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Luas Finglas

Environmental Impact Assessment Report 2024

Appendix A10.1: Water Framework Directive Compliance Assessment

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Project Ireland 2040
Building Ireland's Future

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SECTION 1: WATER FRAMEWORK DIRECTIVE COMPLIANCE ASSESSMENT

1.1 Introduction

1.1.1 The Water Framework Directive

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 Establishing a Framework for Community Action in the Field of Water Policy (European Parliament 2000) is known as the Water Framework Directive (WFD).

The WFD established a framework for the protection of both surface and groundwaters. The WFD provides a vehicle for establishing a system to improve and / or maintain the quality of waterbodies across the European Union (EU). The Directive requires all waterbodies (river, lakes, groundwater, transitional, coastal) to attain 'Good Water Status' (qualitative and quantitative) by 2027.

There are a number of WFD objectives in respect of which the quality of water is protected. The key objectives at EU level are the general protection of aquatic ecology, specific protection of unique and valuable habitats, the protection of drinking water resources, and the protection of bathing water. The objective is to achieve this through a system of river basin management planning and extensive monitoring. 'Good Status' means both 'Good Ecological Status' (GES) and 'Good Chemical Status' (GCS).

The following are WFD Environmental Objectives:

- Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water;
- Member States shall protect, enhance and restore all bodies of surface water, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, with the aim of achieving good surface water status by 2015;
- Member States shall protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving good ecological potential and good surface water chemical status by 2015. Where this is not possible and subject to the criteria set out in the Directive, aim to achieve good status by 2021 or 2027;
- Progressively reduce pollution from priority substances and cease or phase out emissions, discharges and losses of priority hazardous substances;
- Prevent Deterioration in Status and prevent or limit input of pollutants to groundwater.

The WFD was initially transposed into Irish law by S.I. No. 722/2003 – European Communities (Water Policy) Regulations 2003, as amended (hereafter referred to as the Water Policy Regulations). The Water Policy Regulations outline the water protection and water management measures required to maintain high status of waters where it exists, prevent any deterioration in existing water status and achieve at least 'Good' status for all waters.

Subsequently, S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (hereafter referred to as the Surface Waters Regulations), and S.I. No. 9/2010 - European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended (hereafter referred to as the Groundwater Regulations), were promulgated to regulate WFD characterisation, monitoring and status assessment programmes, in terms of assigning responsibilities for the monitoring of different water categories, determining the quality elements and undertaking the characterisation and classification assessments.

1.1.2 Article 4.7 of the WFD

Member states must meet the conditions of the WFD unless they meet the criteria laid out in Article 4.7 of the Directive. Article 4.7 states:

'Member states will not be in breach of this Directive when:

failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or

failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities

and all the following conditions are met:

(a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;

(b) the reasons for those modifications or alterations are specifically set out and explained in the river basin management plan required under Article 13 and the objectives are reviewed every six years;

(c) the reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development; and

(d) the beneficial objectives served by those modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, which are a significantly better environmental option.'

1.1.3 The WFD Assessment

The Water Policy Regulations require the assessment of permanent impacts of a scheme / project on WFD waterbodies, (rivers, lakes, estuaries, coastal waters and groundwater). Typically, the permanent impacts include all operational impacts, but can also include impacts from construction depending on the length and / or nature of the works, etc. of the proposed Scheme, as some potential construction impacts could be considered permanent in the absence of mitigation. An assessment of the compliance of the proposed Scheme with WFD requirements is provided in this Appendix to Chapter 10 (Water) in Volume 2 of this EIAR.

This WFD assessment report has been prepared for the Construction and Operational Phases of the Luas Finglas (hereafter referred to as proposed Scheme). Refer to Chapter 10-Water for further details.

The generic environmental objectives set out below (based on Article 4.1 of the Directive) are used for the assessment of the proposed Scheme:

- No changes affecting high status sites;
- No changes that will cause failure to meet surface water GES or GEP or result in a deterioration of surface water ecological status or potential;
- No changes which will permanently prevent or compromise the Environmental Objectives being met in other water bodies; and
- No changes that will cause failure to meet good groundwater status or result in a deterioration groundwater status.

1.2 Outline of the Proposed Scheme

The proposed Scheme involves an extension of the Luas Green Line from its current terminus in Broombridge to Finglas. The Preferred Route (PR) for the proposed extension is approximately 3.9km long, includes four new stops, a cycle and pedestrian path along part of the route, a Park and Ride facility near St Margaret's Road, two bridges (River Tolka and Broombridge) and an extension to the LRV storage area at the Hamilton Depot at Broombridge. The route will provide interchange opportunities with bus networks at 3 of the 4 proposed stops and to the rail network via the existing Luas Broombridge Stop.

See Chapter 5 (Description of Proposed Development) Volume 2 of this EIAR for a full description of the proposed Scheme.

1.2.1 Overview of the proposed Scheme and Scope of this Assessment

The following outlines the typical works which will need to be undertaken across the proposed Scheme:

- 3.9km extension to the Luas Green Line track from Broombridge to Finglas, see Figure 2.1;
- An extension to the Luas Broombridge Depot for extra LRV storage. Stabling for 10 additional LRVs will be provided;
- Provision of approximately 350 park and ride spaces at the proposed Luas St Margaret's Road Stop;
- Demolition of the existing overbridge at Mellowes Park;
- Construction of a new bridge over the River Tolka within the Tolka Valley Park;
- Construction of a new bridge over the Royal Canal and the Maynooth railway line at Broombridge;
- Site preparation including levelling and excavation works for track infrastructure;
- All associated utility diversions;
- New road layouts, new or modified junction layouts, footpaths and road layouts including junction signalling where impacted by the proposed Scheme;
- Cycle facilities necessary as part of the scheme;
- Substation provision (2 No. substations located at approximately the mid-point and terminus of the line);
- Provision of additional traffic signalling infrastructure; and
- Provision of additional lighting and street furniture.

A Construction Compound will also be required for site offices and material storage.

The following activities are considered as potential sources of impact and as such are scoped into this assessment:

- Construction Phase of the proposed Scheme:
  - Excavations works;
  - Hoarding and the passing of plant and equipment;
  - Overhead catenary system (OCS) foundations;
  - Pavement resurfacing; and
  - Road widening works.

- Operational Phase of the proposed Scheme:
  - Hard and soft landscaping;
  - Permanent infrastructure; and
  - Altered traffic/street plans.

1.3 Methodology

1.3.1 Study Area / WFD Screening

This WFD assessment covers only those components of the proposed Scheme that could affect water body features. These were primarily identified as sections of the proposed Scheme which are within 500m of surface and groundwater waterbodies (see Chapter 10 (Water) in Volume 2 of this EIAR). The assessment looks at the impacts of new modifications to the water bodies and any changes to existing modifications.

1.3.2 Relevant Guidelines, Policy and Legislation

River Basin Management Plans

River Basin Management Plans (RBMPs) provide the mechanism for implementing and ensuring an integrated approach to the protection, improvement and sustainable management of the water environment and are published every six years.

The second cycle RBMP 2018 - 2021 was published by the Department of Housing, Planning and Local Government (DHPLG) in April 2018 and covers Ireland as a whole (DHPLG 2018). For the second cycle, the original (2009) Eastern, South-Eastern, South-Western, Western and Shannon River Basin Districts were merged to form one national River Basin District (RBD) which covers the whole of Ireland. For those waterbodies 'At Risk' of failing to meet the objectives of WFD, the RBMP 2018 - 2021 identified the most significant pressures impacting them as follows: agriculture (53%), hydromorphology (24%), urban wastewater (20%), forestry (16%), domestic wastewater (11%), urban runoff (9%), peat (8%), extractive industry (7%) and mines and quarries (6%).

In September 2021, the Minister for Housing, Local Government and Heritage, published the draft River Basin Management Plan for Ireland 2022-2027 for public consultation. The consultation period closed in March 2022. The draft RBMP sets out at the outset that it is published in the context of a rapidly changing policy landscape at European and International levels and against a backdrop of 'widespread, rapid and intensifying climate change'. In addition, Ireland is now experiencing a sustained decline in water quality following many years of improvements, and so stronger measures are now required to achieve sustainable water management in order to address and adapt to the impacts of climate change and achieve the desired outcomes for biodiversity.

Figure 1 presents the ecological status of waterbodies in Ireland over the past two cycles of the RBMP and illustrates the reduction in water quality, particularly in relation to the reduced percentage of waterbodies achieving high status and increased percentage achieving bad status. The reductions in water quality are especially notable for rivers; for other waterbodies the changes are more mixed; some reductions, some improvements. The draft RBMP cites a 4.4% net decline in the status of water bodies, and notes that this is mostly driven by a decline in the status of river water bodies.

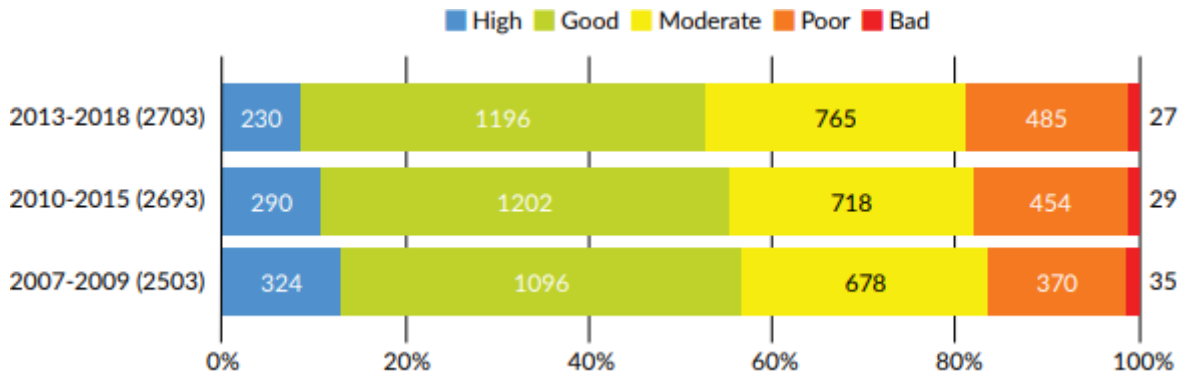

Figure 1: Ecological Status of Waterbodies in Ireland

The characterisation and risk assessments carried out for the third cycle show that 33% of water bodies are At Risk of not meeting their environmental objective of good or high status. Of these, 46% of impacted by a single significant pressure. Agriculture remains the most common pressure, followed by hydromorphology, forestry and urban wastewater. There has been an increase in waterbodies impacted by agriculture since the 2nd cycle RBMP.

The draft RBMP sets out a Programme of Measures (PoMs) necessary to deliver the objectives of the WFD in full and to contribute to other environmental priorities.

Until the draft RBMP has been consulted upon and finalised, the existing RBMP has been used as a reference point for this assessment with respect to proposed measures as these have yet to be agreed; however, where waterbodies 'At Risk' status has already been updated by the EPA online for the third cycle RBMP, this has been used in the assessment.

1.3.3 Data Collection and Collation

The EPA's Data Explorer (https://gis.epa.ie/EPAMaps/) was used to assess water bodies present within the proposed Scheme's study area, and includes their WFD ID numbers, designation and classification details. The WFD compliance mapping for groundwater risk and status assessment was also reviewed along with any other supporting data.

1.3.4 Appraisal Method

In the absence of WFD assessment guidance in Ireland, the assessment has been carried out using the UK Environment Agency's 'Water Framework Directive assessment: Estuarine and Coastal waters' (Clearing the Waters for All) 2016 (updated 2017) (Environment Agency 2016). No specific guidance exists for freshwater waterbodies; however, this guidance was used as the basis of the UK's Planning Inspectorate (PINS) Advisory Note 18 'Water Framework Directive' June 2017 (PINS 2017) in which it sets out the stages of an assessment. On this basis it was considered appropriate to use for the assessment of the proposed Scheme. In line with this guidance a 2km buffer zone applied for assessing protected areas. For clarity and brevity purposes, the 2km buffer and the full list of identified protected sites (including those which are considered coastal water specific) are maintained for all assessments.

There follows a baseline assessment of the main water bodies, and a scoping assessment of the principal receptors potentially affected by the proposed Scheme. This is followed by the impact assessment, which considers the potential impacts of an activity, identifies ways to avoid or minimise impacts, and indicates if an activity may cause deterioration or jeopardise the water body achieving GEP/GES.

There are several stages to this assessment:

- A scoping assessment of the main receptors including protected areas nature conservation, bathing water etc. (Section 1.4);
- An assessment against quality elements including hydromorphology, biology, water quality, protected areas and invasive species (Section 1.5);
- Assessment of the proposed Scheme against mitigation measures and a cumulative assessment against other proposed Schemes (Section 1.6); and
- Assessment against other EU Directives (Section 1.7).

1.4 Baseline Scoping

1.4.1 Water Body Scoping

Table 1 lists the WFD water bodies within the study area (see Section 10.2 in Chapter 10 (Water) in Volume 2 of this EIAR for more detail on these WFD surface water bodies). These are scoped into the assessment because the proposed Scheme is within or adjacent to them. The RBMP Name Tolka_050, relates to 3 No. distinct watercourses within the study area, Bachelors stream Finglaswood Stream and River Tolka.

Table 1: Water Body Status (Data Explorer EPA Data Explorer and https://www.catchments.ie)

Water body ID	Name of Water Body in RBMP (Local Name provided in Brackets)	Hydromorphological designation	Current Status/Potential (2013-2018)	Objective Status/Potential
Groundwater				
IE_EA_G_008	Sub Catchment Tolka_SC_020	-	Good	Review
Surface water				
IE_EA_09T011100	Tolka_050 (River Tolka)	-	Poor	At Risk
IE_EA_09T011100	Tolka_050 (Finglaswood Stream)	-	Poor	At Risk
IE_EA_09T011100	Tolka_050 (Bachelors Stream)	-	Poor	At Risk
IE_09_AWB_RCMLE	Royal Canal Main Line (Liffey and Dublin Bay)	-	Good	WFD Risk - Review

1.4.2 Assessment Scoping

Protected Areas

The WFD requires that activities are also in compliance with other relevant legislation, as considered below. The following are looked at as part of the assessment (as mentioned above, in line with guidance a 2km buffer zone was applied in this assessment):

- Nature conservation designations;
- Bathing waters;
- Nutrient sensitive areas; and
- Shellfish waters.

Nature Conversation Designations

These are areas previously designated for the protection of habitats or species where maintaining or improving the status of water is important for their protection. They comprise the aquatic part of Natura 2000 sites – Special Protection Areas (SPAs) designated under the Birds Directive (79/409/EEC) and Special Areas of Conservation (SACs) designated under the Habitats Directive (92/43/EEC).

Ramsar sites are wetlands of international importance designated under the Ramsar Convention (adopted in 1971 and came into force in 1975), providing a framework for the conservation and wise use of wetlands and their resources.

There are no designated Nature Conversation Designations within 2km of the proposed Scheme.

Bathing Waters

Bathing waters are those designated under the Bathing Water Directive (76/160/EEC) or the later revised Bathing Water Directive (2006/7/EC). Bathing Water Quality Regulations were adopted in March 2008 (following a public consultation) transposing the EU Bathing Water Directive of 2006 into Irish law.

There are no designated bathing water sites within 2km of the proposed Scheme.

Nutrient Sensitive Areas

Nutrient sensitive areas comprise Nitrate Vulnerable Zones and polluted waters designated under the Nitrates Directive (91/676/EEC) and areas designated as sensitive areas under the Urban Wastewater Treatment Directive (UWWTD)(91/271/EEC). The UWWTD aims to protect the environment from the adverse effects of the collection, treatment and discharge of urban wastewater. Sensitive areas under the UWWTD are water bodies affected by eutrophication associated with elevated nitrate concentrations and act as an indication that action is required to prevent further pollution caused by nutrients.

The Tolka_060 is designated Nutrient Sensitive areas. The proposed Scheme is approximately 1.1km from the Tolka_060. There are no other nutrient sensitive sites within 2km of the proposed Scheme. Chapter 10 (Water) in Volume 2 of this EIAR concludes that there will be no significant impact on the Tolka_060 from the proposed Scheme. Specifically in relation to nutrient loading, there is no activity during construction or operation of the proposed Scheme which will result in the discharge of nutrients to any surface water system or water body. There will therefore be no impact on the nutrient status of the Nutrient Sensitive Areas.

Shellfish Waters

The Shellfish Waters Directive (2006/113/EC) aims to protect or improve shellfish waters in order to support shellfish life and growth. It is designed to protect the aquatic habitat of bivalve and gastropod molluscs, which include oysters, mussels, cockles, scallops and clams. The Directive requires Member States to designate waters that need protection in order to support shellfish life and growth. It is implemented in Ireland by the European Communities (Quality of Shellfish Waters) Regulations 2006 (SI No 268 of 2006). The Directive also provides for the establishment of pollution reduction programmes for the designated waters.

There are no designated shellfish waters within 2km of the proposed Scheme.

1.5 Waterbody Assessment Against Quality Elements

This section details a site-specific assessment of the proposed Scheme against quality elements for biology, physio-chemical and hydromorphological elements for the waterbodies.

1.5.1 Hydromorphology

This section provides a summary of the known existing hydromorphology risk issues for the waterbodies. Refer to Table 2.

Table 2: Hydromorphology Scoping Summary

WFD Assessment Questions	River Tolka	Royal Canal Main Line	Finglaswood Stream	Bachelors Stream
Consider if your activity could impact on the hydromorphology (for example morphology or water flow) of a water body at high status?	Not a high-status water body	Not a high-status water body	Not a high-status water body	Not a high-status water body
Consider if your activity could significantly impact the hydromorpholoy of any water body?	No	No	The proposed Scheme will have a minor impact on the hydromorphology of the Finglaswood Stream. The piped alignment of this piped stream will be	The proposed Scheme will have a minor impact on the hydromorphology of the Bachelors Stream. The piped alignment of this piped stream will be

WFD Assessment Questions	River Tolka	Royal Canal Main Line	Finglaswood Stream	Bachelors Stream
			slightly altered. In addition, the flow regime will also alter slightly	slightly altered. In addition, the flow regime will also alter slightly
Consider if your activity is in a water body that is heavily modified for the same use as your activity?	The River Tolka is heavily modified, but it is not considered that the proposed Scheme will impact on this	The Royal Canal is a manmade canal, but it is not considered that the proposed Scheme will impact on this	The Finglaswood Stream is heavily modified, but it is not considered that the proposed Scheme will impact on this	The Bachelors Stream is heavily modified, but it is not considered that the proposed Scheme will impact on this

All the subject waterbodies are heavily modified along their length. The Royal Canal is a manmade structure, Finglaswood Stream is piped along its length, and Bachelors Stream is piped in sections. With regard to the River Tolka, there are no instream works proposed as part of the proposed Scheme. There are works to the banks of the River Tolka but these are set back from the normal extents of the river. There is no predicted exposure route to groundwater. Surface water drainage flow and volume from the affected surface water networks will not significantly change as part of the proposed Scheme.

Habitats

Table 3 presents a summary of biology (habitat) considerations and associated risk issues for the works for the waterbodies.

Table 3: Biology Scoping Summary

WFD Assessment Questions	River Tolka	Finglaswood Stream	Royal Canal Main Line	Bachelors Stream
Is the footprint of the activity 0.5 Square Kilometres or larger.	Overall, the lands within the CPO/Project Boundary exceeds 0.5 Square Kilometres			
Is the footprint of the activity 1% or more of the water body's area.	The River Tolka is a linear water body, and the proposed Scheme is linear in nature which intersect the River Tolka at one specific point. The portion of the waterbody affected by the proposed activity (Project), is less than 1%	Yes, but the waterbody is piped along its length	The Royal Canal is a linear water body, and the proposed Scheme is linear in nature which intersect the Royal Canal at one specific point. The portion of the waterbody affected by the proposed activity (Project), is less than 1%	Yes, but the waterbody is piped for approximately 80% of its length

Risks to the receptor under WFD include loss of habitat, loss of protected species and prey species. The potential for these impacts is not considered to be significant. WFD Assessment primarily considers the operation of a scheme. However, for biological elements potential construction impacts are often considered as they have the potential for long-term change if a potential impact is considered to be significant. In this case it is not considered that Construction Impacts have the potential for long term change. Therefore, it is important to also note here that a Construction Environmental Management Plan (CEMP) and a Surface Water Management Plan (SWMP) will be implemented for construction management and sediment control measures respectively. Therefore, this element has been scoped out of further assessment.

Fish

Activities occurring within an estuary or inshore environment could impact on normal fish behaviour such as movement, migration or spawning. Table 4 presents a summary of biology (fish) considerations and associated risk issues for the works.

Table 4: Biology (Fish) Scoping Summary

WFD Assessment Questions	River Tolka	Finglaswood Stream	Royal Canal Main Line	Bachelors Stream
Consider if your activity is in an estuary and could affect fish in the estuary, outside the estuary, but could delay or prevent fish from entering it or could affect fish migrating through the estuary.	The subject watercourse is not in an estuary and will not affect the movement of fish migrating through the estuary.	The subject watercourse is not in an estuary and will not affect the movement of fish migrating through the estuary.	The subject watercourse is not in an estuary and will not affect the movement of fish migrating through the estuary.	The subject watercourse is not in an estuary and will not affect the movement of fish migrating through the estuary.
Consider if your activity could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)?	Overshadowing of the River Tolka beneath the bridge structure could have a light impact on fish behaviour, but it is not considered significant.	This is a piped watercourse, and it is considered it has limited fisheries potential.	Overshadowing of the river Royal Canal beneath the bridge structure could have a slight impact on fish behaviour, but it is not considered significant	This is a partially piped watercourse, and it is considered it has limited fisheries potential.
Consider if your activity could cause entrapment or impingement of fish?	No.	No.	Yes, but mitigations to prevent this have been incorporated into the scheme.	No.

The risks to the receptors are due to noise from construction and operation include the potential release of suspended sediment concentrations and contaminated surface water runoff. Chapter 15 (Noise & Vibration) and Chapter 10 (Water) in Volume 2 of this EIAR has determined that, with the incorporation of the various mitigation measures outlined in the named chapters, there are no significant residual impacts. As outlined above, a CEMP and a SWMP will be adhered to, to reduce any risk of suspended solid release. In the unlikely event of an accidental spillage, the emergency response plan will be activated, and onsite spill kits utilised. Furthermore, no instream works are proposed as part of this proposed Scheme. The proposed Scheme does not propose to increase the current flow or volume of surface water runoff.

1.5.2 Water Quality

Consideration should be made regarding whether phytoplankton status and harmful algae could be affected by the works, as well as identifying the potential risks of using, releasing or disturbing chemicals. Table 5 presents a summary of water quality considerations and associated risk issues of the works for the transitional water body.

Table 5: Water quality considerations and associated risk issues of the works for the transitional water body.

WFD Assessment Questions	River Tolka	Finglaswood Stream	Royal Canal Main Line	Bachelors Stream
Consider if your activity could affect clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (14 Days)	No. The activities have the potential to affect clarity, temperature, salinity, oxygen levels, nutrients or microbial, but Chapter 10 (Water) in Volume 2 of this EIAR concludes that following the implementation of design and mitigation measures there are no significant impacts during construction or operation			
Consider if your activity is in a water body with a phytoplankton status of moderate poor or bad.	No			
Consider if your activity is in a water body with a history of harmful algae?	No			
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if the chemicals are on the environmental Quality Standard Directive (EQSD) List.	Yes. During construction there is potential for accidental release of chemicals which are on the EQSD list (which will be within trace amounts from road runoff), however with the implementation of control and mitigation measures outlined in the SWMP there will be no significant impacts. This condition existed pre-development and is due to the existing roads within the region which are been realigned and altered as part of the Luas Project. Post development the release of pollutants from these roads will be reduced, due to the SuDS and attenuation measures which will be provided as part of the scheme. The proposed Luas scheme will also reduce the reliance on car and bus journeys in the region, resulting in a reduction in the pollutants			
If your activity has a mixing zone (like a discharge pipe or outfall) consider if the chemicals released are on the Environmental Quality Standards (EQSD)	The scheme will use the existing drainage networks so there are no new outfalls. There will be trace amounts of chemicals from the EQSD list within the discharge from these pipes			
Consider if ancillary sources of discharge to contribute to water quality status (e.g UWWTP Storm Water Overflow (SWO), Combined Sewer Overflow (CSO) etc.)	Yes. The study area is known to contain sources of known pressures including SWOs. However, the proposed Scheme does not include any new discharge points, and its impact on the flow will only be minimal			

All of the impacts (which are not significant) on the watercourses and streams are indirect, i.e. works are to be conducted on surface water networks which outfall to the streams and watercourses under consideration, and the abutments of the bridge structures will be set back from the top of the riverbanks. A CEMP and a SWMP will also be implemented to mitigate potential impacts in relation to surface water contamination. It is important to note that the proposed Scheme does not propose any changes to the current flow or volume of surface water runoff.

1.5.3 Protected Areas

Table 6 presents a summary of protected area considerations and associated risk issues of the works.

Table 6: Protected Areas

WFD Assessment Questions	Nature Conservation	Bathing Waters	Nutrient Sensitive Areas	Shellfish Waters
Consider if your activity is within 2km of any WFD protected area?	The Groundwater body is connected to an SAC and SPA. The Royal Canal passes through the scheme. This is an NHA	There are no designated bathing water sites within 2km of the proposed Scheme	The Tolka 060, is 1.1km downstream of the proposed Scheme and is Nutrient Sensitive	There are no designated shellfish waters within 2km of the proposed Scheme

It is not considered that the proposed Scheme will pose a risk to protected areas. Mitigations have been provided within Chapter 10 (Water), the SWMP and the CEMP. There are some minor impacts on groundwater, which will be reduced through mitigation. These are detailed in Chapter 10 (Water).

1.5.4 Invasive Species (IS)

Consideration should be made regarding whether there is a risk the activity could introduce or spread IS. Risks of introducing or spreading IS include materials or equipment that have come from, had use in or travelled through other water bodies, as well as activities that help spread existing IS, either within the immediate water body or other water bodies. Table 7 presents a summary of IS considerations and associated risk issues of the works. Only the watercourses which were directly impacted by the works were assessed; The River Tolka, The Finglaswood Stream, and the Royal Canal Main Line.

Table 7: INNS Considerations

Consideration	River Tolka	Bachelors stream (Stream Itself and adjacent to outfall to Tolka).	Finglaswood Stream	Royal Canal Main Line
Introduction or spread of INNS	Himalayan Balsam Impatiens glandulifera Japanese Knotweed Reynoutria japonica Giant Hogweed Heracleum mantegazzianum Butterfly-bush Buddleja davidii	Giant Hogweed Heracleum mantegazzianum Japanese Knotweed - Fallopia japonica Indian Balsam - Impatiens glandulifera	Absent	Canadian Waterweed Elodea canadensis Nuttall's Waterweed Elodea nuttallii Butterfly-bush Buddleja davidii

The ISMP that forms part of the CEMP will be implemented for the proposed Scheme which will contain site-specific recommendations and identifications for IS. Therefore, this element has been scoped out of the assessment.

1.5.5 Assessment Summary

The site-specific impacts of the proposed Scheme on the biological, physio-chemical and hydromorphological quality elements of the water bodies are shown in the assessment above and summarised in Table 8.

Table 8: Scoping Summary

Receptor	Potential Risk to Receptor?	Note the Risk Issue (s) for Impact Assessment
Hydromorphology	No	The bridge crossings will only have a significant impact on the hydromorphology during very rare exceedance events 1 in 1000 years.
Biology: habitats	No	There is a risk if the mitigations as described in the CEMP, the SWMP, and Chapter 10 (Water) are not adhered to.
Biology: fish	No	There is a risk if the mitigations as described in the CEMP, the SWMP, and Chapter 10 (Water) are not adhered to.
Water quality	No	There is a risk if the mitigations as described in the CEMP, the SWMP, and Chapter 10(Water) are not adhered to.
Protected areas	No	Provided the construction stage mitigations are carried out. It is considered that the proposed Scheme will not pose a risk to protected areas.
Invasive non-native species	No	Provided that the mitigations in the CEMP, the SWMP and the EIAR are followed it is not considered there is a risk.

1.6 Assessment of the proposed Scheme against WFD Programme of Measures (PoMs)

There is a list of measures, or environmental improvements, which have been identified by the RBMP (known as the Programme of Measures (PoMs) in the RBMP for Ireland), which need to be implemented in order to improve the ecology of water bodies by a specified date in order for Ireland to meet the target date set by the WFD. Part of the WFD assessment is to consider these PoMs and assess whether the proposed Scheme can contribute to them or might obstruct any of them from being delivered.

Table 9provides a list of all PoMs applicable to the water bodies, and an explanation of why the proposed Scheme might / might not be able to achieve or contribute to mitigation measures.

Table 9: Mitigation Measures and Assessment of Whether the proposed Scheme will help to Contribute to These (Management Plan) (RBMP and Sub Catchment Assessment)

Mitigation Measure / Action	Will the proposed Scheme help to achieve or contribute to mitigation measure?
427 Area for Restoration were chosen in the Third Cycle of the River Basin Management Plan. Part of the catchment of the Tolka in the vicinity of the scheme was chosen as a Local Authority Area for Restoration.	It is considered that the minor water improvement in water quality within the River Tolka due to the SuDS measures provided on the scheme, will in contribute to the mitigation measure in a minor way.

The nature of the works is unlikely to impede achievement of the PoMS proposed nor is it considered to impede any waterbody reaching GES or GEP.

1.6.1 Cumulative Assessment

The proposed Scheme has been assessed for the potential for cumulative impacts with other Proposed Developments within 500m of the study area (refer to Chapter 24 (Cumulative Impacts & Environmental Interactions) in Volume 2 of this EIAR). This concludes that in combination with other Proposed Developments the proposed Scheme will not compromise the achievement of the objectives of the WFD for any water body.

1.7 Assessment of the proposed Scheme Against WFD Objectives

Taking into consideration the anticipated impacts of the proposed Scheme on the biological, physio-chemical and hydromorphological quality elements, following the implementation of design and mitigation measures, it is concluded that it will not compromise progress towards achieving GES or cause a deterioration of the overall GEP of any of the water bodies that are in scope (Table 10).

Table 10: Compliance of the proposed Scheme with the Environmental Objectives of the WFD

Environmental Objective	Proposed Scheme	Compliance with the WFD Directive
No changes affecting high status sites	No waterbodies identified as a high status	Yes
No changes that will cause failure to meet surface water GES or GEP or result in a deterioration of surface water GED or GEP	After consideration as part of the detailed compliance assessment, the proposed Scheme will not cause deterioration in the status of the water bodies during construction following the implementation of mitigation measures; during operation, no significant impacts are predicted	Yes
No changes which will permanently prevent or compromise the Environmental Objectives being met in other water bodies	The proposed Scheme will not cause a permanent exclusion or compromise achieving the WFD objectives in any other bodies of water within the River Basin District	Yes
No changes that will cause failure to meet good groundwater status or result in a deterioration groundwater status.	The proposed Scheme will not cause deterioration in the status of the of the groundwater bodies	Yes

The WFD also requires consideration of how a new scheme might impact on other water bodies and other EU legislation. This is covered in Articles 4.8 and 4.9 of the WFD.

Article 4.8 states:

'a Member State shall ensure that the application does not permanently exclude or compromise the achievement of the objectives of this Directive in other bodies of water within the same river basin district and is consistent with the implementation of other Community environmental legislation'.

All water bodies within the study area have been assessed for direct impacts; indirect impacts on the River Tolka have also been assessed. The proposed Scheme will not compromise the achievement of the objectives of the WFD for any water body. This concludes that in combination with other Proposed Developments the proposed Scheme will not compromise the achievement of the objectives of the WFD for any water body. Therefore, the proposed Scheme complies with Article 4.8.

Article 4.9 of the WFD requires that *'Member States shall ensure that the application of the new provisions guarantees at least the same level of protection as the existing Community legislation'.*

The Habitats Directive (1992) promotes the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance. There are European designated sites in the vicinity of the proposed Scheme which have been assessed and are presented in the Natura Impact Statement (NIS).

The Nitrates Directive (1991) aims to protect water quality by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices. The Scheme will not influence or moderate agricultural land use or land management.

The revised Bathing Water Directive (rBWD) (2006/7/EC) was adopted in 2006, updating the microbiological and physio-chemical standards set by the original Bathing Water Directive (BWD) (76/160/EEC) and the process used to measure/monitor water quality at identified bathing waters. The rBWD focuses on fewer microbiological indicators, whilst setting higher standards, compared to those of the BWD. Bathing waters under the rBWD are classified as excellent, good, sufficient or poor according to the levels of certain types of bacteria (intestinal enterococci and Escherichia coli) in samples obtained during the bathing season (May to September). The proposed Scheme will not impact any designated bathing waters as there is none <2km from the proposed Scheme. It is therefore compliant with the Bathing Water Directive.

1.8 Conclusion

Considering all requirements for compliance with the WFD, the proposed Scheme will not cause a deterioration in status in any water body, not prevent it from achieving GES or GEP; there are no cumulative impacts with other Schemes; and it complies with other environmental legislation.

It can be concluded that the proposed Scheme complies with all requirements of the WFD.

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