Environmental Impact Assessment Report
Volume 3, Appendix 6.2: Water Framework Directive Assessment

MarramWind Offshore Wind Farm

December 2025

MarramWind

Document code:	MAR-GEN-ENV-REP-WSP-000050
Contractor document number:	852346-WEIS-IA-O1-RP-M2-47824
Version:	Final for Submission
Date:	08/12/2025
Prepared by:	WSP UK Limited
Checked by:	WSP UK Limited
Approved by:	MarramWind Limited

Contents

1. Introduction

1.1 Background

1.1.1.1 This Water Framework Directive (WFD) compliance assessment evaluates the potential impacts of the MarramWind Offshore Wind Farm, hereafter referred to as the 'Project' on water bodies as defined by the European Union's (EU) Water Framework Directive (2000/60/EC) (European Commission, 2000) and transposed into UK legislation under the The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (also valid in Scotland). The onshore elements of the Project are situated in Aberdeenshire (Scotland), and the offshore elements extend into the North Sea from near Peterhead (Aberdeenshire). The Project extent and activities are illustrated in in Figure 1 of **Volume 3, Appendix 4.1: Crossings Register** and **Volume 2, Figure 4.2: Offshore Red Line Boundary** for the onshore and offshore activities, respectively.

1.1.1.2 The Scottish Environment Protection Agency (SEPA) requires an assessment of the impact of any works / modifications to water bodies in the UK under the WFD. The Scottish Government's Marine Directorate – Licencing Operations Team (MD-LOT) is also responsible for ensuring WFD compliance for activities requiring a marine licence.

1.1.1.3 The purpose of this WFD assessment is to evaluate the potential impacts of the Project during construction and operation on WFD compliance. Construction and operation are included because these are activity categories specified in WFD guidance (Planning Inspectorate, 2025; Environment Agency, 2023 – see **Section 2.2.1**). While maintenance is not specifically noted in the guidance as an activity stage, it is taken to be integral to the operation stage of the Project for the purposes of this WFD compliance assessment.

1.1.1.4 Construction impacts are included within the assessment, due to the duration of many construction activities that may have medium to long-term impacts upon the water environment.

1.1.1.5 Decommissioning activities have been excluded from the WFD compliance assessment at this stage because there is potential for the statuses of the relevant water bodies to change between the time of writing at the decommissioning stage of the Project, which is anticipated to occur after the 35 year (per Project phase) operational stage has concluded. The WFD compliance assessment should be revisited at that time to ensure that its findings are robust.

1.2 The Water Framework Directive

1.2.1 Overview

1.2.1.1 The primary aim of the WFD is to improve / maintain the Ecological Status / Potential of all water bodies and to prevent deterioration in status of the water bodies and their associated WFD quality elements. Ecological Status / Potential is determined by assessing quality against a suite of hydromorphological, physico-chemical and biological quality elements. This WFD assessment aims to establish the baseline conditions, evaluate potential impacts of the Project and assess compliance against WFD objectives.

1.2.1.2 The overarching objective of the WFD is for water bodies in Europe to attain overall 'Good Ecological Status' (GES) or 'Good Ecological Potential' (GEP). GES refers to situations where the ecological characteristics show only a slight deviation from natural / near natural conditions. In such a situation, the hydromorphological, physico-chemical and biological conditions are associated with limited or no human pressure. Artificial and heavily modified

water bodies have a target to achieve GEP, which recognises their important uses, whilst ensuring the quality elements are protected as far as possible.

1.2.1.3 The WFD sets several objectives including the following:

- Prevent deterioration in status for water bodies.
- Aim to achieve 'Good' biological and 'Good' surface water chemical status in water bodies. Those water bodies that did not achieve GES by 2015 needed to achieve compliance by 2021 or 2027.
- For water bodies that are designated as artificial or heavily modified (A / heavily modified water body (HMWB)), the objective is to achieve GEP. Those A / HMWB that did not achieve GEP by 2015 needed to achieve compliance by 2021 or 2027.
- Where is it considered either technically infeasible or disproportionately expensive to achieve GES or GEP by 2021 or 2027, alternative objectives have been set for the water body, such as a target to achieve 'Moderate' status.
- Comply with objectives and standards for WFD Protected Areas, as defined by Article 6 of the WFD, where relevant (see definition in **Section 7.2**).
- Reduce pollution from priority substances and cease discharges, emissions and losses of priority hazardous substances.

1.2.1.4 The introduction of a new modification, change in activity or change to structure in a water body needs to be considered in relation to whether it could cause deterioration in the Ecological Status or Potential of the water body in question. New modifications or changes to activities or structures may also result in any proposed mitigation measures or actions proposed to achieve GES / GEP being ineffective. This could result in the water body failing to meet GES / GEP. Where a development is considered to cause deterioration or where it may contribute to the failure of the water body to meet GES / GEP, then an Article 4.7 assessment would be required, which makes provision for deterioration of status provided that the development can be justified for reasons of overriding public interest and / or the benefits of the development outweigh the benefits of WFD compliance and there are no feasible alternatives.

1.2.2 Measures to achieve environmental objectives

1.2.2.1 For each River Basin District, a programme of measures has been drawn up to enable the achievement of objectives of the Scotland River Basin Management Plan (RBMP) (SEPA, 2025a). There is only one River Basin District defined for Scotland, covering all inland and coastal WFD water bodies in the country, with the exception of a small number of cross-border rivers that flow into England.

1.2.2.2 These are integrated with measures for WFD Protected Areas via site specific action plans. Current measures in the Scotland RBMP include:

- managing pollution from wastewater;
- improving the physical condition of water bodies;
- removing barriers to fish migration; and
- reducing diffuse pollution from rural land use.

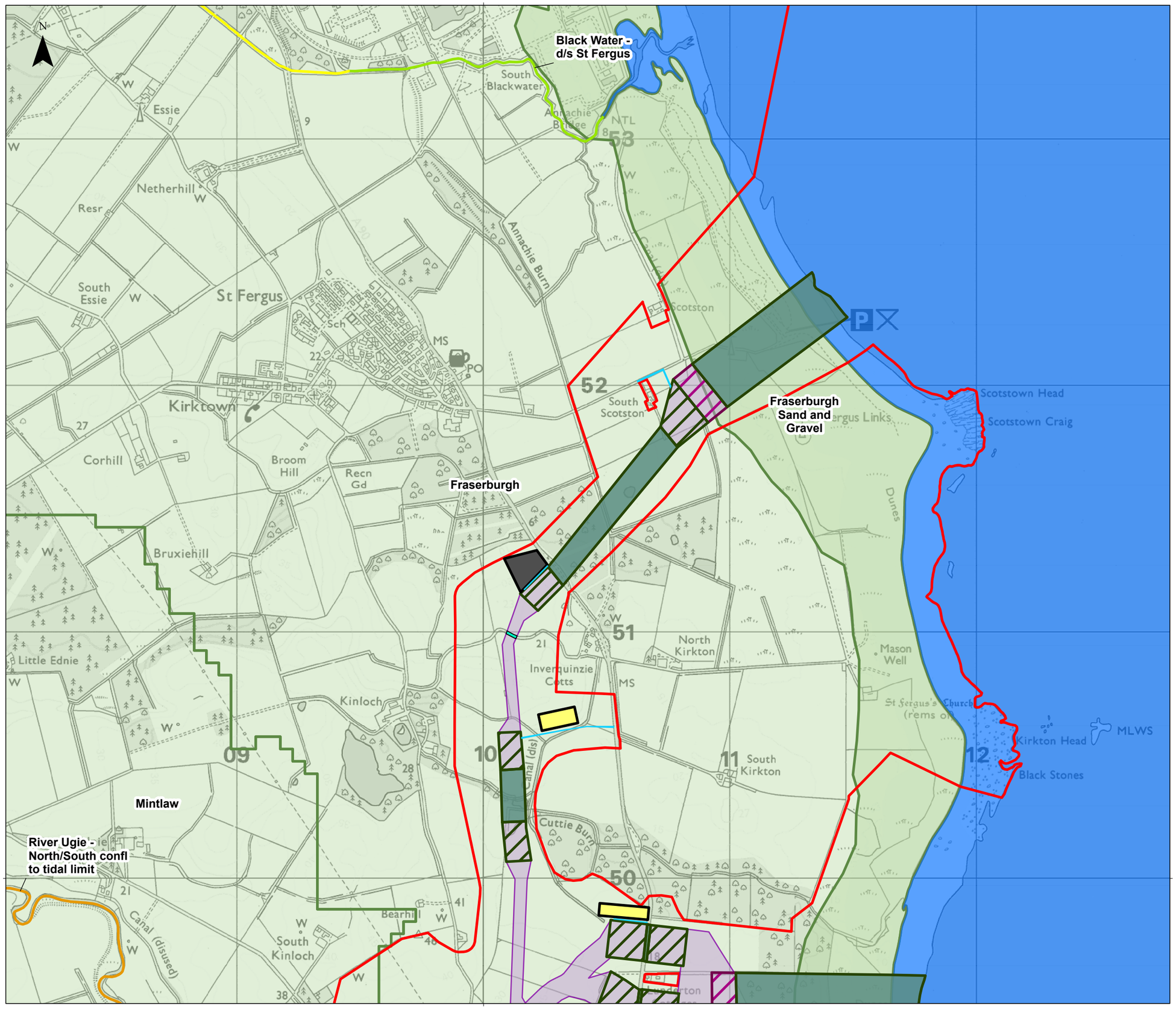
1.2.2.3 These measures are delivered by a wide range of partners including public bodies, industry, and land managers, with the Scottish Government providing policy direction and investment.

1.3 Study area

1.3.1.1 The study area includes all WFD designated water bodies that are situated within the Red Line Boundary of the Project, as well as areas that could be affected by tidal movement. In terms of coastal and transitional water bodies, the extent of potential effects or zone of influence has been taken as the length of the tidal ellipse parallel to the coast on spring tides. On this basis, water bodies within 15 kilometres (km) (by sea in a direction parallel to the coast) from the export cable routes and landfall locations (see **Figure 1** and **Figure 2**) have been included.

1.3.1.2 The Project could potentially impact the water bodies detailed in **Table 1.1**. **Figure 1** and **Figure 2** illustrate the locations of these water bodies. These water bodies are all in the Scotland River Basin District.

1.3.1.3 Peterhead (ID:150630) groundwater body is visible on **Figure 1**. It extends southwards from the south bank of the River Ugie estuary and onward down the southern coast of Aberdeenshire. It does not intersect the onshore Red Line Boundary at any location and is located approximately 300m from the onshore Red Line Boundary at its nearest point. It therefore does not meet the study area criteria and is excluded from further consideration in this WFD compliance assessment. Further information on the Peterhead groundwater body can be found in **Volume 1, Chapter 20: Water Resources and Flood Risk**.



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

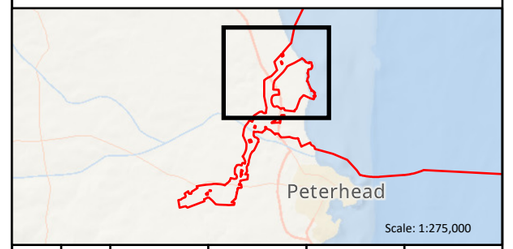
WFD River Waterbodies Overall Classifcation
High Status/Potential
Good Status/Potential
Moderate Status/Potential
Poor Status/Potential
Bad Status/Potential

WFD Estuary Waterbodies Overall Classifcation
High Status/Potential
Good Status/Potential
Moderate Status/Potential
Poor Status/Potential
Bad Status/Potential

WFD Coastal Waterbodies Overall Classifcation
High status / potential
Good status / potential
Moderate status / potential
Poor status / potential

WFD Groundwaterbodies Overall Classification
Good
Poor

0 0.5 Kilometres



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000157		
DATUM	OSGB 1936	PROJECTION	British National Grid
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PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure 1 Water Framework Directive (WFD) designated water bodies' Sheet 1 of 3
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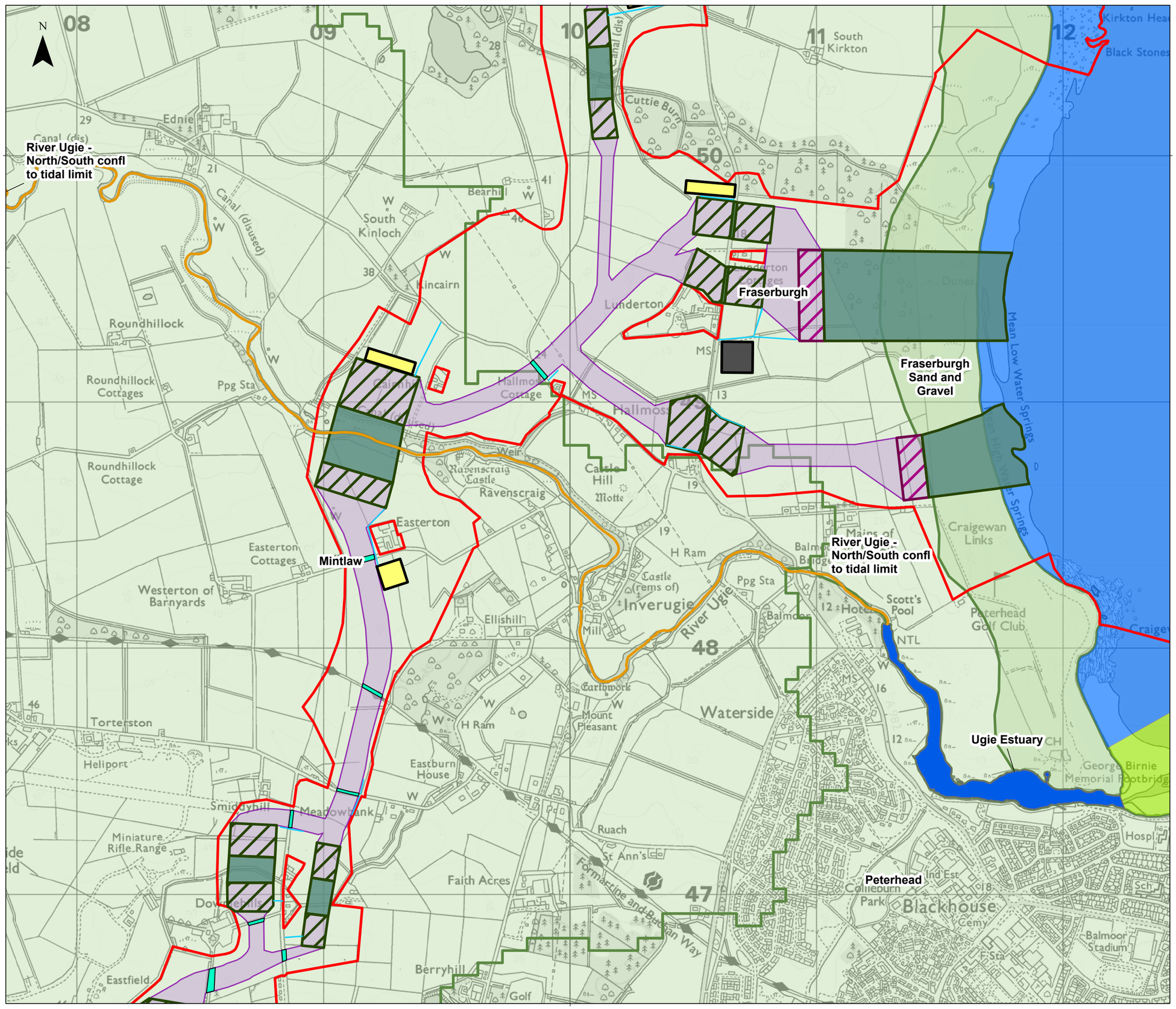

Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
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Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

WFD River Waterbodies Overall Classifcation
High Status/Potential
Good Status/Potential
Moderate Status/Potential
Poor Status/Potential
Bad Status/Potential

WFD Estuary Waterbodies Overall Classifcation
High Status/Potential
Good Status/Potential
Moderate Status/Potential
Poor Status/Potential
Bad Status/Potential

WFD Coastal Waterbodies Overall Classifcation
High status / potential
Good status / potential
Moderate status / potential
Poor status / potential

WFD Groundwaterbodies Overall Classification
Good
Poor

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PROJECT TITLE
MarramWind Offshore Wind Farm

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Figure 1 Water Framework Directive (WFD) designated water bodies' Sheet 2 of 3
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MarramWind

405000

405000

Faichfield Burn

Mintlaw

Peterhead

- Red Line Boundary
- Indicative onshore export cable corridor
- Indicative trenchless crossing compound search area
- Indicative landfall construction compound search area
- Indicative trenchless crossing
- Indicative trenched crossing
- Indicative primary construction compound
- Indicative secondary construction compound
- Indicative temporary construction access road

Onshore substation site layout

- Indicative temporary construction compound
- Indicative permanent access road
- Indicative permanent onshore substations' footprint

WFD River Waterbodies Overall Classifcation

- High Status/Potential
- Good Status/Potential
- Moderate Status/Potential
- Poor Status/Potential
- Bad Status/Potential

WFD Estuary Waterbodies Overall Classifcation

- High Status/Potential
- Good Status/Potential
- Moderate Status/Potential
- Poor Status/Potential
- Bad Status/Potential

WFD Coastal Waterbodies Overall Classifcation

- High status / potential
- Good status / potential
- Moderate status / potential
- Poor status / potential

WFD Groundwaterbodies Overall Classification

- Good
- Poor

0 0.5 Kilometres

Peterhead

Scale: 1:275,000

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PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Water Framework Directive (WFD) designated water bodies' Sheet 3 of 3

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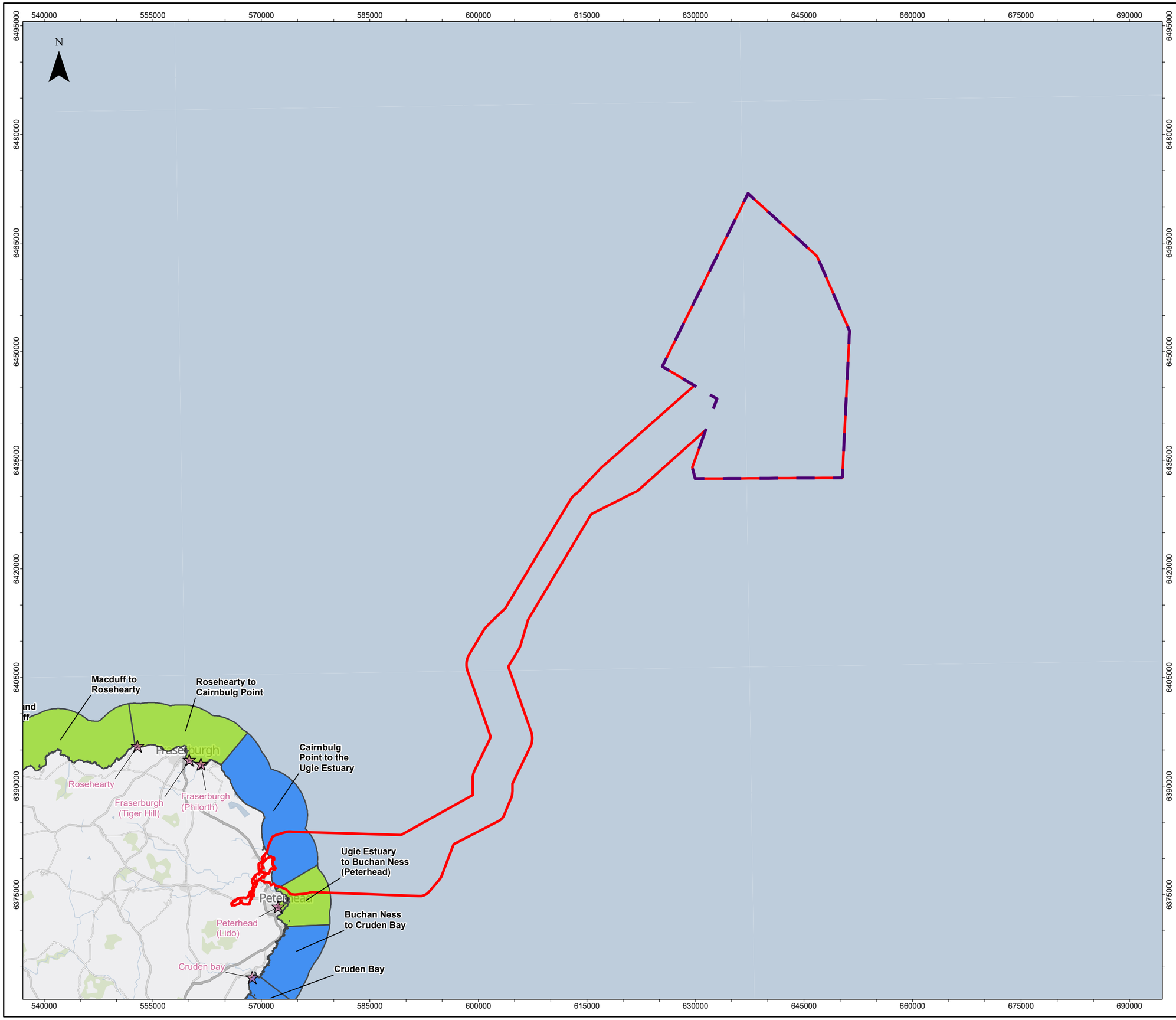


Red Line Boundary

Option Agreement Area

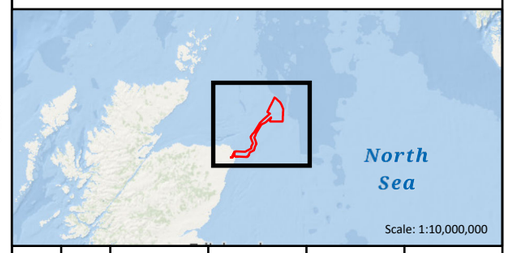
WFD Coastal Waterbodies Overall Classifcation

High status / potential

Good status / potential

Bathing water locations

0 10 20 Kilometres



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PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 2 WFD designated transitional and coastal water bodies

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Appendix 6.2

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Table 1.1 Water bodies that the Project has the potential to impact

Name	ID	Type	Catchment
Cairnbulg Point to Ugie Estuary	200142	Coastal	North East Scottish Marine Region (Scotland River Basin District).
Ugie Estuary to Buchan Ness (Peterhead)	200131		
Buchan Ness to Cruden Bay	200125		
Strathbeg Estuary	200137	Transitional	Loch of Strathbeg catchment (Scotland River Basin District).
Ugie Estuary	200129		River Ugie Catchment (Scotland River Basin District).
River Ugie – North / South confluence to tidal limit	23215	River	River Ugie Catchment (Scotland River Basin District).
Faichfield Burn	23217		
Black Water – d/s of St Fergus	23062		Buchan Coastal Catchment (Scotland River Basin District).
Fraserburgh Sand and Gravel	150800	Groundwater	Groundwater (Scotland River Basin District).
Fraserburgh	150634		
Mintlaw	150655		

1.4 The Project

1.4.1 Design envelope

1.4.1.1 The description of the Project for the EIA is indicative and a 'design envelope' approach has been adopted. The provision of a design envelope is intended to identify key design assumptions to enable the EIA to be carried out whilst retaining enough flexibility to accommodate further refinement during detailed design. The design envelope approach is widely used and accepted for major infrastructure projects in the UK, including for recent applications for offshore wind farms in Scotland. The approach is recognised by the Marine Directorate and the Energy Consents Unit in their guidance on how the design envelope assessment approach may be applied in the context of applications received for generating stations under section 36 of the Electricity Act 1989 (Scottish Government, 2022).

1.4.1.2 Assessing the Project using this design envelope approach means that the assessment will consider a maximum design scenario, which allows flexibility to make design decisions in the future that cannot be finalised at the time of submission of the application for development consent. Such design decisions may include the precise models and

dimensions of wind turbine generators (WTGs) that will be available at the time of procurement for the Project, a final offshore WTG layout design to optimise wind energy capture, and detailed engineering factors for both the offshore and onshore infrastructure.

1.4.1.3 This enables a meaningful and comprehensive assessment of the Project on a reasonable worst-case scenario basis, whilst maintaining flexibility for refinements to the design as it continues to evolve. The reasonable worst-case scenario defined for any given parameter may vary by technical aspect, depending on how the parameter can be expected to interact with the receptor being considered. The use of this approach has been adopted for this Environmental Impact Assessment (EIA) Report and WFD assessment and enables the relevant assessments to be based on a description of the location, design and size of the Project that is suitable to allow an assessment of its likely significant environmental effects.

1.4.2 Project summary

1.4.2.1 The key components of the Project include an offshore wind farm, associated onshore / offshore infrastructure and key activities that will be undertaken during construction, operation and maintenance, and decommissioning. The key infrastructure components can be described in relation to their position offshore and onshore and these are summarised in **paragraphs 1.4.2.2** and **1.4.2.3**. **Volume 1, Chapter 4: Project Description** provides a more comprehensive description of the key activities associated with the Project.

1.4.2.2 The Project's offshore infrastructure, located seaward of mean high water spring (MHWS) mark, includes the following:

- WTGs, including floating units (platforms and station keeping system) (see **Volume 2, Figure 4.3: Indicative Layout for 225 WTGs with a 14MW capacity** and **Volume 2, Figure 4.4: Indicative layout for 126 WTGs with a 25MW capacity for indicative layouts**);
- array cables;
- subsea distribution centres;
- subsea substations;
- offshore substations;
- reactive compensation platform(s) (RCPs) (if required); and
- offshore export cables to connect the offshore infrastructure to the landfall(s).

1.4.2.3 The Project's onshore infrastructure, located landward of mean low water spring (MLWS) includes:

- landfall(s) – the infrastructure associated with landfall(s) located above MLWS;
- underground onshore export cables running from the landfall(s) to the onshore substations;
- onshore substations co-located on one site;
- underground grid connection cables connecting the onshore substations to the grid connection point at SSEN Netherton Hub; and
- tie-in to the grid connection point (SSEN substation at the Netherton Hub, which is a separate project and does not form part of the consenting applications which this EIA relates to).

1.4.2.4 The subsequent sections provide detail and parameters where possible at this stage of design development and are described in accordance with the indicative design envelope principle.

1.4.3 Construction and operation activities

1.4.3.1 **Volume 1, Chapter 4: Project Description** provides a comprehensive summary of the construction and operational activities associated with the Project. At this stage of design, the Project comprises the activities summarised in **Table 1.2**, which have potential for impacts upon the WFD water bodies and quality elements:

Table 1.2 Construction and operation activities

Activity	Description
Offshore infrastructure (construction stage)	
Activity 1 – WTG assembly and mooring	Each WTG on its floating unit will be secured in place using a station keeping or mooring system, involving anchors and mooring lines. Typically, multiple mooring lines will spread out radially from the floating structure, each ending in an anchor point on the seabed. This activity will be located between 70km and 105km offshore of the seaward boundary of WFD coastal water bodies, so has negligible potential to interact with WFD water bodies.
Activity 2 – construction of array cables, subsea connections, offshore substations and offshore export cables	This activity will include installation of array cables, to connect the WTGs to one another and to offshore subsea substation(s), array cables linking subsea connection centres to offshore substations and export cables linking these to the landfall site. Several offshore substations, which may be above the sea surface on platforms, located within the Option Agreement Area, may be required for the Project. At the landfall site(s), transition joint bays will link the offshore subsea cables to the onshore underground cables. This activity may interact with WFD coastal water bodies, which extend 5.5km from the shore, where they are crossed by the export cables.
Landfall(s) works (construction stage)	
Activity 3 – landfall(s) works seaward of MHWS mark	This activity will include marine support during drilling of horizontal directional drilling (HDD) bores (or similar), installation of ducts, pull-in of export cables from a cable lay vessel, installation of cable protection systems (if required) and burial / protection of duct ends and offshore cables in duct vicinity. This activity will take place within with WFD coastal water bodies and may also interact, through sediment transport, with transitional water bodies.
Activity 4 – landfall(s) works landward of MHWS mark	This activity will include establishment of a landfall temporary construction compound and access, HDD works, construction of transition joint bays, pull-in of export cables into ducts from a cable lay vessel, jointing of offshore cables to onshore cables in transition joint bays, backfilling of transition joint bays and demobilisation of site and reinstatement works. This onshore activity may interact with river water bodies and groundwater bodies.

Activity	Description
Onshore infrastructure (construction stage)	
Activity 5 – installation of onshore underground export cables and grid connection cables	This activity will include installation of underground export cables between the landfall(s) and the three proposed onshore substations co-located at the onshore substation site, and from the onshore substations to the point of connection at the SSEN Netherton Hub substation. These are typically installed in ducts in a standard buried trench arrangement where possible. HDD or other trenchless methods may be necessary to cross sensitive features such as watercourses, roads and pipelines. This onshore activity may interact with river water bodies and groundwater bodies.
Activity 6 - construction of onshore substations	This activity will comprise construction of three new onshore substations to transform / convert the onshore export cable electrical power to the 400 kilovolts alternating current required to connect to the proposed SSEN Netherton Hub substation. This onshore activity may interact with river water bodies and groundwater bodies.
Operation stage	
Activity 7 – operation of offshore infrastructure	This will include operation of WTGs, including floating units (platforms and station keeping system), array cables (including subsea collection centres and offshore substations), RCPs (if required and offshore export cables to connect the wind farm area to the landfall(s). This activity may interact with WFD coastal water bodies, which extend 5.5km from the shore, where they are crossed by the export cables.
Activity 8 - landfall operations seaward of MHWS mark.	This will include operation of ducts and export cables in the landfall area seaward of MHWS mark. This activity will take place within with WFD coastal water bodies and may also interact, through sediment transport, with transitional water bodies.
Activity 9 - landfall operations landward of MHWS mark	This will include operation of ducts, transition joint bays and export cables landward of MHWS mark. This onshore activity may interact with river water bodies and groundwater bodies.
Activity 10 – operation of onshore infrastructure	This will include operation of underground onshore export cables and onshore substations. This onshore activity may interact with river water bodies and groundwater bodies.

1.4.3.2 It is anticipated that the construction of the Project will commence in 2030.

1.4.3.3 **Volume 4: Outline Construction Environmental Management Plan** has been produced and aims to ensure general best practice measures are adhered to throughout the construction of the onshore components of the Project. The Construction Environmental Management Plan (CEMP) will be finalised and approved post-consent by Aberdeenshire Council as part of condition discharge prior to construction works starting on-site.

1.4.3.4 **Volume 4: Outline Environmental Management Plan** has been produced and aims to ensure general best practice measures are adhered to throughout the construction of the offshore components of the Project. The EMP will be finalised and approved post-consent by MD-LOT as part of condition discharge prior to construction works starting seaward of MHWS mark.

1.4.3.5 The Project will be delivered in stages, which are reflected in the indicative construction programme. It is anticipated that construction of the Project would commence in 2030.

1.4.3.6 At this stage, the maximum potential for interaction with WFD water bodies during the decommissioning stage can be taken as being the same as for the construction stage for each of the activities described. In practice, the interactions may be reduced if infrastructure such as underground cables is left in place.

1.5 Design life

1.5.1.1 It is anticipated that the first phase would become fully operational by 2037. It is anticipated that the second phase of the Project would become fully operational by 2040 and the third phase by 2043. The operational lifetime of the Project for each phase is expected to be 35 years.

1.5.1.2 A Decommissioning Programme will be developed post consent but prior to construction. It will be updated during the operational stage of the Project to account for any changes to industry best practice, relevant legislation, guidance and policy, or developments in technology.

1.6 Consultation and engagement

1.6.1.1 The Project's design evolution has taken account of consultation feedback received throughout the design process. This includes responses MD-LOT's and Aberdeenshire Council's Scoping Opinions and other engagement undertaken by the Applicant.

1.6.1.2 Further engagement with SEPA and MD-LOT will be sought to agree the outcome of this WFD Screening and Scoping assessment.

2. Methodology

2.1 Data collection

2.1.1 Desk study

2.1.1.1 A desk-based study was carried out to collect baseline information and inform the WFD assessment. The following data sources were used for the desk study:

- current aerial photography (Google Earth, 2025);
- status of individual WFD quality elements and overall status and objectives from the SEPA Water Classification Hub (SEPA, 2025a; SEPA, 2025b);
- hydrological data (UK Centre for Ecology & Hydrology, 2025);
- maps of designated areas, habitats and species, landscape and marine data from National Marine Plan (NMPi) interactive mapping (Scottish Government, 2025);
- invasive non-native plants (INNS) map viewer (National Biodiversity Network Trust, 2025);
- various literature sources, including published articles and technical reports produced in relation to site-specific surveys undertaken by the Project (APEM, 2023; 2024, **Appendix 7.2: Geophysical and Environmental Export Cable Corridor Survey Volume 4 of 8 Contaminants Report**; **Appendix 10.3: Confidential Geophysical and Environmental Export Cable Corridor Survey - Benthic Survey Interpretative Report 2024**); and
- WFD status and objectives from The RBMP for Scotland (2021) (SEPA, 2021).

2.1.2 Site surveys

2.1.2.1 Numerous site-specific surveys have been undertaken to inform other chapters and analyses and the Project more widely. The findings of these surveys are referred to within this WFD assessment where relevant for environmental context.

2.1.2.2 River water bodies were inspected during a water resources and flood risk walkover survey on 15 to 16 September 2024. This included:

- the Annachie Burn (a tributary of the Black Water) and Cuttie Burn (a coastal steam), both in the Buchan Coastal Catchment, which are in proximity to the Scotstown and Lunderton landfall sites;
- onshore export cable corridor crossings of the River Ugie and its tributaries (for example, Faichfield Burn and other unnamed watercourses); and
- the area to be occupied by the onshore substations.

2.1.2.3 Further details of observations made during these surveys are described in **Volume 1, Chapter 20: Water Resources and Flood Risk**.

2.1.2.4 Surveys were undertaken for the Project within the intertidal zone, to identify and quantify contaminants (APEM, 2023) and microbiota (APEM, 2024). Surveys were also undertaken on contaminants (**Appendix 7.2**) and benthic species (**Appendix 10.3**) within the location of the export cable corridor.

2.2 Water Framework Directive assessment process

2.2.1 Overview and guidance

2.2.1.1 For surface water bodies (river, transitional and coastal water bodies), the assessment methodology used here is based on guidance provided by the Planning Inspectorate on Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (Planning Inspectorate, 2025).

2.2.1.2 This guidance sets out three stages for the WFD assessment process for surface waters, and the outcome of each stage determines whether the assessment needs to progress to the next stage. The three stages are:

- **Stage 1 Screening** – this stage should show all relevant WFD water bodies on a map or plan, identify the zone or zones of influence based on specific activities and/or characteristics of the proposed development that could affect the identified water bodies and identify any specific activities and/or characteristics of the proposed development that have been screened out and why.
- **Stage 2 Scoping** – this stage involves an initial assessment to identify the risks from the proposed development to receptors within the zone of influence, based on the relevant water bodies and their water quality elements, and identifies those water bodies where a more detailed impact assessment is needed
- **Stage 3 Impact assessment** – for activities and receptors scoped in to the assessment, this stage should include:
  - identification of water bodies that are potentially affected, directly or indirectly, or at risk from proposed development;
  - the baseline characteristics of the water bodies affected;
  - a description of the proposed development and the aspects of the development considered within the scope of the WFD assessment;
  - the methods used to determine and quantify the scale of WFD impacts;
  - an assessment of the risk of deterioration, where Article 4(7) (The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017) may apply if the proposed development may risk deterioration in status or prevent achievement of 'Good' status;
  - an explanation of any mitigation required and how it is secured;
  - an explanation of any enhancements and/or positive contributions to the River Basin Management Plan objectives proposed and how they would be secured;
  - where a derogation is required, information to justify the case for derogation; and
  - identification of any areas of non-compliance.

2.2.1.3 For coastal and transitional water bodies, the WFD methodology adopts the process set out in the more specific guidance 'Clearing the Waters for All - Water Framework Directive Assessment: estuarine and coastal waters' (Environment Agency, 2023) as best practice.

2.2.1.4 Although both of these sets of guidance have been developed in the context on English legislation, they are both equally technically relevant in a Scottish context.

2.2.1.5 The Environment Agency guidance sets out three stages for the WFD assessment process for transitional and coastal waters, and the outcome of each stage determines whether the assessment needs to progress to the next stage. The three stages are:

- **Stage 1 Screening** – this stage excludes any activities that do not need to go through the scoping or impact assessment stages because the activity presents a low risk of effect or there is no pathway for an effect on a water body.
- **Stage 2 Scoping** – identifies the receptors that are potentially at risk from the Project, which need impact assessment. Potential risks to hydromorphology, water quality, biology (habitats and fish), WFD Protected Areas and pathways INNS should be assessed. These are then considered against specific criteria provided by the Environment Agency (2023) by means of the recommended scoping template.
- **Stage 3 Impact assessment** – for activities and receptors scoped in to the assessment, this stage considers the potential impacts of the Project, identifies ways to avoid or minimise impacts, and determines whether the Project may cause deterioration or jeopardise the water body achieving 'Good' status.

2.2.1.6 If the assessment progresses to Stage 3, a further assessment is undertaken to review mitigation measures set for the water body and an assessment of the proposed activities against WFD status objectives.

2.2.1.7 This approach is entirely consistent with the Planning Inspectorate guidance described in **paragraph 2.2.1.2**.

2.2.1.8 Low-risk activities may be screened out and not progressed to the scoping stage. Within transitional and coastal water bodies, these activities are defined in the Clearing the Waters for All guidance (Environment Agency, 2023).

2.2.1.9 The guidance (Planning Inspectorate, 2025; Environment Agency, 2023) recommends that the whole lifecycle of the development is considered, including construction, operation, and decommissioning. Maintenance is not specifically mentioned in the guidance, but the operational stage of the Project inherently requires maintenance activities s these are considered integral to the operation in the context of this WFD compliance assessment. Given that the Project's construction stage will last for up to 12 years and its operational stage will be 35 years per phase, decommissioning may not be anticipated until the 2070s and 2080s. The statuses of the relevant water bodies may have changed by this time and therefore it will be more appropriate and robust to assessment decommissioning activities at that future time rather than against the current baseline.

2.2.2 Hydromorphology

2.2.2.1 Hydromorphology is a physical characteristic that supports WFD biological quality elements. Where the hydromorphology of a surface water body has been significantly altered for anthropogenic purposes (for example, navigation), it can be designated as an Artificial Water Body or a HMWB. An alternative environmental objective, GEP applies in these cases.

2.2.3 Biology – habitats

2.2.3.1 Within coastal and transitional water bodies, the Environment Agency (2023) guidance states that an assessment should be undertaken where the footprint of the activity is:

- 0.5km² or larger;
- 1% or more of the water body's area;

- within 500 metres (m) of any higher sensitivity habitat; or
- 1% or more of any lower sensitivity habitat.

2.2.3.2 Benthic habitats referred to are divided into higher sensitivity and lower sensitivity habitats as listed in **Table 2.1**.

Table 2.1 Habitat sensitivity in transitional and coastal water bodies as defined by WFD guidance

Sensitivity classification	Habitats
Higher Sensitivity.	• chalk reef; • clam, cockle and oyster beds; • intertidal seagrass; • maerl; • mussel beds, including blue and horse mussel; • polychaete reef; • saltmarsh; • subtidal kelp beds; and • subtidal seagrass.
Lower Sensitivity.	• cobbles, gravel and shingle; • intertidal soft sediments like sand and mud; • rocky shore; • subtidal boulder fields; • subtidal rocky reef; and • subtidal soft sediments.

2.2.3.3 Within river water bodies, direct effects of activities on water quality and biological quality elements will be exerted downstream of the activity location, although effects involving migratory fish may include fish populations and dependent organisms (such as pearl mussels) upstream of the activity, due to their life cycle involving movement within the river water body.

2.2.3.4 Due to the wide variations in hydromorphological characteristics, it is not practicable to define standard criteria for assessment of effects on river water bodies and each case must be considered on its merits, separately for the different WFD quality elements.

2.2.4 Biology – fish

2.2.4.1 Fish species should be considered if activities:

- are in a river or lake water body;
- are in an estuary,
- are outside an estuary but could delay or prevent fish from entering an estuary; or,
- could affect fish migration through an estuary to freshwater.

2.2.5 Water quality

2.2.5.1 Within transitional and coastal water bodies, water quality encompasses the chemical status of the water body (relating to certain hazardous substances). It also includes clarity,

temperature, salinity, oxygen levels, nutrients and microbial patterns, which support the ecology, and specific pollutants that may affect the ecology. Water quality should be considered as a receptor if activities:

- could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days);
- are in a water body with a phytoplankton status of 'Moderate', 'Poor' or 'Bad;
- are in a water body with a history of harmful algae;'
- involve release of priority substances, or
- disturbs sediment containing contaminants at concentrations above Cefas Action Level 1 (Cefas, 2025).

2.2.5.2 Although similar detailed guidance is not available fir river water bodies, the same principles can be applied.

2.2.6 Water Framework Directive Protected Areas

2.2.6.1 WFD Protected Areas encompass sites identified under Article 6 and defined in Annex IV of the WFD and include:

- areas designated under the EU 'Habitats Directive' (European Economic Community, 1992) as Special Areas of Conservation (SACs) within the UK National Site Network, where the maintenance or improvement of the status of water is an important factor in their protection;
- sites classified under the EU 'Wild Birds Directive' (European Commission, 2009), now implemented as part of the Wildlife and Countryside Act 1981, as Special Protection Areas (SPAs) within the UK National Site Network, where the maintenance or improvement of the status of water is an important factor in their protection;
- bathing waters designated under the EU 'Bathing Water Directive' (European Commission, 2006);
- shellfish waters protected under *The Scotland River Basin District (Quality of Shellfish Water Protected Areas) (Scotland) Directions, 2015* (Scottish Government, 2015); and
- nitrate vulnerable zones (NVZ) designated under the EU 'Nitrates Directive' (European Economic Community, 1991), now covered under the Nitrate Pollution Prevention Regulations 2015;
- areas protected for use as drinking water (including groundwater bodies) identified under Article 7 of the WFD.

2.2.6.2 For transitional and coastal waters, guidance stipulates that WFD Protected Areas located within 2km of the proposed activity must be identified (Environment Agency, 2023). It also acknowledges that the footprint of an activity may be extended as a result of temperature or sediment plume, and for dredging activity, the footprint should be taken as 1.5 times the dredge area.

2.2.6.3 For WFD Protected Areas incorporating parts of river water bodies, most effects will be exerted downstream of the activity and extent will need to be examined on a site-specific basis. However, it should be noted that, where a WFD Protected Area includes migratory fish as a specific interest feature, effects on the WFD fish quality element may be translated upstream by fish migration.

2.2.6.4 More detailed discussion on effects on SAC and SPA is presented in the **Report to Inform Appropriate Assessment**. Effects on environmental quality standards applicable to bathing waters and shellfish waters are addressed in **Volume 1, Chapter 7: Marine Water and Sediment Quality**. NVZ and drinking water protected areas are discussed in detail in **Volume 1, Chapter 20: Water Resources and Flood Risk**.

2.2.7 Invasive Non-Native Species

2.2.7.1 The introduction and spread of INNS can occur directly through the release of individuals of INNS species into the environment via activities, for example, through release of ballast water (Ware *et al*., 2009), on the hull of ships even if recently cleaned or anti-fouled (Davidson *et al*., 2010), or indirectly by creating opportunities for organisms to settle or spread (for example, habitat creation or disturbance), thereby allowing for them to out-compete native species. Therefore, activities should be considered where:

- materials or equipment have come from, have been used in or travelled through other water bodies; or
- activities are involved that help spread existing INNS, either within the immediate water body or to other water bodies.

2.2.7.2 Further detail on INNS is provided in **Volume 1, Chapter 10: Benthic, Epibenthic and Intertidal Ecology** and **Chapter 23: Terrestrial Ecology and Ornithology;** and in **Volume 4: Outline Offshore Invasive Non-Native Species Management Plan.**

2.2.8 Groundwater bodies

2.2.8.1 Groundwater status is set by having regard to both quantitative status and chemical status. Thus, any aspects of the Project that could lead to degradation of quantitative status (such as significant pumping) or ingress of contaminants to groundwater need to be assessed.

2.2.9 Limitations and assumption

2.2.9.1 All baseline data has been interpreted from desk study or from the survey data described above.

3. Baseline Conditions

3.1 Water Framework Directive status

3.1.1 Water Framework Directive coastal and transitional water bodies

3.1.1.1 Through installation of export cables in the marine environment, landfall works, the Project has the potential to interact with the Cairnbulg Point to Ugie Estuary coastal water body (ID: 200142), the Ugie Estuary to Buchan Ness coastal water body (ID: 200131) and the Buchan Ness to Cruden Bay coastal water body (ID 200125), located in tidal waters within 15km of any of the export cable routes to the various landfall locations. Note that in Scotland, coastal water bodies extend 3 nautical miles (nm) from the shore.

3.1.1.2 Further details of effects on hydromorphology are presented in **Volume 1, Chapter 6: Marine Geology, Oceanography and Physical Processes**, on water quality in **Volume 1, Chapter 7: Marine Water and Sediment Quality** and on relevant marine biological quality elements in **Volume 1, Chapter 10: Benthic, Epibenthic and Intertidal Ecology**.

3.1.1.3 Within the extent of these coastal water bodies, the Ugie Estuary (ID 200129) and the Strathbeg Estuary (ID 200137) transitional water bodies also have the potential for impacts arising from marine works.

3.1.1.4 According to 2023 data provided by SEPA (SEPA, 2025b), the Ugie Estuary to Buchan Ness coastal WFD water body is designated as heavily modified on account of physical alterations to the bed, banks and shores, as a result of land use and navigation activities (in Peterhead Harbour). However, these pressures cannot be addressed without a significant impact on navigation. The overall WFD status for the Ugie Estuary to Buchan Ness coastal WFD water body is 'Good' ecological potential, with an overall 'Moderate' ecological status, a 'Good' water quality status, and an overall hydromorphology status of 'Good'. Chemical status was not provided.

3.1.1.5 According to the 2023 SEPA data referenced above, the overall WFD status for the Cairnbulg Point to Ugie Estuary coastal WFD water body is 'High', with an overall 'High ecological status and a 'High water quality status. Cairnbulg Point to the Ugie Estuary has achieved 'High' across all WFD quality elements, since 2013. The water body has not been designated as heavily modified or artificial.

3.1.1.6 According to the 2023 SEPA data, the overall WFD status for the Buchan Ness to Cruden Bay coastal WFD water body is 'High', with an overall 'High ecological status and a 'High water quality status. The water body has achieved 'High' across all WFD quality elements, since 2013, except for macroalgae which is classed as 'Good'. The water body has not been designated as heavily modified or artificial.

3.1.1.7 According to the 2023 SEPA data, the overall WFD status for both the Ugie Estuary and Strathbeg Estuary transitional water bodies is 'High', with an overall 'High ecological status and a 'High water quality status. The water bodies have not been designated as heavily modified or artificial.

3.1.1.8 **Appendix A, Table A1** to **Table A5** present the baseline characteristics and WFD quality elements associated with these coastal and transitional water bodies.

3.1.2 Water Framework Directive river water bodies

3.1.2.1 Through the proposed onshore infrastructure works, the Project also has the potential to interact directly with the River Ugie WFD river water body (ID: 23215), and the Faichfield Burn WFD river water body (ID: 23217), both of which are located within the River Ugie catchment and Scotland River Basin District, and with a tributary of the Black Water WFD river water body (ID: 23062), located within the Buchan Coastal catchment of the Scotland River Basin District.

3.1.2.2 According to 2023 data provided by SEPA, the overall WFD status for the River Ugie – North / South confluence to tidal limit surface WFD water body is 'Poor', with an overall 'Poor' ecological status, and a 'Moderate' water quality status. The overall chemistry status is 'Pass' and the hydromorphology status is 'Good'. The water body has not been designated as heavily modified or artificial. However, assessment of pressures affecting the water body has shown that diffuse sources of pollution from rural sources are impacting water quality. The pressure is being addressed by priority catchment actions by public bodies and land managers. These pressures are scheduled to be addressed by 2027.

3.1.2.3 According to 2023 data provided by SEPA, the overall WFD status for the Faichfield Burn surface WFD water body is 'Moderate ecological potential', with an overall 'Bad' ecological status, and a 'Moderate' water quality status. Chemical status was not provided. The water body has been designated as a heavily modified water body on account of physical alterations that cannot be addressed without a significant impact on the drainage of agricultural land.

3.1.2.4 **Appendix A, Table A6**, **Table A7** and **Table A8** present the baseline characteristics and WFD quality elements associated with the River Ugie – North / South confluence to tidal limit water body, Faichfield Burn water body and Black Water – d/s of St Fergus water body, respectively.

3.1.3 Groundwater

3.1.3.1 Three groundwater bodies have been identified as being potentially affected by the Project, as indicated in **Figure 1**:

- Fraserburgh Sand and Gravel (ID: 150800) groundwater body directly underlies the Project within the onshore Red Line Boundary where a narrow coastal strip of the water body is crossed by each of the landfall HDD routes. It is WFD monitored. In 2023, the groundwater body had a 'Good' Overall groundwater status, comprising 'Good' quantitative status and 'Good' chemical status. Fraserburgh Sand and Gravel groundwater body received a 'Good' chemical status due to all measurements achieving a 'Good' status.
- Fraserburgh (ID: 150634) groundwater body directly underlies the Project within the onshore Red Line Boundary from the inland extent of the HDD works at each of the landfall locations as far as the point where the cables from each landfall come together into a common cable route. It is WFD monitored. In 2023, the groundwater body had a 'Good' Overall groundwater status, comprising 'Good' quantitative status and 'Good' chemical status. Fraserburgh groundwater body received a 'Good' chemical status due to all measurements achieving a 'Good' status.
- Mintlaw (ID: 150655) groundwater body directly underlies the Project within the onshore Red Line Boundary from the Ugie River crossing to the substation site and onward to the Faichfield Burn crossing. It is WFD monitored. In 2023, the groundwater body had a 'Good' Overall groundwater status, comprising 'Good' quantitative status and 'Good' chemical status. Mintlaw groundwater body received a 'Good' chemical status due to all measurements achieving a 'Good' status. **Appendix A, Table A9** to **Table A11** present

the baseline characteristics and WFD quality elements associated with Fraserburgh Sand and Gravel Groundwater body, Fraserburgh Groundwater body, and Mintlaw Groundwater body, respectively.

3.1.4 Water Framework Directive Protected Areas

3.1.4.1 WFD Protected Areas are established under Article 6 of the WFD and include areas defined in Annex IV. WFD Protected Areas whose areas lie partly or wholly within the identified water bodies are summarised in **Table 3.1**. It should be noted that, although the Buchan Ness to Collieston SPA and the Buchan Ness to Collieston SAC are referenced in the water body information sheet for the Buchan Ness to Cruden Bay coastal water body (SEPA, 2025a), their WFD Protected Area status applies only where the maintenance or improvement of the status of water is an important factor in their protection.

Table 3.1 WFD Protected Areas and associated water bodies

Site name	Designation	Size (ha)	Approximate distance and orientation from Red Line Boundary	Description	Associated surface water bodies
Aberdeenshire, Banff, Buchan and Moray	Nitrate Vulnerable Zone, Eurocode: UKS916764.	-	Located through whole of Red Line Boundary.	Designated in 2015. Reason - polluted water.	River Ugie (23215) Faichfield Burn (23217).
Peterhead (Lido)	Bathing water UKS7616042.	0.03	3.87km southeast of the nearest point of Red Line Boundary.	Classified as 'Excellent' in 2024.	Ugie Estuary to Buchan Ness (200131).
Buchan Ness to Collieston Coast	Special Protection Area, NatureScot Site Code: 8473. UK9002491.	5400.76	6km southeast of nearest point of Red Line Boundary.	First classified as SPA 1998. Marine extension 2009.	Buchan Ness to Cruden Bay (200125).
Buchan Ness to Collieston	Special Area of Conservation, NatureScot Site Code: 8214. UK0030101.	206.03	6km southeast of nearest point of Red Line Boundary.	Designated as SAC 2005 for vegetated sea cliffs.	Buchan Ness to Cruden Bay (200125).

3.1.5 Invasive Non-Native Species

3.1.5.1 The Habitat and Vegetation Survey undertaken for the Project identified Himalayan Balsam (*Impatiens glandulifera*) within 250m of the Red Line Boundary (**Appendix 23.2 Habitat and Vegetation Survey Report**). While not specifically recorded in the survey, it is likely that other terrestrial plant INNS are present locally due to their widespread distribution in the UK. Examples include Japanese Knotweed (*Fallopia japonica*) and Giant Hogweed (*Heracleum mantegazzianum*).

3.1.5.2 There were no areas within 2km of the Red Line Boundary that contained invasive non-native species of fish. There were no areas within 2km of the Red Line Boundary that contained invasive non-native species of invertebrates.

3.1.5.3 The INNS *Gonadiella gracilis* (a polychaete worm) was detected during surveys at 19 locations along the export cable corridor but only one of these locations is within 3nm of the shore (and therefore in a WFD coastal water body). This was at a sample point located on a now discarded route to a landfall south of Peterhead. The INNS *Monocorophium sextonae* (an amphipod) was detected at one location along the export cable corridor but this was located approximately 38km from shore and well outside any WFD coastal water bodies.

4. Screening and Scoping

4.1 Stage 1: Water Framework Directive screening

4.1.1.1 The purpose of the WFD screening stage is to identify the extent to which the Project may affect WFD water bodies that lie within the study area. The WFD water bodies and WFD Protected Areas screened for this assessment are summarised in **Table 3.1** and **Table 4.1** respectively. **Table 4.2** provides a screening assessment of all WFD Protected Areas within 2km of the Red Line Boundary.

4.1.2 Screening of water bodies

4.1.2.1 Screening of WFD water bodies local to the Project is provided in **Table 4.1**.

Table 4.1 Screening of water bodies

Name	ID	Type	Screened in / out	Rationale for screening
Cairnbulg Point to the Ugie Estuary	200142	Coastal	In	Export cables will pass through this water body and landfall locations are situated within the water body.
Ugie Estuary to Buchan Ness (Peterhead)	200131		In	Due to the proximity of the Project, within the 15km tidal ellipse, these water bodies are screened in for further assessment.
Buchan Ness to Cruden Bay	200125			
Strathbeg Estuary	200137	Transitional		
Ugie Estuary	200142			
River Ugie – North / South confluence to tidal limit	23215	River	In	Due to the requirement for onshore export cable crossings of these river water bodies or their tributaries, they are screened in for further assessment.
Faichfield Burn	23217			
Black Water – d/s St Fergus	23062			
Fraserburgh Sand and Gravel	150800	Groundwater	In	Due to the presence of onshore infrastructure works above these water bodies, they are screened in for further assessment.
Fraserburgh	150634			
Mintlaw	150655			

4.1.2.2 Screening of WFD Protected Areas, as defined by WFD Article 6, is given in **Table 4.2**. As previously highlighted, the WFD Protected Area status applies only where the maintenance or improvement of the status of water is an important factor in their protection and therefore the screening process is limited to consideration of the interaction between WFD water body status and the conservation objectives of the sites.

Table 4.2 Screening of WFD Protected Areas

WFD Protected Area	Screened in / out	Justification
Aberdeenshire, Banff, Buchan and Moray NVZ, Eurocode: UKS916764)	Out	Although construction works for the Project are located within the boundary of this WFD Protected Area, none of the activities will involve discharge of nitrogenous compounds which could affect compliance with objectives for the NVZ. Consideration of the NVZ has therefore been screened out from further consideration.
Peterhead (Lido) (Bathing water ID: UKS7616042)	Out	Construction works for the Project will not take place close to the bathing water and will not involve any significant discharge of sewage. Thus, there is no potential for significant effects on compliance of the bathing water with bacteriological standards or with the requirement to be free from oil. This WFD Protected Area is considered to be located sufficiently far away to avoid impacts of the Project and is therefore screened out of further assessment.
Buchan Ness to Collieston Coast SPA, NatureScot Site Code: 8473)	Out	This site is classified as an SPA for seabirds breeding on the cliffs, a habitat that is not linked to the status of the coastal water body. The SPA includes an area extending up to 3km out to sea providing protection for a foraging area. As the landfall locations are all over 5km distant from the SPA boundary (compared with the 2km screening distance recommended in the methodology), there is no pathway for direct effects on birds while they are within the SPA, including its sea area. Effects on foraging due to sediment disturbance affecting WFD biological quality elements that may include prey species will be localised, temporary and short-term (see **Volume 1, Chapter 6: Marine Geology, Oceanography and Physical Processes**). The SPA has therefore been screened out from further consideration on the basis of lack of any pathways for direct effects and the short-term and minor nature of potential effects on bird foraging.
Buchan Ness to Collieston SAC, NatureScot Site Code: 8214)	Out	The interest feature of this SAC is vegetated sea cliffs, a habitat that is not linked to the status of the coastal water body. As the landfall locations are all over 5km distant from the SAC boundary (compared with 2km recommended in the methodology), there is no pathway for direct effects. Effects arising from construction activities and transmitted in the sea water column by tidal currents will not affect the cliffs. The SAC has therefore been screened out from further consideration on the basis of lack of any pathways for effects.

4.1.3 Screening of activities

4.1.3.1 **Table 4.3** details the screening of activities. Those activities screened in are taken forward to the Stage 2 Scoping stage.

Table 4.3 Screening of Project activities

Activity	Description	Justification	Screening outcome
Construction			
Offshore infrastructure			
Activity 1 – WTG Assembly and mooring	Construction of between 126 and 225 WTGs. Each WTG will be mounted on a floating unit consisting of a floating platform, stabilised to the sea bed by a station keeping system. The specific design will be refined rom three potential options. See Section 4.5.3 and Table 6 of **Volume 1, Chapter 4: Project Description** for further details.	Although the floating WTGs will pass through one or more WFD coastal water bodies when under tow from a port (as yet undefined) to the array area, the construction activities for WTGs will take place over 75km offshore, well outside the coastal water bodies extending 5.5km (3nm) from the shore, so there is no realistic pathway for effects on WFD water bodies.	Out
Activity 2 – construction of Array cables, subsea distribution centre, offshore power station, subsea substations and offshore export cables	The construction of the offshore components, as part of this activity, will include export cable installation through WFD coastal water bodies.	Construction of export cables may result in temporary mobilisation of sediment and any associated contaminants.	In
Landfall			
Activity 3 – landfall(s) works seaward of MHWS mark	The construction of the landfall(s) components, below MHWS, will consist of the following activities: • exit pit excavation; and • HDD operations.	These construction activities may result in the following impacts: • fine sediment and pollution risk; • alteration to flows and / or habitats; and, • disturbance of the sea bed; • potentially affecting coastal and transitional water bodies.	In

Activity	Description	Justification	Screening outcome
Activity 4 – landfall(s) works landward of MLWS mark	The construction of the landfall(s) components, above MHWS, will consist of the following activities: • construction of temporary construction access roads; • construction of temporary of compound areas; • HDD operations; • construction of transition joint bays; • offshore export cable connection; and • site clearance activities.	These construction activities may result in: • fine sediment and pollution risk; • alteration to flows and / or habitats; and, • removal of riparian vegetation; • potentially affecting river water bodies.	In
Onshore infrastructure			
Activity 5 – installation of the onshore export cables	The construction of the onshore infrastructure will consist of the following activities: • Site clearance and demolition, including pre-planting of landscaping works. • Construction of the temporary construction corridor, providing space for storage of excavate and construction materials, haul road and trenches. • Installation of underground export cables between landfall and three onshore substations and from the onshore substations to the point of connection at SSEN Netherton Hub station (See **Volume 2, Figure 4.1: Onshore Red Line Boundary and indicative onshore infrastructure overview**). This may include digging of trenches or cable ducts to house the cables. • Installation of cables through HDD or other tunnelling methods. • Temporary use of culverts, flume pipes or bridges where obstacles are encountered along haul roads.	These construction activities may result in: • fine sediment and pollution risk; • alteration to flows and / or habitats; and, • removal of riparian vegetation; • potentially affecting river water bodies.	In

Activity	Description	Justification	Screening outcome
Activity 6 - construction of onshore substations	The construction of the onshore substations will consist of the following activities: • site clearance and enabling works (for instance, vegetation clearance, access road construction, installation of drainage systems, stone fill, installation of a temporary construction compound, temporary site offices, fencing, delivery of materials, plant, machinery and fuel and any early landscape planting); and • construction of three onshore substations (permanent footprint collectively up to 15 ha, plus permanent access road up to 4.2 ha, within the onshore substation site boundary).	These construction activities may result in: • fine sediment and pollution risk; and • alteration to flows and / or habitats; • potentially affecting river water bodies.	In
Operation			
Offshore infrastructure			
Activity 7 – operation of offshore infrastructure	Operation of offshore infrastructure including: • WTGs, including floating units (platforms and station keeping system); • array cables (including subsea distributions centres and subsea substations); • offshore substation(s); • RCPs (if required); and • offshore export cables to connect the wind farm area to the landfall(s).	Potential for WFD impact limited to cable repair within coastal water bodies (up to 3nm from shore). Disturbance will be localised and temporary (less than the 14-day spring-neap tidal cycle), so not significant in terms of WFD compliance.	Out
Landfall			
Activity 8 – landfall(s) operations seaward of MHWS mark	Operation of offshore landfall(s) infrastructure including: • operation of ducts and cables.	No pathway for impact during the operational stage.	Out

Activity	Description	Justification	Screening outcome
Activity 9 – landfall(s) operations landward of MLWS mark	Operation of onshore landfall(s) infrastructure including: • operation of ducts, transition joint bays, and export cables.	No pathway for impact during the operational stage.	Out
Onshore infrastructure			
Activity 10 – operation of onshore infrastructure, including: Operation of underground onshore export cables and onshore substations	Operation of onshore infrastructure including: • operation of underground onshore export cables and onshore substations; and • operation of permanent cable corridor for service.	No pathway for impact during the operational stage.	Out

4.2 Stage 2: Water Framework Directive scoping

4.2.1 Coastal water bodies

4.2.1.1 The WFD scoping stage defines the need and level of detail required for further WFD assessment. This includes identifying risks to the WFD receptors from the Project activities screened in above. These results are presented for each receptor in **Table 4.4** to **Table 4.7** below for coastal and surface waters.

Hydromorphology

4.2.1.2 **Table 4.4** assesses the potential impact of the Project against the WFD hydromorphology receptors for the screened coastal water bodies.

Table 4.4 WFD scoping of Project activities against WFD hydromorphology receptors

Consider if your activity may impact hydromorphology:	Risk to receptor (yes / no)	Scoping outcome justification
Hydromorphology		
Could the Project impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status?	• Cairnbulg Point to Ugie Estuary coastal water body; • Buchan Ness to Cruden Bay coastal water body; • Strathbeg Estuary transitional water body; and • Ugie Estuary transitional water body.	
	No	**Construction** These water bodies are all achieving 'High' status. However, the proposed activities are short-term (individual cable corridors unlikely to take more than one spring-neap tidal cycle to install within the Cairnbulg Point to Ugie Estuary coastal water body), and use of trenching, ploughing or jetting will not result in any significant obstruction to or diversion of flows in any of these water bodies at a scale that could impact the hydromorphology of the water body. Similarly, excavation of exist pits and limited releases of drilling fluid from HDD at the landfall will not affect the hydromorphology.
Could the Project significantly impact the hydromorphology of any other water body?	• Ugie Estuary to Buchan Ness (Peterhead) coastal water body.	
	No	**Construction** This heavily modified coastal water body is at 'Good' status. This will only be exposed to effects of proposed activities through transport of suspended sediment. Therefore, there will be no effects on hydromorphology of the water body.

Consider if your activity may impact hydromorphology:	Risk to receptor (yes / no)	Scoping outcome justification
Is the Project in a water body that is heavily modified for the same use as your activity?	• Ugie Estuary to Buchan Ness (Peterhead) coastal water body.	
	No	**Construction** Waterbody is designated as heavily modified for water transport (sea, coastal or inland water transport). These activities are not proposed as part of the Project at Peterhead.

Biology

4.2.1.3 **Table 4.5** assesses the potential impact of the Project against the WFD biological receptors for the screened in coastal water bodies. Note that the marine wors are confined to the Cairnbulg Point to Ugie Estuary coastal water body, so other water bodies do not require to be considered in relation to the Project footprint.

4.2.1.4 The assessment against biological receptors requires consideration against the presence of higher and lower sensitivity habitats. The Project could potentially impact upon:

- lower sensitivity habitats including:
  - subtidal soft sediment in all coastal and transitional water bodies;
  - subtidal rocky reef (infralittoral and circalittoral rock) in Cairnbulg Point to Ugie Estuary coastal water body; and
  - gravel and cobbles (intertidal and subtidal coarse sediment) in all coastal water bodies.

Table 4.5 WFD scoping of Project activities against WFD biological receptors

Consider if the footprint of the activity may impact the biological receptors:	Risk to receptor (yes / no)	Scoping outcome justification
Is the footprint of the Project 0.5km^2 or larger?	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	**Construction** Up to five cable corridors at a maximum of 15m wide passing across 5.5km (3nm) of coastal water body represents a total footprint of 0.413km^2. Therefore, the footprint in the Cairnbulg Point to Ugie Estuary coastal water body is <0.5km^2.
Is the footprint of the Project 1% or more of the water body's area?	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	**Construction** The Project footprint of 0.413km^2, based on 5 cable corridors, each 15m wide, represents only 0.32% of the water body's area of 127.88km^2.

Consider if the footprint of the activity may impact the biological receptors:	Risk to receptor (yes / no)	Scoping outcome justification
Is the footprint of the Project within 500m of any higher sensitivity habitat?	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	**Construction** No higher sensitivity habitats have been identified within 500m of the Project footprint as defined by the Red Line Boundary.
Is the footprint of the Project 1% or more of any lower sensitivity habitat?	• Cairnbulg Point to the Ugie Estuary.	
	No	**Construction** The export cable routes approach the shore in areas of soft sediment, which comprises the majority of this water body. This the footprint will be considerably less than 1% of the soft sediment habitat area.
Biology – fish		
Is the Project in an estuary and could it affect fish in and outside the estuary, could it delay or prevent fish entering it and could affect fish migrating through the estuary?	• Cairnbulg Point to the Ugie Estuary coastal water body.	
	No	**Construction** No part of the footprint of the Project in the marine environment is within an estuary. The nearest estuaries are the Ugie Estuary, 1.5km from the nearest cable corridor, and the Strathbeg Estuary, 10km from the nearest cable corridor. The marine works will be short-term in nature. Therefore, no effects on migrating dish are predicted.
Could the Project impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)?	• Cairnbulg Point to the Ugie Estuary coastal water body.	
	No	**Construction** The marine works will be short-term in nature and any barriers to migration due to sediment plumes will be temporary and mobile. Sediments have been shown to be uncontaminated. The works will involve no percussive piling within any WFD coastal water body. Therefore, no effects on migrating dish are predicted.
Could the Project cause entrainment or impingement of fish?	• Cairnbulg Point to the Ugie Estuary coastal water body.	
	No	**Construction** The Project does not involve water abstraction, so there is no potential for impingement of fish.

Water Quality

4.2.1.5 **Table 4.6** assesses the potential impact of the Project against the WFD water quality receptors for the screened in coastal water bodies.

Table 4.6 WFD scoping of Project activities against WFD water quality receptors

Consider if the activity may impact water quality:	Risk to receptor (yes / no)	Scoping outcome justification
Could the Project affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)?	• Cairnbulg Point to Ugie Estuary coastal water body; • Ugie Estuary to Buchan Ness (Peterhead) coastal water body; • Buchan Ness to Cruden Bay coastal water body; • Strathbeg Estuary transitional water body; and • Ugie Estuary transitional water body.	
	No	**Construction** The Project will not involve any discharges affecting water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns. Temporary plumes of sediments or released drilling fluids will not have a high oxygen demand, so there will be no effects on dissolved oxygen concentrations.
Is the Project in a water body with a history of harmful algae?	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	This coastal water body is at 'High' status for phytoplankton.
Is the Project in a water body with a phytoplankton status of moderate, poor or bad?	• Cairnbulg Point to Ugie Estuary coastal water body; • Ugie Estuary to Buchan Ness (Peterhead); and • Buchan Ness to Cruden Bay coastal water body.	
	No	All coastal water bodies considered have 'High' status for phytoplankton.
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if the chemicals are on the Environmental Quality Standards Directive (EQSD) list	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	**Construction** The marine works within this coastal water body will not use or release chemicals on the EQSD list. There is potential for release of small quantities of drilling mud into the coastal water body on breakout during HDD of the landfall cable ducts but this will comprise only water, bentonite and polymer additives, not chemicals on the EQSD list.
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if it disturbs sediment with contaminants above Cefas Action Level 1	• Cairnbulg Point to Ugie Estuary coastal water body; • Ugie Estuary to Buchan Ness (Peterhead) coastal water body; • Buchan Ness to Cruden Bay coastal water body; • Strathbeg Estuary transitional water body; and • Ugie Estuary transitional water body.	
	No	**Construction** Sediment contaminant concentrations within the export cable corridor where it crosses the WFD coastal water body meet the Cefas AL1 standards (see **Volume 1, Chapter 7: Marine Water and Sediment Quality**.

Consider if the activity may impact water quality:	Risk to receptor (yes / no)	Scoping outcome justification
If your activity has a mixing zone (like a discharge pipeline or outfall) consider if the chemicals released are on the Environmental Quality Standards Directive (EQSD) list	• Cairnbulg Point to Ugie Estuary coastal water body.	
	No	The Project does not involve a discharge pipeline or outfall releasing chemicals.

4.2.2 River water bodies

4.2.2.1 The WFD scoping stage defines the level of detail required for further WFD assessment. This includes identifying risks to the WFD receptors from the Project's activities. The scoping stage assessment is presented in **Table 4.7** to **Table 4.9** for the River Ugie – North / South confluence to tidal limit, Faichfield Burn and Black Water WFD river water bodies.

Table 4.7 WFD scoping of Project activities against WFD hydromorphology receptors

WFD quality element	Risk to receptor (yes / no)	Scoping outcome justification
Hydromorphological quality elements		
Quantity and dynamics of water flow **Connection to groundwater bodies** **River continuity** **River depth and width variation** **Structure and substrate of the river bed** **Structure of the riparian zone**	River Ugie – North / South confluence to tidal limit river water body; Faichfield Burn river water body; and Black Water river water body.	
	No	**Construction** *Alteration to flows and / or habitats* It is very unlikely that in-stream works would need to be undertaken during the construction stage. Construction areas will be set back from the water bodies. Surface flow pathways are unlikely to be altered to the extent that would cause a significant impact at the water body scale. Any alterations to flow pathways would be localised and temporary, as a result construction. The preferred construction methodology of HDD will avoid the requirement for interaction with the hydromorphology of the water body. With the embedded mitigation and standard construction practices to be defined in **Volume 4: Outline Construction Environmental Management Plan**, the risk to river hydromorphology is expected to be negligible. *Removal of riparian vegetation* Removal of riparian vegetation will be minimised as far as practicable. All vegetation will be reinstated where possible and additional planting will be undertaken during enabling works to

WFD quality element	Risk to receptor (yes / no)	Scoping outcome justification
		ensure a diversity in the age and structure of bank top and bank face vegetation, during the construction stage. The preferred construction methodology of HDD will minimise the requirement for riparian vegetation removal. These construction activities are likely to be temporary and localised. With standard mitigation measures implemented during the construction stage, no deterioration is anticipated at the water body scale.

Table 4.8 WFD scoping of Project activities against water quality receptors

WFD quality element	Risk to receptor (yes / no)	Scoping outcome justification
Water quality elements		
Thermal conditions **Oxygenation conditions**	River Ugie – North / South confluence to tidal limit river water body; and Faichfield Burn river water body; and Black Water river water body.	
Salinity **Acidification status** **Nutrient conditions**	No	**Construction** It is planned to use trenchless technology, such as HDD, at all river crossings, so there should be no pathway for interaction with the river water body at all from the installation or presence of the crossing. HDD will be planned and managed to minimise the risks of spillages or breakout of drilling fluid and protocols will be put in place to manage any such events to avoid or minimise effects on river water quality. Sediment and runoff management from site compounds associated with the crossings will be implemented during the construction stage following standard pollution prevention guidance and implemented via **Volume 4: Outline Construction Environmental Management Plan**. Details on specific construction mitigations will be provided in the CEMP once the specific construction methods have been determined. On this basis, effects on river water quality due to site run-off or spillages will be avoided.

Table 4.9 WFD scoping of Project activities against biological receptors

WFD quality element	Risk to receptor (yes / no)	Scoping outcome justification
Biological quality elements		
Fish **Invertebrates** **Macrophytes and phytobenthos**	River Ugie – North / South confluence to tidal limit river water body; and Faichfield Burn river water body; and Black Water river water body.	
	No	**Construction** It is planned to use trenchless technology, such as HDD, at all river crossings. This will avoid the need for in-river works that could disturb or damage habitats of aquatic biota. Effects on river water quality will be avoided or minimised as described in **Table 4.9**, thus avoiding effects on the river biological quality elements listed here through this pathway. The CEMP will also include protocols to ensure that adverse effects on river biology are not caused by factors such as inappropriate lighting, noise or vibration.

4.2.3 Groundwater bodies

4.2.3.1 The WFD scoping stage defines the level of detail required for further WFD assessment. This includes identifying risks to the WFD receptors from the Project's activities. The scoping stage assessment is presented in **Table 4.10** for the Fraserburgh Sand and Gravel, Fraserburgh and Mintlaw WFD groundwater bodies.

Table 4.10 WFD scoping of Project's activities against WFD groundwater quality elements

WFD quality element	Risk to receptor (yes / no)	Scoping outcome reasoning
Quantitative elements		
Water balance	• Fraserburgh Sand and Gravel groundwater body; • Fraserburgh groundwater body; and • Mintlaw groundwater body.	
	No	**Construction** No significant dewatering envisaged as part of the Project, so there will be no pathway for effects on groundwater quantity.
Qualitative elements		
Chemical quality	• Peterhead	

WFD quality element	Risk to receptor (yes / no)	Scoping outcome reasoning
	• Fraserburgh Sand and Gravel groundwater body; • Fraserburgh groundwater body; and • Mintlaw groundwater body.	
	No	**Construction** The only potential risks to groundwater bodies are from breakout from HDD at landfall(s) and river crossings and general risks of spillages on construction sites, including the onshore substations. Further detail is given in **Volume 1, Chapter 20: Water Resources and Flood Risk**. The **Volume 4: Outline Construction Environmental Management Plan** will include protocols and mitigation measures to ensure that these do not become significant risks to groundwater quality. On this basis, effects on groundwater quality will be avoided.

4.2.4 WFD Protected Areas and Invasive Non-Native Species

4.2.4.1 Effects on WFD Protected Areas have been screened out in **Table 4.2**.

4.2.4.2 There is potential for spread of INNS which are already present within the river water bodies and in the riparian zone. However, with implementation of embedded mitigation and standard construction practices to be defined in **Volume 4: Outline Construction Environmental Management Plan** and **Volume 4: Outline Offshore Invasive Non-Native Species Management Plan**, the risk of introducing or spreading INNS is expected to be negligible.

4.2.4.3 Although the INNS *Gonadiella gracilis* and *Monocorophium sextonae* were detected in surveys along the export cable corridor, no individuals were detected along the currently proposed cable routes within any WFD coastal water body.

4.2.4.4 **Table 4.11** assesses the potential impact of the Project against the INNS receptor for the screened in coastal, transitional and river water bodies.

Table 4.11 WFD scoping of Project activities against WFD Protected Areas and INNS receptors

Consider if the activity may impact WFD Protected Areas or INNS:	Risk to receptor (yes / no)	Scoping outcome justification
Is the Project within 2km of any WFD Protected Area?	No	**Construction** The Project is not within 2km of any WFD Protected Area, except for the Aberdeenshire, Banff, Buchan and Moray NVZ (see **Table 3.1**). The onshore components of the project all lie within this NVZ but, as the Project will not involve release of nitrate and there is no pathway for the Project to affect

Consider if the activity may impact WFD Protected Areas or INNS:	Risk to receptor (yes / no)	Scoping outcome justification
		management of agricultural runoff, there is no risk to this receptor from the Project.
Could the Project introduce or spread INNS?	No	**Construction** The potential for spread of INNS could arise through discharge of ballast water from other sea areas. This will be avoided by following protocols that comply with the International Convention for the Control and Management of Ships' Ballast Water and Sediments (IMO, 2004). Necessary measures will be included in **Volume 4: Outline Offshore Invasive Non-Native Species Management Plan** and **Outline Environmental Management Plan**. Benthic invertebrate INNS detected along the cable corridor were not found along the current cable routes within any WFD coastal water body, so there is no potential for their spread as a result of activities associated with the Project. The **Volume 4: Outline Construction Environmental Management Plan** will also include protocols for avoiding spread of INNS already present on local river banks. On this basis, the Project will not introduce or contribute to the spread of INNS.

5. Summary

5.1.1.1 This WFD assessment has evaluated the potential impacts of the Project upon the following WFD water bodies during construction and operation of the Project:

- Cairnbulg Point to the Ugie Estuary coastal water body, which is currently achieving 'High' status;
- Ugie Estuary to Buchan Ness (Peterhead) coastal water body, which is currently achieving 'Good' status;
- Buchan Ness to Cruden Bay coastal water body, which is currently achieving 'High' status;
- Strathbeg Estuary transitional water body, which is currently achieving 'High' status;
- Ugie Estuary transitional water body, which is currently achieving 'High' status;
- River Ugie – North / South confluence to tidal limit river water body, which is currently achieving 'Poor' status;
- Faichfield Burn river water body, which is currently achieving 'Moderate ecological potential';
- Black Water river water body, which is currently achieving 'Good ecological status';
- Fraserburgh Sand and Gravel groundwater body, which is currently achieving 'Good' status;
- Fraserburgh groundwater body, which is currently achieving 'Good' status; and
- Mintlaw groundwater body, which is currently achieving 'Good' status.

5.1.1.2 The Ugie Estuary to Buchan Ness coastal water body and the Faichfield Burn river water body have been designated as heavily modified, both on account of physical alterations.

5.1.1.3 WFD Protected Areas and the potential for the introduction and spread of INNS were also addressed within this assessment.

5.1.1.4 Given the nature of the works and embedded mitigation, no hydromorphological, ecological, or water quality impacts on coastal, transitional or river water bodies are anticipated at the water body scale. Any impacts will be restricted to the construction stage and at the local scale around the Project. Any impacts are expected to be negligible at water body scale.

5.1.1.5 No impacts are envisaged to groundwater bodies, protected areas, nor invasive non-native species from the Project.

5.1.1.6 The activities associated with the Project are likely to result in limited temporary and localised construction impacts, such as sediment mobilisation, pollution risk, alteration to habitats, removal of riparian vegetation and disturbance to the sea bed. However, construction impacts would be mitigated through implementation of best-practice measures set out in **Volume 4: Outline Construction Environmental Management Plan** and **Volume 4: Outline Environmental Management Plan**, which would be prepared by the appointed Contractor at the detailed design phase. It is unlikely that operational activities are likely to result in impacts to the screened-in water bodies, given the size of the water bodies and the localised nature of the operations.

5.1.1.7 The Project will neither result in deterioration of nor prevent the achievement of WFD objectives set for the screened in water bodies.

5.1.1.8 It is recommended that the preliminary findings of the screening and scoping stages of this WFD are discussed with SEPA and MD-LOT. With proposed mitigations in place, the Project is assessed to be WFD compliant, and no detailed impact assessment is required.

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7. Glossary of Terms and Abbreviations

7.1 Abbreviations

Acronym	Definition
CEMP	Construction Environmental Management Plan
EIA	Environmental Impact Assessment
EQSD	Environmental Quality Standards Directive (2008/105/Ec)
EU	European Union
GEP	Good Environmental Potential
GES	Good Environmental Status
HDD	Horizontal Direct Drilling
HMWB	Heavily Modified Water Body
INNS	Invasive Non-Native Species
MD-LOT	Marine Department – Licencing Operations Team
MHWS	Mean High Water Spring Tides
MLWS	Mean Low Water Spring Tides
nm	nautical miles
NMPi	National Marine Plan Interactive
NVZ	Nitrate Vulnerable Zone
O&M	Operation And Maintenance
RBMP	River Basin Management Plan
RCP	Reactive Compensation Platform
SAC	Special Area Of Conservation
SEPA	Scottish Environment Protection Agency
SPA	Special Protection Area
SSEN	Scottish And Southern Electricity Networks
WFD	Water Framework Directive (2000/60/Ec)
WTG	Wind Turbine Generator

7.2 Glossary of terms

Term	Definition
Heavily modified water body	A body of surface water which as a result of physical alterations by human activity (for example for flood defence or navigation) is substantially changed in character, such that it cannot meet 'Good ecological status'. Where such water bodies are designated as HMWB, the target is to meet 'Good ecological potential'.
Outline Construction Environmental Management Plan	An outline plan for ensuring implementation of appropriate environmental measures during the construction phase for the onshore components of the project. This will be finalised post-consent as a detailed plan, with involvement of contractors, as a condition of the planning permission.
Outline Environmental Management Plan	An outline plan for ensuring implementation of appropriate environmental measures during the construction phase for the offshore components of the project. This will be finalised post-consent as a detailed plan, with involvement of contractors, as a condition of the marine licence.
Scotland River Basin Management Plan	The plan for delivery of WFD objectives for the Scotland River Basin District, which covers all of Scotland, except for areas lying within two cross-border river basin districts (Northumbria and Solway Tweed river basin districts).
Tidal ellipse	The path followed by a water particle in one complete tidal cycle
WFD Protected Area	Area added to the WFD protected area register required by Article 6 of the WFD

Appendix A
WFD Water Body Data

Baseline characteristics - WFD quality elements

Table A1 Summary of the WFD status of the Cairnbulg Point to the Ugie Estuary coastal water body (ID: 200142). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Cairnbulg Point to the Ugie Estuary coastal water body (200142)	Status
Water body type	Coastal
River basin district / catchment	North East Scottish marine region.
Water body area	127.88km^2
Area advisory group	North East Scotland.
Artificial	No
Heavily modified	No
Heavily modified artificial water body (HMAWB) assessment	N/A
Reason for not achieving good status (2014)	There are currently no pressures identified on this water body. Ensure that no deterioration from 'Good' status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.
For what use is the water body designated heavily modified?	N/A
Overall ecological status / potential	High
Current overall status / potential	High
Status objective (overall)*	High (2027)
Higher sensitivity habitats present	No
Lower sensitivity habitats present	Subtidal rocky reef (infralittoral and circalittoral rock), Subtidal soft sediment (sand, mud and mixed), Gravel and cobbles (intertidal and subtidal coarse sediment).
Protected area designation	Loch of Strathbeg – Special Protection Area Moray / Aberdeenshire / Banff / Buchan – Nitrate Vulnerable Zone.

Cairnbulg Point to the Ugie Estuary coastal water body (200142)	**Status**
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027).
Biological quality elements	
Overall biological quality	High
Invertebrate animals	High
Impose assessment	High (2012).
Benthic invertebrates	High
Macroalgae	High (2102).
Phytoplankton	High
Physico-chemical quality elements	
Dissolved oxygen	High (2012).
Dissolved inorganic nitrogen	High (2012).
Water quality status	High
Water quality objective*	High (2027).
Specific pollutants	Pass (2012).
Unionised ammonia	Pass (2012).
Hydromorphological quality elements	
Hydromorphology	High
Morphology	High
Chemical status	Pass (2012).
Priority substances	Pass (2012).

Table A2 Summary of the WFD status of the Ugie Estuary to Buchan Ness (Peterhead) coastal water body (ID: 200131). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Ugie Estuary to Buchan Ness (Peterhead) coastal water body (200131)	Status
Water body type	Coastal
River basin district / catchment	North East Scottish marine region.
Water body area	46.31km^2
Area advisory group	North East Scotland.
Artificial	No
Heavily modified	Yes
Heavily modified artificial water body (HMAWB)assessment	'Good ecological potential'.
Reason for not achieving good status (2014)	Diffuse sources of pollution (water transport), morphological alterations (water transport), point source of pollution (sewage disposal).
For what use is the water body designated heavily modified?	Land use and navigation (Peterhead Harbour).
Overall ecological status / potential	Moderate
Current overall status / potential	Good
Status objective (overall)	Good (2027)
Higher sensitivity habitats present	N/A
Lower sensitivity habitats present	Gravels and cobbles (intertidal & subtidal coarse sediments), Subtidal soft sediment (sand, mud and mixed).
Protected Area Designation	Peterhead Bay Boating, wind-surfing – Recreational water Moray / Aberdeenshire / Banff / Buchan – Nitrate Vulnerable Zone Buchan Ness to Collieston – Special Protection Area Peterhead (Lido) – Bathing Water.
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027).
Biological quality elements	
Overall biological quality	Good
Invertebrate animals	Good

Ugie Estuary to Buchan Ness (Peterhead) coastal water body (200131)	Status
Impose assessment	Good
Benthic invertebrates	High
Macroalgae	High
Macroalgae (FSL)	High
Macroalgae (RSL)	Good
Phytoplankton	High
Physico-chemical quality elements	
Dissolved oxygen	High (2012).
Dissolved inorganic nitrogen	High (2012).
Water quality status	Good
Water quality objective*	Good (2027).
Specific pollutants	Pass (2012).
Unionised ammonia	Pass (2012).
Hydromorphological quality elements	
Hydromorphology	Moderate
Morphology	Moderate
Chemical status	Pass (2012).
Priority substances	Pass (2012).

Table A3 Summary of the WFD status of the Buchan Ness to Cruden Bay coastal water body (ID: 200125). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Buchan Ness to Cruden Bay coastal water body (200125)	Status
Water body type	Coastal
River basin district / catchment	North East Scottish marine region.
Water body area	57.7km^2
Area advisory group	North East Scotland.
Artificial	No

Buchan Ness to Cruden Bay coastal water body (200125)	**Status**
Heavily modified	No
Heavily modified artificial water body (HMAWB) assessment	N/A
Reason for not achieving good status (2014)	There are currently no pressures identified on this water body. Ensure that no deterioration from good status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.
For what use is the water body designated heavily modified?	N/A
Overall ecological status / potential	High
Current overall status / potential	High
Status objective (overall)*	High (2027).
Higher sensitivity habitats present	N/A
Lower sensitivity habitats present	Subtidal soft sediment (sand, mud and mixed), Gravel and cobbles (intertidal and subtidal coarse sediment).
Protected area designation	Moray / Aberdeenshire / Banff / Buchan – Nitrate Vulnerable Zone Buchan Ness to Collieston – Special Protection Area Buchan Ness to Collieston – Special Area of Conservation.
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027).
Biological quality elements	
Overall biological quality	High
Invertebrate animals	High
Impose assessment	High (2012).
Benthic invertebrates	High
Macroalgae	High
Phytoplankton	High
Physico-chemical quality elements	
Dissolved oxygen	High (2012).

Buchan Ness to Cruden Bay coastal water body (200125)	Status
Dissolved inorganic nitrogen	High (2012).
Water quality status	High
Water quality objective*	High (2027).
Specific pollutants	Pass (2012).
Unionised ammonia	Pass (2012).
Hydromorphological quality elements	
Hydromorphology	High
Morphology	High
Chemical status	Pass (2012).
Priority substances	Pass (2012).

Table A4 Summary of the WFD status of the Strathbeg Estuary transitional water body (ID: 200137). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Strathbeg Estuary transitional water body (200137)	Status
Water body type	Transitional
River basin district / catchment	North East Scottish marine region.
Water body area	0.06km^2
Area advisory group	North East Scotland.
Artificial	No
Heavily modified	No
Heavily modified artificial water body (HMAWB) assessment	N/A
Overall ecological status / potential	High
Current overall status / potential	High
Status objective (overall)*	High (2027).
Higher sensitivity habitats present	N/A
Lower sensitivity habitats present	Subtidal soft sediment (sand, mud & mixed).

Strathbeg Estuary transitional water body (200137)	**Status**
Protected area designation	Strathbeg Special Protection Area Moray / Aberdeenshire / Banff / Buchan – Nitrate Vulnerable Zone.
Freedom from Invasive Species status*	High (2012).
Freedom from Invasive Species objectives*	High (2027) .
Biological quality elements	
Overall biological quality	High
Benthic invertebrates	High (2012).
Fish	High (2012).
Macroalgae	High (2012).
Physico-chemical quality elements	
Dissolved oxygen	High (2012).
Dissolved inorganic nitrogen	High (2012).
Water quality status	High (2012).
Water quality objective*	High (2027).
Specific pollutants	Pass (2012).
Hydromorphological quality elements	
Hydromorphology	High
Morphology	High

Table A5 Summary of the WFD status of the Ugie Estuary transitional water body (ID: 200129). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Ugie Estuary transitional water body (200129)	**Status**
Water body type	Transitional
River basin district / catchment	North East Scottish marine region.
Water body area	0.12km^2
Area advisory group	North East Scotland.
Artificial	No

Ugie Estuary transitional water body (200129)	**Status**
Heavily modified	No
Heavily modified artificial water body (HMAWB) assessment	N/A
Overall ecological status / potential	High
Current overall status / potential	High
Status objective (overall)*	High (2027).
Higher sensitivity habitats present	N/A
Lower sensitivity habitats present	Subtidal soft sediment (sand, mud and mixed).
Protected area designation	Peterhead Bay Boating, wind-surfing – Recreational water Moray / Aberdeenshire / Banff / Buchan – Nitrate Vulnerable Zone.
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027).
Biological quality elements	
Overall biological quality element	High
Benthic invertebrates	High
Fish	High (2012).
Macroalgae	High (2012).
Physico-chemical quality elements	
Dissolved oxygen	High (2012).
Dissolved inorganic nitrogen	High (2012).
Water quality status	High
Water quality objective*	High (2027) and High (Long Term).
Specific pollutants	Pass (2012).
Hydromorphological quality elements	
Hydromorphology	High
Morphology	High

Table A6 Summary of the WFD status of the River Ugie river water body (ID: 23215). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

River Ugie river water body (23215)	Status
WFD water body name	River Ugie – North / South confluence to tidal limit.
Water body ID	23215
River basin district name	Scotland RBD.
Water body type	River
Water body length	9.3km
Overall water body status	Poor
Heavily modified	Yes
Overall water body objectives*	Good (2027) and Good (Long Term).
Overall ecological status	Poor
Current chemical status	Pass
Biological quality elements	Poor
Invertebrates	Good
Macrophytes	High
Overall physio-chemical status	Good
Water quality status*	Moderate
Water quality objectives*	Good (2027) and Good (Long Term).
Acid neutralising capacity	High
Dissolved oxygen	High
pH	High
Temperature	High
Specific pollutants (Including copper, iron, manganese, triclosan and zinc)	Pass
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027) and High (Long Term).

Table A7 Summary of the WFD status of the Faichfield Burn river water body (ID: 23217). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Faichfield Burn river water body	Status
WFD water body name	Faichfield Burn.
Water body ID	23217
River basin district name	Scotland RBD.
Water body type	River
Water body length	9.7km
Overall water body status	Moderate ecological potential.
Heavily modified	Yes
Overall water body objectives*	Moderate ecological potential (2027) and Good ecological potential (Long Term).
Overall ecological status	Bad
Overall biological quality element status objective	Good
Macrophytes	Good
Overall physio-chemical status	Moderate
Water quality status*	Moderate
Water quality objectives*	Good (2027) and Good (Long Term).
Dissolved oxygen	High
pH	High
Temperature	High
Specific pollutants (Including copper, iron, manganese, triclosan and zinc)	Pass
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027) and High (Long Term).

Table A8 Summary of the WFD status of the Black Water river water body (ID: 23062). Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Black Water river water body	Status
WFD water body name	Black Water d/s St Fergus.
Water body ID	23062
River basin district name	Scotland RBD.
Water body type	River
Water body length	1.3km
Overall water body status	Good
Heavily modified	No
Overall water body objectives*	Good (2027) and Good (Long Term).
Overall ecological status	High
Overall biological quality element status objective	High
Overall physio-chemical status	Good
Water quality status*	Good
Water quality objectives*	Good (2027) and Good (Long Term).
Dissolved oxygen	High
pH	High
Temperature	High
Specific pollutants (Including copper, iron, manganese, triclosan and zinc)	Pass
Freedom from Invasive Species status*	High
Freedom from Invasive Species objectives*	High (2027) and High (Long Term).

Table A9 Summary of the WFD status for the Fraserburgh Sand and Gravel (ID: 150800) groundwater WFD water body. Data recorded for 2023 unless stated otherwise (* denotes data from 2020)

Fraserburgh Sand and Gravel ground water body	**150800**
Water body type	Groundwater
Water body area	76.4km^2
Current overall status	Good
Overall status objective*	Good (2027) and Good (Long Term).
Current quantitative status	Good
Current chemical status (GW)	Good
Water quality status	Good
Water quality objectives*	Good
Water flows and levels objectives*	Good (2027) and Good (Long Term).
Quantitative Elements	
Saline intrusion	Good
SW interaction	Good
Water balance	Good
Chemical (GW) Elements	
Drinking water protected area	Good
General chemical test	Good
Saline intrusion	Good

Table A10 Summary of the WFD status for the Fraserburgh (ID: 150634) groundwater WFD water body. Data recorded for 2023 unless stated otherwise

Fraserburgh groundwater body	**150634**
Water body type	Groundwater
Water body area	207.4km^2
Current overall status / potential	Good
Overall status objective*	Good (2027) and Good (Long Term).
Current quantitative status	Good

Fraserburgh groundwater body	**150634**
Current chemical status (GW)	Good
Water quality	Good
Water flows and levels objectives*	Good (2027) and Good (Long Term).
Quantitative elements	
Saline intrusion	Good
SW interaction	Good
Water balance	Good
Chemical (GW) elements	
Drinking water protected area	Good
General chemical test	Good
Saline intrusion	Good
SW Interaction	Good

Table A11 Summary of the WFD status for the Fraserburgh Mintlaw (ID: 150655) groundwater WFD water body. Data recorded for 2023 unless stated otherwise

Mintlaw groundwater body	**150655**
Water body type	Groundwater
Water body area	323.1km^2
Current overall status / potential	Good
Current quantitative status	Good
Current chemical status (GW)	Good
Water quality	Good
Quantitative elements	
Saline intrusion	Good
SW interaction	Good
Water balance	Good
Chemical (GW) elements	
Drinking water protected area	Good

Mintlaw groundwater body	**150655**
General chemical test	Good
Saline intrusion	Good
SW Interaction	Good

MarramWind