

Water Framework Directive assessment: scoping template for activities in estuarine and coastal waters

Use this template to record the findings of the scoping stage of your Water Framework Directive (WFD) assessment for an activity in an estuary or coastal water.

If your activity will:

- take place in or affect more than one water body, complete a template for each water body
- include several different activities or stages as part of a larger project, complete a template for each activity as part of your overall WFD assessment

The [WFD assessment guidance for estuarine and coastal waters](#) will help you complete the table.

Your activity	Description, notes or more information
Applicant name	National Grid Electricity Transmission plc
Application reference number (where applicable)	N/A
Name of activity	National Grid Visual Impact Provision (VIP) – Snowdonia Project – Proposed Marine Works (Cable tunnel and laying cables)
Brief description of activity	<p>National Grid is proposing to mitigate the visual impact of existing 4ZC Overhead Lines (OHL) within Snowdonia National Park near Penrhyndeudraeth, Gwynedd, and replace a section of the route with underground cables beneath the Dwyrdd estuary.</p> <p>A cable tunnel will be constructed underneath the estuary using a tunnel boring machine (TBM). Shafts either side of the estuary to access the tunnel will be outside the marine environment and the tunnel under the Dwyrdd Estuary will be at least 15m below ODN therefore, the tunnel construction will not come into contact with surface features within the marine environment.</p>

Location of activity (central point XY coordinates or national grid reference)	Please refer to the Tunnel Method Statement (P2048_BN5006_Rev0_Tunnel_Method) which contains a list of all the coordinates of the Proposed Marine Works (Tunnel) application area.
Footprint of activity (ha)	The Proposed Marine Works (tunnel) is taking place underneath the estuary and therefore does not have a surface footprint.
Timings of activity (including start and finish dates)	<p>The current indicative programme for the Proposed Project is that, assuming planning consent, on site works would commence in 2021 and take approximately 5-6 years to complete.</p> <p>First site access will be taken at the western tunnel drive site near Garth, this is currently expected to take place in early 2021 and is subject to gaining all necessary approvals.</p> <p>All tunnel, tunnel head house and sealing end compound construction work is expected to be complete by the end of 2025.</p> <p>OHL removal work (including the Proposed Marine Works) is expected to take place in 2026. The Proposed Marine Works will take place between 01 April and 30 September.</p>
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	All works will take place underneath the estuary. All excavated sediment will be disposed of outside the marine environment area.
Use or release of chemicals (state which ones)	Bentonite will be used during the tunnel drilling, no planned release of chemicals.

Water body ¹	Description, notes or more information
WFD water body name	Glaslyn (Transitional WB)
Water body ID	GB511006507300
River basin district name	Western Wales
Water body type (estuarine or coastal)	Estuarine (River)
Water body total area (ha)	1566.9 ha (15.669km ²)
Overall water body status (2015)	Good

Ecological status	Good
Chemical status	Good
Target water body status and deadline	N/A – Currently achieving Good Ecological Status
Hydromorphology status of water body	Good
Heavily modified water body and for what use	N/A – It is not a heavily modified water body
Higher sensitivity habitats present	Yes
Lower sensitivity habitats present	Yes
Phytoplankton status	No
History of harmful algae	No
WFD protected areas within 2km	Pen Llyn a 'r Sarcau SAC

¹ Water body information can be found in the Environment Agency's catchment data explorer and the water body summary table. Magic maps provide additional information on habitats and protected areas. Links to these information sources can be found in the WFD assessment guidance for estuarine and coastal waters.

Specific risk information

Consider the potential risks of your activity to each of these receptors: hydromorphology, biology (habitats and fish), water quality and protected areas. Also consider invasive non-native species (INNS).

Section 1: Hydromorphology

Consider if hydromorphology is at risk from your activity.

Use the water body summary table to find out the hydromorphology status of the water body, if it is classed as heavily modified and for what use.

Consider if your activity:	Yes	No	Hydromorphology risk issue(s)
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	Requires impact assessment	Impact assessment not required	No – there will be no interaction between the tunnel boring under the estuary and the estuary surface features.
Could significantly impact the hydromorphology of any water body	Requires impact assessment	Impact assessment not required	No – see above
Is in a water body that is heavily modified for the same use as your activity	Requires impact assessment	Impact assessment not required	N/A – it is not a heavily modified water body

Record the findings for hydromorphology and go to section 2: biology.

Section 2: Biology

Habitats

Consider if habitats are at risk from your activity.

Use the water body summary table and Magic maps, or other sources of information if available, to find the location and size of these habitats.

Higher sensitivity habitats ²	Lower sensitivity habitats ³
chalk reef	cobbles, gravel and shingle
clam, cockle and oyster beds	intertidal soft sediments like sand and mud
intertidal seagrass	rocky shore
maerl	subtidal boulder fields
mussel beds, including blue and horse mussel	subtidal rocky reef
polychaete reef	subtidal soft sediments like sand and mud
saltmarsh	
subtidal kelp beds	
subtidal seagrass	

² Higher sensitivity habitats have a low resistance to, and recovery rate, from human pressures.

³ Lower sensitivity habitats have a medium to high resistance to, and recovery rate from, human pressures.

Consider if the footprint ⁴ of your activity is:	Yes	No	Biology habitats risk issue(s)
0.5km ² or larger	Yes to one or more – requires impact assessment	No to all – impact assessment not required	No – construction will take place underneath the estuary therefore there will be no surface footprint and no interaction with habitats at the surface
1% or more of the water body's area			No – See above
Within 500m of any higher sensitivity habitat			No – See above
1% or more of any lower sensitivity habitat			No – See above

⁴ Note that a footprint may also be a temperature or sediment plume. For dredging activity, a footprint is 1.5 times the dredge area.

Fish

Consider if fish are at risk from your activity, but only if your activity is in an estuary or could affect fish in or entering an estuary.

Consider if your activity:	Yes	No	Biology fish risk issue(s)
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary	Continue with questions	Go to next section	Yes - a potential effect on fish from noise and vibration was identified. This was assessed in the Marine HRA (P2048_R4881_Rev4) Appendix A - Underwater Noise Assessment). The assessment concluded that any effects from noise and vibration from tunnel boring will be negligible.
Could 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)	Requires impact assessment	Impact assessment not required	No – see above
Could cause entrainment or impingement of fish	Requires impact assessment	Impact assessment not required	No – see above

Record the findings for biology habitats and fish and go to section 3: water quality.

Section 3: Water quality

Consider if water quality is at risk from your activity.

Use the water body summary table to find information on phytoplankton status and harmful algae.

Consider if your activity:	Yes	No	Water quality risk issue(s)
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Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	Requires impact assessment	Impact assessment not required	No – construction is taking place at least 15m below the estuary bed therefore there will be no interaction with surface features.
Is in a water body with a phytoplankton status of moderate, poor or bad	Requires impact assessment	Impact assessment not required	No
Is in a water body with a history of harmful algae	Requires impact assessment	Impact assessment not required	No

Consider if water quality is at risk from your activity through the use, release or disturbance of chemicals.

If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if:	Yes	No	Water quality risk issue(s)
The chemicals are on the Environmental Quality Standards Directive (EQSD) list	Requires impact assessment	Impact assessment not required	N/A
It disturbs sediment with contaminants above Cefas Action Level 1	Requires impact assessment	Impact assessment not required	N/A

If your activity has a mixing zone (like a discharge pipeline or outfall) consider if:	Yes	No	Water quality risk issue(s)
The chemicals released are on the Environmental Quality Standards Directive (EQSD) list	Requires impact assessment ⁵	Impact assessment not required	N/A

⁵ Carry out your impact assessment using the Environment Agency's surface water pollution risk assessment guidance, part of Environmental Permitting Regulations guidance.

Record the findings for water quality go on to section 4: WFD protected areas.

Section 4: WFD protected areas

Consider if WFD protected areas are at risk from your activity. These include:

- special areas of conservation (SAC)
- special protection areas (SPA)
- shellfish waters
- bathing waters
- nutrient sensitive areas

Use Magic maps to find information on the location of protected areas in your water body (and adjacent water bodies) within 2km of your activity.

Consider if your activity is:	Yes	No	Protected areas risk issue(s)
Within 2km of any WFD protected area ⁶	Requires impact assessment	Impact assessment not required	Yes – within boundary of Pen Llyn a'r Sarnau SAC

⁶ Note that a regulator can extend the 2km boundary if your activity has an especially high environmental risk.

Record the findings for WFD protected areas and go to section 5: invasive non-native species.

Section 5: Invasive non-native species (INNS)

Consider if there is a risk your activity could introduce or spread INNS.

Risks of introducing or spreading INNS include:

- materials or equipment that have come from, had use in or travelled through other water bodies
- activities that help spread existing INNS, either within the immediate water body or other water bodies

Consider if your activity could:	Yes	No	INNS risk issue(s)
Introduce or spread INNS	Requires impact assessment	Impact assessment not required	No risk of introduction of non-native species

Record the findings for INNS and go to the summary section.

Summary

Summarise the results of scoping here.

Receptor	Potential risk to receptor?	Note the risk issue(s) for impact assessment
Hydromorphology	No	No interaction with surface features
Biology: habitats	No	No interaction with surface features
Biology: fish	Yes	Potential risk from noise and vibration assessed in HRA as negligible
Water quality	No	No interaction with surface features
Protected areas	Yes	Project is within Pen Llyn a 'r Sarnau SAC, HRA concluded effects from noise negligible
Invasive non-native species	No	No interaction with surface features

If you haven't identified any receptors at risk during scoping, you don't need to continue to the impact assessment stage and your WFD assessment is complete.

If you've identified one or more receptors at risk during scoping, you should continue to the impact assessment stage.

Include your scoping results in the WFD assessment document you send to your activity's regulator as part of your application for permission to carry out the activity.