

**The Great Grid Upgrade**

Eastern Green Link 5 (EGL 5)

# Preliminary Environmental Information Report

Volume 2

Part 2

Appendix 9.A Water Framework Directive Assessment  
Stage 1 & 2

Document Reference: EGL5-NGET-CONS-XX-RP-YL-037

May 2026

nationalgrid

# Contents

---

|             |  |          |
|-------------|--|----------|
| <b>9.A.</b> | <b>Water Framework Directive Stages 1 &amp; 2</b>  | <b>1</b> |
| 9.A.1       | Introduction   | 1        |
| 9.A.2       | Onshore Water Framework Directive Waterbodies and the Project's Zone of Influence  | 3        |
| 9.A.3       | Assessment of Activities by the Project on Water Framework Directive Waterbodies   | 5        |
| 9.A.4       | Proposed Activities of the Project   | 7        |
| 9.A.5       | Summary  | 9        |
| <hr/>       |  |          |
|             | Table 9.A-1 Matter for Inclusion in the Statement of Common Ground and Status  | 2        |
|             | Table 9.A-2 WFD Surface (River) Waterbodies and Baseline Status  | 5        |
|             | Table 9.A-3 WFD Transitional and Coastal Waterbodies and Baseline Status   | 6        |
|             | Table 9.A-4 WFD Groundwater Bodies and Baseline Status   | 6        |
|             | Table 9.A-5 Construction Phase Activities and Preliminary Potential Risks to WFD Waterbody Status                        | 7        |
|             | Table 9.A-6 Operational Phase Activities (including Maintenance) and Preliminary Potential Risks to WFD Waterbody Status | 9        |

# 9.A. Water Framework Directive Stages 1 & 2

## 9.A.1 Introduction

### Background and Purpose of this Note

- 9.A.1.1 This note sets out the intended approach to undertaking a Water Framework Directive (WFD) assessment for the English Onshore elements of Eastern Green Link 5 (EGL 5), the Project, including the methodology and findings of Stage 1 and 2 of the WFD assessment.
- 9.A.1.2 It is being submitted as an appendix to the Preliminary Environmental Information Report (PEIR) and should be read in conjunction with relevant chapters of the PEIR, notably Chapter 9 Water Environment and Chapter 10 Geology and Hydrogeology.
- 9.A.1.3 The English Offshore elements will also be subject to a WFD assessment, conducted in accordance with Environment Agency 2023 'Clearing the waters for all' guidance (Ref 2). This assessment will be reported separately, whilst ensuring any overlaps within the intertidal zone are suitably covered. This is provided as **Volume 2, Part 3, Appendix 17.C: Water Framework Directive (WFD) Offshore Assessment** of the PEIR.
- 9.A.1.4 This note has been prepared with reference to the Planning Inspectorate WFD advice (Ref 1), which encourages early engagement with statutory consultation bodies. It sets out the intended Zones of Influence (Zoi), guidance to be followed, sources of baseline data, and the approach to assessing the activities of the Project on waterbodies without a WFD Status. The note concludes with a description of the intended approach to reporting the WFD assessment.
- 9.A.1.5 The purpose of this note is to identify waterbodies and protected areas within the Anglian River Basin District (RBD) within the proposed Zoi of the English Onshore Scheme and screen those waterbodies for the potential to be impacted by the Project (WFD Stage 1). It also provides baseline data for those waterbodies (WFD Stage 2).
- 9.A.1.6 This note is shared with a view to gaining agreement with the Environment Agency on these key parameters.

### Policy and Guidance

- 9.A.1.7 The assessment will draw on guidance published by the Environment Agency and the Planning Inspectorate, namely:
- Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (Ref 1);
  - Clearing the Waters for All (Ref 2);
  - Protecting and improving the water environment – WFD compliance of physical works in rivers. Doc No. 488\_10 (Ref 3);
  - Water Framework Directive Assessment: estuarine and coastal waters (Ref 4); and

- Water Framework Directive Risk Assessment – How to Assess the Risk of your Activity (Ref 5).

## Approach to Reporting

9.A.1.8 It is proposed to undertake the WFD Onshore assessment in four stages:

- Stage 1: Identify the WFD waterbodies and protected areas within the Zol and screen them for the potential to be impacted by the activities of the Project, based on the source – pathway – receptor principle
- Stage 2: Define the baseline status, objectives and measures for screened-in waterbodies;
- Stage 3: Screen activities of the Project (construction, operation and maintenance) and identify embedded and good practice measures (to be secured through their inclusion within a commitments register, which will sit alongside an Outline Code of Construction Practice (CoCP)) that reduce the potential for deterioration of screened-in waterbodies; and
- Stage 4: Assess the effects of screened-in activities on screened-in waterbodies.

9.A.1.9 It is proposed to share reporting on the findings of each stage of the assessment with the Environment Agency for review, providing for the opportunity to address any comments, prior to moving to the next stage of assessment, with the aim of agreeing all matters prior to the submission of the Development Consent Order (DCO) application. The current status of agreements are presented in **Table 9.A-1**. These will be updated through the course of discussions with the Environment Agency, with blank columns and status to be filled out during consultation.

9.A.1.10 This note will set out Stage 1 and 2 of the Onshore WFD assessment.

Table 9.A-1 Matter for Inclusion in the Statement of Common Ground and Status

| Matter            | Consultee comment / Position | Applicant comment  | Document Reference | Status           |
|-------------------|------------------------------|--|--------------------|------------------|
| Zone of Influence |                              | The defined Zol is suitable to include all waterbodies and protected areas with the potential to be impacted by the English Onshore elements of the EGL 5 project. |                    | Not Agreed       |
|                   |                              |  |                    | Under Discussion |
|                   |                              |  |                    | Agreed           |

| Matter   | Consultee comment / Position | Applicant comment  | Document Reference | Status           |
|--|------------------------------|--|--------------------|------------------|
| Assessment methodology                         |                              | The assessment guidance referenced in Section 1.2, are suitable and complete.  |                    | Not Agreed       |
|  |                              |  |                    | Under Discussion |
|  |                              |  |                    | Agreed           |
| Assessing surface waters without a WFD status  |                              | The proposed method for assessing the English Onshore elements of the projects' interactions with surface waters without a WFD designation/status is suitable. |                    | Not Agreed       |
|  |                              |  |                    | Under Discussion |
|  |                              |  |                    | Agreed           |
| Waterbody screening                            |                              | The waterbodies and protected areas screened into the assessment are appropriate.  |                    | Not Agreed       |
|  |                              |  |                    | Under Discussion |
|  |                              |  |                    | Agreed           |
| Conclusions of stage 1 and 2 of the assessment |                              | The conclusions of Stages 1 and 2 of the assessment are appropriate.   |                    | Not Agreed       |
|  |                              |  |                    | Under Discussion |
|  |                              |  |                    | Agreed           |

## 9.A.2 Onshore Water Framework Directive Waterbodies and the Project's Zone of Influence

### Anglian River Basin District

- 9.A.2.1 The English Onshore Scheme is wholly located within the Anglian RBD. Following consideration of the Zol of the English Onshore Scheme (as described in Section 2.3), the Anglian River Basin Management Plan (RBMP) (Ref 6), updated for the third cycle of the WFD in December 2022, has been reviewed to identify potentially affected WFD waterbodies. The Environment Agency's Catchment Data Explorer online tool (Ref 7) has also been used to assist in this task.

- 9.A.2.2 The Anglian RBD is divided into a number of surface water, artificial and groundwater management catchments. Those catchments that the Project crosses through comprise:
- Anglian groundwater management catchment. This catchment underlies the English Onshore components of the Project; and
  - The Stepping and Eaus operational catchment, part of the Witham surface water management catchment. This catchment covers the English Onshore components of the Project.
- 9.A.2.3 There are no relevant artificial water management catchments.
- 9.A.2.4 The landfall and part of the English Offshore Scheme lies within the Lincolnshire transitional and coastal (TraC) waterbody within the Anglian RBD.

## Water Framework Directive Objectives and Measures

- 9.A.2.5 The objective is the planned status of a WFD waterbody that must be achieved or maintained.
- 9.A.2.6 There are two different status objectives for each WFD waterbody. For surface waters (including TraC waterbodies) these are the ecological status or potential, and the chemical status objective; for groundwater these are quantitative status and chemical status objectives.
- 9.A.2.7 Two of the WFD surface waterbodies in the Anglian RBD within the ZoI (Lincolnshire and Woldgrift Drain) have an ecological status objective of 'Moderate'. They achieved this target in 2015. The remainder of the WFD surface waterbodies (Anderby Main Drain and Boygrift Drain) have an ecological status objective of 'Good' and are expected to achieve this by 2027.
- 9.A.2.8 All the surface waterbodies in the Anglian RBD have a chemical status objective of 'Good' by 2063.
- 9.A.2.9 There are several programmes of measures described in the Anglian RBMP which apply across multiple management catchments. These are actions that funding has been committed to or there is an established funding mechanism to support, and examples include measures required to address physical modifications, measures required to manage changes to natural flow and levels of water and measures required for peatland restoration, amongst others.

## Zones of Influence

- 9.A.2.10 The study area for a WFD assessment is defined by a ZoI or ZoIs. ZoI are set following consideration of the nature, scale and duration of a projects' construction and operational activities. The ZoIs proposed for the WFD assessment have also been selected to be consistent with what has been agreed with the Environment Agency for the EGL 3 & EGL 4 projects, which are very similar in nature in terms of project activities, and which share common waterbody catchments.
- 9.A.2.11 For the onshore activities proposed by the Project, the proposed ZoI will include all surface and groundwater bodies regulated by the WFD that could be directly impacted (i.e., within the direct footprint of the Project) and those within 500 m of the draft Order Limits to account for potential indirect impacts.

- 9.A.2.12 Protected areas with a surface or groundwater dependency within 500 m of the draft Order Limits will also be included in the scope of the assessment following consideration of the distance over which the Project’s activities (see Section 4) can reasonably have the potential to cause significant effects/influence the achievement of the WFD status.
- 9.A.2.13 The TraC waterbody that the Project crosses (and which is within the Zol) will be screened into the WFD Assessment as it is downstream of the surface waterbodies within the Zol. As noted, the Project’s offshore activities will also be subject to a WFD assessment, conducted in accordance with Environment Agency 2023 ‘Clearing the waters for all’ guidance (Ref 2).

### 9.A.3 Assessment of Activities by the Project on Water Framework Directive Waterbodies

#### Introduction

- 9.A.3.1 For the purposes of this note, affected waterbodies across surface (river) water, groundwater and transitional/coastal waters have been identified and tabulated using based on the draft Order Limits and the defined Zol. The screened in waterbodies are presented in **Figure 9.A-1: Water Framework Directive Waterbodies and Zone of Influence**.

#### Surface Waterbodies and Water Framework Directive Baseline Status

- 9.A.3.2 Surface (river) waterbodies within the Zol and their current WFD status are described in **Table 9.A-2**. The route of the English Onshore Scheme has been subdivided into three sections, Anderby Creek Landfall, Anderby Creek Landfall to Alford (inclusive of haul roads) and Converter Station Area.

Table 9.A-2 WFD Surface (River) Waterbodies and Baseline Status

| Section   | Waterbody ID   | Waterbody Name   | 2019 / 2022* Waterbody Classification   |
|---|----------------|------------------|---|
| Landfall, HDVC<br>Underground<br>Cable & EGL 5<br>Converter Station<br>Area | GB105029061730 | Anderby<br>Drain | Main<br>Hydromorphological designation:<br>Artificial<br>Ecological: Moderate<br>Chemical: Fail |
| HDVC<br>Underground<br>Cable & EGL 5<br>Converter Station<br>Area           | GB105029061720 | Boygrift Drain   | Hydromorphological designation:<br>Artificial<br>Ecological: Moderate<br>Chemical: Fail         |
|   | GB105029061750 | Woldgrift Drain  | Hydromorphological designation:<br>Artificial<br>Ecological: Moderate<br>Chemical: Fail         |

| Section | Waterbody ID   | Waterbody Name        | 2019 / 2022* Waterbody Classification  |
|---------|----------------|-----------------------|--|
|         | GB105029061641 | Trusthorpe Pump Drain | Hydromorphological designation: Artificial<br>Ecological: Moderate<br>Chemical: Fail |

\*Ecological 2022, chemical 2019

## Transitional/Coastal Waterbodies and Water Framework Directive Baseline Status

9.A.3.3 The TraC waterbody within the Zol and its current WFD status is described in **Table 9.A-3**.

Table 9.A-3 WFD Transitional and Coastal Waterbodies and Baseline Status

| Section           | Waterbody ID     | Waterbody Name | 2019/2022* Waterbody Classification  |
|-------------------|------------------|----------------|--|
| Landfall Offshore | / GB640402492000 | Lincolnshire   | Hydromorphological designation: Heavily Modified<br>Ecological: Moderate<br>Chemical: Fail |

\*Ecological 2022, chemical 2019

## Groundwater Bodies and Water Framework Directive Baseline Status

9.A.3.4 The groundwater body within the Zol and its current WFD status is described in **Table 9.A-4**.

Table 9.A-4 WFD Groundwater Bodies and Baseline Status

| Waterbody ID   | Waterbody Name                | 2019/2022* Waterbody Classification                   |
|----------------|-------------------------------|---|
| GB40501G401600 | South Lincolnshire Chalk Unit | Overall: Poor<br>Quantitative: Good<br>Chemical: Poor |

## Protected Areas

9.A.3.5 Several protected areas within the Zol have been identified that have a known or potential surface or groundwater dependency.

9.A.3.6 It would be the aim that the Project (during both construction and operational phases) would not compromise the objectives or designated features of these protected areas and safeguarding zones. However, as a precaution and until all ecological surveys are complete and the hydrological connectivity and reliance of the protected areas interest features on surface or groundwater flows is more fully understood, all protected areas within the Zol are screened in.

## Assessment of the Activities of the Project on Waterbodies without a Water Framework Directive Status

9.A.3.7 It is anticipated that many watercourses will be crossed by the English Onshore Scheme that are not designated WFD waterbodies (with a Waterbody ID) but drain to WFD waterbodies.

9.A.3.8 Potential effects on these watercourses will be considered cumulatively within the WFD assessment, with effects on the WFD waterbody to include the indirect effects associated with works to its 'non designated' tributaries. This approach is preceded by being applied on recent linear DCO schemes of similar nature to the Project, for example the Norwich to Tilbury project, and has been accepted by the Regulator (the Environment Agency) for the Eastern Green Link 3 and Eastern Green Link 4 projects.

## 9.A.4 Proposed Activities of the Project

### Overview

9.A.4.1 Activities associated with the construction and operation (including maintenance) of the Project with the potential to impact on WFD waterbodies within the proposed Zol, prior to implementation of mitigation measures, are described in **Table 9.A-5**.

### Construction Phase Activities

9.A.4.2 **Table 9.A-5** summarises the preliminary screening of the construction phase activities of the English Onshore Scheme.

Table 9.A-5 Construction Phase Activities and Preliminary Potential Risks to WFD Waterbody Status

| Activities   | Risk  | Waterbody Potentially Affected                                |
|--|---|---|
| General construction, including use of construction access/haul routes | Runoff and discharges, spills and leaks of potentially polluting materials degrading receiving water quality, with potential for impacts on downstream waterbodies. | Surface waters (including TraC), groundwater, protected areas |

| Activities  | Risk   | Waterbody Potentially Affected                                |
|---|--|---|
| Construction handling/treatment   | waste Discharge of potentially polluting materials/effluents degrading receiving water quality, with potential for impacts on downstream waterbodies.                      | Surface waters (including TraC), groundwater, protected areas |
| Soil stripping and earthworks, interactions with existing land drainage systems           | Discharge of potentially polluting materials leading to adverse flow regime, water quality, ecological and hydromorphological effects.                                     | Surface waters, protected areas                               |
| Watercourse crossings for construction access and cable installation via open cut methods | Physical modifications leading to adverse water quality, ecological and hydrogeomorphological effects and potential fragmentation of habitat. Potential to introduce INNS. | Surface waters, groundwater, protected areas                  |
| Drilling for trenchless crossings and at landfall   | Opening pollution pathways to water environment receptors, outbreaks of drilling muds degrading receiving water quality, connection of aquifers.                           | Surface waters (including TraC), groundwater, protected areas |
| Piling and ground improvements  | Generation of noise impacts on fish populations (harm/mortality/behavioural effects).  |   |
| Dewatering of excavations   | Opening pollution pathways to water environment receptors, potential to reduce groundwater levels and impact groundwater flows.  | Surface waters, groundwater, protected areas                  |

## Operational Phase Activities (including maintenance)

9.A.4.3 **Table 9.A-6** summarises the preliminary screening of the operational phase activities of the English Onshore Scheme.

Table 9.A-6 Operational Phase Activities (including Maintenance) and Preliminary Potential Risks to WFD Waterbody Status

| Activities   | Risk   | Waterbody Potentially Affected               |
|--|--|--|
| Operation of permanent Project infrastructure                | Water quality degradation and impacts on the land drainage regime.<br>Impacts on fish from electromagnetic fields ( <b>Volume 2, Part 1, Appendix 4.A: Electromagnetic (EMF) Study</b> ) and/or thermal emissions associated with cables buried beneath waterbodies. | Surface waters, groundwater, protected areas |
| Maintenance (and repair) of permanent Project infrastructure | Discharges, spills and leaks of potentially polluting materials degrading receiving water quality.<br>Changes to water clarity from sediment plumes.<br>Disturbance of contaminated sediments.   | Surface waters, protected areas              |

## 9.A.5 Summary

- 9.A.5.1 This note presents Stages 1 and 2 of the EGL 5 Onshore WFD assessment as a basis for consultation with the Environment Agency. The English Onshore Scheme is located entirely within the Anglian RBD.
- 9.A.5.2 Groundwater bodies, surface water and downstream transitional waterbodies and have been identified within the Project's Zol and are presented in **Table 9.A-2, Table 9.A-3** and **Table 9.A-4**.
- 9.A.5.3 All of the waterbodies within the Zol are screened in and all protected areas within the Zol are precautionarily screened in.
- 9.A.5.4 Activities that pose a risk to the WFD status of waterbodies within the Zol, and WFD compliance of these waterbodies, prior to mitigation, have been identified. These include general construction activities and several specific construction activities such as watercourse crossings and drilling for watercourse crossings, as well as operational and maintenance activities.

## Bibliography

Ref 1 Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-water-framework-directive> [Accessed 27 June 2025].

Ref 2 Environment Agency (2023). Clearing the Waters for All / Water Framework Directive Assessment: estuarine and coastal waters. Available at: <https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters> [Accessed 27 June 2025].

Ref 3 Environment Agency (2016). Protecting and improving the water environment – WFD compliance of physical works in rivers. Doc No. 488\_10.

Ref 4 Environment Agency (2016). Water Framework Directive assessment: estuarine and coastal waters. Available at: <https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters> [Accessed 27 June 2025].

Ref 5 Environment Agency (2016). Water Framework Directive assessment for a flood risk activity. Available at: <https://www.gov.uk/government/publications/water-framework-directive-how-to-assess-the-risk-of-your-activity> [Accessed 27 June 2025].

Ref 6 Environment Agency (2022). River basin management plans: updated 2022. Available at: <https://www.gov.uk/guidance/river-basin-management-plans-updated-2022> [Accessed 27 June 2025].

Ref 7 Environment Agency (2023). Catchment Data Explorer. Available at: <https://environment.data.gov.uk/catchment-planning/> [Accessed 27 June 2025].

National Grid plc  
National Grid House,  
Warwick Technology Park,  
Gallows Hill, Warwick.  
CV34 6DA United

Registered in England and Wales  
No. 4031152  
[nationalgrid.com](http://nationalgrid.com)