CURRAGHINALT 33KV CONNECTION PROJECT

STATEMENT OF CASE TECHNICAL REPORT WATER QUALITY

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Contents

1 INTRODUCTION

This Technical Report sets out the following summary of the assessment and outcomes:

- The methodology used in the assessment:
- Consideration of any changes to the baseline data, relevant policy, guidance and legislation since the completion of the EIA in May 2021
- Impacts without mitigation.
- Proposed mitigation measures.
- Residual impacts.
- Cumulative impacts/interactions/transboundary impacts.
- Consideration of consultation replies from statutory agencies and relevant third-party representations.
- Conclusions.

This Technical Report has been prepared by Mark Magee.

Mark is a Technical Director with RPS and was responsible for preparing the water quality impact assessment contained in the Environmental Statement ('the ES') associated with the 33kV power line involving both construction of above ground 33kV overhead line supported by wooden poles and underground 33kV cable laid below ground level in a fully ducted system, to serve Curraghinalt mine (Planning Ref LA11/2019/1000/F) ('the Proposed Development').

Mark holds a BA in Environmental Sciences and a MSc in Environmental Engineering. He is a Chartered Scientist (CSci); a Chartered Environmentalist (CEnv); a Chartered Water and Environmental Manager (CWEM) and full member of the Chartered Institute of Water and Environmental management (CIWEM). Mark has over 24 years' public and private sector experience in water quality assessment, aquatic ecology, catchment management and river basin planning, environmental assessment, environmental appraisal of infrastructure projects. He has specific technical expertise in water quality and Water Framework Directive compliance assessments for large infrastructure projects in UK and Ireland including, ports and harbours, road infrastructure, flood relief schemes, electricity transmission OHL and cables, gas transmission pipelines, large scale public water supply and windfarm development. Mark has project managed a number of large multi-disciplinary and smaller scale projects, developed and project managed numerous impact assessments, planning applications, post consent plans, freshwater environmental surveys, technical reports, and mitigation and monitoring plans.

This Technical Report should be read alongside Chapter 9.0 Water Quality and associated Appendices of the ES, the clarification provided to the Drinking Water Inspectorate on private drinking water supplies and the Shadow Habitats Regulations Assessment (sHRA) previously submitted in support of the planning application.. As outlined in Section 3 this report provides new environmental information on the water bodies traversed by the Proposed Development as the Water Framework Directive status has been updated since the submission of the planning application.

2 METHODOLOGY

The Strategic Planning Division of the Department of Infrastructure Planning undertook an EIA screening determination for the Proposed Development under the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 and concluded that the planning application for the above ground 33kV overhead line supported by wooden poles and underground 33kV cable laid below ground level in ducts, to serve Curraghinalt mine was 'EIA development'.

The assessment of the potential significant effects has been undertaken in the context of the European Water Framework Directive (2000/60/EC) which has been transposed into Northern Ireland regulations through the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensures that the Water Framework Directive (as transposed) and the various supporting pieces of water legislation continue to operate here after 1 January 2021 and are the main mechanism for integrated catchment management and the protection of water resources. These supporting regulations are listed at Schedule 2 of The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water Framework Directive (2000/60/EC), as amended by Directives 2008/105/EC, 2013/39/EU and 2014/101/EU, established a new integrated approach to the protection of the water environment. The Directive was transposed in Northern Ireland through the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.

The Northern Ireland Environment Agency (NIEA) is the competent authority tasked with implementation of the WFD in Northern Ireland. A key requirement of the Water Framework Directive (WFD) is that surface water bodies attain at least good surface water status, requiring both ecological status and chemical status to be at least good, and that there should be no deterioration in existing status. For groundwater the objective is to achieve good groundwater status, requiring both quantitative status and chemical status to be at least good. Therefore, an assessment must be carried out to ensure that the Proposed Development does not compromise these fundamental requirements of the WFD. The aim of this assessment is to determine if specific components or activities related to the planned development will compromise the attainment of an environmental objective as per Article 4 of the WFD or result in the deterioration in the overall status of any water body. This will determine whether it is possible to proceed with the Proposed Development or whether amendments or mitigation measures are necessary.

The environmental baseline is set out within this Report along with an assessment of how the existing environment may be affected by the Proposed Development . Where impacts are expected suitable mitigation measures are detailed.

For the purposes of this assessment and to be consistent with the NIEA Water Management Unit 'EIA Scoping Guidance for Developments likely to Impact upon the Water Environment (NIEA, 2012)' potential impacts on specific waterways are identified. The definition of a waterway is as defined in the Water (Northern Ireland) Order 1999:

"waterway includes any river, stream, watercourse, inland water (whether natural or artificial) or tidal waters and any channel or passage of whatever kind (whether natural or artificial) through which water flows…"

The methodology employed to inform the ES and the planning applications for the Proposed Development is set out in in Section 9.4 of Chapter 9.0 of the ES.

The assessment methodology undertaken in the ES is outlined below:

- Existing Environment (Section 9.6 of the ES)
    - Identification of location of watercourses along proposed route and in the vicinity of the substation;
    - Initial consultation with NIEA Water Management Unit (WMU) to obtain any relevant information;
    - Assessment of baseline conditions and areas protected under the WFD (note the WFD classification for the water bodies affected has been updated since the submission of the original ES, The updated baseline is provided in this report (Section 3).
- Impact Assessment (Section 9.7)
    - Identify potential impacts (from the Proposed Development on the achievement of WFD objectives;
    - Assessment of the significance of potential impacts using a method adopted from the Design Manual for Roads and Bridges (2011);

  - assessment to determine whether specific components or activities related to the Proposed Development will compromise the attainment of WFD objectives or result in the deterioration in the ecological status of any water body.

- Mitigation (Section 9.8)
- Residual Impacts (Section 9.9)
- Cumulative impacts and transboundary issues (Section 9.10)
- Conclusions (Section 9.11)

2.1 Assessment of Significance of Potential Impact

The significance of impact on surface water runoff and water quality likely to occur during the construction and operational phases of the development was determined using the predominantly qualitative process described below. It is a combination of the magnitude of the impact and the potential sensitivity of the receptor.

The definitions of potential significance are as listed in **Table 2-1** (adapted from the generic methodology for environmental sensitivity outlined in the Design Manual for Roads and Bridges (DMRB) (2020). Impacts can be described as either adverse or beneficial.

The magnitude of the impact has also been adapted from the generic methodology for environmental assessment outlined in the DMRB.

Table 2-2)

Table 2-1: Sensitivity Indication (DMRB, 2011)

Value (Sensitivity)	Typical Descriptors
Very High	**Very high importance and rarity, international scale and very limited potential for substitution**. Examples: Water body protected area interests are of international importance and have been designated under the Habitats, Birds, Shellfish, Bathing Water or Freshwater Fish, Drinking Water or Nitrate Directives. High Status Water bodies.
High	**High importance and rarity, national scale, and limited potential for substitution.** Examples: Water body where the current status is good or better and no deterioration is permitted. National designation e.g. Area of Special Scientific Interest (ASSI).
Medium	**High or medium importance and rarity, regional scale, limited potential for substitution.** Examples: Moderate Status with an objective of good status by 2021, regionally important resource in terms of ecology or fisheries interest.
Low	**Low or medium importance and rarity, local scale.**
Negligible	**Very low importance and rarity, local scale.**

Table 2-2: Magnitude of Impact Indicating Type and Scale of Impact (DMRB, 2011)

Magnitude	Type and scale of impact
Major	Major alteration to water body status causing deterioration in either the ecological status including supporting elements, i.e., physico-chemical, specific pollutants and hydromorphology, chemical status or protected area status, including downstream protected area interests within the same water body. Severe damage to key water body characteristics, features or elements (Adverse). Large scale or major improvement to water body status, extensive restoration or enhancement of Water body (Beneficial).
Moderate	Water quality impact but not adversely affecting the integrity or status of the water body, partial loss or damage of certain characteristics or water body attributes (Adverse). Benefit to or addition of key characteristics or features of the water body, improvement in water status (Beneficial).
Minor	Some measurable change in water quality attributes, minor loss or alteration to one (maybe more) key characteristics (Adverse). Minor benefit to one or more key characteristics, features or elements of the water body (Beneficial).
Negligible	Very minor loss to water body characteristics, features or elements (Adverse). Very minor benefit to or positive addition of one or more water body characteristics, features or elements (Beneficial).
No change	No loss or alteration to water quality or water body status.

The greater the environmental sensitivity or value of the receptor or resource, and the greater the magnitude of impact, the more significant the impact. The consequences of a highly valued environmental resource suffering a major detrimental impact would have a very significant adverse effect. The typical impact significance categories used in this assessment are presented in **Table 2-3.**

Table 2-3: Estimating the Significance of Potential Impacts (DMRB, 2011)

Sensitivity of Attribute	Magnitude of Impact			
	Negligible	Minor	Moderate	Major
Very High	Negligible/Neutral	Moderate/Large	Large/Very Large	Very Large
High	Negligible/Neutral	Slight/Moderate	Moderate/Large	Large/Very Large
Medium	Negligible/Neutral	Slight	Moderate	Large
Low	Negligible/Neutral	Negligible/Neutral	Slight	Slight/Moderate

3 CONSIDERATION OF ANY CHANGES TO THE BASELINE DATA, RELEVANT POLICY, GUIDANCE AND LEGISLATION SINCE THE COMPLETION OF THE EIA IN MAY 2021

3.1 Baseline Data

As shown in **Figure 3-1** this Proposed Development traverses watercourses within five river water bodies, there are two groundwater bodies underlying these rivers water bodies, namely:

- Glenmornan River (UKGBNI1NW010101075)
- Dunnyboe Burn (UKGBNI1NW010101072)
- Glenelly River (UKGBNI1NW010104040)
- Owenkillew River (Gortin) (UKGBNI1NW010102027)
- Owenreagh (East) River (Drumlea) (UKGBNI1NW010104041)
- Claudy Groundwater (UKGBNI4NW003)
- Gortin Groundwater (UKGBNI4NW004)

The Glenmornan River and Dunnyboe River water bodies are within the Burn Dennet and Foyle Local Management Area (LMA). While the Glenelly River, Owenkillew River (Gortin) and Owenreagh (East) River (Drumlea) water bodies are within the Owenkillew LMA, both of which are part of the North Western River Basin District (RBD.

The Glenmornan River overlies the Claudy Groundwater body, while the remaining water bodies overlie the Gortin Groundwater body. Consultations during the preparation of the ES were undertaken with NIEA Water Management Unit in July 2019 and again in July 2020 with respect to the Proposed Development within the context of the WFD Programme of Measures for the water body, the overarching River Basin Management Plan (RBMP) and general water quality assessment.

Since the preparation of the water quality chapter of the ES, the WFD monitoring programme has continued and more recent data from the programme has resulted in some changes to the ecological status and chemical status classification for the water bodies traversed by the Proposed Development . Further consultation with the NIEA Water Management Unit in the form of a water information data request and a review of online resources, i.e. the catchments viewer webGIS was undertaken in March, May and October 2024. The purpose of this consultation was to establish if the current water quality status of each of the aforementioned water bodies had changed since the original planning applications.

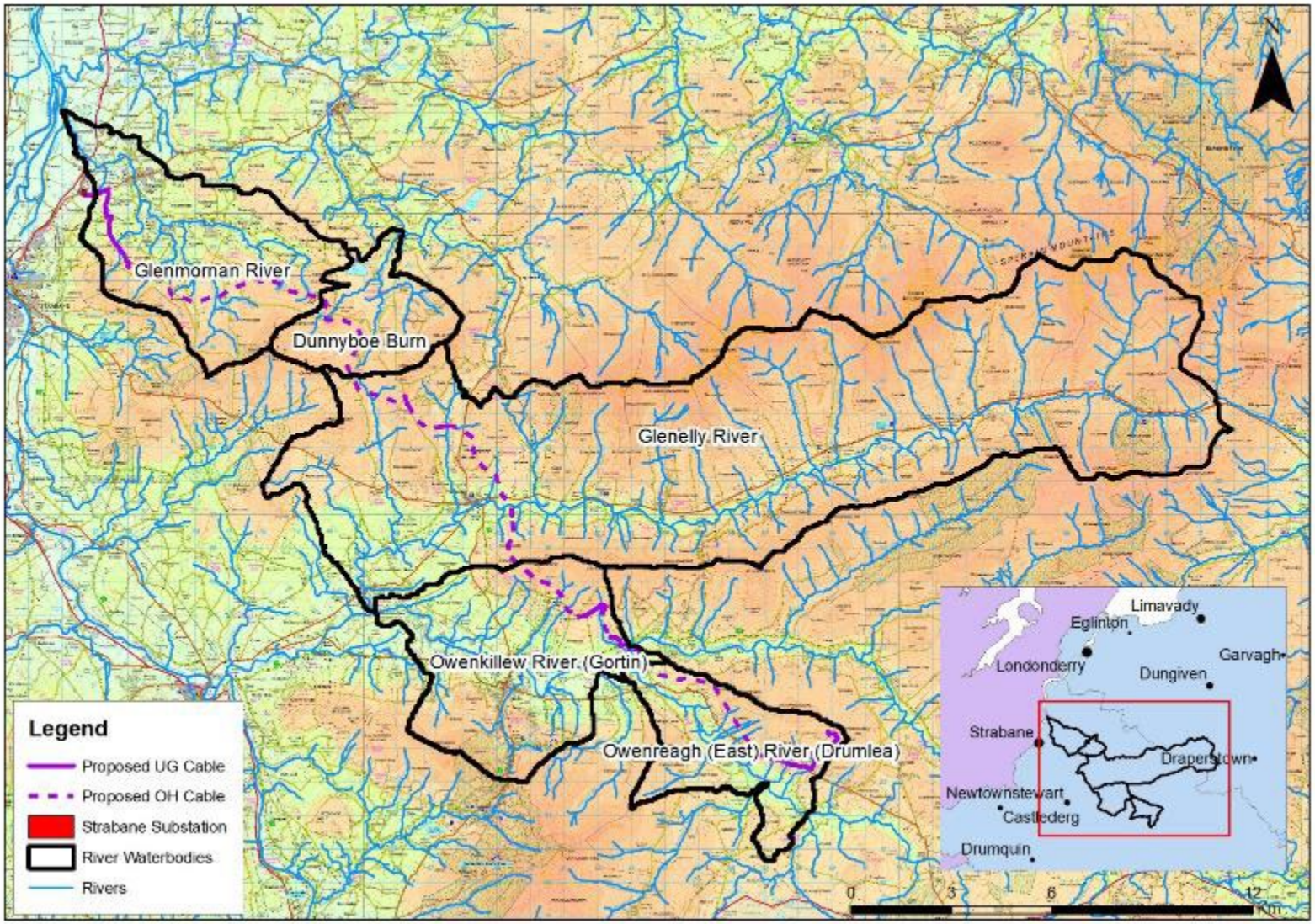

Figure 3-1: Location within the Context of the Water Environment

3.1.1 Ecological Status

The baseline for ecological status has been updated for each water body as summarised in Table 3.1 to Table 3.5. There has been a deterioration in the ecological status of two water bodies traversed by the proposed development, the Glenelly River (UKGBNI1NW010104040) and the Owenkillew River (Gortin) (UKGBNI1NW010102027) which have deteriorated from moderate to poor and from good to moderate respectively. The main reason for this deterioration in the ecological status are the biological elements: benthic invertebrates and fish in the Glenelly River (UKGBNI1NW010104040) are now classified as poor whilst benthic invertebrates in the Owenkillew River (Gortin) (UKGBNI1NW010102027) have also deteriorated to poor ecological status. However, the impact assessment undertaken in the ES does not change as a result of the change in the ecological status classification as the magnitude of the impacts do not change nor do the proposed mitigation measures and the environmental objective for all water bodies is still the achievement of good ecological status. The mitigation measures included in the water quality chapter ensure that the proposed development will not introduce additional pressures that will cause any further deterioration in the ecological status and equally importantly will ensure that the achievement of the environmental objectives in the water bodies affected, i.e. the achievement of good ecological status, through the implementation of the Programme of Measures recommended in the River Basin Management Plan (RBMP) will not be compromised.

Table 3.1: Glenmornan River (UKGBNI1NW010101075) WFD Status Classification

Water body name:	Glenmornan River	
Water body identification code:	UKGBNI1NW010101075	
River Basin District:	North Western	
Local management area:	Burn Dennet and Foyle	
2018 Ecological Status:	Moderate Ecological Status	
2021 Ecological Status:	Good Ecological Status	
2027 Objective	Good Ecological Status	
Confidence in overall status:	-	
Biological elements	**2018**	**2021**
Benthic invertebrates	Good	Good
Macrophytes	High	High
Phytobenthos	Good	High
Fish	Moderate	Good
Physicochemical elements		
Dissolved Oxygen	High	High
pH	High	High
Soluble Reactive Phosphorus	Good	Good
Specific pollutants		
Ammonia	High	High
Other Specific Pollutants	High	High
Hydromorphological elements		
Hydrological regime	High	High
Morphological conditions	Moderate	Moderate

Table 3.2: Dunnyboe Burn (UKGBNI1NW010101072) WFD Status Classification

Water body name:	Dunnyboe Burn	
Water body identification code:	UKGBNI1NW010101072	
River Basin District:	North Western	
Local management area:	Burn Dennet and Foyle	
2018 Ecological Status:	Good Ecological Status	
2021 Ecological Status:	Good Ecological Status	
2027 Objective:	Good Ecological Status	
Confidence in overall status:	-	
Biological elements	2018	2021
Benthic invertebrates	Good	Good
Macrophytes	High	High
Phytobenthos	High	High
Fish	High	High
Physicochemical elements		
Dissolved Oxygen	High	High
pH	High	High
Soluble Reactive Phosphorus	High	High
Specific pollutants		
Ammonia	High	High
Other Specific Pollutants	High	High
Hydromorphological elements		
Hydrological regime	High	High
Morphological conditions	Good	Good

Table 3.3: Glenelly River (UKGBNI1NW010104040) WFD Status Classification

Water body name:	Glenelly River	
Water body identification code:	UKGBNI1NW010104040	
River Basin District:	North Western	
Local management area:	Owenkillew	
2018 Ecological Status:	Moderate Ecological Status	
2021 Ecological Status:	Poor Ecological Status	
2027 Objective:	Good Ecological Status	
Confidence in overall status:	-	
Biological elements	2018	2021
Benthic invertebrates	Moderate	Poor
Macrophytes	High	High
Phytobenthos	High	High
Fish	High	Poor
Physicochemical elements		
Dissolved Oxygen	High	High
pH	High	High
Soluble Reactive Phosphorus	Good	Good
Specific pollutants		
Ammonia	High	High
Other Specific Pollutants	Moderate	Good
Hydromorphological elements		
Hydrological regime	High	High

Table 3.4: Owenkillew River (UKGBNI1NW010102027) WFD Status Classification

Water body name:	Owenkillew River (Gortin)	
Water body identification code:	UKGBNI1NW010102027	
River Basin District:	North Western	
Local management area:	Owenkillew	
2018 Ecological Status:	Good Ecological Status	
2021 Ecological Status:	Moderate Ecological Status	
2027 Objective:	Good Ecological Status	
Confidence in overall status:	-	
Biological elements	2018	2021
Benthic invertebrates	High	Moderate
Macrophytes	High	High
Phytobenthos	High	Good
Physicochemical elements		
Dissolved Oxygen	High	High
pH	High	High
Soluble Reactive Phosphorus	Good	Good
Specific pollutants		
Ammonia	High	High
Other Specific Pollutants	High	High
Hydromorphological elements		
Hydrological regime	High	High

Table 3.5: Owenreagh (East) River (Drumlea) (UKGBNI1NW010104041) WFD Status Classification

Water body name:	Owenreagh (East) River (Drumlea)	
Water body identification code:	UKGBNI1NW010104041	
River Basin District:	North Western	
Local management area:	Owenkillew	
2018 Ecological Status:	Good Ecological Status	
2021 Ecological Status:	Good Ecological Status	
2027 Objective:	Good Ecological Status	
Confidence in overall status:	High	
Biological elements	2018	2021
Benthic invertebrates	Good	Good
Macrophytes	High	High
Phytobenthos	High	Good
Physicochemical elements		
Dissolved Oxygen	High	High
pH	High	High
Soluble Reactive Phosphorus	Good	Good
Specific pollutants		
Ammonia	High	High
Other Specific Pollutants	High	High
Hydromorphological elements		
Hydrological regime	Good	Good

3.1.2 Chemical Status

In 2018, new dangerous substances were introduced to the WFD monitoring programme. For the first time the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances, so-called 'forever' chemicals, have been assessed as part of chemical status of a water body. Due to their bioaccumulative and persistent nature, uPBT substances have been detected at all monitored stations and resulted in failures of all of those stations. Due to the persistent nature of these chemicals these failures identified in the water bodies included within the WFD monitoring programme were extrapolated to all water bodies and hence no surface water body achieved good chemical status in 2021 by default as explained in the WFD statistics report published by DAERA NIEA (NIEA, 2021). The chemical status for the water bodies traversed by the proposed development had previously been assessed as good and there were no failures recorded, however the introduction of uPBT substances to the WFD monitoring programme has now resulted in all the water bodies potentially affected by the proposed development to fail the chemical status classification.

Many of the uPBT substances such as the Polybrominated Diphenyl Ethers (PBDE), the most widely used flame retardants in the world until banned, had widespread commercial use for decades across the globe. Others are the by-products of industrial and commercial processes. When these products were first registered for use, the full extent of their toxicity was not understood. However subsequent research confirmed their uPBT properties resulting in many of them being banned or their use severely restricted. For example, the use of substances such as PBDE, which has been used in the insulation of electrical cables in the past, has been banned in the UK. The proposed development does not use any of the uPBT substances and therefore will not be a source of this pressure.

Therefore, the change in the approach to chemical status classification of water bodies traversed by the proposed project does not change the conclusion of the impact assessment or mitigation measures proposed as part of the construction, operation and decommissioning phases.

3.2 Guidelines

The ES includes regulatory guidelines for pollution prevention that have been updated since the original ES was submitted, however the content of these guidelines is based on the same principles therefore the mitigation measures to be implemented as part of the Proposed Development, and proposed in the original ES, do not need to change and will continue to apply the principles of pollution prevention contained in the guidelines. The relevant guidelines are listed below:

PPG6: Working at construction and demolition sites, now replaced with Guidance for Pollution Prevention (GPP) 6 Working at construction and demolition sites (first published in April 2023) and can be accessed at https://www.netregs.org.uk/media/tsybv2y3/gpp6-working-on-construction-and-demolition-sites.pdf.

4 IMPACTS WITHOUT MITIGATION [1]

4.1 Construction Phase – Pre-Mitigation

As set out in Chapter 9.7.2 of the ES, impacts during construction prior to the application of mitigation measures are predicted as follows:

- The deposition of suspended sediment could deteriorate the river habitat, therefore hindering the achievement of good status, However the magnitude of the impact from suspended solids on water quality and the ecological status of surface water bodies in the Overhead Line (OHL) sections is assessed as moderate given the limited ground disturbance and potential for suspended solids to be mobilised to surface water bodies. Considering that the sensitivity of water bodies traversed ranges from 'low' to 'very high', the significance of effect is predicted to be large adverse based on the matrix provided in **Table 2-3**.
- The original ES assessed the potential impacts from Horizontal Directional Drilling as one of the alternative methodologies to be used should the installation of the cable by typical open cut trench excavation in the road not be possible, however this methodology is no longer proposed as an alternative. Drawing numbers 698-1-1 - 698-1-4 (Appendix A of the Statement of Case) illustrate the route of the proposed underground cable and the locations at which the underground cable will cross an identified watercourse; these locations are labelled ST1, ST2, ST3, ST5, ST6, ST7, ST8, ST9, ST10, ST11, ST12 and ST13. The construction of the underground cable at locations ST1, ST12 and ST13 will be carried out by the typical open cut trench excavations, laying of cable and reinstatement as set out in 2.5.5.1.1 – 2.5.5.1.8 of the project description. At the locations ST2, ST3, ST5, ST6, ST7, ST8, ST9, ST10, ST10 and ST11 the construction of the underground cable will be carried out as per the methodology steps set out in 2.5.5.1.1 – 2.5.5.1.3 of the Project Description (i.e. Site Access and Engagement with Third Parties, Intrusive Ground Investigation Machinery and Vehicle and Equipment Mobilisation); following this, the alternative methodology for crossing a watercourse, referred to in **Table 5-2** below will be undertaken. These methodologies are further detailed in Appendix D of the OCEMP (Appendix C of the Statement of Case). The introduction of the alternative methodology of culvert replacement does not change the assessment of the magnitude of the impact on water quality as the proposed alternative has similar impacts on the watercourses in terms of suspended solids as the open trenching or the risk of drilling fluids entering the watercourse during a HDD. The magnitude of the impact from suspended solids on water quality and the ecological status of surface water bodies for the underground cable sections (UGC) remains the same as assessed in the ES, moderate to major based on the severity of run-off and the methodologies employed to cross watercourses. An impact of moderate to major magnitude on a 'low' to 'high' sensitivity environment means the likely significant effects are considered to range from slight to large adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.
- Soil erosion, removal of vegetation cover, soil compaction (caused by the bearing weight of heavy machinery), particularly in the riparian zone can alter preferential drainage paths and ultimately change the hydromorphological regime of a watercourse by changing the timing and magnitude of flows entering it and altering the riparian zone, banks and channel. The magnitude of the impact on the hydromorphological supporting conditions of surface water bodies is assessed as moderate based on the scale of the underground cable crossings, the crossing methodologies to be used and the fact that the pole sets on the overhead line will be set back a minimum of 10 metres from the majority of watercourses. Considering the sensitivity of the water bodies traversed ranges from 'low' to 'very high', the significance of effect is predicted to be large adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.
- Construction of the Proposed Development will involve the use of plant and machinery at the active working areas as well as the associated temporary storage of construction materials, oils, fuels and chemicals in the site compounds. The impact from oils and chemicals from the Proposed Development

[1] This section summarises the assessment undertaken in respect of the baseline as existing in May 2021 when the EIA was completed. Section 3 contains a review of any changes in the baseline data, cumulative/in-combination & transboundary considerations, legislation, policy and guidelines and/or any other consideration that would trigger the need for Additional Environmental Information AEI).

relates to the spillage or release of fuel oil and other dangerous substances from plant and machinery impacting on the surface and ground water bodies associated with the Proposed Development. There is also the risk that small residue amounts left on site will be mobilised by surface run-off and washed into the watercourses. Assuming minor to major spillage occurrences the magnitude of the impact from oils and other hydrocarbons on water quality and the ecological and chemical status of the water bodies traversed is assessed to be major in the absence of mitigation. Considering the sensitivity of water bodies traversed ranges from 'low' to 'very high', the significance of effect is predicted to be very large adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.

- Given the workforce that is anticipated at each working front as outlined in the OCEMP, the magnitude of the impact of inadequate sewage and welfare facilities on water quality and the ecological and chemical status of the water bodies traversed should effluent from the welfare facilities be accidentally released to the aquatic environment is assessed as minor. Considering that the sensitivity of water bodies traversed ranges from 'low' to 'very high', the significance of effect is predicted to be moderate/large adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.

4.2 Operational Phase – Pre-Mitigation

As set out in Chapter 9.7.3 of the ES, impacts during operation prior to the application of mitigation measures are predicted as follows:

Once the circuit is commissioned it will be subject to regular inspections from the ground every three years. This will involve a single person walking along the route to visually inspect the overhead line. Vegetation management will also be carried out periodically as required (when vegetation encroaches on specified safety clearances, NIE Networks vegetation management cycle is typically once every three years). Wood pole replacement typically occurs every 30-40 years. The impact on water quality for these types of activities is low given the scale of the inspection activities and the vegetation maintenance proposed. It is envisaged that vegetation maintenance would require a two-person team accessing the target area on foot or via 4x4 with Mobile Elevated Working Platform (MEWP). Accordingly, the regular inspection regime and maintenance works associated with the OHL are predicted to have a negligible impact on water quality and no likely significant effects are anticipated.

Where underground cable faults occur a localised repair is carried out. This involves excavation at the location of the fault, cutting out the faulted piece of cable, inserting a new piece of cable into the duct, jointing the new cable into the existing cable network and then reinstating as per the Underground Cable construction methods set out in Volume II, Appendix 2.2 OCEMP Appendix D and summarised in Chapter 2 of the ES. The impact of these activities will be similar to those identified for the installation of the cable however the magnitude of the impact will be less given the localised scale of the potential fault repairs. Therefore, considering that the sensitivity of water bodies traversed ranges from 'low' to 'high', the significance of effect of the regular inspection regime and maintenance for the UGC, should a fault in the cable be detected, is predicted to be moderate adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.

4.3 Decommissioning Phase – Pre-Mitigation

As set out in Chapter 9.7.4 of the ES, impacts during decommissioning prior to the application of mitigation measures are predicted as follows:

Once operational, the overhead line will become a network asset and form part of the wider network. Decommissioning of the overhead line is not envisaged, however should the overhead line be required to be decommissioned, all associated structures and materials would be recovered and items recycled with the site returned to its original use. Decommissioning impacts will be the same or lesser than the impact of construction.

On this basis the magnitude of the impact can be considered as moderate for suspended solids and hydromorphological impacts, major for oil and chemicals and minor for sewage and welfare facilities. An impact of minor to major magnitude on a 'low' to 'very high' sensitivity environment is considered to range from negligible to very large adverse in the absence of mitigation, based on the matrix provided in **Table 2-3**.

Decommissioning of the underground cable is also not envisaged, however should the underground cable be required to be decommissioned, it would be disconnected from the circuit breakers or poles to which it is connected, safely insulated using pot end joints, de-energised and abandoned in situ.

As a result, the impact of decommissioning the Proposed Development is considered to be negligible for water quality.

5 PROPOSED MITIGATION MEASURES & RESIDUAL IMPACTS

Mitigation has been proposed to offset potential significant effects of the proposed development. Mitigation has been recommended for the construction phase, operational phase and decommissioning phase.

5.1.1 Construction Phase

Prior to the commencement of construction a final Construction Environmental Management Plan (CEMP) will be agreed with the Planning Authority to manage the prevention and control of environmental impacts during the construction phase. In order to achieve this, the final CEMP will provide a method of compliance with all environmental commitments outlined in the ES and will be within the parameters outlined in the Outline Construction Environmental Management Plan (OCEMP) which has been updated and re-submitted as Appendix C of the Statement of Case. Furthermore, detailed construction method statements will be prepared and agreed with the relevant authorities (NIEA Water Management Unit, DAERA and Inland Fisheries) within the parameters included in the outline construction methodologies (Appendix D of the OCEMP) in advance of any waterway crossing or where proposed construction works occurs within 10 metres of a watercourse. The method statement will need to be submitted for DAERA agreement a minimum of eight weeks prior to works commencing onsite.

DAERA Planning and Environment section has published Pollution Prevention Guidance 4, “Standing Advice for Planners and Applicants Seeking Planning Permission for Developments which may Impact upon the Water Environment”. This highlights the need for the developer and contractor to apply good practice in relation to pollution prevention and to adhere to the guidance contained within the relevant and GPPs. The Proposed Development will adhere to this standing advice.

Mitigation measures have been recommended in Section 9.8.1 of the ES, and are summarised below, to mitigate potentially significant effects.

- Sediment (Section 9.8.1.1 of the ES)
  - Excess material stockpiles from the overhead line and underground cable will not be sited within 10 metres of a watercourse. In addition, as outlined in the Project Description, Chapter 2 of the ES, typically pole erection will be completed within a day, therefore excavated material will not be left uncovered for more than a day. In the event that pole excavation should take longer than one day, excavated material will be covered with suitable waterproof material (heavy duty plastic sheeting or tarpaulin) to prevent sediment laden run-off being generated.
  - Tool Box talks will be given by the Environmental Manager nominated under the final CEMP to all contractor’s site personnel to inform them of the mitigation measures.
  - Movement of vehicles on-site will be suspended during and immediately after heavy rainfall when ground conditions would be likely to deteriorate to ensure that ground disturbance is minimised and to prevent a source of sediment and its mobilisation to the aquatic environment
  - Movement of vehicles within 10 metres of a watercourses will be avoided, except where the cabling traverses a culvert on the road network.
  - Silt fencing will be installed between the active working area and a watercourse where 10 metres set back is not possible and the working area encroaches within 10m of a watercourse (with the exception of dedicated watercourse crossing points).
  - For the overhead line stringing across very high sensitivity watercourses, i.e. Owenkillew River and Glennelly, a drone will be employed to carry a pull rope (in turn used to pull the conductor) across the watercourse and ensure no disturbance to the river and the riparian zone.
- Watercourse Crossings (Section 9.8.1.2 of the ES). The original ES assessed the potential impacts from Horizontal Directional Drilling as one of the alternative methodologies to be used should the installation of the cable by typical open cut trench excavation in the road not be possible, however this methodology is no longer proposed as an alternative as outlined in section 4.1. The mitigation outlined in the ES for HDD is therefore no longer necessary.
- The alternative methodologies that will be used to cross water courses are detailed in Appendix D of the OCEMP, (Appendix C of the Statement of Case). Excavation and Installation around and below a

structure, open cut trenching, culvert replacement are proposed at water course crossings where the cable cannot be laid safely within the carriageway above a culvert or structure. The use of these alternative methodologies are included as options in a number of watercourses as outlined in **Table 5-2**. Depending on the flow and size of the watercourse all alternative options will be undertaken in dry conditions by either damming the reach across which the UGC will be laid and over-pumping, i.e. pumping of water behind an upstream coffer dam (used to isolate the works area) into the river reach downstream of a secondary cofferdam installed to ensure water does not flow back into works area. The proposed use of temporary/coffer dams at these alternative crossings will result in a very low likelihood of sediment entrainment and the associated environmental impacts because excavation will be in non-flowing conditions. The detailed mitigation for the alternative methodologies is outlined in Appendix D of the OCEMP with general arrangement drawings included in Appendix A of the OCEMP.

- Hydromorphology (Section 9.8.1.3 of the ES)
  - Disturbed areas will be returned to former landforms and vegetation of exposed areas will occur immediately once construction activities are completed in any particular location before moving to the next active working area.
  - Where open cut crossing of watercourses or culvert replacement is proposed these areas are prone to erosion and they will receive particular attention, e.g. cleared banks will be stabilised immediately to facilitate reinstatement. A biodegradable membrane will be deployed (e.g. Geojute; Terram) followed by immediate reinstatement of the bank and riparian zone. In areas where mitigation methods such as silt fencing, management of stockpiles are used to prevent pollution from suspended solids in surface water runoff, these measures will be maintained and retained until there is no longer a threat to water quality, following vegetation being re-established.
  - When reinstating watercourses, stockpiled stream bed rocks, pebbles and/or coarse gravel will be replaced and watercourse banks will be reinstated immediately to stabilize and facilitate bio-restoration.
  - Stream bank reinstatement will commence as soon as in-stream construction work is completed.
  - The cable crossing of watercourses by replacing the existing culvert will not have a significant impact on the hydromorphology as the footprint of the works will not extend beyond the already modified channel, and where practical improvements to the culvert installed will be achieved through adherence to best practice culvert design.
  - No abstractions will be permitted from surface waters during works. For culvert replacement and open cut crossings damming of the water course will be required but over pumping will be used to undertake these works in dry conditions.
  - The majority of cabling works will occur within the road network, however, works will occur off line at limited location in agricultural lands, liaison will be undertaken with the landowners to determine if any unregistered private water supplies are located in close proximity to the works area. Should unregistered private water supplies occur within the study area, which will be confirmed with landowners prior to construction, measures to protect the well head, including horizontal clearance distances and the prohibition of handling or storage of chemicals on lands that drain to the water supply and will be implemented fully by the contractor to ensure these will not be impacted.
  - The most significant impact on the quality of the well water would be associated with any accidental leaks and spillages in close proximity to a shallow well. A range of appropriate mitigation measures have been proposed to reduce the risk of leakage or spillages in section 9.8.1.3 of the ES.
  - There are no known private wells within 50 metres of the proposed development. Notwithstanding this the impact on groundwater levels in any private well during the operational phase is not likely to result in significant effects as there will be very limited intervention with the exception of operational walkover inspections, vegetation maintenance and possible pole replacement. The maintenance inspections are walkover surveys and given the scale of excavation for a typical pole set replacement will not be over 1.5 m^2 there will be no likely significant effects on groundwater levels or the groundwater quality of any private wells during the operation of the Proposed Development.
  - The Derg water supply, which is supplemented by the River Strule (the Owenkillew and Glennelly rivers are tributaries of the Strule), is the main source of public water supply that could be affected by the project. However, pollution prevention mitigation, as outlined in the ES will ensure that there will be no impact on public water supply sources in terms of quality. Additionally, the construction phase involves the crossing of minor watercourses within the Strule public water supply over small

time scales. Therefore, the works will not negatively impact the sufficiency of the public water supply as there is no abstraction requirement or significant impounding of watercourses required.

- Oils and Chemicals (Section 9.8.1.4 of the ES)
  - All relevant measures outlined in the Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010 guidance, (DEARA, 2010) will be implemented during the construction and operation of the proposed development.
  - It is not intended to have fuel, oil and chemical storage on site however should this type of storage be required it will be sited within the main site compound or temporary site compound on an impervious base within a bund and secured (locked) to prevent vandalism or theft. All valves and trigger guns will be protected from vandalism and unauthorised interference and will be turned off and securely locked when not in use. Any tanks or drums will be stored in a secure container or compound, which will be kept locked when not in use.
  - The risk of spilling fuel is at its greatest during refuelling of plant. Refuelling of plant will not occur in the active working areas but rather at publicly accessible fuel stations and will not occur on site.
  - An Emergency Response Plan for the works has been prepared and is included in the OCEMP. The Emergency Response Plan will detail actions to be taken in the event of an accidental spillage of fuel, chemicals or other hazardous material. The Plan will also detail the procedures to be followed if there is a breach in any licence conditions or a non-compliance.
  - The Environmental Manager will be notified of all incidents where there has been a breach in agreed environmental management procedures. Suitable training will be provided to relevant personnel detailed within the Emergency Response Plan to ensure that appropriate and timely actions will be taken should an incident occur.
  - Drip trays will be used for any large plant and vehicles where they are left overnight at an active work location.
- Sewage and welfare facilities (Section 9.8.1.5 of the ES)
  - In order to cater for the welfare of persons working on the construction of the project, a mobile welfare van (OCEMP Appendix C, Figure 14) will be positioned either within the active work section or, where there is an area used for parking vehicles in close proximity to the active work section, that area may also be used. The vehicle will be returned to the vehicle owner's depot for removal of sewage.
  - Sewage effluent from the temporary site compound will be removed using a vacuum tanker by a suitable licensed waste contractor.

5.1.2 Operational Phase

During the operational phase there is a risk that potential impacts will occur where underground cable faults need localised repairs to be carried out. Given the localised nature of these faults/repairs and the fact that the underground cable sections are fully ducted, the impact is less significant than the construction phase. Negligible effects are predicted in relation to maintenance/repairs of the OHL sections. The mitigation measures proposed for the construction phase to address potential impacts from suspended sediment, watercourse crossings, hydromorphology, oil and chemicals and welfare facilities will also be implemented to active work areas where repairs are being undertaken ensuring the residual impacts are negligible.

5.1.3 Decommissioning Phase

If the overhead line is required to be decommissioned, the pole structures will be cut off at ground level and removed, materials will be recovered and items recycled with the site returned to its original use. Decommissioning of the underground cable is not envisaged, however should the UGC be required to be decommissioned, it would be disconnected from the circuit breakers or poles to which it is connected, safely insulated using pot end joints and the cable will be recovered for recycling. In terms of water quality, the decommissioning would require access to lands and the use of plant and machinery to recover the materials. On this basis the sediment and oil and chemical mitigation outlined in the construction phase mitigation will be applicable and will ensure that the residual impact is negligible.

5.1.4 Summary

The magnitude and significance of effects without mitigation, and residual effects after mitigation have been summarised for the construction and operational phases in **Table 5-1** and **Table 5-2**. Following the application of mitigation as set out above, the construction, operation and decommissioning of the proposed UGC and OHL will have no significant effects on the water quality of the water bodies traversed and therefore will not result in a risk to the achievement of the WFD objectives for these water bodies and their water dependent protected areas including drinking water supplies and nature conservation areas.

Table 5-1: Construction Phase OHL downstream sensitive watercourses - Magnitude and Significance of Effects without Mitigation, and Residual Effects after Mitigation.

Site ID	Sensitivity	Potential Effect	Magnitude of Effect	Significance without Mitigation	Residual Effect after Mitigation
Fowl Glen Burn	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Owenreagh Burn	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Glentrasna Burn	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Legnavadder Burn	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Legolougha Burn	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
Glashygolgan Burn (2 crossings)	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
Letterbrat Burn (2 crossings)	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible

Site ID	Sensitivity	Potential Effect	Magnitude of Effect	Significance without Mitigation	Residual Effect after Mitigation
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
Glenelly River near Plumbridge (ST14)	Very High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Trinamadan	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
Owenkillew River near Golan Bridge (ST15)	Very High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible

Table 5-2: Construction Phase UGC - Magnitude and Significance of Effects without Mitigation, and Residual Effects after Mitigation ***Note that the assessment takes into account the crossing method*.**

Site ID & crossing method	Sensitivity	Potential Effect	Magnitude of Effect	Significance without Mitigation	Residual Effect after Mitigation
ST1 Install as per normal technique above the structure;	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
ST2 Alternate Methodology B: Culvert Replacement	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
ST3 Alternate Methodology A: Excavation and Installation around and below a structure or; Alternate Methodology B: Culvert Replacement	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
ST5 Alternate Methodology A: Excavation and Installation	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible

Site ID & crossing method	Sensitivity	Potential Effect	Magnitude of Effect	Significance without Mitigation	Residual Effect after Mitigation
around and below a structure or; Alternate Methodology B: Culvert Replacement.		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST6 Alternate Methodology B: Culvert Replacement.	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible
		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST7 Alternate Methodology A: Excavation and Installation around and below a structure or; Alternate Methodology B: Culvert Replacement.	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible
		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST8 Alternate Methodology B: Culvert Replacement.	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible
		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST9 Excavation and Installation around and below a structure or; Alternate Methodology B: Culvert Replacement.	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible
		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST10 Alternate Methodology A: Excavation and Installation around and below a structure or; Alternate Methodology B: Culvert Replacement.	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible
Watercourse south of Meenadoo Road (ST10b) Alternate Methodology C: Dam watercourse and install open trench through watercourse.	Medium	Suspended Solids	Moderate	Moderate	Negligible
		Sewage or welfare facilities	Minor	Slight	Negligible
		Hydromorphological impact	Moderate	Moderate	Negligible
		Release of oils or chemicals	Major	Large	Negligible
ST11 Alternate Methodology A: Excavation and Installation around and below a structure or; Alternate Methodology B: Culvert Replacement.	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible

Site ID & crossing method	Sensitivity	Potential Effect	Magnitude of Effect	Significance without Mitigation	Residual Effect after Mitigation
ST12 Install as per normal technique above the structure.	Low	Suspended Solids	Moderate	Slight	Negligible
		Sewage or welfare facilities	Minor	Negligible	Negligible
		Hydromorphological impact	Moderate	Slight	Negligible
		Release of oils or chemicals	Major	Moderate	Negligible
ST13 Install as per normal technique above the structure.	High	Suspended Solids	Moderate	Large	Negligible
		Sewage or welfare facilities	Minor	Moderate	Negligible l
		Hydromorphological impact	Moderate	Large	Negligible
		Release of oils or chemicals	Major	Very Large	Negligible

6 CUMULATIVE IMPACTS/INTERACTIONS/TRANSBOUNDARY IMPACTS

6.1 Cumulative and In combination Impacts

A staged approach was to identify the potential for significant cumulative effects, and other planning approved or pending developments, whereby a Zone of Influence (ZOI) was first identified based on the sub-basins draining to the water courses that are traversed by the proposed development as it is important to consider hydrological connectivity when considering cumulative impacts on water quality. A long list of developments were then derived from online planning databases and subsequently screened for hydrological connectivity with the proposed development. Where the screening identified hydrological connectivity the potential for cumulative effects on water quality was assessed by considering the supporting documentation for the planning applications for each individual development. There are no likely significant cumulative or in combination effects from these developments based on a review of the relevant planning and environmental documentation and the impact assessment undertaken in the Water Quality Chapter.

6.2 Transboundary Effects

The study area associated with the Proposed Development is within the Upper Foyle Catchment. The Foyle catchment is a cross border catchment and therefore the hydrological link extends to areas beyond the international border in the River Foyle and Lough Foyle. The project is therefore hydrologically linked to both the River Finn SAC and the Lough Foyle SPA in the Republic of Ireland and the shared waters of the Upper Foyle Estuary, Foyle Harbour and Faughan Estuary and Lough Foyle. However, the residual impact after the implementation of the mitigation measures is assessed as negligible therefore there are no significant effects on water quality from the proposed development and given that there is no likelihood for significant cumulative effects there will be no potential for significant transboundary effects on water quality as a result of the proposed development.

7 CONSULTATION RESPONSES AND SUBMISSIONS

7.1 Relevant Statutory Body Consultation Responses

7.1.1 Loughs Agency

The most recent consultation response of the Loughs Agency is dated 9th July 2021. Loughs Agency responded stating that it is content with the proposals provided the mitigation as detailed is adhered to. Loughs Agency also welcomed the consideration of the downstream sensitivities of the watercourses intersecting the UGC route (including highly sensitive watercourses intersecting the OHL route which are identified in Table 9 13 of the ES) and were satisfied that the mitigation measures proposed seemed appropriate to the nature and scale of the development.

7.1.2 Drinking Water Inspectorate (DWI)

The DWI requires that a development must not impact on either the quality or sufficiency of a private water supply, and mitigation measures must be put in place, where required, in the protection of such drinking water supplies.

Chapter 9 of the ES (Section 9.6.4) states that "The database of private water supplies across Northern Ireland which have been registered with the Drinking Water Inspectorate (DWI) under The Private Water Supplies Regulations (Northern Ireland) 2017 was consulted through the Spatial NI web portal in April 2021 and there are no private water supplies registered within the study area." Clarification was provided to the DWI in August 2021 that there are current and historical registered private water supplies from the database within the water bodies traversed by the project, however there are no registered private water supply polygons within a 50 metre buffer of the overhead power line or underground cable route therefore the potential for impact was screened out. DWI accepted this approach for the registered private supplies. The register of private water supplies was checked again in October 2024 and there are still no registered water supplies within a 50 metre buffer of the Proposed Development.

For unregistered private supplies mitigation has been included within Section 9.8.1.3 the ES and has been reproduced below:

- The majority of cabling works will occur within the road network, however, works will occur off line where open cut crossings of the water courses are proposed, liaison will be undertaken with the landowners to determine if any unregistered private water supplies are located in close proximity to the works area. Should unregistered private water supplies occur within the study area, which will be confirmed with landowners prior to construction, measures to protect the well head, including horizontal clearance distances and the prohibition of handling or storage of chemicals on lands that drain to the water supply will be implemented fully by the contractor to ensure these will not be impacted.
- The most significant impact on the quality of the well water would be associated with any accidental leaks and spillages in close proximity to a shallow well. A range of appropriate mitigation measures have been proposed to reduce the risk of leakage or spillages in section 9.7.1.3 of the ES.
- There are no known private wells in the vicinity of the proposed development. Notwithstanding this the impact on groundwater levels in any private well during the operational phase is not likely to result in significant effects as there will be very limited intervention with the exception of operational walkover inspections, vegetation maintenance and possible pole replacement. The nature of the inspections are walkover and given the scale of excavation for a typical pole set replacement will be over 1.5 m^2 there will be no likely significant effects in terms of groundwater levels or quality of the private well as a consequence of the operation is considered negligible therefore mitigation is not necessary.

The DWI acknowledge that under Section 9.8.1 appropriate mitigation measures are detailed if an unregistered private water supply is encountered during works.

7.1.3 NI Water

The most recent consultation response of the NI Water is dated 16th September 2021. The main body of the consultation response related to the protection of NI Water Assets, however "Appendix A: Protecting drinking

water and NI Water assets during development activities" raises a number of points that are relevant to water quality.

1. Protecting Drinking Water Quality

NI Water note that the proposed development is within the Strule drinking water catchment area which supplies raw water for the Derg Water Treatment Works (WTW) operating by NI Water and there is an important drinking water abstraction point on the Strule River downstream of the development. The primary issue concerning development activities is the potential impact on drinking water quality and quantity.

The water quality chapter of the ES identifies the Drinking Water Protected Areas (DWPAs) including the Derg/Strule catchment (Figure 9.6 of the ES) and identifies these areas as part of the Register for Protected Areas under the Water Framework Directive stating that the protected area objectives of the DWPAs must not be compromised when considering the impacts of the proposed development. As identified by NI Water the primary concern is the potential impact on water quality and quantity. The ES assesses the impacts of water quality and proposes mitigation measures to ensure that there will be no significant effects on water quality.

Section 9.8.1.3 of the ES states *"The Derg water supply, which is supplemented by the River Strule (the Owenkillew and Glennelly rivers are tributaries of the Strule), is the main source of public water supply that could be affected by the project. However, pollution prevention mitigation, as outlined in this chapter will ensure that no impact on public water supply sources in terms of quality. Additionally, the construction phase involves the crossing of minor watercourses within the Strule public water supply over small time scales. Therefore, the works will not negatively impact the sufficiency of the public water supply as there is no abstraction requirement or significant impounding of watercourses required."*

The ES also confirms that there is no abstraction proposed from any of the water courses that are upstream of the DWPA and Sections 9.7.2.2, Hydromorphological Impact, Section 9.8.1.2, Watercourse Crossings and HDD Mitigation and Section 9.8.1.3, Hydromorphology of the ES have demonstrated that there is no impact on the hydromorphology of the water bodies affected when the mitigation recommended is implemented. As identified in Section 9.8.1.2 of the ES, water required during construction will be taken from water mains or will be brought to site by the contractors in Intermediate Bulk Containers (IBCs).

2. Regulatory requirements

Under Article 7 of the Water Framework Directive, waters used for the abstraction of drinking water are designated as Drinking Water Protected Areas (DWPA). NI Water is required to ensure that any activity within a drinking water catchment does not affect the ability of NI Water to meet its regulatory requirements.

As identified above water quality and water quantity impacts of the proposed development have been assessed in the ES and mitigation measures will be implemented to ensure that there will be no significant effects on the water quality and water quantity of the water bodies affected and therefore the proposed development will not compromise the protected area objectives of the DWPAs.

3. Specific precautions for drinking water protection

NI Water highlighted a number of precautions that should be considered for drinking water protection. These measures have already been committed to in the ES as mitigation for water quality impacts:

a. *Construction Method Statement* – ***Response:*** The methods of construction, particularly for water course crossings, have been detailed and assessed in Section 9.7.2 and Section 9.8.1 of the ES. The ES has assessed the methods appropriately and included mitigation measures to ensure there will be no significant effects to water bodies flowing into the downstream DWPAs. Construction Method Statements will be prepared in advance of construction of these crossings and will require prior approval by DAERA NIEA within the parameters included in the outline construction methodologies (OCEMP, Appendix D) or where proposed construction works occurs within 10 metres of a watercourse. The method statement will need to be submitted for DAERA agreement a minimum of eight weeks prior to works commencing onsite.

b. *Any potential effect on the hydrology of the area resulting from the construction and operation of the proposed development should be assessed and the findings presented in the Environmental Statement* - ***Response:*** The ES assesses the impact on hydromorphology (Section 9.7.2.2) and the Flood Risk chapter includes an assessment of the drainage risk which has been presented in the ES and concludes that there will not be any significant effects.

c. *When constructing roads, drainage ditches and trenches, drainage should not be directed into adjacent catchments but retained within the existing catchment* - ***Response:*** There are no catchment transfers of drainage features.

d. *NI Water also highlight a number of pollution control measures for refuelling, sediment run-off, concrete production, watercourse crossings* - ***Response:*** All such measures have been included as mitigation measures within Section 9.8 the ES.

4. Monitoring requirements to protect drinking water quality

a. *During construction, a programme of daily visual inspection of the watercourses, flow conditions (i.e. high, medium, low, or no flow), prevailing weather and any other pertinent observations, will be required to be implemented.* – Section 9.9 of the ES outlined the mitigation and monitoring that will be undertaken during the construction phase which includes for a programme of visual inspection and assessing the efficacy of the pollution prevention measures.

b. *Depending on the vulnerability of the public water supply, NI Water may request that a water sampling programme shall be established and agreed.* NI Water have not requested that such a monitoring programme be undertaken for the proposed development and this is not necessary given the nature of the development, the residual impacts identified, and the Proposed Development's location outside of the DWPA.

7.1.4 DAERA NIEA Water Management Unit

The most recent consultation response DAERA NIEA Water Management Unit is included within the DAERA Planning Response Team's response dated 2nd September 2021. Water Management Unit (WMU) stated that they have considered the impacts of the proposal on the surface water environment and on the basis of the information provided are content subject to:

- Conditions including the submission of a detailed Construction Environmental Management Plan (CEMP), details of any drilling fluids to be used and a schedule of underground water course crossings. These conditions are acceptable and the OCEMP is consistent with these requirements.
- Any relevant statutory permissions are obtained
- The applicant referring and adhering to standing advice
- The applicant noting the advice contained in the explanatory note.

The explanatory note referred to above was included with the NIEA WMU submission and included details in relation to Chapter 9, Water Quality and the OCEMP which are discussed below.

The NIEA noted a minor error in the quality elements for the 2018 ecological status classification (Section 9.6.1) notably the Fish status in the Glenelly River which should have been classed as indicative of high ecological status. This did not change the overall status classification, nor did it impact on the assessment of the significance of effect, or the mitigation proposed in the ES. As outlined in Section 3.1 of this document the WFD status classification has been updated to account for additional monitoring data collated as part of the WFD monitoring programme and a change in the approach to the classification of the chemical status of a water body. The most recent WFD classification was published in 2021 and the changes in status have been identified.

NIEA had highlighted that in Section 9.6.3 Protected Areas of the ES the wrong tense was used in the paragraph relating to water designated under the Freshwater Fish Directive and that the compliance assessment was based on annual assessment rather than quarterly. Whilst this is accepted the context of this paragraph was to highlight that the FFD was repealed by the WFD at the end of 2013 and that waters designated under the FFD have been afforded similar protection under the WFD.

The NIEA WMU also highlighted that in Section 9.8.1.8 - Sediment Control that there is reference to suspension of movement of vehicles to mitigate against suspended solids from haul road. This is not correct, there is no reference to a haul road as it is not proposed to install a haul road in the Active Working Areas and therefore haul road 'slurry' will not be generated. Access to these areas and the location of the pole sets will be achieved from the existing road network and existing agricultural accesses and not a haul road. This mitigation is included to ensure that plant and machinery will not be deployed in the active work areas during times of heavy rainfall and immediately afterwards when ground conditions are more susceptible to rutting and subsequent overland flow of disturbed soil.

NIEA WMU also highlighted the need for monitoring and maintenance of all silt fencing (section 9.8.1.1 of the ES) and any outflows to vegetation from settlement features to ensure no scouring/ erosion thus preventing generation and mobilisation of suspended solids following treatment. As outlined in Section 2.4 and Section 9.8.1.1 of the ES, prior to work commencing each team will receive a Tool Box Talk (local staff briefing in NIE

Networks depot or on site) on the proposed day's activities specific to their work site. The information will include advice from the NIE Environmental Officer and the ECoW to inform each team of the mitigation measures, as set out in the OCEMP, required to ensure protection and conservation of the aquatic environment which will include monitoring and maintenance requirements for assessing effectiveness of measures. The Tool Box Talk session will be carried out by the appointed Contractor Environmental Manager.

The NIEA WMU also highlighted the need for the consideration to be given to the design and size of attenuation and settlement features in relation to the volume and size of fines to ensure they work effectively (Section 9.8.1.2). This can only be achieved once the requirement and location of the settlement features are established, the extent of the area that drains to them and the nature of the soil in these locations. These features will be subject to detailed design as part of the detailed CEMP, a maintenance regime will also be set out to ensure ongoing effective functioning.

The methodology for the installation of coffer dams for watercourse crossings is provided in the OCEMP (included as Appendix C in this Statement of Case). The NIEA WMU have agreed with the principles of the general arrangement drawing and the procedure to be adopted, which will contained within the red line boundary for the Proposed Development, however they have requested a schedule of the timing of these works, the location and the exact methodology for agreement in advance of the works This has been recommended as a condition of planning - "*Once a contractor has been appointed, a schedule of works for all underground watercourse crossings to include timings, locations (grid references) and methods to be used for those crossings identified should be submitted to NIEA Water Management Unit, at least 2 weeks prior to those works. (Note Water Management are content for this to be submitted in phases if appropriate).*"

7.2 Relevant Third Party Representations

Of the 204 third party objections 196 consisted of one Form Letter with common objection reasons identified and the remaining eight consisted of individual correspondence. There were no objections specific to water quality however one of the main reasons for objection was identified as the impact on nature and biodiversity.

Deterioration in water quality can have an impact on water dependent habitats and species and therefore can result in significant effects on biodiversity. The assessment of the potential water quality impacts from the proposed development was undertaken in the context of the ecological status of the water bodies traversed and the water dependent protected areas (particularly salmonid waters and SACs). Based on this assessment a suite of mitigation measures (Section 5 of this report) will be implemented to ensure the residual impact is negligible and therefore impacts on water quality from the proposed development will not have a significant effect on biodiversity.

8 CONCLUSIONS

Since the preparation of the water quality chapter of the ES, the WFD monitoring programme has continued and more recent data from the programme has resulted in some changes to the ecological status and chemical status classification for the water bodies traversed by the Proposed Development. These have been detailed in Section 3. As outlined in Section 3 the impact assessment undertaken in the ES does not change as a result of the change in the water body status and the environmental objective for all water bodies is still the achievement of good ecological status.

Significant residual effects upon water quality, ecological status, chemical status and protected area objectives of the water bodies traversed by the proposed development and downstream are not predicted.

With the implementation of the mitigation measures proposed throughout the Environmental Statement and associated outline Construction Environmental Management Plan, the residual impact on water quality, ecological status, chemical status and protected area objectives of the water bodies will be negligible and there will be no significant effects on water quality.

Cumulative and transboundary effects have also been assessed for water quality within a defined zone of influence and it is predicted that there is no likelihood for significant cumulative or in combination effects, nor will there be significant transboundary effects on water quality as a result of the proposed development.

The baseline data for the WFD classification of the water bodies that could be potentially impacted by the proposed development has been updated as the WFD monitoring programme has continued since the submission of the ES. More recent data from the programme has resulted in some changes to the ecological status and chemical status classification for the water bodies traversed by the proposed project but this does not change the conclusion of the impact assessment or mitigation measures proposed as part of the construction, operation and decommissioning phases of the proposed development or the ultimate conclusion that there will be no likely significant effects.

In their most recent consultation responses, NIEA WMU, Loughs Agency, DWI and NI Water have no objections to this proposal and have recommended a number of conditions that the applicant is willing to accept as part of the approval process.

9 REFERENCES

NIEA, 2021. Water Framework Directive Statistics Report December 2021. Available at: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20Water%20Framework%20Directive%20Statistics%20Report%202021.pdf. Accessed on 30th April 2024.