out of this topic in the EIA Report.

## **8.8 Air Quality and Climate**

8.8.1 The Applicant confirmed that no air quality or climate change assessments had yet been undertaken but noted that the Scheme is being put in place partly to address future flood risk associated with climate change. The Applicant stated that air quality within the vicinity of the Scheme is currently influenced by emissions from road traffic and various industrial operations. The Applicant identified sensitive receptors to include residential areas, schools, hospitals and designated ecological sites within and adjacent to the Scheme footprint.

8.8.2 The Applicant identified that the Scheme has the potential to result in temporary air quality impacts resulting from dust emissions and emissions from construction vehicles. The Applicant anticipates that climate considerations will be undertaken at a regional level, highlighting key local level impacts as applicable.

8.8.3 Based on the Applicant's preliminary findings, no significant air quality or climate impacts are anticipated. The Applicant noted that the Scheme is potentially vulnerable to the effects of a changing climate, however, subject to the incorporation of climate adaptive measures into the design of the Scheme, the impacts are not expected to be significant. The Applicant confirmed that the impact of climate change



on flood risk will be considered in the Water and Geomorphology chapters of the EIA Report and that the suitability and resilience of the Scheme will be assessed by the design team in relation to future flooding scenarios resulting from projected climate change.

8.7.2 On the basis that the purpose of this topic within the EIA Report is to assess the air quality and climate impacts of the Scheme principally on terrestrial receptors, with the expectation that this is made clear in the EIA Report and that any impacts on marine receptors will be adequately assessed under the most relevant topic heading(s) (e.g. Water Environment), the Scottish Ministers consider that the impacts identified under this topic heading are predominantly terrestrial in nature and fall within the regulatory remit of Falkirk Council Planning. The Scottish Ministers are therefore content that impacts on marine receptors may be scoped out of this topic in the EIA Report.

## **8.9 Cultural Heritage**

8.9.1 The Applicant identified 202 known heritage assets within the footprint of the Scheme and considered the potential impact on these. The Applicant concludes that the archaeological potential of the proposal should be scoped in to the EIA Report and should undergo a cultural heritage desk-based assessment to quantify the cultural heritage baseline and assess the impact of the Proposed Works on this resource.

8.9.2 HES confirmed it was content that the procedures outlined in the Scoping Report will deal adequately with the marine archaeological resource concerns. HES noted that the baseline assessment of cultural heritage impacts appeared thorough and the future work outlined to be proportionate and informed. HES noted however that marine assets were not specifically mentioned in the Scoping Report. HES advised there are two B listed buildings at the upper reaches of the tidal limit of the River Carron; LB13306, the former railway bridge across River Carron and LB13305, weir, Carron Ironworks.

8.9.3 On the basis that the Scheme (including the Proposed Works) is likely to have a significant effect on cultural heritage resources (including marine assets), the Scottish Ministers agree that this topic should be scoped in to the EIA Report in line with the methodology proposed in the Scoping Report and should include assessment of the potential impacts on marine assets taking into account the advice received from HES.

## **8.10 Traffic and Transport**

8.10.1 The Applicant undertook a desk-based assessment to consider the significance of any terrestrial traffic and transport impacts associated with the Scheme.

Potential impacts on marine traffic and transport impacts were not assessed.

8.10.2 The MCA advised that it expected the Scoping Report to consider the impact of the Proposed Works on the safety of navigation and include reference to shipping and navigation, or indeed a Shipping and Navigation chapter. From the information provided however, the MCA noted that the only aspect for the MCA to consider with regards to safety of navigation will be as a result of any infrastructure required in or over the marine environment and in that regard the MCA will be invited to comment on the marine licence application from a navigational safety perspective. The MCA advised that a navigation risk assessment may be required at that stage.

8.10.3 RYA Scotland advised that recreational boating may be scoped out of the EIA Report. Forth Ports confirmed that it had no objection to the Proposed Works and that a Forth Ports Works Licence will be required.

On the basis that the purpose of this topic within the EIA Report is to assess the impacts of the Scheme solely on terrestrial traffic and transport receptors, with the expectation that any impacts on marine traffic and transport will be addressed as a matter of course via the marine licence application process, and given that no significant marine traffic or transport concerns have been raised by the consultees, the Scottish Ministers consider that the impacts assessed under this topic heading are terrestrial in nature and fall within the regulatory remit of Falkirk Council Planning. The Scottish Ministers are therefore content that impacts on marine receptors may be scoped out of this topic in the EIA Report.

## **9. Marine Planning**

### **9.1 Background**

9.1.1 The development of projects subject to EIA should be in accordance with the UK Marine Policy Statement and the National Marine Plan (“NMP”).

### **9.2 The UK Marine Policy Statement 2011**

9.2.1 The UK Administrations share a common vision of having clean, healthy, safe, productive and biologically diverse oceans and seas. Joint adoption of a UK-wide Marine Policy Statement provides a consistent high-level policy context for the development of marine plans across the UK to achieve this vision. It also sets out the interrelationship between marine and terrestrial planning regimes. It requires that when the Scottish Ministers make decisions that affect, or might affect, the marine area they must do so in accordance with the Statement.

### **9.3 Scotland’s NMP 2015**



9.3.1 Developed in accordance with the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 (as amended), the NMP provides a comprehensive statutory planning framework for all activities out to 200 nautical miles. This includes policies for the sustainable management of a wide range of marine industries. The Scottish Ministers must make authorisation and enforcement decisions, or any other decision that affects the marine environment, in accordance with the NMP. The NMP sets out a presumption in favour of sustainable development and use of the marine environment when consistent with the policies and objectives of the Plan.

## 10. Multi-Stage Regulatory Approval

### 10.1 Background

10.1.1 The 2017 MW Regulations contain provisions regulating the assessment of environmental impacts. A multi-stage approval process arises where an approval procedure comprises more than one stage, one stage involving a principal decision and one or more other stages involving an implementing decision(s) within the parameters set by the principal decision. While the effects which works may have on the environment must be identified and assessed at the time of the procedure relating to the principal decision, if those effects are not identified or identifiable at the time of the principle decision, assessment must be undertaken at the subsequent stage.

10.1.2 The definition in the 2017 MW Regulations is as follows: "*application for multi-stage regulatory approval*" means an application for approval, consent or agreement required by a condition included in a regulatory approval where (in terms of the condition) that approval, consent or agreement must be obtained from the Scottish Ministers before all or part of the works permitted by the regulatory approval may be begun".

10.1.3 A marine licence, if granted, by the Scottish Ministers for the Proposed Works, may have several conditions attached requiring approvals etc. which fall under this definition, for example the approval of a CMS.

10.1.4 When making an application for multi-stage approval the Applicant must satisfy the Scottish Ministers that no significant effects have been identified in addition to those already assessed in the EIA report. In doing so, the Applicant must account for current (meaning at the time of the multi-stage application) knowledge and methods of assessment which address the likely significant effects of the works on the environment so to enable the Scottish Ministers to reach a reasoned conclusion which is up to date.

10.1.5 If during the consideration of information provided in support of an application for multi-stage regulatory approval the Scottish Ministers consider that the works may

have significant environmental effects which have not previously been identified in the EIA report (perhaps due to revised construction methods or updated survey information), then information on such effects and their impacts will be required. This information will fall to be dealt with as additional information under the 2017 MW Regulations, and procedures for consultation, public participation, public notice and decision notice of additional information will apply.

## **11. Judicial review**

All decisions may be subject to judicial review. A judicial review statement should be made available to the public.

## **12. Gaelic Language**

If the Proposed Works are located in an area where Gaelic is spoken, the Applicant is encouraged to adopt best practice by publicising details of the Proposed Works in both English and Gaelic.

**[Redacted]**

Dr. Anni Mäkelä

Signed 05 February 2020

Authorised by the Scottish Ministers to sign in that behalf.



## Appendix I : Consultee Responses

### NLB Response

## Northern Lighthouse Board

Your Ref: Falkirk Council – Flood Defence  
Our Ref: AL/OPS/ML/F10\_01\_016

84 George Street  
Edinburgh EH2 3DA  
Switchboard: 0131 473 3100  
Fax: 0131 220 2093  
Website: [www.nlb.org.uk](http://www.nlb.org.uk)  
Email: [enquiries@nlb.org.uk](mailto:enquiries@nlb.org.uk)



Mr Tom Inglis  
Marine Scotland – Marine Planning & Policy  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

9 August 2019

### **THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 (AS AMENDED) ("the EIA Regulations")**

### **CONSULTATION UNDER PART 4, REGULATION 14(4) OF THE EIA REGULATIONS**

Thank you for your e-mail correspondence dated 8<sup>th</sup> August 2019 regarding the Scoping Report submitted by Falkirk Council regarding proposed Flood Defence works at Grangemouth, Firth of Forth.

Northern Lighthouse Board has no objections to the content of the Scoping Report, and advises the following;

- Falkirk Council should liaise with Forth Ports and Scottish canals with regard to any works carried out in proximity to the navigable channels in the mid-section of the Firth of Forth and the River Carron respectively.

Yours sincerely

[Redacted]

Peter Douglas  
Navigation Manager

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**For the safety of all**

Certified to: ISO 9001:2000 · The International Safety Management Code (ISM) · OHSAS 18001

## RYA Response

Hi Thomas,

Recreational boating can be scoped out the EIA for the marine elements of the Grangemouth Flood Defence works.

Kind Regards

Pauline

**Pauline McGrow**

Senior Administrator  
Tel: 0131 317 4611

Royal Yachting Association Scotland  
T: 0131 317 7388  
E: [pauline.mcgrow@ryascotland.org.uk](mailto:pauline.mcgrow@ryascotland.org.uk)



RYA Scotland, Caledonia House, 1 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ.  
T: 0131 317 7388, Fax: 0844 556 9549

Protecting your personal information is important to us, view our full Privacy Statement [here](#)





## SEPA response

FAO Thomas Inglis

Hi Thomas,

Thank you for consulting SEPA for EIA scoping advice under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 in relation to the Grangemouth Flood Protection Scheme (FPS). As you are aware we have already been contacted by Falkirk Council for a scoping opinion on the works. As part of that consultation we reviewed the EIA Scoping Report (dated October 2018) which has now been shared with yourselves. Please find attached our scoping response (dated 20 February 2019), and subsequent addendum covering morphological matters (dated 24 June 2019), based on the information provided. These letters cover the issues which we consider an EIA for the project should address. We also recommend you refer to our [standing advice on marine consultations](#) (which includes developments requiring EIA).

Additionally, while we understand that different regulatory regimes may control different aspects of the FPS, we consider it would be reasonable for the EIA Report to address all significant environmental impacts associated with the project as a whole but include two schedules of mitigation; one that would be conditioned through the land use planning regime and one that would be conditioned through marine licensing. Similarly, any proposals for monitoring under Regulation 30 of the planning EIA regulations should be separated out from any proposals for monitoring under Regulation 24 of the marine EIA regulations.

If you have any questions please let us know.

Kind regards,  
Simon

Simon Watt  
Senior Planning Officer  
Planning Service, Strathearn House, Broxden Business Park, Lamberkine Drive, Perth PH1 1RX  
Direct line: 01738 448 155  
Email: [simon.watt@sepa.org.uk](mailto:simon.watt@sepa.org.uk)  
Web: <https://www.sepa.org.uk/environment/land/planning/>



Our ref: PCS/103104  
Your ref: PRE/2018/0010/SCOPE

Bernard Whittle  
Falkirk Council  
Development Services  
Abbotsford House  
Davids Loan  
Falkirk  
FK2 7YZ

If telephoning ask for:  
Paul Lewis

20 February 2019

By email only to: [gdmltdmbsoor@falkirk.gov.uk](mailto:gdmltdmbsoor@falkirk.gov.uk)

Dear Mr Whittle

**THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017  
REQUEST FOR SCOPING OPINION ON GRANGEMOUTH FLOOD PROTECTION SCHEME  
FALKIRK COUNCIL AREA**

Thank you for consulting SEPA on the scoping opinion for the above development proposal. We received your letter on the 09 January 2019. I apologise for the delay in replying to you. We have focussed our response on the key environmental issues relevant to SEPA's remit.

**1. Flood Risk**

- 1.1 We have been asked to comment on the Environmental Impact Assessment Screening/Scoping Report (October 2018) for the Grangemouth Flood Protection Scheme. The proposed Scheme will protect over 3,000 homes and non-residential properties and national infrastructure from fluvial flooding from the Rivers Carron and Avon and the Grange Burn and coastal flooding from the Forth Estuary. Measures will also be included to deal with surface water flooding, seepage of groundwater at defences and water mains and sewer sources. Protection will be provided by the erection of flood walls, sheet piling, flood embankments and possibly a flood storage area.
- 1.2 In Section 3.3.1 under the title in a long list discounted options there is reference to SEPA having implemented a flood forecasting and warning system for the Rivers Carron and Avon, the Grange Burn and the Forth Estuary. This information is incorrect. Currently SEPA operates a coastal flood warning service for Grangemouth but there is no flood warning system in place for the Rivers Carron and Avon or the Grange Burn. It is proposed that there will be gates in the defences which are essential to allow access. For this reason it is important to be able to forecast flooding that may necessitate the closure of these gates to prevent the defences being breached. Currently SEPA proposes to develop a fluvial combined with a coastal flood warning scheme for the River Carron by the end of 2020. However there is currently no plan to develop flood warning schemes for the River Avon or the Grange Burn. Falkirk Council may wish to approach SEPA to explore what might be possible in order to operate an effective scheme as there will be a need for some triggers to operate any gates.

Continued...

- 1.3 Section 3.4 outlines the proposed flood defence measures for the six Flood Cells which are based on geographical areas. The details of Flood Cell 4 are subject to further appraisal, public and statutory consultation. However it is noted that detail of measures in other Flood Cells may also be subject to some changes. It is noted that there are some existing embankments that may be incorporated into the Scheme after they have been assessed to identify maintenance requirements or they need to be replaced. The assessment should take account of the intended life expectancy of the Scheme and need for enhancements.
- 1.4 Section 8.2.1.1 provides baseline statistics for the hydrology of the watercourses in the study area. The statistics for the River Carron at Headswood and for the River Avon at Polmorhill have been taken from the National River Flow Archive (NRFA) website. We would advise that the flow record for the River Carron at Headswood is currently under review by SEPA.
- 1.5 The statistics quoted in the scoping report for the River Avon at Polmorhill are for a period of record from 1985 to 2015. We would advise that the operating period for this station is quoted as being from July 1971 which is consistent with the data held by SEPA. The source of the earlier part of the flow record is unknown and hence the quality of this information is unknown. We therefore recommend that the early part of the record is omitted from any hydrological analysis.
- 1.6 In September 2017 we reviewed updated hydrological analysis undertaken by CH2M for the Scheme. We advised that the Qmed derived for the River Avon by the consultant was low. We suggested that the early part of the record was excluded from flood frequency analysis and only the record from 1984 be used to determine Qmed. We received an email in December 2017 from CH2M advising that a Qmed of 89.7 m<sup>3</sup>/s was adopted for the River Avon at Polmorhill which we were satisfied with.
- 1.7 We note that the scoping document has several references to existing erosion issues along some sections of river reaches and the coastline. Flood defence engineering works in and around watercourses have the potential to exacerbate erosion and deposition within the river channel. Therefore we recommend that consideration should be given to minimise risks and have a plan to undertake regular post completion inspections to identify any problem areas and address the issues while they remain manageable.
- 1.8 Section 9 of the scoping report considers the potential for significant effects on land-use. We would draw attention to SEPA's Planning Information Note 4 (PIN4) which outlines its position relating to proposed development protected by a flood protection scheme. This current position held by SEPA will be relevant to Grangemouth following the completion of the proposed flood protection scheme. PIN4 highlights that the primary purpose of flood protection schemes is to reduce the risk of flooding to existing development rather than to facilitate new development. The adoption of a 0.5% AP (1:200) standard of protection may limit the types of future development behind the defences.

**Caveats & Additional Information for Applicant**

- 1.9 Please note that we are reliant on the accuracy and completeness of any information supplied by the applicant in undertaking our review, and can take no responsibility for incorrect data or interpretation made by the authors.
- 1.10 The advice contained in this letter is supplied to you by SEPA in terms of Section 72 (1) of the Flood Risk Management (Scotland) Act 2009 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to Falkirk Council as Planning.
- 1.11 Authority in terms of the said Section 72 (1). Our briefing note "Flood Risk Management (Scotland) Act 2009: Flood risk advice to planning authorities" outlines the transitional changes to the basis of our advice in line with the phases of this legislation and can be downloaded from <http://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/>.

**Additional comments**

- 1.12 We note the reference in the report to the appropriateness of Natural Flood Management (NFM) measures (section 3.3.3). NFM measures were identified for consideration as part of Grangemouth flood protection study / scheme. While we recognise that as standalone measures, NFM will have limited benefit to flood risk, it should be considered alongside other structural measures as means of enhancing and improving the environment. Please refer to NFM handbook for potential sources of funding, how to work with landowners and how to assess potential benefits from NFM.
- 1.13 The baseline report does not provide information on potential opportunities to improve the condition of water bodies, the River Basin Management Planning (RBMP) status in the area alongside options to manage flood risk. It is not clear how this was considered as part of scheme development.

**2. SEPA Licences**

- 2.1 A licence will be required under the Controlled Activities Regulations (CAR) for works above the National Tidal Limit and works above the Mean High Water Spring (MHWS) level. Works which fall into this category can be identified once the preferred option has been decided. If there is the opportunity for any mitigation such as habitat improvement elsewhere, this would be beneficial.

**3. Regulatory advice for the applicant**

- 3.1 Please consider if any of the installations or processes proposed within this mixed use development are likely to require authorisation under the Pollution Prevention and Control Regulations 2000 or other environmental regulations. Details of regulatory requirements and good practice advice for the applicant can be found on the [Regulations section](#) of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in the local SEPA office at:

Strathallan House, Castle Business Park, Stirling FK9 4TZ.

Tel: 01786 457700

If you have any queries relating to this letter, please contact me by telephone on 0131 273 7334 or e-mail at [planning.se@sepa.org.uk](mailto:planning.se@sepa.org.uk).

Yours sincerely

Paul Lewis  
Senior Planning Officer  
Planning Service

Dear Madam

**Flood Risk Management (Flood Protection Schemes, Potentially Vulnerable Areas and Local Plan Districts) (Scotland) Regulations 2010  
Grangemouth Flood Protection Scheme, Grangemouth, Falkirk Council**

Thank you for contacting SEPA following the publication of our scoping opinion regarding the Grangemouth Flood Protection Scheme (FPS) on 20 February 2019 (under PCS/163194). We welcome early engagement with you regarding the proposed FPS and would be happy to discuss any of the issues raised within this letter. We would also welcome the opportunity to review and comment on any draft sections of the Environmental Impact Assessment Report (EIAR).

As previously indicated, the works above the National Tidal Limit and the Mean High Water Spring (MHWS) will be subject to authorisation by us under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR). It is our expectation that sufficient information is presented with the EIAR to allow us to comment on the potential consentability of the works (further information is available on this matter within our [Planning Guidance on SEPA Regulated Sites and Processes](#)). We also recommend early engagement with our local regulatory services team (contact details in Section 1.2 below) regarding the CAR authorisation.

We welcome the commitments made within the Scoping Report (dated October 2018) to assess the impacts of the FPS on flood risk and the water environment within the EIAR and agree with the key issues identified in Section 8.3.1. We also welcome the commitment to explore the potential for wider enhancement measures as part of the scheme including in relation to green networks. A range of guidance is available on our [website](#), including on our [planning pages](#), which may be useful as you progress the assessment. For elements of the works regulated by Marine Scotland we recommend reference be made to our [standing advice on marine consultations](#).

We have enclosed additional hydromorphology advice on the proposals in Appendix 1 below. Please accept this letter as an addendum to our previous scoping response. We have copied this response to Falkirk Council for their awareness.

**1. Regulatory Requirements**

- 1.1 You should be aware that a construction site licence under CAR for water management across the whole construction site may be required. These apply to sites of 4ha or more in area, sites 5 km or more in length or sites which contain more than 1ha of ground on a slope of 25 degrees or more or which cross over 500m of ground on a slope of 25 degrees or more. Further information on this matter is available in our [Sector Specific Guidance: Construction Sites \(WAT-SG-75\)](#). You may also find reference to our [construction site licence webpage](#) useful for further information on this issue.
- 1.2 Details of regulatory requirements and good practice can be found on the [Regulations section](#) of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the regulatory services team in your local SEPA office at Strathallan House, Castle Business Park, Stirling FK9 4TZ (Tel: 01786 457 700).

If you have any queries relating to this letter, please contact me by telephone on 01738 448 155 or by e-mail to [planning.se@sepa.org.uk](mailto:planning.se@sepa.org.uk).

Yours faithfully

Simon Watt



## Forth Ports Response

I refer to the below and confirm Forth Ports has no objection to the proposed works.

The Applicant will require a Forth Ports Works Licence, and should contact Pamela Smyth to progress this application.

Regards

Sandra Robson | PA to Group General Counsel and Company Secretary | Forth Ports Limited

Head Office | 1 Prince of Wales Dock | Edinburgh | EH6 7DX

T: 0131 555 8700 | DD: 0131 555 8709 | <https://forthports.co.uk>

## HES response



HISTORIC  
ENVIRONMENT  
SCOTLAND

ÀRAINNEACHD  
EACHDRAIDHEIL  
ALBA

By email to:  
[MS.MarineLicensing@gov.scot](mailto:MS.MarineLicensing@gov.scot)

Marine Scotland  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

Longmore House  
Salisbury Place  
Edinburgh  
EH9 1SH

Enquiry Line: 0131-668-8716  
[HMConsultations@hes.scot](mailto:HMConsultations@hes.scot)

Our case ID: 300019387

04 September 2019

Dear Sir/Madam

The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended)  
Grangemouth Flood Protection Scheme  
Scoping Report

Thank you for your consultation which we received on 8 August 2019 about the above scoping report. We have reviewed the details in terms of our historic environment interests. This covers world heritage sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and historic marine protected areas (HMPAs).

Falkirk Council's archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings.

### Proposed Development

We understand that the proposed development comprises a flood protection scheme to reduce the risk to people in Bonnybridge, Carron and Grangemouth from river and coastal flooding. We were consulted on a scoping report for the works above mean high water springs in January 2019. Our comments here are restricted to those relating to Marine Licensing requirements. We note that the scoping report submitted in relation to this request for a scoping opinion is dated October 2018, and is the report we commented on in our letter dated 30 January 2019.

### Scope of assessment

It is our understanding that Marine Licencing requirements will apply to any works on the foreshore and upstream in waterways to the normal tidal limits. For the River Carron, this means up to the weir at the Carron Iron Works, and for the River Avon a point S of the A905 (Wholeflats Road) just upstream from Milnholm Farm.

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH  
Scottish Charity No. SC045925  
VAT No. GB 221 8680 15





We can confirm that there are no scheduled monuments, A listed buildings, designed landscapes or battlefields along these stretches of the rivers. The World Heritage site around the Antonine Wall will not be affected by marine licensing issues.

We can confirm that we are content that the procedures outlined in the Scoping Report for this proposed flood protection scheme will deal adequately with the marine archaeological resource. The baseline assessment of cultural heritage impacts appears thorough and the future work outlined in sections 11.4 and 11.5 is proportionate and informed. However, we note that marine assets are not specifically mentioned in the report.

There are two B listed buildings at the upper reaches of the tidal limit of the River Carron; LB13306, former railway bridge across River Carron, and; LB13305, weir, Carron Ironworks. Falkirk Council's conservation advisors will be able to provide information and advice on the treatment of these assets through the Environmental Impact Assessment (EIA) process.

Information on EIA can be found in our [EIA Handbook](#).

#### **Further information**

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at [www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes](http://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes). Technical advice is available on our Technical Conservation website at <http://conservation.historic-scotland.gov.uk/>.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Adele Shaw and they can be contacted by phone on 0131 668 8758 or by email on [Adele.Shaw@hes.scot](mailto:Adele.Shaw@hes.scot).

Yours faithfully

**Historic Environment Scotland**

RSPB response



RSPB Scotland

Falkirk Council  
Development Services  
Abbotsford House  
Davids Loan  
Falkirk  
FK2 7YZ

15 February 2019,

Dear Bernard,

**PRE/2018/0010/SCOPE - Request for Scoping Opinion on Grangemouth Flood Protection Scheme**

Thank you for consulting RSPB Scotland about the above Scoping Opinion request and allowing us an extended deadline in order for us to consider the information in the Scoping Report and Appendices.

This proposal has the potential to impact on a range of habitats and species either directly or indirectly, throughout the whole area where work is proposed. Of greatest concern is the potential impacts on the qualifying features of the Firth of Forth SSSI, Ramsar and SPA and other bird species present in estuary-important numbers. The two greatest forms of impact are from a direct loss of habitat, where construction of the walls and embankments require to be built in the designated site, and the effects of disturbance caused during construction. With an anticipated construction period of 5 to 10 years, a significant proportion of this time will be spent on the interface with the estuary.

The ornithology report highlights just how important the mudflats and adjacent land around the Grangemouth industrial area is for many bird species and even in relation to other parts of the Forth. This is because of the large expansive mudflats which are so valuable to feeding waders and wildfowl, with excellent high tide roosts close by and importantly all relatively undisturbed by people. It also highlights that there are few, if any, other suitable places in the adjacent areas for the birds to move to during consistent disturbance. Careful consideration will need to be given to reducing these disturbance impacts during the construction works.

We believe the following are the key issues and would expect them to be considered in detail as part of the EIA and HRA:

- Calculation of how much direct and land take of the designated site will be needed and what habitats will be lost.
- What designated features and qualifying species are going to be affected, by how much and establish where are the most important areas for them.

South and West Scotland  
Regional Office  
10 Park Quadrant  
Glasgow  
G3 6BS

Tel 0141 331 0893  
Fax 0141 331 0080  
[rspb.org.uk](http://rspb.org.uk)



Patron: Her Majesty the Queen    Chairman of Council: Professor Steve Ormerod, FIEEM    President: Miranda Krestovnikoff  
Chairman, Committee for Scotland: Prof. Colin Galbraith    Director, RSPB Scotland: Anna McCall    Regional Director: Dr Dave Beaumont  
The RSPB is a registered Charity: England & Wales no 287076, Scotland no SC037654

- The potential loss of intertidal habitat because of coastal squeeze – by holding the line and increasing the height of the seawalls, any fronting saltmarsh habitats will either be reduced or lost in the future as a result of sea level rise, how is this going to be compensated for.
- The direct and indirect geomorphological changes – for example changes in sediment patterns or flows from existing channels, which could affect the mudflats and the benthic invertebrates that the SPA birds rely on.
- The impacts of disturbance on the qualifying species of the SPA from noise and personnel during the construction period.
- Proposals for compensation and mitigation based on the overall loss of functionality of the SPA area.
- Alternative options do need to be genuinely considered and presented, with explanation as why these are not possible.

We note that Cell 4 will be subject to further options appraisal and we would wish the above points to be taken into account as part of this process, in particular the potential impacts of a tidal barrier.

Additional comments are detailed in the following Annex.

If you or the consultants have any questions regarding our comments, please do not hesitate to contact me, but we would be open to be involved with any further discussions especially around mitigation and compensation proposals.

Yours Sincerely

[Redacted]

Yvonne Boles  
Senior Conservation Officer

Cc Richard Kehoe, SNH Operations Officer



## ANNEX

### Ornithology Report

There is reference to figures and Appendix 1 in the report for example “*The survey area extent is shown in Figure 1*”, and in points 4 and 5 of section 2.5 Analysis Methodology, state there are figures showing the spatial distribution of SPA species and their activity and roosting SPA species at high tide, but these have not been provided. The figures are also not listed nor is the Appendix in the Contents page of the report. This makes it difficult to correlate the bird surveys results with the engineering maps provided.

Depending on when the EIA is being carried out, more survey data may be needed to update the existing data. With proposed works starting in 2022, this will be seven years from when the first wintering bird surveys took place in 2015-16 and 2016-17 and the breeding bird survey. Surveys would need to be undertaken to provide updated information to inform mitigation and compensation measures.

Section 2.4.1 discusses survey gaps. Of particular note are the access restrictions around key parts of the project area i.e. BP oil terminal and Ineos refinery. Sectors 6, 7 and 9 could have important areas that could not be viewed properly or at all. This is probably highly likely given the bird numbers in adjacent sectors. Assuming access will not be permitted in the future for bird surveys, Falkirk Council must take a precautionary approach to works in these sectors and apply mitigation measures, such as timing and phasing of works, screening etc in these sectors. Without a map showing these sectors, it is difficult to gauge whether they could be considered as ‘minor’ constraints, which the authors claim on page 8.

### Breeding season surveys

We note that surveys took place in May, June and July with the aim of recording breeding evidence of target species (primarily SPA or SSSI qualifying interests) and non-breeding target species. Whilst we understand the purpose of these, with any large development we would request a breeding bird survey is carried out during mid-April to mid-June, to assess the presence of any specially protected species and to inform any necessary design and mitigation measures. This is not just for the estuary area, but includes all areas where works are being considered. We would wish to see this completed and presented in the EIA.

Section 2.4.4 mentions that Sector 9 was not surveyed because of access restrictions and viewpoints into it were not possible because of vegetation height. This is disappointing and leads to an incomplete dataset and data in this area must be made available to inform both the EIA and particularly the HRA.

### Biodiversity

In the current Falkirk Local Development Plan, Policy GN03 Biodiversity and Geodiversity refers to all levels of designated sites and that all development proposals should conform to Supplementary Guidance SG05 ‘Biodiversity and Development’. We would expect the Council to follow this and take a best practice approach. Wherever possible, opportunities for enhancing biodiversity should be taken when designing and delivering the project. With such a large project it would be very easy to only focus on the most important protected sites and species but as a public body there is a duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity more broadly.

## VisitScotland response

Hi,

VisitScotland has no comments to make on the Grangemouth Flood Defence Works.

Many thanks,  
Doug

Douglas Keith  
Government & Parliamentary Affairs Executive  
VisitScotland

Tel: +44 (0)131 472 2053  
Fax: +44 (0)131 472 2003  
Email: [douglas.keith@visitscotland.com](mailto:douglas.keith@visitscotland.com)

SNH Response



Bernard Whittle  
Falkirk Council  
Development Services  
Abbotsford House  
David's Loan  
Falkirk  
FK2 7YZ

By email: [bernard.whittle@falkirk.gov.uk](mailto:bernard.whittle@falkirk.gov.uk)

08 February 2019  
Your ref: PRE/2018/0010/SCOPE/JM  
Our ref: CEA153820/A2827579

Dear Mr Whittle

**TOWN AND COUNTRY PLANNING SCOTLAND ACT 1997  
THE ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS  
2017  
EIA SCOPING OPINION FOR GRANGEMOUTH FLOOD PROTECTION  
SCHEME**

Thank you for your consultation of 10 January 2019 requesting an EIA scoping opinion on the proposed Grangemouth Flood Protection Scheme.

**Background**

We have been involved in discussions with Falkirk Council over a number of years in relation to the potential for impacts on natural heritage interests. The main focus of discussion has been potential impacts on the Firth of Forth Special Protection Area (SPA) and the Habitats Regulations Appraisal (HRA), which is required to assess them. This has included providing advice on the scope and scale of ornithological surveys needed to inform the HRA process. Based on these discussions, Falkirk Council produced a HRA Screening and Scoping Report in November 2018, and we met with their project team and ecologists in December 2018 to discuss the detail of the report and surveys carried out to date. Our comments below in relation to the EIA Scoping Report also apply to the HRA Screening and Scoping Report, where they relate to the Firth of Forth SPA or other Natura sites.

**Biodiversity**

**Firth of Forth SPA - HRA**

Part of the development footprint lies within the Firth of Forth SPA, designated for its wintering wildfowl and waders. This means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") apply.

Scottish Natural Heritage, Silvan House, 3rd Floor East, 231 Corstorphine Road, Edinburgh. EH12 7AT  
Tel. 0131 316 2600 Fax 0131 312 2690 [www.nature.scot](http://www.nature.scot)

Dualchas Nàdair na h-Alba, Taigh Silvan, Làr 3, 231 Rathad Corstorphine, Dùn Èideann EH12 7AT  
Fòn: 0131 316 2600 Facs: 0131 316 2690 [www.nature.scot](http://www.nature.scot)



Under the Habitats Regulations, Falkirk Council is required to consider whether any plan or project will have a 'likely significant effect' on the SPA. If so, they must carry out an 'appropriate assessment'. This is known as Habitats Regulations Appraisal (HRA). Details of the HRA process can be found on our website:

<https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra>

The website also contains a link to a 'HRA on the Firth of Forth' guidance document: <https://www.nature.scot/professional-advice/planning-and-development/natural-heritage-advice-planners-and-developers/planning-and-development-protected-areas>

Detailed comments in relation to surveys, scheme design and information to be included in the Environmental Statement (ES) are provided in **Annex 1**.

#### Advice on the HRA Process

Based on our current understanding of the project, and further to discussions with Falkirk Council, we believe that it may be difficult to demonstrate beyond reasonable scientific doubt that the project will not adversely affect the integrity of the Firth of Forth SPA. If this is the case then the project could only proceed if there are no alternative solutions and also where there are imperative reasons of overriding public interest (IROPI) for doing so. This reasoning would need to be set out clearly in the ES, including why there are no alternative solutions.

If Falkirk Council were to propose to approve the proposal on the grounds of IROPI, Scottish Ministers must be informed. Scottish Ministers are also required to make sure that necessary compensatory measures are secured to ensure that the overall coherence of Natura 2000 is protected. If the IROPI route is deemed to be a likely outcome then we would advise that the ES includes consideration of available options to provide compensatory habitat. The regulations require that such measures are taken to ensure the coherence of the Natura 2000 suite of sites is maintained. It is worth noting that EU guidance states that all necessary provisions must be completed before the plan or project implementation starts so as to prevent any unforeseen delays that may hinder the effectiveness of the measures.

We wish to make clear that given the complexity and importance of the project and the legally-binding nature of the HRA procedure, we are keen to help advise on any future work on the HRA as it develops, including advising on the potential for, and implications of, any IROPI arguments including compensatory measures.

We suggest that the ES should also include analysis of case studies dealing with similar projects, where there was a loss of the similar habitats supporting Natura qualifying interests.

#### Other Designated Sites

The Firth of Forth is also designated as a Ramsar Site and a Site of Scientific Interest (SSSI). We are content that any issues relevant to the Firth of Forth Ramsar site will be adequately addressed through the HRA for the Firth of Forth SPA. The Firth of Forth SSSI however contains additional areas to the SPA and its notified features also include habitats which may be affected by the proposal. A detailed assessment of impacts on the Firth of Forth SSSI should therefore be included in the ES.

Other designated sites which may be affected by the proposal are listed below:

#### Natura Sites:

- Forth Islands SPA
- Outer Firth of Forth & St Andrews Bay Complex proposed SPA (pSPA)
- Imperial Dock Lock, Leith SPA
- River Teith Special Area of Conservation (SAC)
- Isle of May SAC

Although these sites are not located in the vicinity of the proposal, there may still be impacts on their qualifying interests, which should be addressed in the ES and considered as part of the HRA process. It may be possible to easily discount impacts on some of these sites, although the reasons for doing so should be detailed in the ES.

Sites of Special Scientific Interest (SSSI):

- Avon Gorge SSSI
- Carron Dams SSSI

These sites are located in close proximity to the scheme footprint and any potential impacts on them should be addressed in the ES. If there are no impacts then the reasoning should be detailed in the ES.

Further information in relation to the above designated sites can be found via the sitelink facility on our website: <https://sitelink.nature.scot/home>

Protected Species

We note the range of desk studies and protected species surveys which have already been carried out, and the further surveys planned, to identify any requirements for mitigation and licensing. We are content that this approach adequately addresses issues relating to protected species and are happy to provide specific advice during this process if needed.

**Landscape and Visual Effects**

We broadly welcome the approach set out in the Scoping Report and note and welcome the following statement:-

*If a new development proposal is located within close proximity to the green network there may be opportunities to enhance the green network in tandem with the new development.*

Clearly there is a potential for structural intervention proposals to have adverse combined impacts on i) local place character/ landscape character ii) local access to river edges and associated natural assets iii) local routes, including both formal paths and informal access routes.

We would therefore support an integrated and design-led approach to consideration of these issues and the design of any structures proposed. We would welcome focus on creative and "nature based" solutions to the integration of flood prevention structures, as well as solutions that are both appropriate to local character and maintain existing or create new access/ green network connections.

While walling appears likely to be necessary in certain areas within the urban context, we would suggest that in the more natural areas well designed bunding (rather than walling), included planted bunds, will allow greater levels of permeability and better use of the area for people and wildlife. The setting of clear design and ground repair/ re-planting standards will be important for ensuring adverse impacts from structural interventions are minimised.

We advise that landscape/ access/ ecological mitigation is clearly communicated in drawings and specified to sufficient standard for each section of the project, and that any opportunities for enhancement of access/ ecology/ landscape are also clearly articulated and integrated into the design proposals.

We note from discussions with the project team that there will be a working group set up in relation to landscape and placemaking issues, and we would be keen to input to this process throughout the development of the project.

Should you require any further information then do not hesitate to contact me.

Yours sincerely

*[by email]*

**Richard Kehoe**  
Operations Officer  
Forth



**ANNEX 1****Detailed comments in relation to the Firth of Forth SPA**

We are generally content with the range of ornithological surveys, and their assessment, carried out to date but offer the following advice:

- The winter season surveys are sufficient for the HRA, but we advise that one more breeding bird survey is carried out.
- The project is not likely to be completed for up to ten years following commencement of construction activities and surveys may therefore become outdated. To take account of this we advise that the current survey data is compared with WeBS core counts results. If they are broadly comparable then the need for future survey work could be determined by monitoring the WeBS count results in future years - i.e. if they start to change then there may be a need for updating the surveys.
- Surveys will be required for any areas identified as potential compensation areas, in the event that the proposal is approved on the grounds of IROPI.
- Survey sectors 5-10 have been identified in the HRA Screening and Scoping Report as being relevant to the HRA, with the other sectors having been 'scoped out'. We advise that sectors 4 and 11 are also included in the assessment, as they include areas where proposed works are adjacent to the SPA.
- The report also 'scopes out' certain bird species due to the proposal not having a Likely Significant Effect (LSE) on them, based largely on low counts for those species in certain survey sectors. We advise that these species should not be scoped out, as in our view the presence of those species means that it can be determined that there is LSE. The assessment should therefore focus on whether there is no Adverse Effect on Site Integrity with respect to those species.

We are aware that the current design of the scheme will result in the loss of some habitat within the SPA. In order to fully assess the importance of these areas to the SPA qualifying interests, and the implications of their loss, we advise that biotope surveys of the affected areas are carried out.

Our recent meeting with the project ecology team included discussions about the potential for designing the flood walls and rock armour to benefit the SPA, and other natural heritage interests. This included incorporating artificial roost structures into the design. There are a number of recent scientific papers on testing a variety of designs of rock armour in relation to their biodiversity value (although many of these focus on plants and invertebrates rather than birds) and also artificial roost structures – see examples below, which may be relevant:

- Naylor et al 2017 Rock armour for birds and their prey: ecological enhancement of coastal engineering *Maritime Engineering* 170 Issue MA2 Pages 67–82  
<https://core.ac.uk/download/pdf/132211345.pdf>
- Intertidal ledges, raises or ridges are included in the meta-analysis & qualitative review Strain et al 2017 *Eco- engineering urban infrastructure for marine and coastal biodiversity: Which interventions have the greatest ecological benefit?*  
<https://besjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/1365-2664.12961>
- Chapman & Underwood 2011 Evaluation of ecological engineering of "armoured" shorelines to improve their value as habitat  
<https://www.sciencedirect.com/science/article/pii/S0022098111000736?via%3Dihub>
- Jackson, M. V. 2017. Literature Review: Importance of artificial roosts for migratory shorebirds. Report to Charles Darwin University.  
[http://www.nesphreatenedspecies.edu.au/5.1.1%20Importance%20of%20Artificial%20Roosts\\_%20REPORT\\_2017\\_LOW%20RES.pdf](http://www.nesphreatenedspecies.edu.au/5.1.1%20Importance%20of%20Artificial%20Roosts_%20REPORT_2017_LOW%20RES.pdf)



- Burton, N. H., P. R. Evans and M. A. Robinson (1996). Effect on shorebird numbers of disturbance, the loss of a roost site and its replacement by an artificial island at Hartlepool, Cleveland. *Biological Conservation* 77: 193-201.  
<https://www.sciencedirect.com/science/article/abs/pii/0006320795001433?via%3Dihub>
- Nightingale et al 2018 Activity budgets of a wintering population of Purple Sandpipers: Vulnerability to sea-level rise and conservation through coastal engineering? *Wader Study* 125 (2) 122 – 128  
<https://www.waderstudygroup.org/article/11521/>

Scottish Water Response

9<sup>th</sup> September 2019

Marine Scotland  
Marine Laboratory Scottish Gov 375 Victoria Road  
Aberdeen  
AB11 9DB



Development Operations  
The Bridge  
Buchanan Gate Business Park  
Cumbernauld Road  
Stepps  
Glasgow  
G33 6FB

Development Operations  
Freephone Number - 0800 3890379  
E-Mail - DevelopmentOperations@scottishwater.co.uk  
www.scottishwater.co.uk

Dear Thomas Inglis

**FK3 Falkirk Grangemouth Flood Defence Work**  
**OUR REFERENCE: 781054**  
**PROPOSAL: Grangemouth Flood Defence Works, Grangemouth, Falkirk**

**Please quote our reference in all future correspondence**

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced and would advise the following:

**Water**

- There is currently sufficient capacity in the Carron Valley Water Treatment Works. However, please note that further investigations may be required to be carried out once a formal application has been submitted to us.

**Foul**

- There is currently sufficient capacity in the Kinneil Kerse Waste Water Treatment Works. However, please note that further investigations may be required to be carried out once a formal application has been submitted to us.

Early engagement with Scottish Water is highly recommended.

**The applicant should be aware that we are unable to reserve capacity at our water and/or waste water treatment works for their proposed development. Once a formal connection application is submitted to Scottish Water after full planning permission has been granted, we will review the availability of capacity at that time and advise the applicant accordingly.**

**Infrastructure within boundary – [remove if not applicable]**

**Notable public water and waste water infrastructure traverses the footprint of the site. Early engagement with Scottish Water will be required to ensure that all assets are fully protected both during and after construction. Stand-off distances will apply, which may impact on any proposed site layouts**

The applicant must identify any potential conflicts with Scottish Water assets and contact our Asset Impact Team directly at [service.relocation@scottishwater.co.uk](mailto:service.relocation@scottishwater.co.uk).

The applicant should be aware that any conflict with assets identified may be subject to restrictions on proximity of construction.

#### **Scottish Water Disclaimer**

*"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."*

#### **Drinking Water Protected Areas**

A review of our records indicates that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed activity.

#### **Surface Water**

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will **not** accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification taking account of various factors including legal, physical, and technical challenges. However it may still be deemed that a combined connection will not be accepted. Greenfield sites will not be considered and a connection to the combined network will be refused.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is proposed, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

#### **General notes:**

- **Scottish Water asset plans can be obtained from our appointed asset plan providers:**



**Site Investigation Services (UK) Ltd**  
Tel: 0333 123 1223  
Email: [sw@sisplan.co.uk](mailto:sw@sisplan.co.uk)  
[www.sisplan.co.uk](http://www.sisplan.co.uk)

- Scottish Water's current minimum level of service for water pressure is 1.0 bar or 10m head at the customer's boundary internal outlet. Any property which cannot be adequately serviced from the available pressure may require private pumping arrangements to be installed, subject to compliance with Water Byelaws. If the developer wishes to enquire about Scottish Water's procedure for checking the water pressure in the area then they should write to the Customer Connections department at the above address.
- If the connection to the public sewer and/or water main requires to be laid through land out-with public ownership, the developer must provide evidence of formal approval from the affected landowner(s) by way of a deed of servitude.
- Scottish Water may only vest new water or waste water infrastructure which is to be laid through land out with public ownership where a Deed of Servitude has been obtained in our favour by the developer.
- The developer should also be aware that Scottish Water requires land title to the area of land where a pumping station and/or SUDS proposed to vest in Scottish Water is constructed.
- **Please find all of our application forms on our website at the following link <https://www.scottishwater.co.uk/Business-and-Developers/Connecting-to-Our-Network>**

**Next Steps:**

- **Single Property/Less than 10 dwellings**

For developments of less than 10 domestic dwellings (or non-domestic equivalent) we will require a formal technical application to be submitted directly to Scottish Water or via the chosen Licensed Provider if non domestic, once full planning permission has been granted. Please note in some instances we will require a Pre-Development Enquiry Form to be submitted (for example rural location which are deemed to have a significant impact on our infrastructure) however we will make you aware of this if required.

- **10 or more domestic dwellings:**

For developments of 10 or more domestic dwellings (or non-domestic equivalent) we require a Pre-Development Enquiry (PDE) Form to be submitted directly to Scottish Water prior to any formal Technical Application being submitted. This will allow us to fully appraise the proposals.

Where it is confirmed through the PDE process that mitigation works are necessary to support a development, the cost of these works is to be met by the developer, which Scottish Water can contribute towards through Reasonable Cost Contribution regulations.

- **Non Domestic/Commercial Property:**  
Since the introduction of the Water Services (Scotland) Act 2005 in April 2008 the water industry in Scotland has opened up to market competition for non-domestic customers. All Non-domestic Household customers now require a Licensed Provider to act on their behalf for new water and waste water connections. Further details can be obtained at [www.scotlandontap.gov.uk](http://www.scotlandontap.gov.uk)
- **Trade Effluent Discharge from Non Dom Property:**  
Certain discharges from non-domestic premises may constitute a trade effluent in terms of the Sewerage (Scotland) Act 1968. Trade effluent arises from activities including; manufacturing, production and engineering; vehicle, plant and equipment washing, waste and leachate management. It covers both large and small premises, including activities such as car washing and laundrettes. Activities not covered include hotels, caravan sites or restaurants.

If you are in any doubt as to whether or not the discharge from your premises is likely to be considered to be trade effluent, please contact us on 0800 778 0778 or email [TEQ@scottishwater.co.uk](mailto:TEQ@scottishwater.co.uk) using the subject "Is this Trade Effluent?". Discharges that are deemed to be trade effluent need to apply separately for permission to discharge to the sewerage system. The forms and application guidance notes can be found using the following link <https://www.scottishwater.co.uk/business/our-services/compliance/trade-effluent/trade-effluent-documents/trade-effluent-notice-form-h>

Trade effluent must never be discharged into surface water drainage systems as these are solely for draining rainfall run off.

For food services establishments, Scottish Water recommends a suitably sized grease trap is fitted within the food preparation areas so the development complies with Standard 3.7 a) of the Building Standards Technical Handbook and for best management and housekeeping practices to be followed which prevent food waste, fat oil and grease from being disposed into sinks and drains.

The Waste (Scotland) Regulations which require all non-rural food businesses, producing more than 50kg of food waste per week, to segregate that waste for separate collection. The regulations also ban the use of food waste disposal units that dispose of food waste to the public sewer. Further information can be found at [www.resourceefficientscotland.com](http://www.resourceefficientscotland.com)

If the applicant requires any further assistance or information, please contact our Development Operations Central Support Team on 0800 389 0379 or at [planningconsultations@scottishwater.co.uk](mailto:planningconsultations@scottishwater.co.uk)

Yours sincerely

**Angela Allison**  
Angela.Allison@scottishwater.co.uk



## MCA Response

Dear Thomas,

Thank you for your email dated 8 August inviting the Maritime and Coastguard Agency (MCA) to comment on the Environmental Impact Assessment Scoping Report for the proposed Grangemouth Flood Defence Works. My apologies for the slight delay with this response.

We note that the proposed scheme will comprise of a flood defences (flood walls or embankments), flood storage (a potential upstream dam structure) tidal barriers/ gates and, potentially, some surface water management and drainage network measures. While currently undefined, it may also incorporate some localised natural flood management measures.

We would expect the Scoping Report to consider the impact of the works on the safety of navigation and include a reference to shipping and navigation, or indeed a Shipping and Navigation Chapter. We note that some of the proposed works will take place below mean high water spring tidal levels and will require a Marine Licence under Part 4 of the Marine (Scotland) Act 2010. In addition, a works licence will be required by the Forth Ports Authority.

From the information provided, it appears that the only aspect for MCA to consider with regards to the safety of navigation will be as a result of any infrastructure required in or over the marine environment and the MCA will be invited to comment on the Marine Licence application from a navigation safety perspective. Some sort of navigation risk assessment may be required at that stage.

In addition, the MCA would like to point the developers in the direction of the Port Marine Safety Code (PMSC). They will need to liaise and consult with the port/harbour authority to develop a robust Safety Management System (SMS) for the project under this code.

The sections that we feel cover Navigational safety under the PMSC and its Guide to Good Practice are as follows:

From the Guide to Good Practice, section 7 Conservancy, a Harbour Authority has a duty to conserve the harbour so that it is fit for use as a port, and a duty of reasonable care to see that the harbour is in a fit condition for a vessel to be able to use it safely. Section 7.7 Regulating harbour works covers this in more detail and have copied the extract below from the Guide to Good Practice.

### 7.7 Regulating harbour works

7.7.1 Some harbour authorities have the powers to license works where they extend below the high watermark, and are thus liable to have an effect on navigation. Such powers do not, however, usually extend to developments on the foreshore.

7.7.2 Some harbour authorities are statutory consultees for planning applications, as a function of owning the seabed, and thus being the adjacent landowner. Where this is not the case, harbour authorities should be alert to developments on shore that could adversely affect the safety of navigation. Where necessary, consideration should be given to requiring the planning applicants to conduct a risk assessment in order to establish that the safety of navigation is not about to be put at risk.

Examples of where navigation could be so affected include:

- high constructions, which inhibit line of sight of microwave transmissions, or the performance of port radar, or interfere with the line of sight of aids to navigation;
- high constructions, which potentially affect wind patterns; and
- lighting of a shore development in such a manner that the night vision of mariners is impeded, or that navigation lights, either ashore and onboard vessels are masked, or made less conspicuous.

There is a British Standards Institution publication on Road Lighting, BS5489. Part 8 relates to a code of practice for lighting which may affect the safe use of aerodromes, railways, harbours and navigable Inland waterways.

Yours sincerely,

Helen Croxson  
Navigation Safety Branch



**Helen Croxson, Offshore Renewables Advisor**  
Navigation Safety Branch, Bay 2/25  
Maritime & Coastguard Agency  
Spring Place, 105 Commercial Road, Southampton, SO15  
1EG  
Tel: 0203 8172426  
Mobile: 07468353062  
Email: [Helen.Croxson@mcga.gov.uk](mailto:Helen.Croxson@mcga.gov.uk)

Please note I currently work Tuesdays, Wednesdays and Thursdays.

## MAU Response

Hi Thomas,

Thanks for sharing the scoping report, which I have reviewed.

According to the report, the following is scoped out of the EIA:

- Economy
- Inequality

*My comments:*

*Economy- the potential disruption to businesses during construction phase of Flood Protection Scheme should be considered in the EIA, as efforts should be made to reduce the magnitude and duration of the disruption.*

*Overall assessment- In the scoping report all the potential socio-economic impacts have been considered and clear rationale has been provided for why some potential impacts have been scoped out.*

*Best,  
Chahat*

## Falkirk Council response

FAO Thomas Inglis

Fife Council has no comments to make regarding your consultation above at this stage.. We are still waiting for an Internal consultation response however if there are any comments following this I shall forward these onto you as soon as I receive them.

Kind regards

Alex

Alex Laidler  
Planner  
Environment, Enterprise & Communities Directorate  
Economy, Planning and Employability Services  
Fife House  
North Street  
Glenrothes  
KY7 5LT

e-mail:- [development.central@fife.gov.uk](mailto:development.central@fife.gov.uk)

Tel: 03451 551122

[www.fifedirect.org.uk/planning](http://www.fifedirect.org.uk/planning)

Follow us on twitter: @FifePlanning

LISTEN | CONSIDER | RESPOND

## Marine Scotland Science response

Falkirk Council – Grangemouth Flood Prevention Scheme

Further comments on the Impact of the works on the coastal processes and what information to include in the EIA

Comments:

This flood prevention scheme has the potential to impact coastal processes in the area. Investigations for the EIA need to include all aspects of the physical environment, such as sediment transport processes, hydrodynamics (for example changes to tides and currents), water quality, coastal processes, and storm surge events.

To properly evaluate the impacts of this project, numerical modelling of the region should be conducted (as suggested), including conditions before the project, future conditions, and the changes that the proposed works will have. A hydrodynamic model of this part of the Firth of Forth might already be available.

The use of a sediment transport module should be implemented to investigate the potential of degradation of nearby designated areas and sedimentation rates. Questions such as "What does the dispersion look like over different time scales?" should be answered.

Since there is a possibility that wave action in the area will get altered, a wave module and an investigation of possible changes would be useful as well.

The consideration of different storm surge events (for example 50, 100, 200 YRP), and investigation of the impact (and mitigation) of future sea level rise should be included.

Effects on the local and wider scale need to be investigated, along with possible mitigation measures. Also, are there going to be any cumulative effects?

The information listed above is given in good faith using the limited data available to the Oceanography Group.



## **Appendix II: Marine Licensing requirements**

### Application

The application letter must detail how many licences are being sought, what marine licensable activities are proposed and what legislation the application is being made under.

Applicants are required to submit two hard copies of the EIA report together with an electronic copy in a user-friendly PDF format which will be placed on the Scottish Government website. If requested to do so by the Scottish Ministers, the Applicant must send to the Scottish Ministers such further hard copies of the EIA report as requested. Applicants may be asked to issue the EIA report directly to consultees and in which case consultee address lists should be obtained from the Scottish Ministers.

### Requirement for Public Pre-Application Consultation ("PAC")

From 6<sup>th</sup> April 2014, applications received for certain activities are subject to a public pre-application consultation requirement. Activities affected will be large projects with the potential for significant impacts on the environment, local communities and other legitimate uses of the sea. This requirement allows local communities, environmental groups and other interested parties to comment on proposed works in their early stages and before an application for a marine licence is submitted.

The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 can be accessed via:

<http://www.legislation.gov.uk/ssi/2013/286/made>

Guidance on marine licensable activities subject to Pre-application Consultation can be obtained at:

<http://www.gov.scot/Topics/marine/Licensing/marine/guidance/preappconsult>

The licensing authority reserves the right not to accept an application in the absence of an acceptable PAC report.

### Pre-Dredge Sampling

Please note that if it is intended to dispose of any dredged material at sea, adequate pre-dredge sample analysis must be submitted in support of the EIA report and marine licence dredging application. The licensing authority reserves the right not to accept an application in the absence of acceptable sediment analysis data.

Please refer to the pre-dredge sampling guidance provided in Appendix IV.

### Ordnance Survey ("OS") Mapping Records

Applicants are requested at application stage to submit a detailed OS plan showing

the site boundary and location of all deposits and onshore supporting infrastructure in a format compatible with The Scottish Government's Spatial Data Management Environment ("SDME"), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shape file format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by The Scottish Government); all metadata should be provided in this format.

### Advertisement

Where the Applicant has provided the Scottish Ministers with an EIA report, the Applicant must publish their proposals in accordance with Regulation 16 of the 2017 MW Regulations and ensure that a reasonable number of copies of the EIA report are available for inspection at any place named in the publication. Licensing information and guidance, including the specific details of the adverts to be placed in the press, can be obtained from the Scottish Ministers. If additional information is submitted further public notices will be required.

### EPS licence

European Protected Species ("EPS") are animals and plants (species listed in Annex IV of the [Habitats Directive](#)) that are afforded protection under [The Conservation \(Natural Habitats, &c.\) Regulations 1994](#) (as amended) and [The Offshore Marine Conservation \(Natural Habitats, &c.\) Regulations 2007](#) (as amended). All cetacean species (whales, dolphins and porpoise) are European Protected Species. If any activity is likely to cause disturbance or injury to a European Protected Species a licence is required to undertake the activity legally.

A licence may be granted to undertake such activities if certain strict criteria are met:

- there is a licensable purpose;
- there are no satisfactory alternatives, and;
- the actions authorised will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in their natural range.

Applicants must give consideration to the three fundamental tests and should refer to the [guidance on the protection of marine European Protected Species](#) for more detailed information in relation to Scottish Inshore Waters. Applicants may choose to apply for an EPS licence following the determination of the EIA application and once construction methods have been finalised, however it is useful to include a shadow EPS assessment within the EIA report.

Please note that basking sharks are also afforded protection under the Wildlife & Countryside Act 1981 (as Amended by the Nature Conservation (Scotland) Act 2004).[Appendix III: Gap Analysis](#)



**Appendix III: Gap Analysis**

Applicant to complete:

Consultee	No.	Point for inclusion	EIA report Section	Justification
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