The Great Grid Upgrade

North Humber to High Marnham

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North Humber to High Marnham

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nationalgrid

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Executive Summary

Background and Purpose of this Report

National Grid Electricity Transmission plc (National Grid) is developing the North Humber to High Marnham Project (the Project), a proposed new 400 kV electricity transmission connection between East Riding of Yorkshire and Nottinghamshire. The Project would reinforce the national electricity transmission network, enabling the connection of new low carbon energy generation and supporting the delivery of the UK Government's clean power and net zero ambitions. The Project is a Nationally Significant Infrastructure Project (NSIP) for which development consent is being sought through a Development Consent Order (DCO) under the Planning Act 2008 (HM Government, 2008). It is recognised as a critical reinforcement to provide the network capacity required to meet future electricity demand and support the transition to a low-carbon energy system.

This report summarises Stages 1 and 2 and presents the methodology and conclusions of Stages 3 and 4 of the Water Framework Directive (WFD) assessment for the North Humber to High Marnham Project (herein referred to as 'the Project'), as a basis for consultation with the Environment Agency (EA). The WFD assessment is being produced to accompany the Development Consent Order application and inform the assessment present in the Environmental Statement (ES).

The study area (or Zone of Influence (ZoI)) for this assessment, defined in Stage 1, includes land within the Order Limits, in addition to surface and groundwaters within 500 m of the Order Limits. This ZoI has been discussed with the Environment Agency, who requested justification on the basis of the nature of the proposed Project activities and associated impact pathways. This justification is presented in section 3.1.

In Stage 2, the WFD waterbodies that were screened in comprised 21 surface waterbodies (including two artificial waterbodies and two transitional waterbodies) and four groundwater bodies. Several watercourses that are not designated WFD waterbodies, drain to the screened-in surface WFD waterbodies. The potential effects on these watercourses have also been considered within this assessment. Protected areas and Groundwater Dependent Terrestrial Ecosystems (GWDTEs) with a hydrological link to these waterbodies were also screened in.

Results of the Assessment

The initial screening of the Project components undertaken in Stage 3 concluded the potential for negative effects on the surface waterbodies linked to the following activities:

- General construction (including use of haul roads);
- Construction waste handling/treatment;
- Dewatering of excavations;
- Watercourse crossings – culverting; and
- Watercourse crossings – structures spanning watercourses (new open-span bridges).

With regard to groundwater bodies, the review of the Project components as part of **Application Document 6.12 Environmental Statement Chapter 12 Geology and Hydrogeology** concluded the potential for negative effects linked to:

- Mobilisation of existing contamination;
- Changes to groundwater levels, quality and flow from areas of undergrounding associated with third-party infrastructure works; and
- Mixing of aquifer units and creating potential preferential pathways from areas of undergrounding associated with third-party infrastructure works.

This Stage 4 assessment concludes that the residual effects of the screened-in activities on the screened-in waterbodies would be not significant following implementation of the embedded mitigation measures outlined in this report. There would be no deterioration at the waterbody scale and the Project would not prevent implementation of any planned measures set out in the relevant River Basin Management Plans. It also demonstrated that there would be no new or different effects allowing for flexibility within the Limits of Deviation.

This assessment concludes that the Project is compliant with the objectives of the WFD and on this basis, no further assessment is proposed and derogation is not required.

1. Introduction

1.1 Overview

1.1.1 National Grid Electricity Transmission plc (National Grid) owns and maintains the national high voltage electricity transmission network throughout England and Wales.

1.1.2 The transmission network connects the power from where it is generated to the regional distribution network operators who then supply businesses and homes.

1.1.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989 (HM Government, 1989).

1.1.4 National Grid has developed plans for the North Humber to High Marnham Project (the Project). The Project would support the UK government's net zero target through the connection of new low carbon energy generation and by reinforcing the transmission network.

1.1.5 The Project would establish a new 400 kilovolt (kV) transmission connection approximately 90 kilometres (km) in length between a new substation to be built in the vicinity of Birkhill Wood, located to the north of Hull near Creyke Beck in the East Riding of Yorkshire, and a new substation at High Marnham in Nottinghamshire.

1.1.6 The reinforcement is needed because the existing transmission network, even with current upgrading, will not have sufficient capacity for the new renewable energy (a substantial proportion of which would be generated by offshore wind) that is expected to connect to the network over the next 10 years and beyond. Completion of the Project, together with other new reinforcements across the country, will meet this future energy transmission demand across the UK.

1.1.7 The Project is a Nationally Significant Infrastructure Project (NSIP), and National Grid is seeking development consent under the Planning Act 2008. NSIPs require a type of planning permission known as a Development Consent Order (DCO). Instead of applying to the local authority for planning permission, the developer must apply to the Secretary of State via the Planning Inspectorate for a DCO.

1.1.8 National Grid has submitted an application for development consent to the Planning Inspectorate for the Project. The Examining Authority (consisting of one or more examining inspectors), after a period of public examination, will make its recommendation to the Secretary of State for Energy Security and Net Zero, who in turn will decide on whether development consent should be granted.

1.1.9 The Project has been identified as being critical to delivering a network which supports the clean power pathways for 2030 delivery.

1.2 Purpose and Structure of the Document

1.2.1 The purpose of this report is to assess whether the Project would comply with the requirements of the Water Framework Directive (England and Wales) Regulations 2017 (WFD) (HM Government, 2017). It does this by assessing whether, at a waterbody scale, the Project would be compliant with the requirements of the WFD and whether, with mitigation provided, it can be concluded that it is unlikely that there would be deterioration in classification and/or prevention of water quality elements achieving good classification or RBMP objectives.

1.2.2 This report summarises Stages 1 and 2 and presents Stages 3 and 4 of the Water Framework Directive Regulations (WFD) screening and assessment process as follows:

- Stage 1: Defines the Zone of Influence (ZoI) and identifies WFD waterbodies within the ZoI.
- Stage 2: Collates baseline data for those waterbodies.
- Stage 3: Screens Project components and activities to identify those with the potential to impact on WFD quality elements of waterbodies within the ZoI.
- Stage 4: Comprises the preliminary assessment of the components of the Project screened-in at Stage 3 against the WFD quality elements that make up the overall WFD status of screened-in waterbodies. If this stage concludes potential for non-compliance with WFD objectives, a further stage of detailed assessment is required.

1.2.3 National Grid has embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation of the Project. Embedded measures are those that are intrinsic to and built into the design of the Project.

1.2.4 National Grid has also identified several control and management measures which generally comprise measures imposed through legislative requirements or represent sector standard good practices. These include measures to reduce nuisance from construction activities. The embedded and control and management measures are documented within **Application Document 7.3 Register of Environmental Actions and Commitments**, and each has been given a code, e.g. GG01, to allow the measures to be easily cross referenced.

1.3 Water Framework Directive Regulations Requirements

1.3.1 The WFD Regulations (HM Government, 2017) transposed the provisions of Directive 2000/60/EC (European Parliament and Council of the European Union, 2000) of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (the 'Water Framework Directive') and by virtue of the European Union (Withdrawal) Act 2018 and the Retained EU Law (Revocation and Reform) Act 2023 continues to have effect following the exit of the United Kingdom from the European Union. These are hereafter referred to as the 'WFD Regulations'.

1.3.2 The WFD Regulations (HM Government, 2017) provide a framework for the protection and improvement of water quality in inland surface waters, transitional waters, coastal waters and groundwaters. Duties are placed on the Secretary of State and the Environment Agency in respect of the preparation of river basin management plans (RBMPs) that set out environmental objectives for water bodies within river basin districts (RBDs). The WFD Regulations aim to prevent further deterioration in, and enhance, water quality, and promote sustainable water use. Water bodies should reach 'good' status within the timeframes set out in the RBMPs. Duties are placed on the Secretary of State and the Environment Agency in respect of the exercise of functions that affect RBMPs so as to seek achievement of the environmental objectives within RMBPs.

1.3.3 In determining the application for development consent, the Secretary of State will be subject to the general duty under regulation 33 to have regard to (a) the RBMP for relevant districts as approved under regulation 31, and (b) any supplementary plan prepared under regulation 32. In discharging this duty, it will be relevant for the Secretary of State to consider whether the proposed scheme will comply with the relevant RBMP. If the conclusion is that it will, then there is no need to consider the provisions of regulation 19 of the WFD Regulations. However, if the Secretary of State concludes that, as a result of the Project, there will be a failure to achieve either good ecological status or, for water bodies that are designated in the RMBP as heavily modified water bodies, good ecological potential; or to prevent deterioration in the status of a body of surface water, then consideration will need to be given to the derogation conditions set out in regulation 19.

1.3.4 Regulation 19 of the WFD Regulations (HM Government, 2017) allows derogation from the objectives of the WFD in only a few specified cases. This only applies to:

- New modifications to the physical characteristics of a surface waterbody;
- Alterations to the level of bodies of groundwater; or
- Deterioration from high to good status for surface waterbodies related to new sustainable development activities.

1.3.5 Derogation is only allowed under the conditions set out in Regulation 19(3) to (5) and any reliance on derogations should be a last resort, with all practicable steps taken to mitigate adverse impacts on the status of WFD waterbodies.

1.3.6 The WFD Regulations (HM Government, 2017) require the ‘appropriate agency’ i.e., the Environment Agency, for England, to prepare a RBMP for each river basin district, for approval by the Secretary of State.

1.3.7 The RBMPs describe the current state of the water environment for each river basin district, the pressures affecting the water environment, the objectives for protecting and improving it, and the programme of measures needed to achieve the statutory environmental objectives of the WFD (i.e., to enable waterbodies to achieve ‘Good’ status). The overarching requirement was that they should reach at least ‘Good’ status (or potential) by 2015. This date has been extended to 2027 for many waterbodies, owing to recognition that reaching the 2015 target would bring disproportionate burdens.

1.3.8 Regulation 5 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (HM Government, 2009) requires an application for a DCO to be accompanied by plans and information identifying waterbodies in the relevant RBMP, together with an assessment of any effects on those waterbodies

likely to be caused by the development. The relevant waterbodies are shown in **Application Document 6.11.F5 Environmental Statement Figure 11.5 Water Framework Directive Surface Water Bodies** and **Application Document 2.11 Waterbodies in the River Basin Management Plan**. The assessment is documented in this report.

1.3.9 This report uses the term 'WFD waterbody' to describe a waterbody that is assigned a WFD waterbody identifier code within a RBMP.

1.4 Consultation

1.4.1 The document containing Stages 1 and 2 of the WFD was shared with the Environment Agency in November 2025.

1.4.2 A meeting was held in March 2026 to discuss the approach taken. Key feedback included:

- All relevant WFD water bodies should be shown on a map or plan. This is provided in **Application Document 2.11 Waterbodies in the River Basin Management Plan.**
- Further explanation should be provided to show how the ZoI reflects the nature of the development and associated impact pathways. This is provided in section 3.1.
- Further explanation should be provided as to how the source-pathway-receptor approach has been applied for each screening decision. This information is provided in section 3.

1.4.3 The Environment Agency confirmed that all relevant WFD Groundwater bodies have been identified and agree with the decision to screen them in for further assessment. It was also noted that the next comprehensive update of classifications for all water bodies, as required in the WFD Regulations, are the 2025 classifications, a draft of which are available. It was recommended that this dataset be reviewed and reflected in the assessment as appropriate. The data is presented in Annex A.

1.4.4 **Application Document 6.5.A2 Environmental Statement Appendix 5.2 Scoping Opinion** outlined that the WFD assessment should include opportunities to enhance the watercourses affected as this would provide mitigation, WFD improvements and potential Biodiversity Net Gain.

1.4.5 Further consultation is outlined in **Application Document 6.11 Environmental Statement Chapter 11 Water Environment**.

2. Project Description

2.1 General Description

2.1.1 The Project is a new 400 kilovolt (kV) electricity transmission connection of approximately 90 kilometres (km) in overall length between two proposed new substations: the 400 kV Birkhill Wood Substation and 400 kV High Marnham Substation.

2.1.2 The proposed new substations are subject to separate planning applications. For more information, see **Application Document 5.4 Consents and Licences Required Under Other Legislation**.

2.1.3 The Project comprises:

- Approximately 90 km of new overhead line (Route Code 4AF) between the proposed new 400 kV Birkhill Wood Substation and 400 kV High Marnham Substation;
- Replacement and re-alignment of a section of the existing 400 kV overhead line (Route Code 4ZQ) between Brantingham and east of Broomfleet;
- Replacement and re-alignment of a section of the existing 400 kV overhead line (Route Code ZDA) between Ealand and west of Keadby;
- Line entry connections to a proposed new 400 kV Birkhill Wood Substation;
- Line entry connections to a proposed new 400 kV High Marnham Substation; and
- The Project would include other required works, for example, temporary diversions for works on existing overhead line routes, temporary access roads, highway works, temporary works compounds, work sites and ancillary works. The Project would also include utility diversions and drainage works. There would also be land required for environmental mitigation, offsetting, compensation and Biodiversity Net Gain (BNG).

2.1.4 A full description of the Project is provided in **Application Document 6.4 Environmental Statement Chapter 4 Description of the Project**.

2.2 Order Limits and Project Sections

2.2.1 The Order Limits are defined as the maximum extent of land within which the Project may be carried out and include both permanent and temporary land required to build and operate the Project.

2.2.2 The Project has been sub-divided into six geographical sections. The Route Sections are illustrated on **Application Document 6.1.F1 Environmental Statement Figure 1.1 Project Location and Route Sections** and comprise:

- Route Section A between the proposed Birkhill Wood Substation and the River Ouse;
- Route Section B between River Ouse and Crowle;
- Route Section C between Crowle and North Moor (M180);

- Route Section D between North Moor (M180) and the River Idle;
- Route Section E between the River Idle and Darlton; and
- Route Section F between Darlton and the proposed High Marnham Substation.

3. Summary of Stages 1 and 2

3.1 Stage 1: Defining the Zone of Influence and Screening WFD Waterbodies

3.1.1 This stage of the screening assessment defines the ZoI of the Project and identifies which WFD surface water and groundwater waterbodies are present within the ZoI. It also screens those waterbodies to focus further stages of assessment only on those waterbodies having potential to deteriorate because of Project activities.

3.1.2 The ZoI has been determined by firstly considering the nature of the Project in terms of the types of construction activities that will be required and the operational infrastructure that will be in place. The Project is linear in nature, with a relatively narrow construction swathe which limits the spatial scale of interactions with waterbodies along the route. Following construction and reinstatement, the Project would have a relatively limited footprint (comprising the new pylons and overhead lines) and would not generate any discharges to the water environment.

3.1.3 In defining the ZoI, potential impact pathways were also considered, in terms of the distance and hydrological connectivity between waterbodies and construction and operation activities and infrastructure. Waterbodies that are not considered to have the potential to be impacted due to lack of direct or indirect connectivity, or due to distance sufficiently weakening a source-pathway to a receptor, are screened out.

3.1.4 The ZoI for this assessment has been defined to include land within the Order Limits, in addition to land within 500 m of this boundary. This reflects the surrounding water environment and the nature of the Project activities and is considered sufficient for the inclusion of all potentially affected waterbodies.

3.1.5 Within the ZoI there are several WFD surface water, transitional and groundwater bodies that are managed under the Humber RBMP (Environment Agency, 2024) which are described in the following sub-sections. The proposed ZoI has been discussed with the Environment Agency through the consultation referred to in section 1.4 of this report, and as requested, further justification for it has been set out above.

Surface Waterbody Screening

3.1.6 The surface waterbodies within the ZoI are shown in **Application Document 6.11.F5 Environmental Statement Figure 11.5 Water Framework Directive Surface Water Bodies**. In addition to the WFD surface waterbodies, there are also several watercourses within the ZoI which are not assigned WFD identifiers in the RBMP; these include ordinary watercourses and drainage ditches. As these watercourses are situated in WFD operational catchments and drain to WFD surface waterbodies they have been treated as potential pathways, and Project activities with the potential to influence the attributes of these watercourses have also been considered in the assessment.

3.1.7 A screening of surface waterbodies has been carried out using the source-pathway-receptor principle. For surface waterbodies sources and pathways include for example soil stripping, earthworks and temporary storage of soil and other construction materials that have potential to induce rainfall runoff with elevated concentrations of silt or other pollutants. There are also potential pathways associated with discharges of worksite drainage to watercourses and associated with in channel or bankside works to install watercourse crossings to facilitate construction access.

3.1.8 Three WFD waterbodies have been screened out. Table 3.1 – summarises these and provides justifications for screening them out.

Table 3.1 – Screened out WFD surface (river) waterbodies within the ZoI

Waterbody name	Justification
Seymour Drain (GB104028058340)	Situated on the outer fringe of the ZoI, with very minor interactions with the Project. Order Limits only pass through the edge of the catchment and Project construction activities would take place remote from the watercourse itself. No proposals to discharge worksite runoff to this waterbody and no in channel or bankside works proposed. During operation there would be no Project infrastructure in proximity. There are no linkages to other screened in surface waterbodies. There is therefore a low risk of impact on any quality elements due to lack of source-pathway-receptor linkages.
Fleet Drain (GB104026066750)	Situated on the outer fringe of the ZoI, with very minor interactions with the Project. Order Limits only pass through the edge of the catchment and Project construction activities would take place remote from the watercourse itself. No proposals to discharge worksite runoff to this waterbody and no in channel or bankside works proposed. During operation there would be no Project infrastructure in proximity. There are no linkages to other screened in surface waterbodies. There is therefore a low risk of impact on any quality elements due to lack of source-pathway-receptor linkages.
High Hunsley to Woodmansey Area (GB104026066820)	The Order Limits have no interaction with the waterbody or its catchment. There are no linkages to other screened in surface waterbodies.

3.1.9 An overview of the hydrological relationship between the Project and the screened-in waterbodies is included in Table 3.2.

3.1.10 At Stage 1, distances between WFD waterbodies and pylons given in Table 3.2 were approximate only, due to the potential for horizontal and longitudinal variation in siting locations as part of the Limits of Deviation (LoD).

Table 3.2 – Screened-in surface (river) waterbodies within the ZoI

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
Route Section A		
Beverley and Barmston Drain (GB104026067211)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section A** Section A (Sheet 1 of 16) Section A (Sheet 2 of 16) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 1 of 13	Pylons would be located within its catchment but remote from the waterbody and its tributaries. Construction access tracks would be in the catchment of this waterbody. During construction there would be a temporary construction compound in the catchment of this waterbody.
Mill Beck 2 (GB104026066660)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section A** Section A (Sheet 9 of 16) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 2 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons approximately 140 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody. A temporary clear span bridge is proposed where the access track crosses the waterbody.
Market Weighton Canal (GB70410031)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section A** Section A (Sheet 12 of 16) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 3 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons at least 50 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody. A temporary clear span bridge is proposed where the access track crosses the waterbody.
Humber Middle Transitionary and Coastal (TraC) (GB530402609202)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section A** Section A (Sheet 16 of 16)	Pylons are not directly located within the catchment of this waterbody but multiple tributaries of this waterbody are crossed by the overhead line, and access tracks.

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
	Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies Sheet 4 of 13	
Route Section B		
Adlingfleet Drain Upper Catchment (GB104028064310)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section B** Section A (Sheet 2 of 9) Section A (Sheet 3 of 9) Section A (Sheet 4 of 9) Section A (Sheet 9 of 9) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 4 of 13 Sheet 5 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons approximately 24 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A temporary clear span bridge is proposed where the access track crosses the waterbody.
Paupers Drain* (GB104028064300)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section B** Section B (Sheet 7 of 9) Section B (Sheet 8 of 9) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 5 of 13 Sheet 6 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 75 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody. A temporary clear span bridge is proposed where the access track crosses the waterbody.
Humber Upper TraC (GB530402609203)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section B** Section B (Sheet 1 of 9)	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 90 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody.

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
	Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies Sheet 4 of 13	
Route Section C		
North Soak Drain (GB104028064350)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section C** Section C (Sheet 2 of 5) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 6 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 72 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody. The construction access track would utilise an existing crossing of this waterbody.
Hatfield Waste Drain Catchment (trib of Torne/Three Rivers) (GB104028064330)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section C** Section C (Sheet 4 of 5) Section C (Sheet 5 of 5) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 6 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 145 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody and the haul road uses an existing crossing on the A18 to cross this waterbody.
Torne/Three Rivers from Mother Drain to Trent Waterbody (GB104028064340)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section C** Section C (Sheet 4 of 5) Section C (Sheet 5 of 5) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 6 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 145 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A construction access track would use an existing crossing on the A18 to cross this waterbody.
Sheffield and South Yorkshire Navigation (New Junction and	**Application Document 2.11 Water Bodies in the River**	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
Stainforth and Keadby) (GB70410281)	**Basin Management Plan - Section C** Section C (Sheet 3 of 5) Section C (Sheet 4 of 5) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 6 of 13	nearest proposed pylons 100 m from the WFD waterbody itself. Construction access tracks would be in the catchment of this waterbody. The construction access track would utilise an existing crossing to cross this waterbody.
Route Section D		
Ferry Drain (GB104028058241)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section D** Section D (Sheet 5 of 8) Section D (Sheet 6 of 8) Section D (Sheet 7 of 8) Section D (Sheet 8 of 8) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 8 of 13 Sheet 9 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 75 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. The construction access track would utilise an existing crossing to cross this waterbody.
Warping Drain (trib of Trent) (GB104028058240)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section D** Section D (Sheet 5 of 8) Section D (Sheet 6 of 8) Section D (Sheet 7 of 8) Section D (Sheet 8 of 8) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 8 of 13 Sheet 9 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 75 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. The construction access track would utilise an existing crossing to cross this waterbody.
Route Section E		
Idle from Ryton to Trent	**Application Document 2.11 Water Bodies in the River**	This waterbody flows through land within the Order Limits and would be

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
(GB104028058110)	**Basin Management Plan - Section E** Section E (Sheet 1 of 15) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 9 of 13	crossed by the overhead line, with the nearest proposed pylons 75 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. The construction access track would utilise an existing crossing to cross this waterbody.
Wheatley Beck (GB104028058360)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section E** Section E (Sheet 7 of 15) Section E (Sheet 8 of 15) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 10 of 13 Sheet 11 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 50 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A temporary clear span bridge crossing is proposed where the access track crosses this waterbody.
Catchwater Drain (GB104028058350)	**Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 11 of 13	Pylons would be located within this catchment but remote from the waterbody and its tributaries. Construction access tracks would be located in the catchment of this waterbody. During construction there would be a temporary construction compound in the catchment of this waterbody.
North Beck (GB104028058311)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section E** Section E (Sheet 14 of 15) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 12 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 62 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. No crossing of this waterbody is proposed.
Tuxford Beck (GB104028058320)	**Application Document 2.11 Water Bodies in the River**	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the

Waterbody name	Plan/Figure reference(s)	Hydrological relationship to the Project
	Basin Management Plan - Section E Section E (Sheet 15 of 15) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 12 of 13 Sheet 13 of 13	nearest proposed pylons 60 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A temporary clear span bridge crossing is proposed where the access track crosses this waterbody.
Chesterfield Canal - Lower Section (GB70410527)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section E** Section E (Sheet 3 of 15) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 9 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 95 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A temporary clear span bridge crossing is proposed where the access track crosses this waterbody.
Route Section F		
Fledborough Beck (GB104028058290)	**Application Document 2.11 Water Bodies in the River Basin Management Plan - Section F** Section F (Sheet 1 of 3) Section F (Sheet 2 of 3) **Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 13 of 13	This waterbody flows through land within the Order Limits and would be crossed by the overhead line, with the nearest proposed pylons 47 m from the WFD waterbody itself. Construction access tracks would be located in the catchment of this waterbody. A temporary clear span bridge crossing is proposed where the access track crosses this waterbody.
Route Sections E-F		
Trent from Carlton-on-Trent to Laughton Drain (GB104028058480)	**Application Document 6.11.F5 Environmental Statement Figure 11.5 - Water Framework Directive Surface Water Bodies** Sheet 12 of 13 Sheet 13 of 13	Pylons would be located within this catchment but remote from the waterbody and its tributaries. Construction access tracks would be located in the catchment of this waterbody. During construction there would be a temporary construction compound in the catchment of this waterbody.

**The Paupers Drain waterbody also flows through Route Section C.*

3.1.11 Several temporary Public Rights of Way (PRoW) diversions are proposed as part of the Project, some of these requiring the construction of new footbridges over watercourses. Where these temporary crossings are proposed, their design would accord with the requirement of Flood Risk Activity Permit exemption FRA5, such that they are classified as a low-risk activity.

3.1.12 Where temporary single span crossings are proposed for construction vehicle access, soffit levels would be set on a site-specific basis, following more detailed survey and design work by the Main Works Contractor(s). On waterbodies that currently achieve WFD class Good or High for invertebrates, soffit heights would be set as high as practicable above the Q95 water level[1], accounting for site-specific constraints, in order to facilitate the upstream migration of invertebrate species and avoid deterioration in the biological quality element. This is proposed in commitment DE9 of **Application Document 7.3 Register of Environmental Actions and Commitments**. These waterbodies[2] comprise:

- Mill Beck;
- Bewcarrs Drain;
- Paupers Drain;
- East Drayton (Tuxford Beck); and
- Wheatley Beck.

3.1.13 As detailed in the crossing schedules provided within **Application Document 6.4.A2 Environmental Statement Appendix 4.2 Indicative Bridge and Culvert Schedule**, flexibility has been retained in the design to accommodate bridge crossings of several other watercourses, where, if protected species are present at the time of construction, bridges would be selected in place of temporary culvert crossings.

3.1.14 The crossing schedules also list further minor watercourses which are not designated WFD waterbodies, which would also be temporarily culverted during construction of the temporary access tracks. These assumptions form the basis of the assessment.

3.1.15 Typical cross-section plans for temporary bridge and access culvert crossings for illustrative purposes only are provided in **Application Document 2.12 Typical Design Drawings - Illustrative Culvert Details for Watercourse Crossings Sheet 16 of 20** and **Application Document 2.12 Typical Design Drawing - Illustrative Bridge Details for Watercourse Crossings Sheet 17 of 20.**

3.1.16 Although they are not designated WFD waterbodies, these minor watercourses drain to the WFD waterbodies that have been screened into the assessment. The Project could have temporary effects on these other watercourses. They are assessed cumulatively, with any impacts of the Project on these watercourses accounted for as part of the assessment of their respective downstream WFD waterbody. As per guidance provided by the Environment Agency during the engagement detailed in section 1.4, these watercourses have been treated as pathways to and have been assigned the same sensitivity as their downstream WFD waterbody.

[1] Q95 is the river flow rate that is equalled or exceeded 95% of the time so represents a benchmark of low flow conditions.

[2] Note: Chesterfield Canal and Market Weighton Canal do not receive a WFD classification for invertebrates. Fledborough Beck, while crossed by a clear spanning bridge, achieves a moderate invertebrate status and is hence not included in the list.

Transitional Waterbodies Screening

3.1.17 There are two transitional WFD waterbodies within the ZoI: Humber Middle (GB530402609202) and Humber Upper (GB530402609203).

3.1.18 Project activities in the catchment of these waterbodies are limited to 36 proposed pylons and associated construction access tracks. The proposed overhead line oversails these waterbodies.

Protected Areas

3.1.19 The ZoI incorporates several designated sites, including Sites of Specific Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Local Wildlife Sites (LWS) and Ramsar sites, which have a known or potential surface water or groundwater dependency.

3.1.20 These sites comprise:

- Hatfield Chase Ditches SSSI;
- Crowle Borrow Pits SSSI;
- Crowle Brick Pits LWS;
- Broomfleet Washlands and Pits LWS;
- Oxmardyke Washlands LWS;
- Paupers Drain LWS;
- Keadby Warping Drain and Keadby Boundary Drain LWS;
- Stainforth and Keadby Canal Corridor LWS;
- Hatfield Waste Drain LWS;
- North Engine Drain LWS;
- River Torne LWS;
- South Engine Drain LWS;
- Folly Drain North LWS;
- Three Rivers LWS;
- Warping Drain Corridor LWS;
- River Idle and Banks, West Stockwith LWS;
- North Wheatley Beck LWS;
- Chesterfield Canal SSSI and LWS;
- Mother Drain LWS;
- Treswell Wood SSSI; and
- Humber Estuary SAC, SPA, SSSI and Ramsar site.

3.1.21 There are three Drinking Water Safeguard Zones within the ZoI:

- Keldgate (GWSZ2046);
- Springhead (GWSZ2048); and
- Cottingham & Dunswell (GWSZ2040 & GWSZ2041).

3.1.22 There is one Drinking Water Protected Area (Surface Water) within the ZoI: the Trent from Carlton-on-Trent to Laughton Drain (GB104028058480).

Groundwater Body Screening

3.1.23 The groundwater bodies within the ZoI are listed below with their WFD waterbody ID:

- Lower Trent Erewash – Secondary Combined (GB40402G990300);
- Idle Torne – Secondary Mudrocks (GB40402G992200);
- East Riding Mercia Mudstone (GB40402G990200); and
- Hull and East Riding Chalk (GB40401G700700).

3.1.24 For groundwater bodies sources and pathways include for excavations and piling for creation of pylon foundations, and potential need for localised dewatering which could open up pollution pathways for pollutants during construction of the Project. All of the waterbodies within the ZoI were screened into the assessment at Stage 1.

3.1.25 Groundwater bodies and groundwater receptors identified as relevant to the Project within **Application Document 6.12 Environmental Statement Chapter 12 Geology and Hydrogeology** are assigned very high to low sensitivity.

3.1.26 Potential effects scoped into the geology and hydrogeology assessment for these receptors include:

- Mobilisation of existing contamination;
- Changes to groundwater levels, quality and flow from areas of undergrounding associated with third-party infrastructure works; and
- Mixing of aquifer units and creating potential preferential pathways from areas of undergrounding associated with third-party infrastructure works.

Groundwater Dependent Terrestrial Ecosystems

3.1.27 Table 3.3 provides a summary of the sites that support Groundwater Dependent Terrestrial Ecosystems (GWDTEs), share a hydrological link to waterbodies within the ZoI and are situated downstream of Project activities, or GWDTEs located within the ZoI.

Table 3.3 – Summary of GWDTEs with hydrological linkage to the Project

Route Section	GWDTE	Location in relation to the Project
B	Humber Estuary SSSI	Crossed by the proposed overhead lines and downstream of the majority of the scoped-in WFD waterbodies.
C	Crowle Borrow Pits SSSI	Within the 500 m ZoI.

3.1.28 The above GWDTEs were screened into the assessment.

3.2 Stage 2: Collating Baseline Data

Surface Waterbodies

3.2.1 Baseline data has been collated to characterise the waterbodies that were screened in at Stage 1. An overview of this data is provided in Table 3.4, including current WFD status, specific objectives and a summary of any mitigation measures in place or planned. Additional information is provided in WFD Baseline Data and Watercourse Photographs.

3.2.2 The information has been collected from the Humber River Basin Management Plan (Environment Agency, 2024) and the Environment Agency Catchment Data Explorer (Environment Agency, 2025). Data has also been obtained from a desk study undertaken in January 2026, to identify the baseline ecological conditions for the watercourses potentially impacted by the Project and key biological receptors (macrophyte, macroinvertebrate and fish) at risk of being affected by the Project.

3.2.3 The desk study (reported in **Application Document 6.8.A10 Environmental Statement Appendix 8.10 Aquatic Ecology Report**) identified the need for fish surveys in watercourses where baseline data was lacking and where impacts to fish had the potential to be significant. Fish surveys were undertaken over two years across eight sites. Electric fishing was undertaken at four sites and eDNA at a further four sites. The presence of sensitive and protected fish species was established and the potential of fish habitats to support protected and migratory species determined. The survey results are fully reported in **Application Document 6.8.A10 Environmental Statement Appendix 8.10 Aquatic Ecology Report** and have been used to inform this assessment.

3.2.4 In addition, data was collected from more general and widespread walkover surveys where a photographic record and field notes of baseline conditions were recorded. These data are included in WFD Baseline Data and Watercourse Photographs.

Table 3.4 – Baseline status for screened in WFD (surface) waterbodies

Waterbody ID	Waterbody name	2022 waterbody classification
GB104026067211	Beverley and Barmston Drain	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104026066660	Mill Beck 2 (Ellerker Area)	Hydromorphological designation: Heavily modified Ecological: Moderate Chemical: Fail
GB104028064350	North Soak Drain (trib of Torne/Three Rivers)	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028064330	Hatfield Waste Drain (trib of Torne/Three Rivers)	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail

Waterbody ID	Waterbody name	2022 waterbody classification
GB104028064340	Torne/Three Rivers from Mother Drain to Trent	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028058240	Warping Drain (trib of Trent)	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028058241	Ferry Drain	Hydromorphological designation: Heavily modified Ecological: Moderate Chemical: Fail
GB104028058110	Idle from Ryton to Trent	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028064310	Adlingfleet Drain Upper	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028064300	Paupers Drain	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB104028058360	Wheatley Beck	Hydromorphological designation: Not designated artificial or heavily modified Ecological: Moderate Chemical: Fail
GB104028058350	Catchwater Drain	Hydromorphological designation: Heavily modified Ecological: Moderate Chemical: Fail
GB104028058311	North Beck	Hydromorphological designation: Not designated artificial or heavily modified Ecological: Moderate Chemical: Fail
GB104028058320	Tuxford Beck	Hydromorphological designation: Not designated artificial or heavily modified Ecological: Moderate Chemical: Fail
GB104028058290	Fledborough Beck	Hydromorphological designation: Not designated artificial or heavily modified Ecological: Moderate Chemical: Fail
GB104028058480	Trent from Carlton-on-Trent to Laughton Drain	Hydromorphological designation: Artificial Ecological: Moderate

Waterbody ID	Waterbody name	2022 waterbody classification
		Chemical: Fail
GB70410527	Chesterfield Canal – Lower Section	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB70410281	Sheffield and South Yorkshire Navigation (New Junction and Stainforth and Keadby)	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB70410031	Market Weighton Canal	Hydromorphological designation: Artificial Ecological: Moderate Chemical: Fail
GB530402609203	Humber Upper TraC	Hydromorphological designation: Heavily modified Ecological: Moderate Chemical: Fail
GB530402609202	Humber Middle TraC	Hydromorphological designation: Heavily modified Ecological: Moderate Chemical: Fail

3.2.5 Reasons for not achieving good status (RNAGs) are reported for the WFD waterbodies that have been screened into the assessment in Annex A. There are multiple RNAGs reported for these waterbodies, with common ones being land drainage management, poor nutrient management, poor soil management and receipt of sewage discharges.

3.2.6 The status objectives for the WFD waterbodies are also reported in Annex A. For many of these waterbodies, the reason for not achieving the 2015 target of good ecological status is '*disproportionately expensive: unfavourable balance of costs and benefits*' (Environment Agency, 2025). For the chemical status objective for all these waterbodies, a 2063 target year is assigned with the reason given as '*natural conditions: chemical status recovery time*' (Environment Agency, 2025).

Aquatic Ecology

3.2.7 As part of an aquatic ecology study undertaken to inform **Application Document 6.8 Environmental Statement Chapter 8 Ecology** and reported in **Application Document 6.8.A10 Environmental Statement Appendix 8.10 Aquatic Ecology Report**, the presence/likely absence of protected/notable aquatic species was identified for the watercourses potentially impacted by the Project, including for those WFD waterbodies screened into this assessment.

3.2.8 The desk study returned no records of notable fish species within the study area itself; however, notable species were recorded within connected waterbodies that flow through the Order Limits. Several notable fish species were recorded within 5 km of the Order Limits, including European bullhead (*Cottus gobio*), brown trout (*Salmo trutta*), European eel (*Anguilla anguilla*), barbel (*Barbus barbus*), herring

(*Clupea harengus*), and smelt (Osmeridae). Different combinations of these species were identified in different catchments, with some catchments only having one notable species. Mill Beck 2 (Ellerker Area), Humber Middle TRaC, Humber Upper TRaC, Idle from Ryton to Trent and North Beck all currently achieve Good or High status for fish.

3.2.9 Notable invertebrate species were identified across the study area. The notable invertebrate species range from gastropod molluscs (snails) to beetles to shrimp. Several of the invertebrate species are Invasive Non-Native Species (INNS).

3.2.10 No records of protected and/or notable macrophyte taxa were reported within the study area itself, but notable and/or protected taxa were recorded within connected waterbodies that cross the Order Limits.

National Measures

3.2.11 River Basin Management Plans (RBMP) contain a summary of the programmes of measures needed to achieve the environmental objectives in the river basin district. There are some measures which are applicable to all river basin districts and a high-level summary of these is provided here.

3.2.12 There are national measures that focus on improving water quality, including the Water and Abandoned Metal Mines programme (Mining Remediation Authority, 2011) and National Highways funds (National Highways, 2023). There are also measures focusing on the sustainability of water resources and flood risk management. Catchment level government funded measures include the Water Environment Investment Fund and the Environment Agency's Water Industry National Environment Programme (WINEP). Details of specific local measures on a management catchment level are below.

Hull and East Riding Management Catchment Measures

3.2.13 Two of the screened-in WFD waterbodies are located in the Hull and East Riding Management Catchment. Several measures have been identified within the Hull Upper Operational Catchment, including restoration, floodplain re-connection and wetland habitat creation programmes, funded by the Environment Agency Environment Programme and Flood and Coastal Erosion Risk Management capital programme. The West Wolds Slow the Flow project was also identified in the Mill Beck catchment (Foulness Operational Catchment), also funded by the Environment Agency Environment Programme and Flood and Coastal Erosion Risk Management capital programme. These measures are applicable to the WFD waterbodies Mill Beck 2 (Ellerker Area) and Beverley and Barmston Drain.

Trent Lower and Erewash Management Catchment Measures

3.2.14 Seven of the screened-in WFD waterbodies are located in the Trent and Lower Erewash Management Catchment. There are no specific measures for this management catchment further to the previously described national measures.

Idle and Torne Management Catchment Measures

3.2.15 Six of the screened-in WFD waterbodies are located within the Idle and Torne Management Catchment. A set of measures have been identified to deliver improvements to habitats through restoration projects. These include a fen habitat restoration project in the River Torne / Mother Drain Operational Catchment (funded by the Trent Regional Flood and Coastal Committee Local Levy, with supplementary funding from the local authority, Yorkshire Wildlife Trust and Environment Agency Water Environment Improvement Fund (WEIF) programme). There is also a SSSI restoration project in the Idle Operational Catchment (funded by the WEIF programme).

Humber Transitionary and Coastal (TraC) Management Catchment Measures

3.2.16 The Humber Upper TraC and Humber Lower TraC are located in the Humber TraC Management Catchment. There are no specific measures for this management catchment further to the previously described national measures.

Other Watercourses

3.2.17 The watercourses without a WFD designation that would be crossed by the Project are varied, with many being drainage ditches that serve a land drainage function and others being larger watercourses forming significant tributaries of WFD waterbodies.

3.2.18 Some of these watercourses have been observed during the site surveys described in Paragraph 4.2.3. Many are expected not to support year-round flow and of those surveyed, several were dry (further details are provided in **Application Document 6.8.A10 Environmental Statement Appendix 8.10 Aquatic Ecology Report**).

Water Industry National Environment Programme (WINEP) Projects

3.2.19 The Environment Agency PR24 WINEP dataset (Environment Agency, 2016) lists the actions that the Environment Agency has requested water companies operating in England to complete between 2025 and 2030 to meet environmental obligations. A number of WINEP-based projects were identified that are proposed within the catchments of WFD waterbodies which are within the ZoI of the Project.

3.2.20 In Route Section A, water quality monitoring is proposed in the Mill Beck 2 (Ellerker Area) catchment, and the Humber Middle TraC has proposed investigations to reduce storm overflow spills to protect the environment and reduce adverse ecological impacts. In Route Section C, water quality monitoring, load removal and standstill permitting are proposed at several waterbodies. This includes, but is not limited to, phosphate load removal at the River Torne, dissolved metal load standstill permitting at Torne/Three Rivers from Mother Drain to Trent and Hatfield Waste Drain (tributary of Torne/Three Rivers), and ammonia load removal and cypermethrin load standstill permitting at North Soak Drain (trib of Torne/Three Rives). In Route Sections D and E, water quality monitoring of Ferry Drain, Warping Drain (trib of Trent), Tuxford Beck and the Trent from Carlton-on-Trent to Laughton Drain is proposed. Additional proposals are also relevant to watercourses in Route Section E, including discharge permits at Tuxford Beck and phosphate load reduction at Chesterfield Canal.

3.2.21 Where the overhead line is proposed in these waterbody catchments there would be negligible risk of conflicts as Project activities would be relatively remote from the waterbodies. Additional mitigation measures relating to water quality are also detailed in **Application Document 7.3 Register of Environmental Actions and Commitments**. It is therefore concluded that the Project would not constrain or conflict with any WINEP proposals.

Groundwater Bodies

3.2.22 Baseline data for the screened-in WFD groundwater bodies are summarised in Table 3.5.

Table 3.5 – Baseline status for screened-in WFD groundwater bodies

Waterbody ID	Waterbody name	2019 waterbody classification
GB40401G700700	Hull and East Riding Chalk	Overall status: Poor Chemical status: Poor Quantitative status: Poor
GB40402G990200	East Riding Mercia Mudstone	Overall status: Poor Chemical status: Poor Quantitative status: Poor
GB40402G992200	Idle Torne – Secondary Mudrocks	Overall status: Good Chemical status: Good Quantitative status: Good
GB40402G990300	Lower Trent Erewash – Secondary Combined	Overall status: Good Chemical status: Good Quantitative status: Good

3.2.23 The RNAGs for the Hull and East Riding Chalk GW Management Catchment are predominantly attributed to poor nutrient management and sewage discharges. For the East Riding Mercia Mudstone GW Management Catchment, the RNAGs are Chemical GWDTEs test and Quantitative Dependent Surface Waterbody Status. The reasons for the 2015 target status of Poor for both these GW Management Catchments are '*Disproportionately expensive: unfavourable balance of costs and benefits*', with the Hull and East Riding Chalk GW Management Catchment also including the reason '*disproportionately expensive: disproportionate burdens*'.

3.2.24 The Lower Trent Erewash – Secondary Combined GW Management Catchment has a RNAG of Chemical Dependent Surface Waterbody Status (attributed to mining and quarrying). This GW Management Catchment met its objectives of Good by 2015. The Idle Torne – Secondary Mudrocks GW Management Catchment does not have any RNAGs and had a target of Good by 2021 (as there was low confidence in achieving Good by 2015 due to the reason '*disproportionately expensive: Disproportionate burdens*'.

4. Stage 3: Screening Project Components and Activities

4.1 Introduction

4.1.1 Stage 3 of the assessment identified relationships between the components of the Project and screened-in WFD waterbodies. Any components and activities with the potential to influence these waterbodies were screened in for further assessment.

4.1.2 As detailed in **Application Document 6.3 Environmental Statement Chapter 3 Main Alternatives Considered**, the Project has sought to avoid environmental constraints such as areas supporting valuable habitats and designated sites, as well as larger residential communities. The route corridor and alignments were selected based on balancing the technical, environmental, and economic constraints.

4.2 Watercourse Crossings

4.2.1 The Project requires the crossing of multiple ditches, drains, ordinary watercourses, main rivers and canals for temporary access. The proposed overhead lines would oversail watercourses and their riparian corridors.

4.2.2 A review has been undertaken to identify areas of the Project where works in, under and across watercourses would be required. This includes culverts and open-span bridges to facilitate construction access.

4.2.3 For the WFD waterbodies scoped in during Stage 1, a total of 15 watercourse crossings are included in the design, all using open-span bridges to facilitate access, of which seven are existing crossings. A list of the existing and new open-span watercourse crossings of WFD waterbodies is provided in Table 4.1. As these activities are classified as ‘red’ or ‘amber’ according to WFD risk of screening thresholds for rivers, all watercourse crossings for access are screened in for further assessment at Stage 4. There are a further three WFD watercourses where a bridge or culvert is proposed, subject to the presence of protected species at the time of construction.

4.2.4 There are several further watercourses which are not designated WFD waterbodies which would be temporarily culverted or bridged along construction access tracks. As outlined in **Application Document 6.4 Environmental Statement Chapter 4 Description of the Project**, the size and depth of a culvert is dependent upon the dimensions of the crossing, sensitivity, and importance of the watercourse. The temporary culverts are summarised in Table 4.2. There are watercourse crossings where it is undetermined whether they would be culverted or clear-span bridges. Following a conservative approach, these have been included in Table 4.2.

Table 4.1 – Open span watercourse crossings

Location	Route Section(s)	Watercourse	Type
New watercourse crossings			
B-09	A	Mill Beck	Construction access track
B-15	A	Market Weighton Canal	Construction access track
B-11	B	Paupers Drain	Construction access track
B-10	C	Brewcarrs Drain	Construction access track
B-16	E	Wheatley Beck	Construction access track
B-12	E	East Drayton	Construction access track
B-08	E	Chesterfield Canal	Construction access track
B-13	F	Fledborough Beck	Construction access track
Existing watercourse crossings			
B-06A	B	Adlingfleet Drain	Construction access track
B-05	C	North Soak Drain	Construction access track
B-03	C	Sheffield and South Yorkshire Navigation (New Junction and Stainforth and Keadby)	Construction access track
B-04	C	South Soak Drain	Construction access track
B-02	C	Hatfield Waste Drain	Construction access track
B-01	C	Hatfield Waste Drain	Construction access track
B-07	C	South Engine Drain	Construction access track
B-14	C	Folly Drain	Construction access track
Bridge or culvert			
BC-06	A	Broomfleet Beck	Construction access track
BC-03	A	Bishopsoil Drain	Construction access track
BC-37	B	Adlingfleet Drain	Construction access track

Table 4.2 – Watercourse crossing for watercourse not designated WFD

Downstream WFD waterbody	Number of crossings	Crossing type	Watercourse crossing type
Beverley and Barmston Drain (GB104026067211)	5	Culvert	Drain / ditch
	1	Culvert	Ordinary watercourse
Mill Beck 2 (Ellerker Area) (GB104026066660)	12	Culvert	Drain / ditch
	2	Culvert	Ordinary watercourse (Ellerker Beck and Ings Drain)
	1	Culvert or bridge	Drain / ditch
Adlingfleet Drain Upper (GB104028064310)	9	Culvert	Drain / ditch
	6	Culvert or bridge	Drain / ditch
Paupers Drain (GB104028064300)	23	Culvert	Drain / ditch
	1	Bridge	Ordinary watercourse (Brewcarrs Drain)
	6	Culvert or bridge	Drain / ditch
North Soak Drain (trib of Torne/Three Rivers) (GB104028064350)	8	Culvert	Drain / ditch
Hatfield Waste Drain (trib of Torne/Three Rivers) (GB104028064330)	4	Culvert or bridge	Drain / ditch
Torne/Three Rivers from Mother Drain to Trent (GB104028064340)	2	Bridge	Drain / ditch
	2	Culvert	Drain / ditch
Ferry Drain (GB104028058241)	12	Culvert	Drain / ditch
	1	Culvert or bridge	Drain / ditch
Warping Drain (trib of Trent) (GB104028058240)	6	Culvert	Drain / ditch
Trent from Carlton-on-Trent to Laughton Drain (GB104028058480)	12	Culvert	Drain / ditch
	1	Culvert	Ordinary watercourse (Saundby Beck tributary)
Idle from Ryton to Trent (GB104028058110)	16	Culvert	Drain / ditch
	2	Culvert or bridge	Drain / ditch
Wheatley Beck (GB104028058360)	2	Culvert	Drain / ditch
Catchwater Drain (GB104028058350)	10	Culvert	Drain / ditch
	1	Culvert or bridge	Drain / ditch
North Beck (GB104028058311)	2	Culvert	Drain / ditch

Downstream WFD waterbody	Number of crossings	Crossing type	Watercourse crossing type
Tuxford Beck (GB104028058320)	3	Culvert	Drain / ditch
Fledborough Beck (GB104028058290)	2	Culvert	Drain / ditch
Humber Middle TraC (GB530402609202)	64	Culvert	Drain / ditch
	11	Culvert or bridge	Drain / ditch
	3	Culvert	Ordinary watercourse (Broomfleet Beck, Blacktoft Warping Drain, Bellasize Drain)
	4	Culvert or bridge	Ordinary watercourse (Broomfleet Beck, Bishopsoil Drain)

4.2.5 The number of temporary culverts within each WFD surface waterbody catchment is variable. Individual losses from each culvert are anticipated to be small and the vast majority of ditch/watercourse habitat in the landscape would be preserved intact.

4.2.6 In addition, embedded mitigation measures would be in place to reduce impacts on the hydromorphology, and biological quality elements of watercourses associated with culvert crossings. Key measures include retention of riverbank and in-channel vegetation where practicable and preserving natural bed profiles and substrates through culverts at temporary watercourse crossings, as outlined in W03 and W04 of **Application Document 7.3 Register of Environmental Actions and Commitments**. The Project will also seek to provide strategic habitat enhancement and creation as outlined in commitment E20 of **Application Document 7.3 Register of Environmental Actions and Commitments**. As described, good practice culvert design would be adopted to reduce barrier effects and the cumulative effects of temporary culverting. Any associated habitat loss from culvert installation would ultimately be reinstated.

4.2.7 A condition survey has been undertaken at each watercourse crossing location as part of the BNG assessment. The condition surveys considered the structure and composition of the watercourse at each location and informed the assessment of impact as part of the BNG calculations presented in **Application Document 7.1 Biodiversity Net Gain Report**.

4.3 Construction Assumptions

4.3.1 Should consent be granted, it is anticipated that construction of the Project would commence in 2028, starting with enabling works including site clearance activities, the installation of highway widening, bellmouths, temporary construction compounds and access tracks. It is expected the main construction works would continue through to 2031 with reinstatement continuing into 2033. Prior to the enabling works commencing and before consent, a number of pre-construction environmental surveys would be undertaken.

4.4 Project Components Summary

4.4.1 Table 4.3 provides a summary of the remainder of the main elements of the Project. The areas, lengths and numbers provided are indicative. These elements are shown on **Application Document 6.4.F3 Environmental Statement Figure 4.3 Temporary Construction Works**.

Table 4.3 – Summary of Project components

Route Section	Works description	Principal permanent project infrastructure
A	Construction of the proposed overhead line in a westerly direction from the proposed Birkhill Wood Substation to Blacktoft Lane just north of the Rive Ouse. The Order Limits are located primarily within arable land and the proposed overhead line will oversail watercourses. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	Circa 82 pylons and 24 km overhead line.
B	Construction of the proposed overhead line in a predominantly southerly and southwesterly direction from Blacktoft Lane north of the River Ouse to Crowle. The Order Limits pass through mainly arable land and the proposed overhead line will oversail watercourses, including the River Ouse. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	Circa 38 pylons and 14 km overhead line.
C	Construction of the proposed overhead line in a predominantly southerly direction to the east of Crowle to North Moor, north of the M180. The Order Limits pass through mainly arable land and the proposed overhead line will oversail watercourses, including Sheffield and South Yorkshire Navigation. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	Circa 20 pylons and 4.5 km overhead line.
D	Construction of the proposed overhead line in a predominantly southerly direction from North Moor, north of the M180 to the River Idle. The Order Limits pass through mostly arable land and the proposed overhead line will oversail watercourses including Ferry Drain and Warping Drain. The River	Circa 43 pylons and 15 km overhead line.

Route Section	Works description	Principal permanent project infrastructure
	Idle forms the boundary of Route Sections D and E. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	
E	Construction of the proposed overhead line in a predominantly southerly direction from the River Idle to the A57 at Darlton. The Order Limits pass through mostly arable land and the proposed overhead line will oversail watercourses including Chesterfield Canal, Wheatley Beck and East Drayton. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	Circa 76 pylons and 26 km overhead line.
F	Construction of the proposed overhead line in a predominantly southeasterly direction from the A57 at Darlton to the proposed High Marnham Substation. The Order Limits pass through mostly arable land and the proposed overhead line will oversail watercourses including Fledborough Beck. Access tracks would be created, necessitating watercourse crossings and outfalls from drainage features constructed to manage surface water runoff from new areas of impermeable land cover.	Circa 13 pylons and 3.7 km overhead line.

4.4.2 Temporary construction compounds would be established including the following types:

- Main works compounds; and
- Satellite compounds.

4.4.3 There would be a total of nine temporary construction compounds with three in Route Section A, one in Route Section B, one in Route Section C, one in Route Section D, two in Route Section E, and one in Route Section F.

4.4.4 Access tracks would typically be single way, 4 m wide, and up to 8 m wide at passing places, which, coupled with the area for soil storage and drainage between the track and the fence line, would give a typical swathe of 12 m.

4.5 Components with Potential to Affect WFD Surface Waterbodies

4.5.1 Surface waterbody status is classified based on chemical and ecological status (or potential). Chemical status is defined by compliance with environmental standards for chemicals that are priority substances and/or priority hazardous substances. Ecological status or potential is defined by the overall health or condition of the watercourse based on four classification elements or 'tests':

- **Biological** – indicated by biological quality elements such as the abundance of fish, invertebrates or algae and by the presence of invasive species.
- **Physico-chemical** – compliance with environmental standards for supporting physcio-chemical conditions, such as dissolved oxygen, phosphorus and ammonia.
- **Specific pollutants** – compliance with environmental standards for concentration of specific pollutants, such as zinc, cypermethrin or arsenic.
- **Hydromorphology** – a combination of the structural (morphological) characteristics of a watercourse and its water flow and level regime (hydrological characteristics). Changes to these characteristics are often required for flood protection, or to support water supply, irrigation or navigation. Where this is poor there can be adverse ecological effects affecting the biological quality element.

4.5.2 Table 4.4 presents a summary of those components that are considered to have potential to affect one or more of these classification elements of the WFD surface waterbodies within the ZoI of the Project. These have therefore been screened-in for further assessment at Stage 4.

4.5.3 Protected areas with a hydrological (surface water) link have also been considered in Table 4.4. There are two routes for Project components to impact on protected areas: through direct physical impacts; and through changes to the conditions the protected areas rely on (for example, through changes in flow or water quality).

Table 4.4 – Potential impacts of Project components on WFD surface waterbodies and protected areas

Component	WFD waterbody/protected area	WFD element affected
General construction (including use of access tracks, temporary construction compounds and laydown areas)	All waterbodies that have been screened into the assessment at Stage 1. Protected areas with a hydrological link to affected waterbodies.	Risks of generation of silted or otherwise polluted runoff from work sites, spills of oils, hydrocarbons and other construction wastes causing pollution. Access tracks intercept surface water flow paths and cross watercourses, inducing physical or hydrological change. Increase in paved (impermeable) land cover, changing rainfall runoff patterns and the rates, volumes and quality of runoff received by watercourses and catchments.

Component	WFD waterbody/protected area	WFD element affected
		Biological quality elements Physico-chemical Hydromorphology
Construction waste - handling/treatment (including foul water arising from welfare facilities)	All waterbodies that have been screened into the assessment at Stage 1. Protected areas with a hydrological link to affected waterbodies.	Discharge of potentially polluting materials/effluents degrading receiving water quality. Biological quality elements Physico-chemical
Watercourse crossings – structures spanning watercourses (new open-span bridges)	Fledborough Beck Tuxford Beck Wheatley Beck Paupers Drain Mill Beck 2 (Ellerker Area) Chesterfield Canal – Lower Section	Shading of watercourses leading to loss of habitats/sensitive vegetation. Biological quality elements
Watercourse crossings - culverting	All watercourses crossed by the access tracks. These are listed in **Application Document 6.4.A2 Environmental Statement Appendix 4.2 Indicative Bridge and Culvert Schedule**.	Potential to disturb channel bed/bank forms, alter lateral connectivity with floodplains, change flow dynamics/hydraulics and sediment transport processes (erosion and accretion). Create a barrier to fish and mammal passage and cause habitat loss. Biological quality elements Hydromorphology
Dewatering of excavations for foundations (e.g. pylons) and of excavations for third-party infrastructure works	All waterbodies that have been screened into the assessment at Stage 1. Protected areas with a link to affected waterbodies.	Mobilisation of ground contaminants from their source (e.g. historical or active landfills), their transport and delivery to aquatic system. Physico-chemical Specific pollutants Biological quality elements

4.6 Components with Potential to Affect Transitional Waterbodies

4.6.1 There are two TraC WFD waterbodies within the Order Limits: Humber Upper TraC and Humber Middle TraC.

4.6.2 Table 4.5 provides a summary of those elements of the Project that have been screened in as relevant to these waterbodies. Associated protected areas have also been considered.

Table 4.5 – Potential impacts of Project components on WFD TraC waterbodies and protected areas

Component	WFD waterbody/protected area	WFD element affected
General construction (including use of access tracks, temporary construction compounds and laydown areas).	Tributaries draining to the Humber Upper TraC and Humber Middle TraC. Protected areas with a hydrological link to affected waterbodies.	Risks of generation of silted or otherwise polluted runoff from work sites, spills of oils, hydrocarbons and other construction wastes causing pollution. Roads cut off surface water flow paths and cross watercourses, inducing physical or hydrological change. Increase in paved (impermeable) land cover, changing rainfall runoff patterns and the rates and volumes and quality of runoff received by watercourses and catchments. Biological quality elements Physico-chemical Hydromorphology
Construction waste handling/ treatment (including foul water arising from welfare facilities).	Tributaries draining to the Humber Upper TraC and Humber Middle TraC. Protected areas with a hydrological link to affected waterbodies.	Discharge of potentially polluting materials/ effluents degrading receiving water quality. Biological quality elements Physcio-chemical
Watercourse crossings – culverting.	Tributaries of the Humber Upper TraC and Humber Middle TraC waterbodies.	Potential to disturb channel bed/ bank forms, alter lateral connectivity with floodplains, change flow dynamics/hydraulics and sediment transport processes (erosion and accretion). Create a barrier to fish and mammal passage and cause habitat loss. Biological quality elements Hydromorphology
Dewatering of excavations for foundations (e.g. pylons).	Tributaries of the Humber Upper TraC and Humber Middle TraC waterbodies. Protected areas with a hydrological link to affected waterbodies.	Mobilisation of ground contaminants from their source (e.g. historical or active landfills), their transport and delivery to aquatic system. Physico-chemical Specific pollutants Biological quality elements

4.7 Components with Potential to Affect WFD Groundwater Bodies

4.7.1 There are four WFD groundwater bodies located within the ZoI. As outlined in section 3.2, these are Hull and East Riding Chalk, East Riding Mercia Mudstone, Idle Torne – Secondary Mudrocks, and Trent Lower Erewash Secondary Combined.

4.7.2 Table 4.6 provides a summary of those elements of the Project that have been screened in relevant to these groundwater bodies. Associated protected areas have also been considered.

Table 4.6 – Potential impacts of Project components on WFD groundwater bodies and protected areas

Component	WFD waterbody/ protected area	WFD element affected
General construction (including use of access tracks, temporary construction compounds and laydown areas).	All groundwater bodies within the ZoI. Protected areas with a hydrological link to affected waterbodies.	Risks of generation of silted or otherwise polluted runoff from work sites, and at compounds and laydown areas, spills of oils, hydrocarbons and generation of other construction wastes, causing pollution. Chemical status
Construction waste handling/treatment	All groundwater bodies within the ZoI. Protected areas with a link to affected waterbodies.	Discharge of potentially polluting materials/ effluents degrading receiving water quality. Chemical status
Dewatering of excavations for foundations (e.g. pylons)	All groundwater bodies within the ZoI. Protected areas with a link to affected waterbodies.	Lowering of groundwater levels and reduction in groundwater contributions to surface waterbodies, GWDTEs or groundwater abstractions. Disturbing or mobilising existing poor-quality groundwater or ground contaminants from their soil source. Aquifer mixing Quantitative status Chemical status

4.8 Screened-out Components

4.8.1 Activities which cause short-term change (impacting a waterbody for a short period of time, after which the waterbody can soon recover without restoration measures) are not considered to cause deterioration as defined in the WFD. For the purpose of this assessment, ‘short-term’ has been assumed as two years or less, which is in line with other large overhead line infrastructure projects, for example the Norwich to Tilbury project.

4.8.2 The following short-term activities have therefore been screened out:

- District Network Operator (DNO) and other utility diversions meeting the criteria above, regarding timescales of ground disturbance and waterbody recovery;
- Construction works needed for landscaping and habitat creation; and
- Stringing of conductors.

4.8.3 Impacts from operational maintenance access road drainage have also been screened out, on the basis that these roads would be infrequently trafficked and only used periodically for maintenance visits.

4.8.4 Overhead line crossings of watercourses during operation of the Project are also screened out of further assessment. As per commitment E12 of **Application Document 7.3 Register of Environmental Actions and Commitments**, a buffer zone of 10 m would be maintained between any pylon and surface waterbody (16 m for any main river and transitional waterbody) and following pylon construction and reinstatement of the works area, there would be no direct or indirect effect on surface or transitional waterbodies.

4.9 Embedded Mitigation Measures

4.9.1 Impacts and changes to the water environment due to activities associated with the Project have been prevented or reduced as an outcome of a process of iterative design, whereby water environment receptors have been avoided, buffered or measures have been embedded to reduce environmental effects.

4.9.2 Key examples of measures relevant to protecting the status of WFD waterbodies are:

- Temporary drainage outfalls, serving construction work sites and haul roads would comprise small diameter buried pipes and small outfall structures. Discharges would be attenuated to greenfield runoff rates, preventing scour in the receiving watercourses, and would also receive treatment, for example to settle sediments, to prevent degradation of water quality in the receiving waterbody.
- Restrictions would be applied to any work within Groundwater Source Protection Zones (SPZ) 1 and 2. These include preventing certain activities in SPZ1, for example, construction vehicle parking, fuel storage, de-icer storage, rock salt storage, and washout/cleaning of ready-mix concrete vehicles and equipment. Application of salt grit (for example, to prevent access tracks freezing) would comply with recommended rates in CIRIA 648 Control of water pollution from linear construction projects (CIRIA, 2006) with control of runoff during any application in SPZs.
- At installation sites for temporary watercourse crossings, design practices would include over-pumping to maintain a downstream flow, with measures in place to control silt pollution risks, installation of new culverts or open span bridges sized to reduce restrictions to flow regimes and designed to prevent barriers to the movement of aquatic species.

4.9.3 Good practice construction techniques would also safeguard WFD waterbody status. These include mitigation measures imposed, for example, as a result of legislative requirements and/or standard sectoral practices. These mitigation measures are detailed in **Application Document 7.3 Register of Environmental Actions and Commitments**. Examples include on-site availability of oil-spill equipment, use of drip trays for mobile plant, sediment trapping or bunds installed downstream of any activities next to or over watercourses.

5. Stage 4: WFD Assessment

5.1 Approach

5.1.1 For the Project activities screened in, an assessment has been undertaken to determine whether the Project is likely to result in failure to meet the WFD objectives, comprising:

- Failure to prevent any deterioration in the status of a waterbody;
- Failure to achieve good ecological status or good ecological potential;
- Preventing implementation of any of the mitigation measures specified in the Humber RBMP (Environment Agency, 2024) or detailed on the Environment Agency's Catchment Data Explorer (Environment Agency, 2025); and
- Non-compliance or compromised implementation of other legislation.

5.1.2 The assessment has been informed by the results of a desk study, field notes, and the aquatic macroinvertebrate surveys undertaken between Spring 2024 and Spring 2025, and fish surveys, undertaken Summer to Autumn 2025 detailed in **Application Document 6.8.A10 Environmental Statement Appendix 8.10 Aquatic Ecology Report**.

5.1.3 The assessment applies a traffic light system (Red, Amber, Green) for screening the potential for risk at a local scale and/or for cumulative effects on the WFD objectives noted below (Environment Agency, 2016). The traffic lights are assigned under the Environment Agency's system of WFD risk screening for rivers, based on whether an activity can meet Flood Risk Activity Permit exemption conditions (Environment Agency, 2020). Activities with an Amber or Red rating require further review.

5.1.4 The assessment has taken account of environmental commitments in **Application Document 7.3 Register of Environmental Actions and Commitments**, which are secured by **Application Document 3.1 Draft Development Consent Order**.

5.2 Assessment

Traffic Light Classification

5.2.1 Green or low risk activities are described as '*posing a very low risk to the delivery of WFD objectives'.* The Water Framework Directive Technical Guidance on Compliance of Physical Works in Rivers (Environment Agency, 2016) notes that no further (additional) WFD risk assessment is required for these activities. Amber activities are described as '*in general, posing a low risk to the delivery of WFD objectives. However, in certain sensitive or critical locations, they could pose a potential risk'*. Red activities '*could pose a risk to the delivery of WFD objectives'*. Amber and Red activities require further assessment which considers aspects such as specific designs. This assessment is reported below.

5.2.2 The Project activities screened in at Stage 3 have the following classifications:

- General construction – this activity does not have a classification within the Environment Agency guidance. Activities within general construction would vary between Amber and Green. A precautionary approach has been taken in classifying project activities within general construction.
- Construction waste handling/treatment – this activity does not have a classification within the Environment Agency guidance. Depending on the specific activity, classification would be Green or Amber. A precautionary approach has been taken in classifying project activities within construction waste handling/treatment.
- Temporary watercourse open-span bridges for temporary footbridges (where public rights of way are diverted) – Green.
- Temporary watercourse open-span bridges for construction access – Amber (bridge crossings which are not covered by the Environment Agency's flood defence risk checklist for service crossings).
- Temporary culverting of watercourses for construction access – Red (whatever the length or extent).
- Temporary drainage outfalls – Green (where Environment Agency flood defence risk checklist criteria for small outfalls are met), otherwise Amber. At this stage, it is not conclusive that all outfalls would satisfy the Green low risk criteria, therefore this activity is assigned Amber as a precautionary approach.
- Dewatering of excavations for pylon foundations are not included in the applied Environment Agency guidance (Environment Agency, 2016) but have been assigned Amber. Given the nature and small area of the proposed excavations, these activities generally pose a low risk but could pose a risk in some sensitive/critical locations.

5.2.3 National Grid has included a suite of embedded mitigation measures in the Project, as outlined **Application Document 7.3 Register of Environmental Actions and Commitments**. These commitments ensure that the activities classified as Amber and Red in the traffic light system are carried out in accordance with best practice, reducing the risk of detriment to WFD waterbodies.

Failure to Prevent Waterbody Deterioration and Preventing Achieving Good Status

5.2.4 To satisfy the WFD objectives of avoiding deterioration and achieving improvement of waterbody status to 'Good', it is necessary to implement specific embedded and control and management mitigation measures to reduce the detrimental impacts of the Red and Amber works activities, such that when considered at the waterbody scale, the residual risk of deterioration is negligible.

General Construction Works

Mitigation

5.2.5 In order to reduce effects on water quality associated with soil stripping, earthworks and stockpiled soil would be protected, e.g. by covering or seeding (commitment GG21). Material storage and laydown areas would be located outside of areas vulnerable to flood risk as shown in flood extents for defended scenarios and follow a sequential approach to their location, as outlined in commitment W11 and in **Application Document 7.13 Flood Risk Assessment**.

5.2.6 Fuels, oils, and chemicals would be stored responsibly to prevent release to ground and the water environment, away from sensitive water receptors (commitment GG15).

5.2.7 An Outline Flood Warning and Evacuation Plan has been prepared for the construction phase, forming part of **Application Document 7.2 Outline Code of Construction Practice**. This outlines procedures to be implemented in case of imminent flooding or other severe weather events.

5.2.8 Commitments E05 and E06 describe commitments that would be in place to prevent the spread of INNS. Such commitments would include use of exclusion zones, use of appropriate Personal Protective Equipment and hygiene and sanitation practices (e.g. disinfection). All plant and machinery would be washed down and dried before being used on site. This procedure would be repeated at the end of the activities before the plant and machinery leave the site.

5.2.9 As outlined in **Application Document 7.13 Flood Risk Assessment,** Appendix B Framework Construction Surface Water Management Plan (CSWMP), where ground conditions are suitable, infiltration components would encourage surface water to collect and soak away into the ground, allowing it to return to the water table below. Infiltrating runoff close to the source is the preferred method for managing runoff across sites, as it replicates the natural hydrological regime. Site-specific infiltration testing at proposed mitigation areas should be done to confirm the infiltration capacity and to inform appropriate soakaway design, as variations in soil type across the Order Limits will impact the capacity of the soil in that area to dispose of surface water directly to the ground.

5.2.10 The effectiveness of treatment measures would be monitored during construction by undertaking regular visual inspections and maintenance of treatment systems, in accordance with schedules set out in the Code of Construction Practice (CoCP) or multiple CoCPs that are drafted by the Main Works Contractor(s) following detailed design.

WFD surface waterbodies

5.2.11 The mitigation measures outlined above, combined with the control and management measures in **Application Document 7.3 Register of Environmental Actions and Commitments**, would reduce the risks of pollution and deterioration of water quality to surface waterbodies across the Project, protecting the biological and physico-chemical elements of WFD surface waterbodies.

Transitional waterbodies

5.2.12 Mitigation measures outlined above would reduce the risks of pollution and water quality deterioration to transitional waterbodies and their tributaries, protecting their biological and physico-chemical elements.

Groundwater bodies

5.2.13 The mitigation measures outlined above would combine to prevent silted or otherwise polluted runoff from work sites, compounds, and laydown areas to safeguard the quality of WFD groundwater bodies.

Construction Waste Handling and Treatment

Mitigation

5.2.14 Wash down of vehicles and equipment would take place in designated areas within temporary construction compounds. Wash water would be prevented from passing untreated into watercourses and groundwater, and any proposed discharges would be made in accordance with suitable environmental permits, where required. Appropriate measures would include use of sediment traps.

5.2.15 Drainage outfalls would be constructed to convey drainage to receiving watercourses from temporary elements, e.g. temporary construction compounds, haul roads. As per commitment W14, small diameter buried pipes and small outfall structures are proposed. Prior to discharge, flows from non-permeable surfaces that are introduced by the Project would be treated, using suitable forms of Sustainable Drainage Systems (SuDS), for example, to settle suspended solids (commitment DE18). **Application Document 7.13 Flood Risk Assessment,** Appendix B Framework Construction Surface Water Management Plan (CSWMP) will be further developed into a detailed Drainage Plan that demonstrates how runoff across the site will be controlled and how any off-site effects will be managed and mitigated (commitment GG19). There would be no intentional discharge of site runoff to ditches, watercourses, drains or sewers without appropriate treatment and agreement of the appropriate authority (except in the case of an emergency, as defined by The Environmental Permitting (England and Wales) Regulations 2016 (commitment GG19).

WFD surface waterbodies

5.2.16 The mitigation measures outlined above would safeguard any receiving surface waterbodies from pollution and untreated runoff from construction waste handling and treatment. The residual effects on the biological and physico-chemical elements of receiving surface waterbodies would therefore be not significant in terms of WFD compliance.

Transitional waterbodies

5.2.17 The mitigation measures outlined above would safeguard from discharge of potentially polluting materials and effluent to transitional waterbodies and their tributaries, protecting the biological and physico-chemical elements of these WFD transitional waterbodies. Residual effects are therefore anticipated to be not significant in terms of WFD compliance.

Groundwater bodies

5.2.18 The mitigation measures outlined above would safeguard from discharge of potentially polluting materials and effluents which may degrade groundwater bodies, protecting WFD groundwater bodies from a deterioration in chemical status. Residual effects are therefore anticipated to be not significant in terms of WFD compliance.

Watercourse Crossings – Structures Spanning Watercourses

Mitigation

5.2.19 As per commitment DE7, large or sensitive watercourses (for example those designated as main rivers and those with a WFD waterbody identifier) would be crossed using clear span bridges. These crossings would be designed to avoid and reduce impacts on these waterbodies, avoiding any physical change to channel form, flow and sediment transport regimes. The crossings would be designed to reduce effects on riparian corridors and maintain floodplain connectivity. Where required, appropriate design of the crossings would also set back abutments from watercourses to reduce any risk of disturbance of fish by noise and vibration during the piling of the bridge abutments.

5.2.20 As per commitment DE9, soffit heights at clear span crossings would be set on a site-specific basis, following more detailed survey and design work by the Main Works Contractor(s). On watercourses that achieve High or Good WFD status for invertebrates, soffit heights would be set as high as practicable above the Q95 water level (indicative of a Summer, low flow condition), accounting for site-specific constraints, in order to facilitate the upstream migration of these species and avoid deterioration in the biological quality element. In addition, the soffits would be set to maintain sufficient clearance above flood levels.

5.2.21 Plans showing the typical arrangements for these bridge crossings are included in **Application Document 2.12 Typical Design Drawings - Illustrative Bridge Details for Watercourse Crossings Sheet 17 of 20**. It is noted that although the crossings are not classified as ‘temporary’ in accordance with Environment Agency criteria, unless replacing an existing crossing structure, they would only be in place for the construction phase of the Project, following which the structures would be removed, and any necessary reinstatement works would be undertaken.

5.2.22 There are several commitments in **Application Document 7.2 Outline Code of Construction Practice** and **Application Document 7.3 Register of Environmental Actions and Commitments** that would reduce the likelihood of affecting vegetation in the riparian zone/on the banks of watercourses and reduce the magnitude of effects where this impact is unavoidable. These include retaining riverbank and in-channel vegetation where not directly affected by installation works (commitment W03), as detailed in **Application Document 7.8 Outline Landscape and Ecology Management Plan**. This also details the riparian protected species mitigation measures that would be implemented, including, for example, pre-construction water vole surveys within the survey season (mid-April to end September) before any riverine disturbance occurs. **Application Document 7.8 Outline Landscape and Ecology Management Plan**, also provides information on Mitigation Planting Areas that would be created by the Project to deliver landscape and habitat mitigation.

5.2.23 Following construction, temporary bridges would only be retained by exception, e.g. if the new structure has replaced an existing one in poor repair, in which case the design of these would reflect their permanence.

WFD surface waterbodies

5.2.24 Collectively, the measures described above would allow existing hydraulic and sediment transport regimes to be maintained, safeguarding the existing hydromorphological regime and preventing deterioration.

5.2.25 The measures described above would further safeguard the biological quality elements of WFD surface waterbodies. Bridges being in place for only the construction phase of the Project would prevent long-term loss of vegetation due to shading. The use of bridges instead of culverts for WFD waterbodies ensures the unrestricted movement and migration of species along the waterbodies. The residual effect on biological quality elements of waterbodies is considered to be not significant in terms of WFD compliance.

Watercourse Crossings – Culverting

Mitigation

5.2.26 Plans showing the typical arrangements for these culvert crossings are included in **Application Document 2.12 Typical Design Drawings - Illustrative Culvert Details for Watercourse Crossings Sheet 16 of 20**. It is noted that although the crossings are not classified as 'temporary' in accordance with Environment Agency criteria, unless the culvert is replacing / upgrading an existing structure, they would only be in place for the construction phase of the Project, following which the structures would be removed, and any necessary reinstatement works would be undertaken.

5.2.27 There are several commitments in **Application Document 7.3 Register of Environmental Actions and Commitments** that would reduce the likelihood of affecting vegetation in the riparian zone/on the banks of watercourses and reduce the magnitude of effects where this impact is unavoidable. These include retaining riverbank and in-channel vegetation where not directly affected by installation works (commitment W03), as detailed in **Application Document 7.8 Outline Landscape and Ecology Management Plan**. This also details the riparian protected species mitigation measures that would be implemented, including, for example, pre-construction water vole surveys within the survey season (mid-April to end September) before any riverine disturbance occurs. **Application Document 7.8 Outline Landscape and Ecology Management Plan** also provides information on Mitigation Planting Areas that would be created by the Project to deliver landscape and habitat mitigation.

5.2.28 Culverts of any length or extent are classified as a Red activity given the potential for culverts to result in creation of barriers to the passage of fish and other aquatic organisms, change channel bed/bank form, alter flow dynamics and sediment transport processes, and reduce lateral connectivity between watercourses and their floodplains.

5.2.29 Method statements would be developed to ensure that any culverts installed within watercourses include suitable measures to allow the passage of animals (i.e., otters, water vole and fish) throughout construction, accounting for fluctuating water levels, as secured by commitment E13 in **Application Document 7.3 Register of Environmental Actions and Commitments**.

5.2.30 As per commitment W03, culverts in waterbodies would either preserve the natural bed or be box culverts with inverts sunk a minimum of 300 mm below the hard bed of the watercourse with natural/existing bed material placed across the inside of the culvert to maintain the natural channel bed profile and materials. New culverts would be as short as practicable and sized to maintain the current land drainage regime and avoid narrowing of natural channel widths. During culvert installation, downstream flows would be maintained.

WFD surface waterbodies

5.2.31 No WFD designated surface waterbodies would be culverted.

5.2.32 Where culverting of surface waterbodies is proposed on tributaries of WFD waterbodies, the effects would be reduced through design and the commitments included in **Application Document 7.3 Register of Environmental Actions and Commitments** and mitigation measures outlined above to manage associated impacts. Residual effects on both hydromorphology and biological quality elements would be not significant in terms of WFD compliance.

Transitional waterbodies

5.2.33 Where culverting of tributaries of transitional waterbodies is proposed, the effects would be reduced through design and the commitments included in **Application Document 7.3 Register of Environmental Actions and Commitments**, and mitigation measures outlined above to manage associated impacts. Residual effects on both hydromorphology and biological quality elements would be not significant in terms of WFD compliance.

Dewatering of Excavations

Mitigation

5.2.34 With regard to dewatering of excavations, any water removed would be discharged as close to the excavations as possible and as soon as practically possible so that the dewatered groundwater body is recharged as much and as soon as possible (commitment W16 of **Application Document 7.3 Register of Environmental Actions and Commitments**).

5.2.35 Commitment GH07 outlined in **Application Document 7.3 Register of Environmental Actions and Commitments** minimises the risk of contamination of groundwater sources and mixing of aquifers. Mixing of aquifers as a result of piling as part of the construction phase of assessment was scoped out of **Application Document 6.12 Environmental Statement Chapter 12 Geology and Hydrology**.

5.2.36 Previously described embedded mitigation measures relating to water quality and the land drainage regime are also relevant to works with the potential to impact on all screened-in surface waterbodies, transitional waterbodies and groundwater bodies.

WFD surface waterbodies

5.2.37 The mitigation measures outlined above would safeguard against the mobilisation of ground contaminants from their source and delivery to surface waterbodies. These measures therefore protect the biological and physico-chemical elements of receiving surface waterbodies and the residual effect is considered not significant in terms of WFD compliance.

Transitional waterbodies

5.2.38 The mitigation measures outlined above would safeguard against the mobilisation of ground contaminants from their source and delivery to transitional waterbodies and their tributaries. These measures therefore protect the biological and physico-chemical elements of receiving surface waterbodies and the residual effect is considered not significant in terms of WFD compliance.

Groundwater bodies

5.2.39 Further to the previously described commitments, there are other commitments in **Application Document 7.3 Register of Environmental Actions and Commitments** specifically relevant to excavations and works with the potential for impacts on groundwater.

5.2.40 **Application Document 6.12.A4 Environmental Statement Appendix 12.4 Preliminary Qualitative Groundwater Risk Assessment** has been undertaken to assess the specific risks to groundwater and groundwater receptors where required and identify any additional mitigation or remediation that may be required.

5.2.41 These mitigation measures would safeguard groundwater bodies against deterioration of chemical and quantitative status, resulting in a residual effect considered to be not significant in terms of WFD compliance.

Summary

5.2.42 The embedded and standard mitigation measures described in **Application Document 7.3 Register of Environmental Actions and Commitments** are secured through Requirement 5 of **Application Document 3.1 Draft Development Consent Order**. This requires the Main Works Contractor(s) to prepare a Code of Construction Practice to discharge the Requirement.

5.2.43 These measures would reduce effects on biological and physico-chemical quality elements of the screened-in surface waterbodies with respect to screened-in activities. With respect to the temporary access crossings, the measures described above would also reduce effects on hydromorphology, in addition to reducing effects on the quantity and dynamics of flow and sediments within the waterbodies. The embedded and standard mitigation measures would also safeguard groundwater, reducing effects on quality and groundwater flows/recharge patterns.

5.2.44 The residual effects of the screened in Project activities (classified as amber and red) on WFD waterbodies within the ZoI are therefore concluded to have a negligible risk of causing waterbody deterioration or preventing achievement of good status. The Project is concluded to comply with these aspects of the legislation and no WFD derogation under the WFD Regulations would be required.

Implementation of Mitigation Measures Specified in the Humber RBMP

5.2.45 As detailed in section 3.2, mitigation measures to improve the future status of the screened-in waterbodies focus on improving water quality, sustainability of water resources, habitat restoration and flood risk management.

5.2.46 With the embedded, control and management mitigation measures in place, it is considered that the Project would not prevent implementation of the mitigation measures outlined in the Humber RBMP.

5.2.47 As detailed in commitment E20 of **Application Document 7.3 Register of Environmental Actions and Commitments**, the Project will seek to provide strategic habitat enhancement and creation, aiming to identify and implement opportunities to improve habitat quality and connectivity and align with national nature recovery objectives and projects. Such measures may include specific habitat creation and enhancement meas0.ures and additional receptor-specific measures. Further details are provided in **Application Document 7.8 Outline Landscape and Ecology Management Plan**.

Compliance with Other Legislation

5.2.48 The Project's compliance with other legislation and planning policy is described in **Application Document 5.5 Planning Statement**. This concludes that the Project would not compromise implementation of other legislation nor cause non-compliance with relevant legislation.

5.3 Sensitivity Testing

5.3.1 Under the terms of the DCO, construction could commence up to five years from the granting of the DCO which is assumed to be 2028. Consideration has therefore been given to whether the effects reported would be different if the works were to commence up to five years thereafter (as described in section 11.5 of **Application Document 6.11 Environmental Statement Chapter 11 Water Environment**). The effects on WFD waterbodies reported in this assessment would be unchanged should construction begin up to five years following the granting of the DCO.

5.4 Conclusion

5.4.1 A WFD screening assessment has been undertaken in relation to the Project comprising four stages. Stages 1 and 2 were shared with the Environment Agency. Their comments and how they have been addressed are set out in section 1.4.

5.4.2 Stages 1 and 2 of the assessment defined the ZoI of the Project and screened WFD surface, transitional and groundwater bodies within the ZoI for the potential to be impacted by the Project. The conclusions of Stages 1 and 2 have been agreed with the Environment Agency.

5.4.3 The WFD waterbodies that were screened in, comprise 21 surface waterbodies (including two transitional waterbodies). Four groundwater bodies were precautionarily screened in. Several watercourses that are not designated WFD waterbodies, drain to the surface WFD waterbodies and the potential effects on these watercourses have been considered within the assessment. Protected areas and GWDTEs with a hydrological link to these waterbodies were also screened in.

5.4.4 Stage 3 of the assessment entailed screening Project components and activities for the potential to cause deterioration of the status of the screened-in waterbodies, or prevent their objectives being met.

5.4.5 With regard to surface WFD waterbodies and WFD TraC waterbodies, the review of the Project components concluded the potential for negative effects linked to the following:

- General construction (including use of access tracks);
- Construction waste handling/treatment;
- Watercourse crossing – culverting;
- Watercourse crossing – structure spanning watercourses (new single span bridges) (river waterbodies only); and
- Dewatering of excavations.

5.4.6 For WFD groundwater bodies, the review of the Project components concluded the potential for negative effects linked to the following:

- General construction (including the use of haul roads);
- Construction waste handling/treatment; and
- Dewatering of excavations.

5.4.7 These activities were taken forward to Stage 4 of the assessment.

5.4.8 Stage 4 concluded that the residual effects of the Project activities on the screened-in surface and transitional waterbodies would be not significant at the waterbody scale, following the implementation of the embedded and standard mitigation measures outlined in **Application Document 7.3 Register of Environmental Actions and Commitments**.

5.4.9 Stage 4 concluded that the residual effects of Project activities on the screened-in groundwater bodies would be reduced via the embedded mitigation measures outlined in **Application Document 7.3 Register of Environmental Actions and Commitments** such that Project activities would have an overall not significant effect.

5.4.10 This assessment concludes that the Project is compliant with the objectives of the WFD Regulations, including preventing any deterioration in the status of a waterbody, and when considering the potential for cumulative effects. On this basis, no further assessment is proposed and no derogations under regulation 19 of the WFD Regulations would be required.

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Appendix A
WFD Baseline Data and Watercourse Photographs

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Appendix A
WFD Baseline Data and Watercourse Photographs

WFD waterbody (ID)	Element	Status/value
Route Section A		
Beverley and Barmston Drain (GB104026067211)	Length (km)	26.228
	Catchment area (ha)	10,494.563
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, poor nutrient management, poor soil management, riparian/in-river activities, urbanisation	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Mill Beck 2 (GB104026066660)	Length (km)	9.502
	Catchment area (ha)	2,818.609
	Ecological status	Moderate
	Biological status	Good
	Fish	Good
	Hydromorphological supporting elements	Not high
	Physico-chemical	High
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	Good
	Priority hazardous substances	Fail
	Field Notes/Photographs:	

WFD waterbody (ID)	Element	Status/value
	Upstream: photo taken 18 September 2024  Downstream: photo taken 18 September 2024 	
	RNAGs: Land drainage management, flood protection (structures)	
	Ecological Objective	Good (2027)

WFD waterbody (ID)	Element	Status/value
	Chemical Objective	Good (2063)
Market Weighton Canal (GB70410031)	Length (km)	7.536
	Catchment area (ha)	n/a
	Ecological status	Moderate
	Biological status	n/a
	Fish	n/a
	Hydromorphological supporting elements	n/a
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, poor nutrient management, navigation (including ports)	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Humber Middle TraC (GB530402609202)	Length (km)	n/a
	Catchment area (ha)	6,645.755
	Ecological status	Moderate
	Biological status	Moderate
	Fish	Good
	Hydromorphological supporting elements	n/a
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Fail
	Other pollutants	Good
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Natural conditions, flood and coast protection use	
	Ecological Objective	Moderate (2015)
	Chemical Objective	Good (2063)

WFD waterbody (ID)	Element	Status/value
Route Section B		
Adlingfleet Drain Upper Catchment (GB104028064310)	Length (km)	6.864
	Catchment area (ha)	3,109.037
	Ecological status	Moderate
	Biological status	Poor
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: Upstream: photo taken 25 September 2024  Downstream: photo taken 25 September 2024	

WFD waterbody (ID)	Element	Status/value
		
	RNAGs: Natural mineralisation, poor soil management, flood protection	
	Ecological Objective	Moderate (2015)
	Chemical Objective	Good (2063)
Paupers Drain (GB104028064300)	Length (km)	13.287
	Catchment area (ha)	3,204.102
	Ecological status	Moderate
	Biological status	Bad
	Fish	Bad
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: Upstream: photo taken 13 May 2025	

WFD waterbody (ID)	Element	Status/value
		
	Downstream: photo taken 13 May 2025	
		
	RNAGs: Poor nutrient management, land drainage management, poor soil management, barriers (ecological discontinuity)	
	Ecological Objective	Good (2027)

WFD waterbody (ID)	Element	Status/value
	Chemical Objective	Good (2063)
Humber Upper TraC (GB530402609203)	Length (km)	n/a
	Catchment area (ha)	1,248.549
	Ecological status	Moderate
	Biological status	Moderate
	Fish	Good
	Hydromorphological supporting elements	Not high
	Physico-chemical	Good
	Chemical status	Fail
	Priority substances	Fail
	Other pollutants	Good
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Flood and coast protection use, natural conditions, sewage discharge, poor nutrient management, surface water abstraction	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Route Section C		
North Soak Drain (GB104028064350)	Length (km)	26.444
	Catchment area (ha)	5,564.089
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological Supporting Elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management	
	Ecological Objective	Moderate (2015)

WFD waterbody (ID)	Element	Status/value
	Chemical Objective	Good (2063)
Hatfield Waste Drain Catchment (trib of Torne/Three Rivers) (GB104028064330)	Length (km)	36.482
	Catchment area (ha)	12,015.824
	Ecological status	Moderate
	Biological status	Poor
	Fish	Poor
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Poor soil management, transport drainage, barriers (ecological discontinuity), land drainage management, groundwater abstraction, natural mineralisation, sewer discharge, surface water abstraction	
	Ecological Objective	Moderate (2027)
	Chemical Objective	Good (2063)
Torne/Three Rivers from Mother Drain to Trent Waterbody (GB104028064340)	Length (km)	50.603
	Catchment area (ha)	85,295.486
	Ecological status	Moderate
	Biological status	Moderate
	Fish	Moderate
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, transport drainage, natural mineralisation, poor nutrient management, sewage discharge	
	Ecological Objective	Good (2027)

WFD waterbody (ID)	Element	Status/value
	Chemical Objective	Good (2063)
Sheffield and South Yorkshire Navigation (New Junction and Stainforth and Keadby) (GB70410281)	Length (km)	43.815
	Catchment area (ha)	n/a
	Ecological status	Good
	Biological status	n/a
	Fish	n/a
	Hydromorphological supporting elements	n/a
	Physico-chemical	n/a
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: n/a	
	Ecological Objective	Good (2015)
	Chemical Objective	Good (2063)
Route Section D		
Ferry Drain (GB104028058241)	Length (km)	6.759
	Catchment area (ha)	1,391.75
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, poor nutrient management, sewage discharge	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)

WFD waterbody (ID)	Element	Status/value
Warping Drain (trib of Trent) (GB104028058240)	Length (km)	12.009
	Catchment area (ha)	3549.81
	Ecological status	Moderate
	Biological status	Good
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	High
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Route Section E		
Idle from Ryton to Trent (GB104028058110)	Length (km)	18.76
	Catchment area (ha)	6,225.521
	Ecological status	Moderate
	Biological status	Good
	Fish	High
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	Good
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, transport drainage, poor soil management, sewage discharge, groundwater abstraction, surface water abstraction	
	Ecological Objective	Moderate (2015)
	Chemical Objective	Good (2063)

WFD waterbody (ID)	Element	Status/value
Wheatley Beck (GB104028058360)	Length (km)	7.005
	Catchment area (ha)	1,765.06
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Poor nutrient management, sewage discharge, poor livestock management	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Catchwater Drain (GB104028058350)	Length (km)	5.266
	Catchment area (ha)	2,578.85
	Ecological status	Moderate
	Biological status	Good
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Land drainage management, flood protection, poor soil management, transport drainage	
	Ecological Objective	Moderate (2015)
	Chemical Objective	Good (2063)

WFD waterbody (ID)	Element	Status/value
North Beck (GB104028058311)	Length (km)	6.075
	Catchment area (ha)	1,190.02
	Ecological status	Moderate
	Biological status	Moderate
	Fish	High
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Sewage discharge, poor nutrient management, poor livestock management	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)
Tuxford Beck (GB104028058320)	Length (km)	12.141
	Catchment area (ha)	3,598.18
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Chemical
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Poor nutrient management, misconnections, sewage discharge	
	Ecological Objective	Moderate (2015)
	Chemical Objective	Good (2063)
	Length (km)	25.281
	Catchment area (ha)	n/a

WFD waterbody (ID)	Element	Status/value
Chesterfield Canal - Lower Section (GB70410527)	Ecological status	Moderate
	Biological status	n/a
	Fish	n/a
	Hydromorphological supporting elements	n/a
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: Upstream: photo taken 14 May 2025  Downstream: photo taken 14 May 2025	

WFD waterbody (ID)	Element	Status/value
		
	RNAGs: Transport drainage, sewage discharge	
	Ecological Objective	Good (2015)
	Chemical Objective	Good (2063)
Route Section F		
Fledborough Beck (GB104028058290)	Length (km)	6.001
	Catchment area (ha)	1,291.92
	Ecological status	Moderate
	Biological status	Moderate
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Good
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	n/a
	Priority hazardous substances	Fail
	Field Notes/Photographs: Upstream: photo taken 25 September 2024	

WFD waterbody (ID)	Element	Status/value
	 Downstream: photo taken 25 September 2024 	
	RNAGs: Poor nutrient management, land drainage management, drought	
	Ecological Objective	Good (2027)

WFD waterbody (ID)	Element	Status/value
	Chemical Objective	Good (2063)
Route Section E-F		
Trent from Carlton-on-Trent to Laughton Drain (GB104028058480)	Length (km)	58.554
	Catchment area (ha)	15,321.985
	Ecological status	Moderate
	Biological status	Bad
	Fish	n/a
	Hydromorphological supporting elements	Not high
	Physico-chemical	Moderate
	Chemical status	Fail
	Priority substances	Good
	Other pollutants	Good
	Priority hazardous substances	Fail
	Field Notes/Photographs: n/a	
	RNAGs: Transport drainage, sewage discharge, natural conditions, poor soil management, land drainage management, navigation (including ports)	
	Ecological Objective	Good (2027)
	Chemical Objective	Good (2063)

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