

# CHAPTER 7: SCOPE OF EIA REPORT

## INTRODUCTION

- 7.1. The purpose of this chapter is to describe the scope of this Environmental Impact Assessment (EIA), which has been undertaken to support a suite of consent applications for the optimised Seagreen Project, as described in Chapter 5 (Project Description).
- 7.2. This chapter describes the process by which the scope of the EIA has been determined, including background and context information on the original Environmental Statement (ES) submitted in 2012 (the '2012 Offshore ES') and subsequent consents issued in 2014, the Scoping Opinion issued by Scottish Ministers in 2017, and consultation with Marine Scotland Licensing Operations Team (MS-LOT) and key consultees on the approach to this EIA.
- 7.3. This chapter also confirms the parameters and assessments scoped in to the impact assessment documented within this EIA Report, and details those parameters scoped out of the EIA Report, in accordance with the Scottish Ministers' 2017 Scoping Opinion.
- 7.4. Finally, this chapter presents the environmental measures incorporated into the original project design presented in the 2012 Offshore ES, and conditions on the 2014 consents, relevant to the management of environmental risk. The relationship between these environmental measures and conditions and this application is described.

## 2012 OFFSHORE ES

- 7.5. In 2012, Seagreen submitted a suite of applications to construct and operate the Seagreen Alpha and Seagreen Bravo OWFs, within the Phase 1 development area of the Firth of Forth Zone. These applications are hereafter referred to as 'the original application'. Included within the applications was an application for a marine licence in relation to the associated infrastructure required to facilitate the export of power to the national electricity transmission grid. The applications were accompanied by an Environmental Statement (the 2012 Offshore ES), which presented the findings of the EIA and highlighted potential significant effects and proposed mitigation.
- 7.6. The scope of that EIA was in accordance with the Scoping Opinion issued by Scottish Ministers in 2011. The parameters considered were as follows:
  - Physical Environment;
  - Water and Sediment Quality;
  - Nature Conservation Designations;
  - Ornithology;
  - Benthic Ecology and Intertidal Ecology;
  - Natural Fish and Shellfish Resource;
  - Marine Mammals;
  - Commercial Fisheries;
  - Shipping and Navigation;
  - Seascape, Landscape and Visual Amenity;
  - Archaeology and Cultural Heritage;
  - Military and Civil Aviation;
  - Socio-economics, Tourism and Recreation; and
  - Other Marine Users and Activities.

- 7.7. For each of these parameters the potential impacts of the construction, operation and decommissioning of the Seagreen Project were assessed.

## ES ADDENDUM 2013 AND CONSENTS DECISION 2014

- 7.8. In October 2013 Seagreen submitted an Addendum to the 2012 Offshore ES (Seagreen, 2013a) which included the following:
- Part 1 – Non-Technical Summary;
  - Part 2 – Seagreen Phase 1 Offshore Project Habitats Regulations Appraisal – Information to Inform Appropriate Assessment; and
  - Part 3 – Erratum notifications for aspects of the 2012 Offshore ES.
- 7.9. Consents and licences for the Seagreen Alpha and Seagreen Bravo OWFs and the Offshore Transmission Asset were awarded by Scottish Ministers in October 2014. These were confirmed in November 2017, following legal challenge by the RSPB to the consent award decision.
- 7.10. The original consents and licences received in 2014 are not affected by the current applications and therefore remain valid. It is Seagreen’s intention to construct either the originally consented Project, or the optimised Seagreen Project presented within this EIA Report. No changes are proposed to the Offshore Transmission Asset, this remains as licensed in 2014 and therefore those components have not been re-assessed.

## SCOPING REQUEST AND SCOPING OPINION 2017

### Scoping Request May 2017

- 7.11. In May 2017 Seagreen submitted a Scoping Report to MS-LOT, to seek an opinion on the scope of EIA required for a new consent application for the proposed optimised project design (Seagreen, 2017).
- 7.12. To inform the preparation of the 2017 Scoping Report, Seagreen undertook a review of the Scoping Report submitted to Scottish Ministers in 2010 (‘2010 Scoping Report’) and the 2012 Offshore ES, taking account of the proposed design updates, together with changes in legislation and guidance. The process for consideration of effects in the 2017 Scoping Report included the following:
- Review of the 2010 Scoping Report (Seagreen, 2010);
  - Review of the baseline assessed in 2012 Offshore ES;
  - Review of methodology used in 2012 Offshore ES;
  - Consideration of required updates resulting from updated baseline and/or methodology;
  - Review of changes resulting from the optimisation of the design and consideration of the Site as a whole; and
  - Review of amended cumulative baseline.

## Scoping Opinion September 2017

7.13. In September 2017 Seagreen received a Scoping Opinion from MS-LOT which set out the proposed scope of the assessment and key areas where further assessment may be required. The Scoping Report and Scoping Opinion are available on the Scottish Government website<sup>1</sup>. The key elements of the Scoping Opinion, which apply to the content and presentation of this EIA Report as a whole are summarised in the sections below. Parameters and technical assessments scoped in to and out of the EIA are presented later in this chapter.

### *EIA Regulations*

7.14. Seagreen submitted the request for a scoping opinion on 15 May 2017, based on an optimised OWF project which is outside the 12nm limit. As the request was submitted prior to the 16 May Scottish Ministers confirmed that the Electricity Works 2017 and The Marine Works 2007 (as amended) apply under the transitional arrangements.

### *Using information contained within the 2012 Offshore ES*

7.15. The Scoping Opinion stated that the EIA Report to be submitted for the optimised Seagreen project should be a standalone document, without the need for readers to refer back to the 2012 Offshore ES to understand the information contained within this EIA Report. Scottish Ministers advised that, where data from the 2012 Offshore ES are being used to inform the assessment, this should be contained in appendices so that the main text of the EIA Report for the current project is concise.

### *Reporting of potential significant impacts*

7.16. The Scoping Opinion requested that all potential significant impacts must be reported within this EIA Report, regardless of whether additional assessment is required from that previously undertaken and reported in the 2012 Offshore ES for the original project. Therefore, for clarity, each of the Technical Chapters (Chapters 8 to 15) of this EIA Report contain a summary table of the predicted impacts of the optimised Seagreen project. For completeness Chapter 17 (Summary of Impacts) then presents the conclusions of the impact assessments, for each impact assessed, within the Technical Chapters of both this EIA Report and the 2012 Offshore ES for the originally consented project.

### *Reporting of consent conditions from original consents*

7.17. The Scoping Opinion stated that relevant conditions attached to the original project consents should be reported in the EIA Report. Consent conditions from the 2014 Section 36 consents and Marine Licences for the Project Alpha and Project Bravo OWFs, which are relevant to the management of environmental risk, are presented in this chapter.

### *Use of competent experts*

7.18. The Scoping Opinion requires that the EIA Report is prepared by competent experts and is accompanied by a statement from the applicant outlining the relevant expertise and qualifications of those experts. This statement is provided at Appendix 1A.



<sup>1</sup> <http://www.gov.scot/Topics/marine/Licensing/marine/scoping/SeagreenPhase1-2017>

## POST SCOPING CONSULTATION

- 7.19. Following receipt of the Scoping Opinion, further specific consultation has been undertaken with Marine Scotland, statutory consultees and key stakeholders in relation to assessment methodologies for this EIA.
- 7.20. In general terms there has been little change from the 2017 Scoping Opinion. The consultation has been focussed on detailed technical assessment methodologies and the details and outcomes of this consultation are described within the relevant Technical Chapters (Chapters 8 to 15) of this EIA Report. It is noted that socio-economics was originally scoped out of assessment in this EIA Report, however, an up to date assessment of the potential economic benefits of the optimised Seagreen Project is included in Chapter 15.
- 7.21. A brief summary of consultation with Marine Scotland and key consultees is provided in Table 7.1.

**Table 7.1 Summary of consultation with Marine Scotland and key consultees**

Organisation	Consultation
Aberdeenshire Council	<ul style="list-style-type: none"> <li>• Consulted on approach to SLVIA 7 February 2018. Response received 1 March 2018.</li> <li>• Updated on approach to SLVIA 21 May 2018.</li> </ul>
Angus Council	<ul style="list-style-type: none"> <li>• Consulted on list of other plans and projects for cumulative impact assessment 19 January 2018. No response provided.</li> <li>• Consulted on approach to SLVIA 7 February 2018. Response received 12 March 2018.</li> <li>• Updated on approach to SLVIA 21 May 2018.</li> </ul>
Chamber of Shipping	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 17 January 2018</li> </ul>
Cruising Association	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 15 March 2018</li> </ul>
Defence Infrastructure Organisation	<ul style="list-style-type: none"> <li>• Informal consultation 29 January 2018</li> <li>• Formal consultation 31 January 2018</li> <li>• Consultation update 19 February 2018</li> <li>• Update on optimised project 26 March 2018</li> <li>• Consultation update 26 April 2018</li> </ul>
Dundee City Council	<ul style="list-style-type: none"> <li>• Consulted on list of other plans and projects for cumulative impact assessment 19 January 2018. Response received 30 January 2018.</li> </ul>
East Lothian Council	<ul style="list-style-type: none"> <li>• Consulted on list of other plans and projects for cumulative impact assessment 19 January 2018. Response received 19 February 2018.</li> <li>• Consulted on approach to SLVIA 7 February 2018. Response received 19 February 2018.</li> <li>• Updated on approach to SLVIA 21 May 2018.</li> </ul>
Fife Council	<ul style="list-style-type: none"> <li>• Consulted on list of other plans and projects for cumulative impact assessment 19 January 2018. Response received 13 March 2018.</li> <li>• Consulted on approach to SLVIA 7<sup>th</sup> February 2018. Response received 20 February 2018.</li> <li>• Updated on approach to SLVIA 21 May 2018.</li> </ul>
Forth Ports	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 9 January 2018</li> </ul>
Maritime and Coastguard Agency	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 25 January 2018</li> <li>• Consulted in relation to Marine Traffic Survey Validation 1 March 2018</li> <li>• Marine Traffic Survey Validation meeting 12 April 2018</li> <li>• Consulted on approach to Marine Traffic Assessment 24 April 2018. Response received 2 May 2018</li> </ul>

Organisation	Consultation
Marine Scotland Licensing Operations Team	<ul style="list-style-type: none"> <li>• Ornithology meeting on assessment methods and HRA 22 November 2017</li> <li>• Consulted on HRA Status Report 12 December 2017. MS-LOT had no comments.</li> <li>• Meeting on commercial fisheries assessment approach on 12 December 2017</li> <li>• Meeting on consenting strategy and discussion of Seagreen approach 13 December 2017</li> <li>• Commercial fisheries baseline meeting on 11 January 2018</li> <li>• Natural fish and shellfish resource baseline meeting 26 January 2018</li> <li>• Consents Strategy – Approach to EIA meeting 2 February 2018</li> <li>• Ornithology baseline meeting 5 February 2018</li> <li>• Marine mammals baseline meeting 5 February 2018</li> <li>• Consulted on approach to SLVIA 7 February 2018. Response received 1 May 2018.</li> <li>• Natural fish and shellfish resource approach to assessment meeting 5 March 2018</li> <li>• Ornithology approach to assessment meeting 6 March 2018</li> <li>• Marine Mammals approach to assessment meeting 6 March 2018</li> <li>• Ornithology approach to assessment meeting 30 April 2018</li> <li>• Marine mammals approach to assessment 8 May 2018</li> <li>• Commercial Fisheries approach to assessment meeting 9 May 2018</li> <li>• Consents Strategy – Project and consent application update meeting 17 May 2018</li> </ul>
Marine Scotland Science	<ul style="list-style-type: none"> <li>• Ornithology meeting on assessment methods and HRA 22 November 2017</li> <li>• Meeting on commercial fisheries assessment approach on 12 December 2017</li> <li>• Consulted on HRA Status Report 12 December 2018. MSS had no comments.</li> <li>• Natural fish and shellfish resource baseline meeting 26 January 2018</li> <li>• Ornithology baseline meeting 5 February 2018</li> <li>• Marine mammals baseline meeting 5 February 2018</li> <li>• Natural fish and shellfish resource approach to assessment meeting 5 March 2018</li> <li>• Ornithology approach to assessment meeting 6 March 2018</li> <li>• Marine Mammals approach to assessment meeting 6 March 2018</li> <li>• Ornithology approach to assessment meeting 30 April 2018</li> <li>• Marine mammals approach to assessment 8 May 2018</li> </ul>
National Air Traffic Services	<ul style="list-style-type: none"> <li>• Informal consultation 29 January 2018</li> <li>• Formal consultation 31 January 2018</li> <li>• Consultation update February 2018</li> <li>• Consultation update 13 March 2018</li> <li>• Consultation update 5 April 2018</li> </ul>
Northern Lighthouse Board	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 9 January 2018</li> </ul>
Royal Yachting Association Scotland	<ul style="list-style-type: none"> <li>• Shipping and Navigation baseline and assessment methods meeting 9 January 2018</li> </ul>
Scottish Borders Council	<ul style="list-style-type: none"> <li>• Consulted on list of other plans and projects for cumulative impact assessment 19 January 2018. Response received 23 January 2018.</li> </ul>
Scottish Fishermens' Federation	<ul style="list-style-type: none"> <li>• Meeting on commercial fisheries baseline and approach to assessment on 11 January 2018</li> </ul>
Scottish Natural Heritage	<ul style="list-style-type: none"> <li>• Ornithology meeting on assessment methods and HRA 22 November 2017</li> <li>• Consulted on HRA Status Report 12 December 2018. Response received 4 January 2018.</li> <li>• Consulted on Fish and Shellfish Resource baseline 26 January 2018</li> <li>• Consents Strategy – Approach to EIA meeting 2 February 2018.</li> <li>• Ornithology baseline meeting 5 February 2018</li> <li>• Marine mammals baseline meeting 5 February 2018</li> <li>• Consulted on approach to SLVIA 7 February 2018. Response received 16 February 2018.</li> <li>• Fish and Shellfish Resource, approach to assessment meeting 5 March 2018</li> <li>• Ornithology approach to assessment meeting 6 March 2018</li> <li>• Marine mammals, approach to assessment meeting 6 March 2018</li> <li>• Ornithology approach to assessment meeting 30 April 2018</li> <li>• Marine mammals approach to assessment 8 May 2018</li> </ul>

## PARAMETERS SCOPED INTO AND OUT OF EIA

- 7.22. The 2012 Offshore ES assessed the design envelope and range of design parameters for the project. For those parameters for which no change is proposed and for those topics and receptors where no change in effect is anticipated, then no further assessment has been undertaken as part of this EIA (in line with the 2017 Scoping Opinion). Any relevant effects have already been considered and assessed in the 2012 Offshore ES, the conclusions of that assessment remain valid and these topics/receptors are scoped out of further assessment.
- 7.23. Therefore this EIA Report is focussed on the design updates introduced to optimise the Seagreen Project and the associated potential impacts for specific receptors/parameters that have been scoped in to the assessment, as informed by the 2017 Scoping Opinion and the consultation described above. In addition, where the baseline environment is considered to have changed, or where best practice or methods for assessment approach have developed and improved then these aspects are scoped into the assessment, in line with the 2017 Scoping Opinion.
- 7.24. As set out above, socio-economics was originally scoped out of assessment in this EIA Report, however, an up to date assessment of the potential economic benefits of the optimised Seagreen Project is included in Chapter 15.
- 7.25. Table 7.2 summarises the parameters and assessments scoped into the EIA and the parameters scoped out of the EIA, based in the 2017 Scoping Opinion and informed by the consultation detailed in Table 7.1. Detailed justification for scoping parameters out of the assessment is provided within the 2017 Scoping Report. Detailed discussion of the assessment scope is provided in each Technical Chapter (Chapters 8 to 15) of this EIA Report.

## HABITATS REGULATIONS APPRAISAL

- 7.26. To support this consent application, an HRA has been undertaken, to assist Marine Scotland, in their role as competent authority in undertaking an Appropriate Assessment (AA). The HRA assessment focuses on those effects scoped into the assessment, in line with the 2017 Scoping Opinion, and is presented within this EIA Report as a separate chapter (Chapter 16 [Habitats Regulations Appraisal]).
- 7.27. To inform the preparation of the HRA, an HRA Status Report was provided to Marine Scotland and Scottish Natural Heritage (SNH) for review in December 2017. This set out the proposed scope and approach to assessment. A response to the Status Report was received from SNH in January 2018. This confirmed that the approach to assessment was accepted and additional advice was provided with respect to the scope of the assessment. Advice received within this response has been considered in detail and this is presented in Chapter 16 (Habitats Regulations Appraisal) of this EIA Report.

## GAP ANALYSIS

- 7.28. The Scoping Opinion included a gap analysis template to record the environmental concerns identified during the scoping process. This Gap Analysis has been used to inform the EIA Report and the completed Gap Analysis has been submitted in support of this application.

**Table 7.2 Parameters and assessments scoped into and out of EIA**

Parameter	Scoped in	Scoped out
Ornithology	<p>Potential effects of increased turbine size on predicted mortality associated with collision and displacement of kittiwake, gannet, herring gull, razorbill, guillemot and puffin interest features of identified SPAs.</p> <p>Availability of new baseline data.</p> <p>Updates to assessment methodologies to reflect current guidance and best practice.</p>	All other potential impacts, species and interest features.
Natural Fish and Shellfish Resource	<p>Potential effects of underwater noise from pile driving on herring scoped in due to changes in the design of WTG foundations.</p> <p>Updated baseline information on Atlantic salmon.</p> <p>Review of potential impact of suspended sediments and smothering from gravity base installation on scallops and <i>Nephrops</i> required.</p> <p>Review of underwater noise in terms of particle motion effects required.</p>	All other potential impacts on Natural Fish and Shellfish Resource.
Marine Mammals	<p>Potential effects of underwater noise from pile driving on bottlenose dolphin, harbour seal, grey seal, harbour porpoise, minke whale and white beaked dolphin scoped in due to changes in the design of WTG foundations and updated best practice guidance.</p>	All other potential impacts on Marine Mammals
Commercial Fisheries	<p>Scoped in to update commercial fisheries baseline, to obtain validation of baseline data from the fishing industry and to address points raised by Scottish Fishermen’s Federation.</p>	None
Shipping and Navigation	<p>Scoped in due to potential influence of optimised design on this receptor.</p>	<p>Marine traffic radar survey (scoped out through use of existing marine traffic surveys and AIS validations to meet the requirements of MGN 543).</p>
Seascape, Landscape and Visual Amenity	<p>Scoped in due to potential influence of optimised project design on this receptor. Updated guidance requires a new assessment to be undertaken.</p> <p>The assessment will also require consideration of the installation of WTGs of greater dimensions which could increase visibility.</p> <p>Consideration of Bell Rock Lighthouse and Ladyloan Signal tower.</p>	None
Military and Civil Aviation	<p>Scoped in due to potential influence of optimised design on this receptor.</p>	None
Socio-economics	<p>Socio-economics was originally scoped out of assessment in this EIA Report, however an up to date assessment of the potential economic benefits of the optimised Seagreen Project is included in Chapter 15.</p>	Tourism and Recreation impacts



Parameter	Scoped in	Scoped out
Physical Environment	None	All potential effects on Physical Environment. No significant effects were predicted in the 2012 Offshore ES and this is predicted to remain the case. Confirmed by 2017 Scoping Opinion.
Water and Sediment Quality	None	All potential effects on Water and Sediment Quality. The 2017 Scoping Report concluded that the expected effects will remain as previously assessed and no significant effects are predicted with regards to water and sediment quality. Confirmed by 2017 Scoping Opinion.
Benthic Ecology	None	All potential impacts on Benthic Ecology. The 2017 Scoping Report reported that no significant effects were predicted in the 2012 Offshore ES and no further assessment would be required. Confirmed by 2017 Scoping Opinion.
Archaeology and Cultural Heritage	Consideration of Bell Rock Lighthouse and Ladyloan Signal tower. This issue is considered within the SLVIA assessment (Chapter 13).	All potential impacts on Archaeology and Cultural Heritage. The 2017 Scoping Report reported that no significant effects were predicted in the 2012 Offshore ES and no further assessment was proposed. Confirmed by 2017 Scoping Opinion.
Other Marine Users and Activities	None	All potential impacts on Other Marine Users and Activities. No significant effects were predicted in the 2012 Offshore ES and the 2017 Scoping Report concluded that this will remain the case. Confirmed by 2017 Scoping Opinion.

Parameter	Scoped in	Scoped out
Habitats Regulations Appraisal (HRA)	<p><i>Ornithology</i></p> <p><i>European sites and qualifying interests</i></p> <p>Buchan Ness to Collieston Coast SPA – guillemot, kittiwake and herring gull.</p> <p>Forth Islands SPA – gannet, puffin, guillemot, razorbill, kittiwake, herring gull.</p> <p>Fowlsheugh SPA – guillemot, razorbill, kittiwake, herring gull.</p> <p>Outer Firth of Forth and St Andrews Bay Complex pSPA – gannet, puffin, guillemot, razorbill, kittiwake, herring gull.</p> <p>St Abb’s Head to Fast Castle SPA – kittiwake, herring gull, guillemot, razorbill.</p> <p><i>Potential Impacts</i></p> <p>Displacement – in respect of gannet, guillemot, razorbill, puffin, kittiwake and herring gull only.</p> <p>Barrier effect – in respect of puffin, guillemot, razorbill, kittiwake only.</p> <p>Collision risk – in respect of gannet, guillemot, razorbill, puffin, kittiwake and herring gull only.</p> <p><i>Marine Mammals</i></p> <p><i>European sites and qualifying interests</i></p> <p>Isle of May SAC (Grey Seal)</p> <p>Berwickshire &amp; North Northumberland Coast SAC (Grey Seal)</p> <p>Firth of Tay &amp; Eden Estuary SAC (Harbour seal)</p> <p>Moray Firth SAC (Bottlenose dolphin)</p> <p><i>Potential Impacts</i></p> <p>Potential direct effects arising from underwater noise generated from pile driving activities only</p>	All other sites/qualifying interests.



## ENVIRONMENTAL MEASURES INCORPORATED INTO PROJECT DESIGN

- 7.29. The 2012 Offshore ES incorporated a range of environmental measures into the project design. These measures are intended to prevent, reduce and where possible offset any significant adverse impacts on the environment. These are effectively 'built in' to the impact assessment and as such, the conclusions of the 2012 EIA included consideration of these measures. Environmental measures incorporated within the project and presented in the 2012 Offshore ES are presented in Table 7.3. Technical Chapters (Chapters 8 to 15) of this EIA Report refer to these measures where relevant.
- 7.30. Two design envelope adjustments were made by Seagreen during the two year determination of consents following the submission of the 2012 Offshore ES. During this period the Seagreen projects, and the Inch Cape and Neart na Gaoithe OWFs were all being determined in parallel. As there was an unresolved cumulative effects issue, Seagreen committed to an increased minimum blade tip clearance (29.8m above Lowest Astronomical Tide [LAT]) in order to further reduce predicted collision impacts, reducing predicted gannet and kittiwake mortalities. At the same time, in order to reduce displacement effects, Seagreen committed to a minimum WTG separation of 1000m (increased from the 2012 design envelope value of 610m), reducing predicted displacement of kittiwakes and auks.
- 7.31. A further design envelope adjustment was implemented by Seagreen during this EIA process. Seagreen increased the minimum blade tip clearance from 29.8m above LAT to 32.5m above LAT to further reduce predicted collision impacts on birds.

**Table 7.3 Environmental measures incorporated into the 2012 project design**

Receptor	Measure
Various	Construction Health and Safety Plans (CHSPs) and Construction Environmental Management Plans (CEMPs) will be produced prior to construction
Various	A spill response contract will be put in place
Various	Development and implementation of Pollution Control and Spillage Response Plans
Various	Risk assessment process for invasive and/or non-native species potentially brought to the location by construction vessels
Ornithology	Ornithology monitoring programme will be developed in consultation with JNCC and SNH
Marine Mammals, Natural Fish and Shellfish Resource	Soft start piling operations to reduce potential risk of auditory injury. Subsea cables will be shielded to meet industry standards and will be buried to a minimum of 0.5m
Commercial Fisheries, Shipping and Navigation	Majority of array cables will be buried, with approximately 10% being protected by other means such as rock dumping and concrete mattresses.
Shipping and Navigation, Commercial Fisheries, Other Marine Users and Activities	Measures for the safety of navigation (e.g. use of safety zones, aids to navigation, appropriate information circulation, monitoring, development and implementation of an Emergency Response Plan, operational inspections and maintenance).
Archaeology and Cultural Heritage	All sites of cultural heritage interest will be avoided where possible. Written Scheme of Investigation (WSI) and Protocol for Archaeological Discoveries (PAD) will be prepared for the approval of Historic Scotland and Aberdeenshire Council Heritage Advisor. Infrastructure will be micro-sited and temporary exclusion zones will be implemented to prevent invasive activities.
Military and Civil Aviation	Project Alpha and Project Bravo will operate according to Article 220 of the UK Air Navigation Order 2009 and will be lit in accordance with CAA and MOD requirements. Project site will be clearly defined on all aviation charts in accordance with MOD and CAA requirements.

## CONSENT CONDITIONS

- 7.32. The Section 36 consents and Marine Licences issued in 2014 for the originally consented Seagreen Alpha and Seagreen Bravo OWFs contained a number of conditions. In accordance with the instruction within the 2017 Scoping Opinion, and to provide context for the following Technical Chapters of this EIA Report, the consent conditions relevant to the management of environmental risk are summarised within Table 7.4. The conditions are summarised for the purposes of this table; the original consents should be referred to for the detail of the consent conditions. Technical Chapters (Chapters 8 to 15) of this EIA Report refer to original consent conditions where relevant.
- 7.33. Consent type (Section 36 or Marine Licence) and condition number are provided for reference in Table 7.4. Although a Section 36 consent and a Marine Licence were issued for each of the Seagreen Alpha and Seagreen Bravo OWFs only one Section 36 or Marine Licence condition number is provided, as the consent conditions for Seagreen Alpha and Seagreen Bravo are identical.
- 7.34. Seagreen anticipates that Scottish Ministers will require similar conditions on consents granted for the optimised Seagreen project. However, it is recognised that Scottish Ministers will consider the conditions relevant to this application and changes or additions to the original conditions may be required.
- 7.35. It is important to note that meteorological masts are not included in the optimised Seagreen Project design. Therefore, consent conditions relating to meteorological masts are excluded from Table 7.4 as they are not of relevance to this application.

**Table 7.4 Original consent conditions relevant to the management of environmental risk**

Project phase	Consent and condition number	Summary of conditions
Construction	Section 36, conditions 9, 10	Development and implementation of a construction programme and method statement
	Section 36, condition 11	Development of piling strategy
	Section 36, condition 12	Development and implementation of a Development Specification and Layout Plan
	Section 36, condition 13	Development of a Design Statement that includes representative wind farm visualisations from key viewpoints, based on the final Development Specification and Layout Plan
	Section 36, condition 14	Development and implementation of an Environmental Management Plan
	Section 36, condition 15	Development and implementation of a Vessel Management Plan
	Section 36, condition 17	Development and implementation of a Navigational Safety Plan
	Section 36, condition 18	Development and implementation of a Cable Plan
	Section 36, condition 19	Development and implementation of a Lighting and Marking Plan

Project phase	Consent and condition number	Summary of conditions
	Section 36, conditions 20 to 22	Development of Air Traffic Control Radar Mitigation Scheme, to include controls on WTG construction
	Section 36, condition 23	Development and implementation of a Primary Radar Mitigation Scheme ('PRMS') in agreement with the Operator
	Section 36, condition 24	Provide the positions and maximum heights of the WTGs and construction equipment over 150m (measured above LAT) and any Offshore Sub-Station Platforms to the United Kingdom Hydrographic Office ('UKHO') for aviation and nautical charting purposes
	Section 36, condition 25	Development and implementation of a Traffic and Transportation Plan
	Section 36, condition 26	Development and implementation of a Project Environmental Monitoring Plan
	Section 36, condition 27	Participate in any Forth and Tay Regional Advisory Group ('FTRAG') established by the Scottish Ministers
	Section 36, condition 28	Participate in any Scottish Strategic Marine Environment Group ('SSMEG') established by the Scottish Ministers
	Section 36, condition 29	Appointment of Ecological Clerk of Works (ECoW)
	Section 36, condition 30	Participate in the monitoring requirements as laid out in the 'National Research and Monitoring Strategy for Diadromous Fish'
	Section 36, condition 31	Development and implementation of Commercial Fisheries Mitigation Strategy
	Section 36, condition 32	Appointment Fisheries Liaison Officer (FLO)
	Section 36, condition 33	Development and implementation of Marine Archaeology Reporting Protocol
	Marine Licence, condition 3.1.7 Chemical Usage	Use of approved chemicals in the works
	Marine Licence, condition 3.1.8 Environmental Protection	<p>Minimise damage to the Scottish marine area and the UK marine licensing area.</p> <p>Ensure that any debris or waste material placed below MHWS during the construction and operation of the Works is removed from the Site.</p> <p>Ensure that all substances and objects deposited during the execution of the Works are inert, and do not contain toxic elements.</p> <p>Ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented.</p> <p>Ensure that if oil based drilling muds are utilised they must be contained within a zero discharge system.</p>

Project phase	Consent and condition number	Summary of conditions
	<p>Marine Licence, condition 3.2.1.3 Navigation and Aviation Safety and Charting</p>	<p>Notify the UK Hydrographic Office (UKHO) of the proposed Works to facilitate the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.</p> <p>Ensure that local mariners, fishermen's organisations and HM Coastguard, in this case Maritime Rescue Coordination Centre Aberdeen, are made fully aware of any Licensable Marine Activity through local Notice to Mariners or any other appropriate means.</p> <p>Ensure that details of the Works are promulgated in the Kingfisher Fortnightly Bulletin, and inform the Sea Fish Industry of the vessel routes, the timings and the location of the Works and of the relevant operations.</p> <p>Completion of an 'Application for Statutory Sanction to Alter/Exhibit' form and submission to the Northern Lighthouse Board (NLB).</p>
	<p>Marine Licence, condition 3.2.1.5 Monitoring of Marine Mammals</p>	<p>Appointment of a Marine Mammal Observer (MMO).</p>
	<p>Marine Licence, condition 3.2.1.6 Noise Registry</p>	<p>In the event that pile foundations are to be used, submission of the appropriate completed noise registry form to the Licensing Authority and the JNCC</p>
	<p>Marine Licence, condition 3.2.2.1 and 3.2.2.2 Transportation and deposit of substances and objects</p>	<p>Submission of audit reports to the Licensing Authority for all aspects of the construction of the works including, loading facility, vessels, equipment, shipment routes, schedules and the nature and quantity of all substances and objects deposited.</p>
	<p>Marine Licence, condition 3.2.2.3 Navigation safety</p>	<p>Notify the Licensing Authority of any case of damage to or destruction or decay of the Works.</p> <p>Ensure that any Emergency Response and Rescue Vehicle (ERRV) and/or cable-laying vessel permitted to engage in the Works must be equipped with an Automatic Identification System (AIS) and Automatic Radar Plotting Aids (ARPA).</p> <p>Ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the Office of Communications (OfCom).</p> <p>Ensure that navigational safety is not compromised by the Works.</p>
	<p>Marine Licence, condition 3.2.2.4 Marking, lighting and signals</p>	<p>Ensure that the Works are marked and lit in accordance with the requirements of the NLB, the CAA and the MOD at all times.</p> <p>Ensure the Site boundaries are marked by Cardinal Mark buoys</p>
	<p>Marine Licence, condition 3.2.2.5 Marking, lighting and signals</p>	<p>Ensure that any vessels permitted to engage in the Works are marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way and in accordance with the UK Standard Marking Schedule for Offshore Installations if secured to the seabed.</p>
	<p>Marine Licence, condition 3.2.2.6 Noise Registry</p>	<p>In the event that pile foundations are to be used and piling is to be carried out for more than 10 consecutive days, submit the appropriate completed noise registry form to the Licensing Authority and the JNCC.</p>
	<p>Marine Licence, condition 3.2.2.7 Bunding and storage facilities</p>	<p>Use of suitable bunding and storage facilities to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.</p>

Project phase	Consent and condition number	Summary of conditions
	Marine Licence, condition 3.2.2.8 Restoration of the site	Take all reasonable, appropriate and practicable steps to restore the Site to its original condition before any Licensable Marine Activity was undertaken, or to as close to its original condition as is reasonably practicable, in accordance with the PEMP and the Decommissioning Programme (DP).
	Marine Licence, condition 3.2.2.9 Compliance with approved plans	Construct the Works in accordance with the approved DSLP and the (as updated and amended from time to time by the Licensee)
Operation	Section 36, condition 16	Develop Operation and Maintenance Programme (OMP)
	Marine Licence, condition 3.2.3.6 Operation and Maintenance	Operation and maintenance of the Works in accordance with the approved OMP.
	Marine Licence, condition 3.2.3.2 Navigational safety	<p>Notify the UKHO of the Completion of the Works to facilitate the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.</p> <p>Provide the 'as-built' positions and maximum heights of all WTGs, Metrological Masts, along with any sub-sea infrastructure, to the UKHO for aviation and nautical charting purposes.</p> <p>Ensure that local mariners, fishermen's organisations and HM Coastguard, in this case Maritime Rescue Coordination Centre Aberdeen, are made fully aware of the Completion of the Works.</p> <p>Ensure that the Completion of the Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the Sea Fish Industry.</p> <p>Notify the Licensing Authority, in writing, as soon as reasonably practicable, of any case of damage to or destruction or decay of the Works.</p> <p>Ensure that no radio beacon or radar beacon operating in the Marine frequency bands is installed or used on the Works without the prior written approval of OfCom.</p>
	Marine Licence, condition 3.2.3.3 Deposit of substances and objects	Submission of a final audit report to the Licensing Authority stating the nature and quantity of all substances and objects deposited.
	Marine Licence, condition 3.2.3.4 Marking, lighting and signals	<p>Ensure that the Works are marked and lit in accordance with the requirements of the NLB, the CAA and MOD at all times</p> <p>Ensure that the required IALA availability target for Category 1 Aids to Navigation (AtoN) is achieved</p>
	Marine Licence, condition 3.2.3.5 Noise registry	In the event that pile foundations were used, submission of the appropriate completed noise registry form to the Licensing Authority and the JNCC
	Marine Licence condition 3.2.3.7 Compliance and amendments	Operate the Works in accordance with the approved MMPS, DSLP and MMLMP and the (as updated and amended from time to time by the Licensee)
	Decommissioning	Section 36, Condition 3

## REFERENCES

- Seagreen (2017) Seagreen Phase 1 Offshore Project Scoping Report Round 3: Firth of Forth.
- Seagreen (2013a) Seagreen Phase 1 Offshore Project Addendum.
- Seagreen (2010) Seagreen Phase 1 Scoping Report. Document No. A6SW/SEAG-Z-DEV230-SWR-020-A3, Seagreen, Glasgow