

# Appendix C11.04

## Water Framework Directive Compliance Evaluation

# Appendix C11.04

## TEN-T Priority Route Improvement Proposed Development, Donegal

Evaluation of Compliance with EU Water  
Framework Directive (WFD) (2000/60/EC)

Surface Water Bodies

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**Acronyms**

<b>BQE</b>	Biological Quality Elements
<b>CIS</b>	Common Implementation Strategy
<b>CJEU</b>	Court of Justice of the European Union
<b>EclIA</b>	Ecological Impact Assessment
<b>EIAR</b>	Environmental Impact Assessment Report
<b>EPA</b>	Environmental Protection Agency
<b>EQR</b>	Environmental Quality Ratio
<b>EQS</b>	Environmental Quality Standard
<b>GPC</b>	General physico-chemical
<b>RBMP</b>	River Basin Management Plan
<b>RWB</b>	River water body
<b>WFD</b>	Water Framework Directive

**Glossary of Terms**

Ecological status	Ecological status classification for the body of water shall be represented by the lower of the values for the biological and physico-chemical monitoring results (Annex V, 1.4.2)
Good ecological status	Article 2 (22) defines good ecological status as classified in accordance with Annex V which states GES is when <i>“there are slight changes in the [specific biological quality element] compared to the type-specific communities”</i> .
Good surface water status	Article 2(18) of the WFD: <i>“the status achieved by a surface water body when both its ecological status and its chemical status are at least ‘good’”</i>
Good surface water chemical status	Physicochemical and nutrient conditions are within the ranges established to ensure the functioning of the ecosystem and the achievement of the values specified for the biological quality elements and (Article 2 (24) of the WFD) <i>“in which concentrations of pollutants do not exceed the established environmental quality standards”</i> .
Surface water status	Article 2(17) of the WFD: <i>“the general expression of the status of a body of surface water, determined by the poorer of the ecological status and the physicochemical status”</i>

## 1 INTRODUCTION

The aim of this document is to provide an evaluation of whether new physical modifications under the proposed TEN-T Priority Route Improvement Project, Donegal (the “Proposed Development”) could prevent WFD Article 4(1) objectives from being achieved for any affected surface water body, and hence whether the project can be authorised as being compliant with WFD objectives.

Under Article 4(1) of the Water Framework Directive (WFD) (2000/60/EC), Ireland has obligations to protect, enhance and restore all water bodies to at least good status (within certain timeframes) and prevent deterioration in all water bodies.

The Proposed Development, by its nature, involves new physical modifications that interact with several River Water Bodies (RWBs) and one Transitional water body. Within each water body, the Biological Quality Elements (BQEs) supported by hydromorphology and physicochemical quality elements determine overall surface water body status. New physical modifications include culverts, bridges, drainage features and localised realignments. Such modifications can impact on hydromorphology with consequences for aquatic ecosystems (BQEs), i.e., invertebrates, fish, algae and their quality metrics that determine status; potentially undermining WFD Article 4(1) environmental objectives.

A key decision in the European Court of Justice (CJEU) concerning hydromorphological impact on water body status was from the <sup>1</sup>Weser case, establishing that: “*Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status ... by the date laid down by the directive.*”

## 2 METHODOLOGY AND SOURCES OF INFORMATION

### 2.1 Resources

The following resources were consulted to inform this compliance evaluation:

- Water Framework Directive (2000/60/EC) <sup>2</sup>full text.
- WFD Common Implementation Strategy (CIS) Guidance documents (EC 2005, 2006, 2009, 2017).
- Water Action Plan 2024: A River Basin Management Plan for Ireland (DHLGH, 2024).
- EIAR for the TEN-T Priority Route Improvement Proposed Development, Donegal.
- Relevant litigation: CJUE Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland ECLI:EU:C:2015:433* (Weser case); Irish High Court case *Sweetman v An Bord Pleanála [2021] IEHC 16* (known as *Bradán Beo* case).
- Environmental Protection Agency (EPA) maps and data: <https://www.catchments.ie/>

This WFD compliance assessment uses current EPA assigned water body status classifications (2019-2024) as the baseline against which any effects of the scheme are assessed. These are the most recent formal status classifications reported to Europe in the Third cycle River Basin Management Plan (2022-2027). This approach is in line with *Bradán Beo* (*Sweetman v An Bord Pleanála [2021] IEHC 16*), which established that EPA assigned status is the only legal baseline against which potential changes to water body status can be evaluated. All surface water bodies directly impacted by the Proposed Development are currently assigned status by the EPA. There are no High-Status Objective (HSO) water bodies affected.

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<sup>1</sup> Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland ECLI:EU:C:2015:433*

<sup>2</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060> (Accessed October 2025)

The effects of physical modifications on WFD status are assessed using detailed information provided in the EIAR for the Proposed Development, pertaining to impacts and effects on surface water and habitats supporting the biological quality elements that define ecological status. This document does not reassess the information contained in the EIAR but draws on detailed information and conclusions from EIAR, primarily Chapter 9B: Biodiversity – Aquatic and Chapter 11: Water. Refer to Volume D: Book of Drawings (Watercourse Survey Locations – Sections 1, 2 and 3) which provide maps showing EPA surface water body names and EPA named watercourses referred to in this assessment.

## 2.2 WFD Compliance Evaluation

### 2.2.1 Purpose of WFD Compliance Evaluation

Ireland has obligations under the WFD to manage the physical condition of all waters to protect and improve their status. The Water Action Plan 2024: Ireland's third cycle (2022-2027) River Basin Management Plan (RBMP) contains specific actions and key agency responsibilities to deliver new technical and legislative work on hydromorphology and WFD compliance.

As of November 2025 (when the current document was prepared) there were no published, national guidelines relating to the process of water body status impact assessment. However, European Union (EU) Guidance on Common Implementation Strategy (CIS) for the WFD provides a framework for such assessments, primarily: EC (2017) *WFD CIS Guidance No. 36 Exemptions to the Environmental Objectives according to Article 4(7) New modifications to the physical characteristics of surface water bodies, alterations to the level of groundwater, or new sustainable human development activities*.

To clearly inform the Competent Authority in assessing compliance of the Proposed Development with WFD Article 4(1) objectives, an assessment of effects on water body status has been undertaken in this document using a structured approach that is in line with: (i) EU CIS Guidance, (ii) relevant case law pertaining to WFD interpretation, and (iii) Ireland's current River Basin Management Plan: Water Action Plan 2024.

### 2.2.2 Article 4(7) Applicability Assessment

Article 4(7) of the WFD sets out rules around the authorisation of projects that involve new modifications to the physical characteristics of a body of surface water and/or alterations to the level of bodies of groundwater. If a project may lead to deterioration of status or non-achievement of good status it cannot be authorised unless it meets strict criteria under Article 4(7) to qualify for an exemption from core objectives of the WFD.

Article 4(7) considerations apply to any project that involves a new physical alteration to a water body and/or changes to ground water levels that may affect its quantitative status. It must be determined prior to authorisation whether the project could compromise WFD objectives. The practical framework for this process is contained in EC (2017).

The first step involves what is termed the "Article 4(7) Applicability Assessment" which evaluates how the project is expected to impact on environmental objectives for each water body and to answer the questions: (1) does the proposal lead to deterioration of water body status? And/or (2) does the proposal prevent attainment of good status?

If the answer to either question is "no" the project is compliant with WFD Article 4(1) objectives and can be authorised under the WFD. If the answer to either question is "yes" the project can only be authorised under derogation providing it meets strict criteria set out within Article 4(7) of the directive.

### 2.2.3 Meaning of "Deterioration"

The concept of "deterioration" of water body status is not defined in the WFD. The decision provided by the CJUE in the *Weser* case, provided the following clarifications on the way in which deterioration in the context of WFD compliance should be interpreted:

- Deterioration in water body status occurs when the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if this does not result in a fall in the overall classification of the water body.

- If the quality element is already in the lowest class (bad status), any deterioration of that element represents a deterioration of the status within the meaning of WFD Article 4(1)(a)(i).

With regards to WFD compliance assessments the following are important to note:

- Temporary short-term effects on status during the construction or maintenance phase do not constitute “deterioration of status” and are not required to be addressed so long as there are no long-term adverse consequences and no delayed deterioration in the status of the defining quality elements expected in the water body thereafter (EC, 2017).
- Mitigation measures within the proposed project are taken into account in the Article 4(7) Applicability Assessment as they form an inherent element of the design and implementation of a project (EC, 2017).

#### 2.2.4 Surface Water Body Status Classification

Ecological status of surface waters is defined in Annex V of the WFD by biological quality elements (BQEs) and their “supporting” hydromorphological, chemical and physico-chemical elements. BQEs used for status classification (e.g., invertebrates, algae, fish) each have standard methods for calculating a metric to reflect an Ecological Quality Ratio (EQR), which equates to WFD status classes of High, Good, Moderate, Poor or Bad. Physicochemical quality elements are compared to statutory Environmental Quality Standards (EQSs) published in the <sup>3</sup>Surface Water Regulations which support High, Good and ≤Moderate status. Hydromorphology underpins structure and function of river ecosystems, hence sustaining the biological quality elements (BQEs). Table 2-1 shows the European wide colour codes for the five WFD status bands, as used in this report.

**Table 2-1 WFD Status Colour Codes**

WFD Status	High	Good	Moderate	Poor	Bad
Code	H	G	M	P	B

##### 2.2.4.1 River Water Bodies (RWBs)

Hydromorphological quality elements that support the BQEs for river water bodies are defined in Annex V of the WFD by:

- Hydrological regime (quantity and dynamics of water flow; connection to groundwater bodies)
- River continuity
- Morphological conditions (river depth and width variation; structure and substrate of the river bed, structure of the riparian zone)

The above are the physical attributes by which any impact of the Proposed Development on RWB status was assessed in this report.

##### 2.2.4.2 Transitional Water Bodies

Hydromorphological quality elements that support the BQEs for **transitional waters** are defined in Annex V of the WFD by:

- Morphological conditions (depth variation; quantity, structure and substrate of the bed; structure of the intertidal zone)
- Tidal Regime (freshwater flow; wave exposure)

<sup>3</sup> European Communities Environmental Objectives (Surface Waters) Regulations (S.I. No. 272 of 2009), as amended (S.I. 77 of 2019, S.I. 288 of 2022 and S.I. 50 of 2025)

The above are the physical attributes by which any impact of the Proposed Development on Transitional surface water body status was assessed in this report.

### 2.2.5 Approach to WFD Compliance Evaluation

WFD compliance evaluations take the form of individual Article 4(7) Applicability Assessments to examine the effect of new physical modifications on the quality elements that define status. The method is devised using the framework set out in EC (2017). The following steps were taken:

- Identification of water bodies directly affected by the Proposed Development (i.e., subject to new physical alterations).
- Identification of water bodies that may be indirectly affected by the Proposed Development (e.g., upstream or downstream adjoining water bodies).
- Compile EPA assigned status and quality elements used to define status for each water body including biological and supporting general physico-chemical (GPC) (and chemical status where available).
- Apply information from the EIAR to assess the effect of the Proposed Development on identified surface water status of affected water bodies.
- Carry out Article 4(7) Applicability Assessments to evaluate effects of new physical modification(s) on ecological status of each affected water body.
- Determine for each water body whether the Proposed Development could cause deterioration of currently assigned status or prevent achievement of good status.

## 2.3 Statement of Authority

Lauren Williams BSc PGDip MCIEEM prepared this report. She is an aquatic ecologist with 25 years professional consultancy experience. Lauren holds a BSc in Zoology (University of Otago, New Zealand), Post Graduate Diploma in Environmental Monitoring Assessment and Engineering with Distinction from Trinity College Dublin, and a Certificate in Environmental Law (NZ). For 22 years Lauren worked with the Aquatic Services Unit (ASU), University College Cork (UCC) and is now an independent consultant. She has been a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) for the past 10 years. Lauren specialises in a wide range of aquatic habitat and water quality survey, interpretation and ecological impact assessment, and is an accredited River Habitat Survey (RHS) UK and related River Hydromorphology Assessment Technique (RHAT Ireland) surveyor. She has contributed expertise to numerous large infrastructural projects in Ireland including roads, flood relief schemes, pipelines, renewable energy projects; and has been commissioned by the EPA to undertake national river monitoring surveys. Lauren is the lead author of the EIAR Chapter 9B: Biodiversity – Aquatic. She carried out aquatic ecological baseline surveys for Sections 1 and 2 of the Proposed Development; authored the impact assessment for Sections 1 and 2, and co-authored the desk study and impact assessment for Section 3.

### 3 EFFECTS ON WATER BODY STATUS

#### 3.1 Identification of Directly and Indirectly Affected Water Bodies

The most recently reported EPA waterbody status covers the period 2019-2024, providing formal status at the commencement of the third cycle of the RBMP (2022-2027). Using the <sup>4</sup>EPA Envision map tool, directly and indirectly affected surface waterbodies were identified in relation to the Proposed Development. A 'directly affected' water body is one that is physically impinged upon. An 'indirectly affected' water body is not physically impinged upon by the Proposed Development but is hydrologically connected, upstream or downstream.

##### 3.1.1 Specific information underpinning Article 4(7) Applicability Assessments

The following information from Chapter 11: Water and Chapter 9B (Biodiversity – Aquatic) underpins each of the assessments in the following Sections 3.1.2.1 to 3.1.2.3. The WFD assessment should be read in conjunction with details provided these chapters. The following is by no means an exhaustive list of all design measures taken or included as part of an iterative process between the aquatic ecologist, water specialist and the design team to avoid significant impacts and incorporate features that inherently reduce impact on hydromorphological quality elements. The following characteristics / measures (unless specified) are consistent across all water bodies affected by the Proposed Development and will not be repeated in the individual Article 4(7) Applicability Assessments.

- All culverts have been designed in accordance with OPW Section 50 requirements to ensure no significant negative hydraulic impact on watercourses. Reinstatement of instream habitats in the realigned sections of the stream upstream and downstream of culverts will be carried out to mimic existing morphology and there is adequate provision made to accommodate features such as channel meander and riparian planting in the detailed design.
- At all watercourses crossings (including major bridges) the existing stream/river channel widths are proposed to be maintained with no reductions in existing conveyance capacity. The hydraulic model results showed no increase or a minimal increase in flow velocity in the upstream or downstream vicinity of the crossings under the design 1% AEP flood flows. Potential risk of scouring are expected to be minimal.
- Where existing natural flow paths are proposed to be slightly altered to align with culvert crossings, these diversions have been designed such that there will be no changes in the existing hydraulic or water body level morphology of the watercourse. Whilst it is acknowledged that culverts inherently alter localised morphological quality elements (bed and bank structure), the proposed reinstatement and riparian planting of upstream and downstream approaches will improve local hydromorphology scores such that reach level changes are offset, and water body scale impacts are not significant.
- Chapter 9B (Biodiversity – Aquatic) prescribes site specific mitigations (where required) for each culvert on fish bearing channels across the Proposed Development (See Appendix C9B:05) to ensure fish passage is provided for and there is no introduction of barriers to fish movement. These measures will be binding through the Environmental Operating Plan (EOP) to carry through to the detailed design stage.
- Chapter 9B (Biodiversity – Aquatic) sets out that the most sensitive fisheries channels will be bridged using clear spans with no instream footprint: River Finn (Section 1), River Finn N14/N15 to A5 Link (Section 3), Backlees River, Cloghroe River, River Swilly, Isle Burn, Swilly Burn, River Deele. On smaller fish bearing streams, box or bottomless culverts with low follow channels are proposed with mitigations for fish passage (baffles) where slope/length characteristic require, as prescribed in Appendix 9B.05.
- Bridge openings were sized using HEC-RAS hydraulic models to ensure compliance with OPW section 50 Guidelines in terms of net head loss and available freeboard.

HEWRAT (Highways England Water Risk Assessment Tool) assessments were conducted as per TII Water Impact Assessment Overarching Technical Document (TII, 2025) and TII

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<sup>4</sup> <https://gis.epa.ie/EPAMaps/> (Accessed March 2026)

Standard DN-DNG-03065 (TII, 2015). This risk assessment was applied across all discharge points to watercourses from the Proposed Development showing that in all cases (individually and cumulatively) across the Proposed Development: (i) all pass the risk assessment in terms of soluble (acute) copper and zinc impacts in road run-off discharge; (ii) all pass the risk assessment relating to Environmental Quality Standards (EQS) (mean annual concentration) for copper and zinc, (iii) all sites pass the assessment for sediment (chronic) impacts because the non-accumulation of sediment low flow velocity is exceeded, (iv) spillage risk assessment results show that the annual probability of a serious pollution incidents are below the acceptable risk limit of 0.5%.

- Encroachments within watercourse floodplains (including at crossings) have been minimised such that any upstream or downstream increase in flood levels owing to flood volume storage loss is minimal, with flood storage mitigation provided where necessary and no significant residual effects are predicted (refer to Chapter 11: Water).
- The Proposed Development design incorporates sustainable drainage (SUDS) features: (i) lined attenuation ponds designed as hybrid wetlands to provide both an attenuation function and a water treatment function; (ii) grass surface water channels and filter drains.
- Attenuation ponds (all lined) have been designed to limit discharge rates to the 1% AEP greenfield runoff rates and will facilitate suspended solids settlement prior to discharge.
- Section 3: between mainline Chainage 9+200 to 10+200 (EPA name: Drumbeg) a circa 1 km watercourse diversion is proposed ('Tullyrap Watercourse Diversion'). The diversion has been designed to include riffles and meanders which will improve morphology and facilitate aeration of the waters. The proposed diversion creates a more 'natural' channel form with greater capacity to support fish than the previously channelised stream. It removes the requirement for extensive additional / cumulative culverting under the Proposed Development.
- Section 1: proposed culvert S1-CUL.25 (EPA name: Mullaghagarry) has been designed with increased height and raised headwalls to shorten its overall length. This will result in the removal of the existing culvert (Refer to Chapter 9B, Section 9B.5.4.2) where flow currently undermines the existing structure (flows underneath the culvert bed) and forms a complete fish passage barrier. This will result in reconnection of approximately 2-3 km of channel (potential fisheries habitat) upstream of this point in the catchment.

### 3.1.2 Directly Affected Water Bodies

Refer to Volume D: Book of Drawings (Watercourse Survey Locations – Sections 1, 2 and 3) which provide maps showing EPA water body names in relation to aquatic survey sites and EPA named watercourses, as referred to throughout Chapter 11: Water and Chapter 9B: Biodiversity – Aquatic, and in the WFD status tables below.

Tabulated below are the currently reported EPA assigned water body status for directly affected water bodies in Section 1 (Table 3-1) Section 2 (Table 3-2) and Section 3 (Table 3-3). Data is derived from EPA Envision mapping and catchment reports (2024, b, c). Significant pressure data is derived from EPA (2024a).

- **Section 1:** There are six directly affected RWBs for which Article 4(7) Applicability Assessments are presented in Section 3.1.1.1.
- **Section 2:** There are three directly affected RWBs and one Transitional water body for which Article 4(7) Applicability Assessments are presented in Section 3.1.1.2.
- **Section 3:** There are four directly affected RWBs for which Article 4(7) Applicability Assessments are presented in Section 3.1.1.3.

Table 3-1 Section 1 Directly Affected Surface Water Bodies – WFD Summary Data

EPA Waterbody Name & Code	Section 1 EPA Watercourses	WB Type	*EPA Assessment Technique	Current WFD Status 2019-2024	Current Status Driver	Risk 2019-2024	Waterbody Target Status	**Significant Pressures
Burn Daurnett_010 IE_NW_01B020200	Cappry Unnamed	RWB	Monitoring: Invertebrate (M), GPC (G/H), SPC (Pass)	Moderate	Invertebrate (Q-value)	At Risk	Good	Ag, For
Finn (Donegal)_050 IE_NW_01F010800	Finn (Donegal)	RWB	Monitoring: Invertebrate (H)	High	Invertebrate (Q-value)	At Risk	Good	Ag, For, Hymo
Finn (Donegal)_060 IE_NW_01F010800	Finn (Donegal) Aghasheil Dromboe Lower Backlees Greenhills 01 Kilross 01	RWB	Monitoring: Invertebrate (G), GPC (G/H)	Good	Invertebrate (Q-value)	At Risk	Good	UR, UWW
Finn (Donegal)_070 IE_NW_01F010910	Finn (Donegal) Tircallan Mullaghagarry Treanamullin	RWB	Monitoring: Invertebrate (M), GPC (G/H)	Moderate	Invertebrate (Q-value)	At Risk	Good	UWW, For
Cloghroe_010 IE_NW_01C050400	Cloghroe 01	RWB	Monitoring: Invertebrate (G), GPC (G/H)	Good	Invertebrate (Q-value)	At Risk	Good	Ag, For
Deele (Donegal)_030 IE_NW_01D010500	Magheracoran Lisnaree	RWB	Monitoring: Invertebrate (P), GPC (G/H)	Poor	Invertebrate (Q-value)	At Risk	Good	Ag, DWTS

\*STATUS KEY: H = High; G = Good; M = Moderate; P = Poor; B = Bad (WFD status categories); GPC = General Physicochemical; SPC = Specific Physicochemical

\*\*PRESSURES KEY: Ag = Agriculture; DWTS = Domestic wastewater treatment systems; UR = Urban runoff, UWW = Urban wastewater; For = Forestry; Hymo = Hydromorphology

Table 3-2 Section 2 Directly Affected Surface Water Bodies – WFD Summary Data

EPA Waterbody Name & Code	Section 2 EPA Watercourses	WB Type	**EPA Assessment Technique	Current WFD Status 2019-2024	Current Status Driver	Risk 2019-2024	Waterbody Target Status	*Significant Pressures
Leslie Hill Stream_020 IE_NW_39L050660	LeslieHill (Stream) Maghera more 39 Trimragh	RWB	Modelling	Moderate	N/A ( <i>modelled status</i> )	At Risk	Good	Ag, Hymo, UWW
Dooballagh Burn_010 IE_NW_39D020200	Dooballagh Burn Magheraboy 39	RWB	Monitoring: Invertebrate (G)	Good	Invertebrate (Q-value)	Not at Risk	Good	None listed
Swilly (Donegal)_010 IE_NW_39S020300	Farsetmore Drumgreggan Unnamed x 2 Bunagee Coaghmill Lurgybrack	RWB	Modelling	Good	N/A ( <i>modelled status</i> )	Under Review	Good	Ag, For
Swilly Estuary IE_NW_220_0100 [Transitional]	Swilly 39	Transitional	Monitoring: Phytoplankton (P); GPC (H/M).	Poor	Phytoplankton (P)	At Risk	Good	DWW, UWW, UR,

\*STATUS KEY: H = High; G = Good; M = Moderate; P = Poor; B = Bad (WFD status categories); GPC = General Physicochemical; SPC = Specific Physicochemical

\*\*PRESSURES KEY: Ag = Agriculture; DWTS = Domestic wastewater treatment systems; UR = Urban runoff, UWW = Urban wastewater; For = Forestry; Hymo = Hydromorphology

Table 3-3 Section 3 Directly Affected Surface Water Bodies – WFD Summary Data

EPA Waterbody Name & Code	Section 3 EPA Watercourses	WB Type	**EPA Assessment Technique	Current WFD Status 2019-2024	Current Status Driver	Risk 2019-2024	Waterbody Target Status	*Significant Pressures
Leslie Hill Stream_020 IE_NW_39L050660	Churchland 39 Pluck Drumoghill Doorabble Galdonagh Glebe	RWB	Modelling	Moderate	N/A ( <i>modelled status</i> )	At Risk	Good	Ag, Hymo, UWW
Swilly Burn_030 IE_NW_01S030500	Sheskinapoll Drumbeg Swilly Burn Tullyrap	RWB	Modelling	Poor	N/A ( <i>modelled status</i> )	Under review	Good	None listed
Deele (Donegal)_050 IE_NW_01D010650	Deele (Donegal) Cavanacor Murlough 01 Ballynabreen	RWB	Modelling	Moderate	N/A ( <i>modelled status</i> )	Under review	Good	None listed
Finn River UKGBNI1NW010104074	River Finn	RWB	Monitoring: <i>unknown</i>	Moderate	<i>Unknown</i>	At Risk	Good	Ag, <i>Unknown</i>

\*STATUS KEY: H = High; G = Good; M = Moderate; P = Poor; B = Bad (WFD status categories); GPC = General Physicochemical; SPC = Specific Physicochemical

\*\*PRESSURES KEY: Ag = Agriculture; DWTS = Domestic wastewater treatment systems; UR = Urban runoff, UWW = Urban wastewater; For = Forestry; Hymo = Hydromorphology

## 3.1.2.1 Section 1 - Article 4(7) Applicability Assessments

Table 3-4 Article 4(7) Applicability Assessment Burn Daurnett\_010

Burn Daurnett_010 IE_NW_01B020200						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'moderate' based on the monitored BQE (invertebrates: Q3-4) + general physicochemical supporting conditions.						
<b>Modification(s) proposed:</b> No impingement on Burn Daurnett main channel. 10 no. culverts on minor drains/ tributary channels (no fisheries value), 1 no. box culvert on a small, potentially fish bearing, stream. Drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Significant Pressures:</b> Forestry and Agriculture listed by EPA for this moderate sized RWB (24.7 km <sup>2</sup> ). The Proposed Development has no bearing on and will not exacerbate these existing pressures.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> 'Imperceptible' residual negative effects on flood risk. Potential long-term positive effect on downstream water quality owing to introduction of modern sustainable drainage system providing attenuation / treatment in this water body.						
<b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, but culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to structure of the riparian zone, but this will be offset by reinstatement / replanting of the transition zones upstream and downstream of structures.						
<b>River continuity:</b> No significant negative residual effects. Only one culvert requires operational phase mitigation to ensure a low flow channel for fish passage (prescribed in Appendix C9B-05).						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status, including water quality. Current EPA assigned RWB status will not deteriorate as a result of the Proposed Development and the future attainment of good status is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	M	M*	M*	M*	G**	M
Effect owing to modification	≥M	≥M*	≥M*	≥M*	G**	≥M
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the BQE						
**Conditions as per EPA monitoring data and WFD reporting for this waterbody						

**Table 3-5 Article 4(7) Applicability Assessment Finn (Donegal)\_060**

Finn (Donegal)_060 IE_NW_01F010800						
<p><b>Starting point:</b> EPA assigned status (2019 - 2024) is 'good' based on monitored biological elements (invertebrates – Q4) + general physicochemical supporting conditions.</p>						
<p><b>Modification(s) proposed:</b> 1 no. major clear span bridge over River Finn; 1 no. bridge over Backlees stream; 6 no. culverts at minor channels. Net daylighting of currently piped Dromboe Lower channel. Drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.</p>						
<p><b>Significant pressures:</b> Urban wastewater and urban run-off are listed by the EPA as contributing to current non-achievement of good status in this moderate sized RWB (19.2 km<sup>2</sup>). The Proposed Development will not exacerbate these pressures. If anything, the new road may improve water quality relating to 'urban run-off' by removal of stop-start traffic congestion through Ballybofey and diversion of this traffic onto the bypass with modern, sustainable road drainage system that provides attenuation / treatment.</p>						
<p><b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.</p>						
<p><b>Hydrological regime:</b> No significant residual negative effects on flood risk at crossings in this waterbody. Likely long-term imperceptible or positive effect on downstream water quality owing to introduction of modern drainage attenuation / treatment. Hydraulic model results showed a 'negligible' change to upstream / downstream flood depth in relation to the new River Finn crossing (SAC) at the design 1% AEP flood flows. No mechanism of change to existing patterns of bed substrate mobilisation, transport and deposition in relation to this bridge.</p>						
<p><b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, but culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to structure of the riparian zone, but this will be offset by reinstatement / replanting of the transition zones upstream and downstream of structures. The Backlees stream was bridged as part of the design to avoid impact on morphological condition and maintain existing natural, step-pool morphology in this moderately steep, upland stream.</p>						
<p><b>River continuity:</b> Clear span bridges over River Finn (SAC channel) and Backlees stream – no effects on existing fish migration. 3 no. culverts require operational phase mitigation to ensure baffles/ low flow channel to ensure fish passage (prescribed in Appendix C9B-05). No significant residual effects.</p>						
<p><b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. Current EPA assigned RWB status will not deteriorate as a result of the Proposed Development and the future attainment of good status is not prevented.</p>						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	G	G*	G*	G*	G**	G
Effect owing to modification	G	≥G*	≥G*	≥G*	G**	G
<p><b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b></p>						
<p>* Conditions consistent with the achievement of the values specified for EPA status of the BQE</p>						
<p>**Conditions as per EPA monitoring data and WFD reporting for this waterbody</p>						

**Table 3-6 Article 4(7) Applicability Assessment Finn (Donegal)\_050**

Finn (Donegal)_050 IE_NW_01F010800						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'high based on monitored BQE (invertebrates Q4-5).						
<b>Modification(s) proposed:</b> No bridges or culverts, but proposed link road extends along R252 (just upstream of Finn (Donegal)_060 RWB) and has contribution from drainage infrastructure, including 1 no. outfall from attenuation pond. Note that the physical impact in this RWB is very minor and at its very downstream extent. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk. <u>Hydrological regime:</u> 'Imperceptible' effect on flood risk as a result of proposed River Finn bridge immediately downstream in RWB Finn (Donegal_060). Slight water quality improvement likely through attenuation / treatment of R252 road run off before discharge to River Finn. <u>Morphological conditions:</u> No change, as no direct instream works or indirect significant impacts in this RWB. <u>River continuity:</u> Clear span bridge over River Finn (SAC channel) downstream has no effect on existing fish migration along the River Finn between RWBs. <b>Summary:</b> There are no significant changes to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status. Current EPA assigned RWB 'high' status will not deteriorate as a result of the Proposed Development.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	H	H*	H*	H*	H*	H
Effect owing to modification	H	H*	H*	H*	H*	H
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the BQE						

**Table 3-7 Article 4(7) Applicability Assessment Finn (Donegal)\_070**

Finn (Donegal)_070 IE_NW_01F010910						
<p><b>Starting point:</b> EPA assigned status (2019 - 2024) is 'moderate' based on the monitored BQE (invertebrates – Q3-4) + general physicochemical supporting conditions.</p>						
<p><b>Modification(s) proposed:</b> 6 no. culverts at minor channels. 5 no. culverts on small, fish bearing streams. Removal of existing fish barrier on local road (undermined culvert). Replacement of existing N15 culvert with a twin box culvert to improve conveyance. Drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details.</p>						
<p><b>Significant pressures:</b> Urban wastewater and forestry are listed by the EPA as contributing to current non-achievement of good status in this large RWB (32.5km<sup>2</sup>). The Proposed Development will not exacerbate or alter these pressures.</p>						
<p><b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.</p>						
<p><b>Hydrological regime:</b> No significant residual negative effects on drainage/flooding and 'imperceptible' effects, likely improvement, on water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the small channels affected and any effect will be highly localised and imperceptible at water body level.</p>						
<p><b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, however, culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to structure of the riparian zone, but this will be offset by reinstatement / replanting of the transition zones upstream and downstream of structures.</p>						
<p><b>River continuity:</b> 5 no. culverts require operational phase mitigation to ensure baffles/ low flow channel to ensure fish passage (prescribed in Appendix C9B-05). The removal of the existing culvert at Section 1 survey site W1-17 (see Chapter 9B: Biodiversity- Aquatic) will open the Mullaghagarry stream up to fish migration as the existing culvert is a complete barrier with water flowing under the existing concrete bed. This represents a significant positive effect on hydromorphology in this RWB.</p>						
<p><b>Summary:</b> There are no significant negative changes and an overall improvement (fish barrier removal) at the water body level to hydrological regime, morphological regime and river continuity as defined by attributes of WFD Annex V. Instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. Fish will benefit from reinstatement of connectivity to the upper reaches of the Mullaghagarry Stream. The Proposed Development will not cause deterioration of current EPA assigned status and future attainment of good status is not prevented.</p>						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	M	M*	M*	M*	G**	M
Effect owing to modification	≥M	≥M*	≥M*	≥M*	G**	≥M
<p><b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b></p>						
<p>* Conditions consistent with the achievement of the values specified for status of the BQE</p>						
<p>**Conditions as per EPA monitoring data and WFD reporting for this waterbody</p>						

**Table 3-8 Article 4(7) Applicability Assessment Deele (Donegal)\_030**

Deele (Donegal) 030 IE_NW_01D010500						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'poor' based on the monitored BQE (invertebrates – Q3) + general physicochemical supporting conditions.						
<b>Modification(s) proposed:</b> 6 no. culverts at minor channels. 4 no. culverts on small, fish bearing stream (Magheracorrán). Drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details.						
<b>Significant pressures:</b> Domestic wastewater and agriculture are listed by the EPA as contributing to current non-achievement of good status in this large RWB (49.3km <sup>2</sup> ). The Proposed Development occurs in one small headwater tributary (Magheracorrán) of this large RWB and does not exacerbate these pressures.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> 'Imperceptible' negative effects on drainage/flooding and 'imperceptible' effects, likely improvement, on water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the small channels affected and any effect will be highly localised and imperceptible at water body level.						
<b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, however, culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to structure of the riparian zone, but this will be offset by reinstatement / replanting of the transition zones upstream and downstream of structures.						
<b>River continuity:</b> 4 no. culverts require operational phase mitigation to ensure baffles/ low flow channel to ensure fish passage (prescribed in Appendix C9B-05). No significant negative residual effects.						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status, including water quality. The Proposed Development will not cause deterioration of current EPA assigned status and future attainment of good status is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	P	P*	P*	P*	G**	P
Effect owing to modification	≥P	≥P*	≥P*	≥P*	G**	≥P
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the BQE						
**Conditions as per EPA monitoring data and WFD reporting for this waterbody						

**Table 3-9 Article 4(7) Applicability Assessment Cloghroe\_010**

Cloghroe_010 IE_NW_01C050400						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'good' based on the monitored BQE (invertebrates – Q4) + general physicochemical supporting conditions.						
<b>Modification(s) proposed:</b> 1 no. clear span bridge with associated short channel diversion to accommodate the new bridge. Drainage infrastructure, including outfall from attenuation pond. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Significant pressures:</b> Domestic wastewater and forestry are listed by the EPA as contributing to current non-achievement of good status in this large RWB (49.3km <sup>2</sup> ). The Proposed Development occurs at the very downstream extent of this RWB and does not exacerbate these pressures.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> 'Imperceptible' effects, likely improvement, on water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the main channel as there is no instream footprint, set back abutments and highly localised, imperceptible changes in 1%AEP flood levels upstream and downstream of the structure. No significant negative residual effects.						
<b>Morphological conditions:</b> The clear span bridge is designed to match river depth/width variation with no impact on bed structure. The proposed channel diversion downstream of the bridge will be reinstated to mimic existing bed structure and substrates with setback riparian planting to remove existing tunnelling.						
<b>River continuity:</b> No impact on fish passage / migration through clear span bridge.						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the invertebrate BQE (Q-value) that defines water body status, including water quality. The Proposed Development will not cause deterioration of current EPA assigned status and future attainment of good status is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	G	G*	G*	G*	G**	G
Effect owing to modification	≥G	≥G*	≥G*	≥G*	G**	≥G
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the BQE						
**Conditions as per EPA monitoring data and WFD reporting for this waterbody						

## 3.1.2.2 Section 2 - Article 4(7) Applicability Assessments

Table 3-10 Article 4(7) Applicability Assessment Dooballagh Burn\_010

Dooballagh Burn_010 IE_NW_39D020200						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'good' based on monitored BQE (invertebrates – Q4).						
<b>Modification(s) proposed:</b> No physical impingement on watercourses, but 6 no. minor drains will be culverted in upper reaches of the RWB that eventually adjoin EPA delineated channels further downstream. Drainage infrastructure, including outfall from Attenuation Pond 01.						
<b>Significant pressures:</b> <i>None listed.</i>						
<b>Effect of modification (Proposed development):</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. The culverts and the attenuation pond outfall are on minor field boundary drains well upstream of EPA delineated channels in the RWB. Instream habitats will be subject to no modification in terms of factors that could discernibly affect the invertebrate BQE that defines water body status, including water quality. Current EPA assigned RWB status will not deteriorate as a result of the Proposed Development and the maintenance (or improvement) of good status is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Macroinverts (Q-value)	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	G	G*	G*	G*	G*	G
Effect owing to modification	≥G	≥G	≥G	≥G	G*	≥G
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the BQE						
**Conditions as per EPA monitoring data and WFD reporting for this waterbody						

**Table 3-11 Article 4(7) Applicability Assessment Swilly (Donegal)\_010**

Swilly (Donegal)_010 IE_NW_39S020300						
<p><b>Starting point:</b> EPA assigned status (2019 - 2024) is 'good' based on modelling. Note that this is a large RWB (60.7km<sup>2</sup>) and includes the freshwater main channel of the River Swilly within and upstream of Letterkenny. The tributaries affected by the Proposed Development (in Section 2) are small, highly modified by drainage and of low ecological value. All watercourses drain to the Swilly Estuary (or its embankment toe-drain) and not the freshwater River Swilly. There is no impact on the main channel of the freshwater River Swilly from the Proposed Development. The affected small tributaries were sampled (where possible) in 2024, returning Q-values of 'poor' (Q3) and 'moderate' (Q3-4) which does not align with the EPA assigned 'good' status. The point being that the small channels affected by the Proposed Development are certainly not at the "modelled" 'good' status for BQE as a starting point. However, EPA assigned 'good' status is applied as the starting point, as required under the WFD.</p>						
<p><b>Modification(s) proposed:</b> 25 no. culverts on drains / minor channels with no salmonid sensitivity; 4 no. culverts on a small stream (Farsetmore) which has some trout potential, although highly modified by the OPW drainage scheme. Road embankments / footprint in Milk Isle / Bunnagee and Ballyraine within this water body, including approaches to Swilly Bridge leading to design including flood compensation areas around 'Bonagee Junction'. Drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for further details.</p>						
<p><b>Significant pressures:</b> Agriculture and forestry are listed by the EPA as pressures in this large RWB (60.7km<sup>2</sup>). The Proposed Development occurs in small drains/streams on the eastern (more urbanised / industrial) side of the RWB draining directly to Swilly Estuary with little or no influence of these existing pressures in the smaller sub-catchments concerned.</p>						
<p><b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.</p>						
<p><b>Hydrological regime:</b> No significant residual negative effects on drainage/flooding arising from the installation of culverts. Flood volume storage loss caused by road embankment encroachment was found to be minimal, and that loss was mitigated in the design by providing adequate compensation storage near Bonagee Junction. 'Imperceptible' effects, likely improvement, on water quality in the long-term owing to introduction of modern drainage attenuation / treatment.</p>						
<p><b>Morphological conditions:</b> Culverts are designed to match existing drain / stream depth/width variation with no impact on bed structure owing to embeddedness. Associated channel diversions will be reinstated to mimic existing bed structure and substrates with riparian planting. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in all but one (Farsetmore) of the small streams / drains affected. These are highly modified, channelised, urbanised watercourses and the changes will make little or no difference to hydromorphological quality. The exception is Farsetmore (small tributary flowing to Swilly Estuary, well east of Swilly main channel) where very conservatively, there may be a localised slight negative impact on bed substrate composition / morphology along a channel length of c.220 linear metres (mean channel width c.1.0m) where a series of new culverts will accommodate the proposed Trimnagh Interchange. Mitigations have been included in the form of culvert design and channel reinstatement to limit the impact of this change. The location and magnitude of this impact is certainly neutral to imperceptible at the water body scale.</p>						
<p><b>River continuity:</b> No impact on fish passage / migration through 27 no. low gradient and/or non-fisheries significant drains/channels. At the small Farsetmore stream, 2 no. culverts require operational phase mitigation to ensure baffles/ low flow channel to ensure fish passage (prescribed in Appendix C9B-05).</p>						
<p><b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Instream habitats will be subject to imperceptible (if any) modification in terms of factors that could discernibly affect the modelled water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. The Proposed Development will not cause deterioration of current EPA assigned status and the maintenance (or improvement) of good status is not prevented.</p>						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Modelled	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	G**	G*	G*	G*	G*	G**
Effect owing to modification	≥G	≥G	≥G	≥G	G	≥G
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the "modelled" BQE						
** EPA modelled status (not monitored)						

Note that Table 3-12 provides the combined assessment for Leslie Hill Stream\_020 RWB which is affected by both Sections 2 and 3 of the Proposed Development.

**Table 3-12 Article 4(7) Applicability Assessment Leslie Hill Stream\_020**

Leslie Hill Stream_020 IE_NW_39L050660						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'moderate' based on modelling.						
<b>Modification(s) proposed (Section 2):</b> 2 no. culverts on very minor, ephemeral channels + drainage infrastructure, including outfall from Attenuation Pond 10. Footbridge over Isle Burn at existing N13 crossing (no physical modification required).						
<b>Modification(s) proposed (Section 3):</b> 6 no. culverts on very minor, non-fisheries channels/drains; 11 no. culverts on minor channels with some fisheries significance + drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) (Section 2) and (Section 3) for details of modifications.						
<b>Significant pressures:</b> Urban wastewater, agriculture and hydromorphology are listed by the EPA as contributing to current non-achievement of good status in this RWB (38.4km <sup>2</sup> ). Hydromorphology pressure relates primarily to the OPW drainage scheme in the lower reaches of the Isle Burn, where the channel is routinely dredged and embankments maintained. The Proposed Development has no impact on the ongoing Swilly Embankments drainage scheme which is by far the most significant driver of hydromorphological character in this water body. Organic nutrients are an issue (EPA listed) for this RWB, and the proposed road will not alter or exacerbate this pressure.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> No significant residual negative effects on flood risk. Likely long-term imperceptible or positive effect on downstream water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the small channels affected and any effect will be highly localised and imperceptible at water body level.						
<b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, however, culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to bed and bank structure in short reaches representing a fraction of linear channel at water body scale, but this will be offset by reinstatement and set back replanting of the transition zones upstream and downstream of structures.						
<b>River continuity:</b> 11 no. culverts require operational phase mitigation to ensure baffles/ and internal low flow channels to ensure fish passage (prescribed in Appendix C9B-05).						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible modification in terms of factors that could discernibly affect the modelled (or future monitored) water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. RWB status will not deteriorate as a result of the Proposed Development and the future attainment of good status (i.e., mainly dependent on overall water quality improvement unrelated to the road project) is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	Modelled	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	M**	M*	M*	M*	M*	M**
Effect owing to modification	≥M	≥M	≥M	≥M	≥M	≥M
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the "modelled" BQE						
** EPA modelled status (not monitored)						

**Table 3-13 Article 4(7) Applicability Assessment Swilly Estuary**

Swilly Estuary IE_NW_220_0100 [Transitional]					
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'good' based on monitored BQE (invertebrates – Q4).					
<b>Modification(s) proposed:</b> 1 no. clear span bridge over the Swilly Estuary. 1 no. attenuation pond discharge direct to the channel and several indirect discharges from attenuation ponds that outfall to Bunnagee / Milk Isle drains / channels which flow to the Swilly embankment toe-drain then to the Swilly Estuary. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.					
<b>Significant pressures:</b> urban run-off, urban wastewater and domestic wastewater are listed by the EPA as contributing to current non-achievement of good status in this Transitional water body (Area: 7.8km <sup>2</sup> ). Organic nutrients are listed as an issue for this Transitional water and are likely the cause of phytoplankton BQE defining the status as 'poor'. The Proposed Development will not exacerbate or alter the listed pressures.					
<b>Effect of modification (Proposed development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.					
<b>Morphological conditions:</b> An 'imperceptible' increase in flood level in the upstream vicinity of the proposed Swilly Bridge crossing is predicted by the hydraulic model. Any flood volume storage loss likely to be caused by road embankment encroachment was found to be minimal with adequate compensation storage provided in the design. The clear span bridge therefore will not cause changes to depth variation or quantity, structure and substrate of the bed. Patterns of sediment transport, deposition and erosion will not be affected by the new crossing, meaning the benthic mud community invertebrate communities will be unaltered. The bridge piers/foundations are set back from the channel (and behind the embankment on the eastern side). The latter, coupled with the imperceptible nature of any hydraulic change, means no changes will arise to the intertidal structure. Likely long-term imperceptible or positive effect on downstream water quality owing to introduction of modern drainage attenuation / treatment.					
<b>Tidal Regime:</b> The proposed Swilly Bridge has no instream footprint, with setback piers and abutments, not affecting the tidal regime. Discharges from various attenuation ponds that connect to existing drains, and the Swilly Embankment toe-drain will not alter freshwater flow regime as the ponds have been designed to attenuate up to the 1 in 100 year greenfield run-off rate. There will be no impact on wave exposure regime as here are no proposed structures set within the water body.					
<b>Summary:</b> There are no significant changes at the water body level to morphological or tidal regime as defined by attributes set out in Annex V of the WFD. There are no effects from the Proposed Development that could discernibly affect the BQEs that define water body status. Status is apparently limited in this transitional water by the level of organic nutrient pollution (based on previous EPA sampling in the 2016-2021 reporting period) driving phytoplankton growth, which has no relationship to the proposed road project. The Proposed Development in fact removes nutrient sources (TP linked to sediment loss) through attenuation and settlement / treatment in ponds throughout the Section 2 carriageway and either side of the proposed Swilly Bridge. The new road reduces 'urban run-off' pressure / sources by removal of stop-start traffic congestion through Letterkenny at the existing N56 Port Bridge near Polestar Roundabout. The attributes of the Proposed Development will not cause current EPA assigned status to deteriorate and the attainment of good status in the future is not prevented.					
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs		GPC	Surface water status
	Phytoplankton	Morphology	Tidal Regime		
Starting point (EPA data 2019-2024)	P	P*	P*	M**	P
Effect owing to modification	≥P	≥P*	≥P*	≥M	≥P
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>					
* Conditions consistent with the achievement of the values specified for status of the best of the BQEs					
**Conditions as per EPA monitoring data and WFD reporting for this waterbody					

## 3.1.2.3 Section 3 - Article 4(7) Applicability Assessments

Table 3-14 Article 4(7) Applicability Assessment Swilly Burn\_030

Swilly Burn_030 IE_NW_01S030500						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'poor' based on modelling.						
<b>Modification(s) proposed:</b> 1 no. clear span bridge over Swilly Burn; 13 no. culverts on small, minor channels with some fisheries significance + drainage infrastructure, including outfalls from attenuation ponds. Diversion 1 km in length of EPA 'Drumbeg' stream (Tullyrap) to avoid extensive culverting. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Significant pressures:</b> <i>None listed by EPA.</i> Field observations (see Appendix C9B-03) show the catchment is subject to poor water quality (organic enrichment – mainly Q3) and drainage / channelisation which likely contribute to non-achievement of good status in this RWB (52.3km <sup>2</sup> ). Based on field observation, organic nutrients are predicted to be an issue for this RWB, and the proposed road will not exacerbate this pressure.						
<b>Effect of modification (Proposed Development):</b> Refer to Chapter 11: Water, Section 11.8.4 for description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> No significant residual negative effects on flooding (and a positive effect in terms of flood risk reduction at Drumbeg stream) and 'imperceptible' effects, likely improvement, on water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the small channels affected and any effect will be highly localised and imperceptible at water body level.						
<b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, however, culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to structure of the riparian zone, but this will be offset by reinstatement / replanting of the transition zones upstream and downstream of structures. Morphology improvement at Drumbeg (Tullyrap) stream which will be reinstated following realignment to include meanders and more natural channel form which is likely to improve conditions for fish and macroinvertebrates.						
<b>River continuity:</b> Clear span bridge – no effect. Each of the 13 no. culverts are individually not a significant continuity issue (low-gradient) but cumulatively require operational phase mitigation through provision of low flow (2-step) channels to ensure fish passage (prescribed in Appendix C9B-05). No significant residual negative effects on fish passage.						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible modification in terms of factors that could discernibly affect the modelled (or future monitored) water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. Current EPA assigned RWB status will not deteriorate as a result of the Proposed Development and the future attainment of good status (i.e., mainly dependent on overall water quality improvement unrelated to the road project) is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	<i>Modelled</i>	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	P	P*	P*	P*	P*	P
Effect owing to modification	≥P	≥P	≥P	≥P	≥P	≥P
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the "modelled" BQE						
** EPA modelled status (not monitored)						

**Table 3-15 Article 4(7) Applicability Assessment Deelee (Donegal)\_050**

Deelee (Donegal)_050 IE_NW_01D010650						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'moderate' based on modelling.						
<b>Modification(s) proposed:</b> 1 no. clear span bridge over River Deelee; 2 no. culverts on low-quality non-fisheries drains/channels, 2 no. culverts on small, minor channels with some fisheries significance + drainage infrastructure, including outfalls from attenuation ponds. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Significant pressures:</b> <i>None listed by EPA.</i> Field observations (see Appendix C9B-03) show the catchment is subject to poor water quality (organic enrichment – mainly Q3) and drainage / channelisation which likely contribute to non-achievement of good status in this RWB (19.0km <sup>2</sup> ). Based on field observation, organic nutrients are predicted to be an issue for this RWB, and the proposed road will not exacerbate this pressure.						
<b>Effect of modification (Proposed development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> No significant residual negative effects on drainage/flooding and 'imperceptible' effects, likely improvement, on water quality owing to introduction of modern drainage attenuation / treatment. The existing patterns of bed substrate mobilisation, transport and deposition will not perceptibly alter in the small channels affected and any effect will be highly localised and imperceptible at water body level.						
<b>Morphological conditions:</b> Structures and drainage features designed to match river depth/width variation; short sections within culverts will (by definition) be subject to minor change of bed structure through culverts, however, culvert embedment and reseeded with gravels will maintain broadly similar bed structure on relatively minor channels affected in this RWB. Culverted reaches will also (by definition) undergo change to bed and bank structure, but this will be offset by reinstatement and setback planting of the transition zones upstream and downstream of structures to improve hydromorphological score at reach level.						
<b>River continuity:</b> Clear span bridge – no effect; 2 no. culverts require operational phase mitigation through provision of low flow (2-step) channels to ensure fish passage (prescribed in Appendix C9B-05). No significant residual negative effects on fish passage.						
<b>Summary:</b> There are no significant changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible modification in terms of factors that could discernibly affect the modelled (or future monitored) water body status. Water quality would be subject to improvement in the long-term owing to sustainable drainage features. RWB status will not deteriorate as a result of the Proposed Development and the future attainment of good status (i.e., dependent on overall water quality improvement in relation to catchment sources that are unrelated to the road project) is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	<i>Modelled</i>	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	M**	M*	M*	M*	M*	M**
Effect owing to modification	≥M	≥M	≥M	≥M	≥M	≥M
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the "modelled" BQE						
** EPA modelled status (not monitored)						

**Table 3-16 Article 4(7) Applicability Assessment Finn River**

Finn River UKGBNI1NW010104074						
<b>Starting point:</b> EPA assigned status (2019 - 2024) is 'moderate' but the assessment technique is "unknown". The Finn (Donegal)_080 RWB immediately upstream is classified by the EPA (Republic of Ireland) at 'poor' status based on invertebrate Q-value, though general physicochemical conditions are good or high status. <i>No detailed information could be sourced for WFD classification of Northern Irish (transboundary) water bodies.</i>						
<b>Modification(s) proposed:</b> 1 no. clear span bridge over River Finn upstream of Lifford/Strabane at the N14/N15 to A5 Link + drainage infrastructure, including outfall from 1 no. attenuation pond. Refer to Chapter 11: Water, Section 11.8.4 (Operational Phase Impacts) for details of modifications at each watercourse.						
<b>Significant pressures:</b> EPA list pressures as <i>Unknown</i> .						
<b>Effect of modification (Proposed development):</b> Refer to Chapter 11: Water, Section 11.8.4 for summary description of effects of proposed modifications on hydrological attributes, including flood risk.						
<b>Hydrological regime:</b> 'Imperceptible' effect on drainage/flooding. The proposed N14/N15 to A5 Link bridge is sized adequately to ensure no significant effects to water levels upstream and downstream, noting that the hydraulic modelling considered effects of the TEN-T project cumulatively with the proposed A5 WTC Project (Western Transport Project). The existing patterns of bed substrate mobilisation, transport and deposition will not alter in the tidally influenced main channel at this location.						
<b>Morphological conditions:</b> No significant negative effects. The proposed N14/N15 to A5 Link bridge is a clear span over the river with set-back pier foundations and no direct impact on the riverbank or channel. Low growing riparian vegetation will re-establish post construction phase given the bridge deck is approximately 7 m above the floodplain level.						
<b>River continuity:</b> Clear span bridge – no effect on fish migration.						
<b>Summary:</b> There are no changes at the water body level to hydrological regime, morphological regime or river continuity as defined by attributes of WFD Annex V. Consequently, instream habitats will be subject to imperceptible modification in terms of factors that could discernibly affect the modelled (or future monitored) water body status. Water quality would likely be subject to improvement in the long-term owing to sustainable drainage features incorporated into the design. RWB status will not deteriorate as a result of the Proposed Development and future attainment of good status (i.e., dependent on overall water quality improvement in relation to catchment sources that are unrelated to the road project) is not prevented.						
Quality elements	Biological quality elements (BQEs)	Hydromorphological quality elements supporting the BQEs			GPC	Surface water status
	<i>Unknown</i>	Hydrology	Morphology	Continuity		
Starting point (EPA data 2019-2024)	M	M*	M*	M*	M*	M
Effect owing to modification	≥M	≥M	≥M	≥M	≥M	≥M
<b>Ecological Status Classes - H: High; G: Good; M: Moderate; P: Poor; B: Bad</b>						
* Conditions consistent with the achievement of the values specified for status of the assigned BQE						
** UKGBNI assigned status						

### 3.1.3 Indirectly Affected Water Bodies

The southern half of Section 3 drains via tributaries and main channels of the Swilly Burn, Deelee and Finn rivers, which flow into the River Foyle, a transitional waterbody named 'Foyle and Faughan Estuaries' (UKGBNI5NW250010) and on to Lough Foyle. The 'Foyle and Faughan Estuaries' is a transboundary, heavily modified water body (HMWB). Responsibility for ecological classification of this water body rests with the Northern Ireland Environment Agency (NIEA). Formal correspondence with the NIEA was undertaken in January 2026 in relation to the Proposed Development. NIEA issued a formal status assessment for 2021 and 2024 (Refer to Table 11-28 of EIAR Chapter 11 – Water, Section 11.4.3.4). As an HMWB, current surface water status of the Foyle and Faughan transitional waterbody is assigned 'Moderate Ecological Potential'. The EPA (ROI) last assigned 'moderate' ecological potential to this water body in the 2013-2018 WFD reporting period based on the NIEA classification, noting that elevated phosphate concentrations were identified as a significant issue (EPA, 2018). This transitional water body is not directly impacted by the Proposed Development but is a downstream receiving water for Sections 1 and 3.

The hydromorphological effects of the Proposed Development are limited to the surface water bodies directly traversed by the road alignment. The main stem river channels with upstream / downstream connectivity to other surface water bodies are bridged using clear spans and do not introduce any barriers to fish migration, nor are there far reaching hydrological, morphological or operation phase water quality impacts that could indirectly affect adjoining water bodies. For that reason, there is no cause for status deterioration nor prevention of the achievement of good status in any upstream or downstream, indirectly affected surface water body, including the transitional 'Foyle and Faughan Estuaries' HMWB.

## 3.2 Article 4(7) Applicability Assessment Summary

**Table 3-17 Summary of WFD Compliance Tests**

EPA Water body (EPA Code)	Surface Water body type	Deterioration of status?	Prevention of good status?	Is the Proposed Development compliant with WFD Article 4(1) objectives for this water body?
Burn Daurnett_010 IE_NW_01B020200	River	No	No	Yes
Finn (Donegal)_050 IE_NW_01F010800	River	No	No	Yes
Finn (Donegal)_060 IE_NW_01F010800	River	No	No	Yes
Finn (Donegal)_070 IE_NW_01F010910	River	No	No	Yes
Cloghroe_010 IE_NW_01C050400	River	No	No	Yes
Deelee (Donegal)_030 IE_NW_01D010500	River	No	No	Yes
Swilly (Donegal)_010 IE_NW_39S020300	River	No	No	Yes
Dooballagh Burn_010 IE_NW_39D020200	River	No	No	Yes
Swilly Estuary IE_NW_220_0100	Transitional	No	No	Yes
Leslie Hill Stream_020 IE_NW_39L050660	River	No	No	Yes

EPA Water body (EPA Code)	Surface Water body type	Deterioration of status?	Prevention of good status?	Is the Proposed Development compliant with WFD Article 4(1) objectives for this water body?
Swilly Burn_030 IE_NW_01S030500	River	No	No	Yes
Deele (Donegal)_050 IE_NW_01D010650	River	No	No	Yes
Finn River UKGBNI1NW010104074	River	No	No	Yes
Foyle and Faughan Estuaries' UKGBNI5NW250010	Transitional	No	No	Yes

#### 4 CONCLUSION

The Proposed Development, by design and with mitigations implemented as prescribed in EIAR Chapter 9B: Biodiversity – Aquatic and Chapter 11: Water, will not cause deterioration of status in any surface water body (overall or at individual quality element at water body level) nor will it prevent the achievement of good status. This document in conjunction with detailed information within the EIAR provides evidence to support the conclusion. The Proposed Development is compliant with WFD Article 4(1) objectives.

## 5 REFERENCES

DHLGH (2024) Water Action Plan: A River Basin Management Plan for Ireland. Department of Housing, Local Government and Heritage, Ireland.

EC (2005) CIS Guidance No.13 WFD Common Implementation Strategy for the Water Framework Directive (2000/60/EC). - Overall Approach to the Classification of Ecological Status and Ecological Potential.

EC (2006) WFD and Hydromorphological Pressures Technical Report: Good practice in managing the ecological impacts of hydropower schemes; flood protection works; and works designed to facilitate navigation under the Water Framework Directive. [Online] Available at: [https://circabc.europa.eu/sd/a/68065c2b-1b08-462d-9f07-413ae896ba67/HyMo\\_Technical\\_Report.pdf](https://circabc.europa.eu/sd/a/68065c2b-1b08-462d-9f07-413ae896ba67/HyMo_Technical_Report.pdf) (Accessed June 2025)

EC (2009) CIS Guidance No. 18. WFD Common Implementation Strategy. Guidance on Groundwater Status and Trend Assessment.

EC (2017) CIS Guidance No. 36. Water Framework Directive Common Implementation Strategy. Exemptions to the Environmental Objectives according to Article 4(7) New modifications to the physical characteristics of surface water bodies, alterations to the level of groundwater, or new sustainable human development activities.

EPA (2024a) Update on pressures impacting on water quality (report and spreadsheet). [Online] Available at: [Update on pressures impacting on water quality | Environmental Protection Agency](#) (accessed June 2025)

EPA (2024b) Cycle 3 HA 01 Foyle Catchment Report. Environmental Protection Agency, Ireland. [Online] Available at: [www.catchments.ie](http://www.catchments.ie) (Accessed October 2025)

EPA (2024c) Cycle 3 HA 39 Lough Swilly Catchment Report. Environmental Protection Agency, Ireland. [Online] Available at: [www.catchments.ie](http://www.catchments.ie) (Accessed October 2025)

EPA (2018) WFD Cycle 2 Foyle Catchment Assessment 2010-2015 (HA 01).

TII (2015) Road Drainage and the Water Environment DN-DNG-03065. [Online] Available at: <https://www.tiipublications.ie/library/DN-DNG-03065-01.pdf> (Accessed March 2026)

TII (2025) Water Impact Assessment for National Roads, Light Rail, Metro and Rural Cycleways – Overarching Technical Document. PE-ENV-01202 [Online] Available at: <https://cdn.tii.ie/publications/PE-ENV-01202-01.pdf> (Accessed March 2026)