



**ATTACHMENT B.5:**

**EIA SCREENING REPORT**

**DECEMBER 2023**

# Uisce Éireann Report

Environmental Impact Assessment Screening Report -  
Coachford Waste Water Discharge Licence Application  
December 2023



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# 1. Introduction

This Environmental Impact Assessment (EIA) Screening Report has been prepared by Nicholas O'Dwyer Ltd., on behalf of Uisce Éireann (UÉ) to determine whether or not the operational activities from the Coachford agglomeration should be subject to Environmental Impact Assessment (EIA) and if so, whether an Environmental Impact Assessment Report (EIAR) should be prepared in respect of it.

# 2. Background

Coachford is a village ca. 22km from Cork City and 12km from Macroom. It is located North of the River Lee on the R618. The agglomeration is spread over 8 no. townlands namely Glebe, Clontead More, Nadrid, Clontead Beg, Knockaneowen, Monareagh, Leemount and Coolacullig.

The wastewater collected from the agglomeration is mainly from domestic sources including educational and commercial sources. There are no IPC or waste licensed activities discharging to the agglomeration or to the Inniscarra Reservoir upstream or downstream of the agglomeration. There is 1 trade effluent activity discharging to the agglomeration sewers under Section 16 of the Local Government (Water Pollution) Acts 1977 and 1990, (WP(S)-11-03) which has a licenced p.e of 40.

Prior to the construction of the new WwTP the waste water from Coachford was collected in a partially separated foul sewage collection system. The works consisted of an overloaded septic tank which was built in the 1950s and located at 146003E, 073146N. The septic tank (design capacity 402 p.e.) was providing limited aeration and little to no treatment to the waste water from the Coachford agglomeration. The “*treated*” effluent was conveyed to the primary discharge point (NGR 145231E, 72297N) *via* a 300mm outfall pipe (ca. 1.1km) from the septic tank to the River Lee’s Inniscarra Reservoir, which is part of the Lee, Cork Harbour, and Youghal Bay Catchment Report (HA 19).

In January 2010, planning permission was applied for by Cork County Council under Part 8 of the Planning and Development Regulations for the construction of a 1,600 p.e. WwTP (30-year horizon) at Coachford, Co. Cork. The application was approved in May 2010 with conditions and the scheme progressed under this planning permission (Note: 10-year design horizon of plant is 1,400 p.e.).

The Coachford upgrade works, which were completed in Q4 2021, included the demolition and decommissioning of the existing septic tank, the construction of a new WwTP to provide secondary treatment with P removal, along with the construction of new concrete gravity sewers and a new outfall pipe. This was done in order to ensure compliance with condition 1.7 of the Waste Water discharge Licence (WWDL): D0427-01, issued by the EPA in accordance with the Waste Water Discharge (Authorisation) Regulations (S.I. No. 684 of 2007) (now S.I. No. 214 of 2020) issued on the 4<sup>th</sup> of December 2015.

The subject matter of this EIA screening relates purely to the operational discharges from the agglomeration and assessing the likelihood of significant effects on the environment arising from this activity.

### 3. Operational Discharges

#### New WwTP

The new WwTP is located on the site of the existing Cork County Council Roads Department storage yard at 146003E, 73146N. The WwTP has a 30-year design capacity of 1,600 p.e. and a 10-year design capacity of 1,400 p.e. The new WwTP provides secondary treatment with P removal. The WwTP design is based on Rotating Biological Contactor technology which will be able to treat the incoming influent to the standards as outlined in **Table 1** below.

**Table 1 – Proposed Effluent Standards**

Parameter	Proposed Effluent Standards
<b>COD</b>	125mg/l
<b>BOD</b>	25mg/l
<b>Total Suspended Solids</b>	25mg/l
<b>Total Ammonia (as N)</b>	6.5mg/l
<b>Total Phosphorous (as P)</b>	1.2mg/l
<b>pH</b>	6-9 (pH Units)

The proposed effluent standards will ensure that potential effects on the receiving water body are strictly limited and controlled and will ensure the compliance with standards and objectives established for associated protected areas in accordance with relevant legislation, including the Water Framework Directive.

#### Operational Discharges

##### Primary Discharge (SW001)

The treated effluent from the new WwTP is conveyed *via* a new *ca.* 1.1km gravity outfall pipe to a backdrop manhole at OF17A which diverts flows from the new outfall pipeline to an existing manhole on the existing outfall pipeline. This existing outfall pipeline then acts as the main outfall, with the effluent discharge point (SW001) at NGR 145231E, 72297N (as per D0427-01).

The primary discharge flows are monitored by a V notch hydrostatic flow meter at the new WwTP.

##### Dual Function Overflow from WwTP (SW006)

SW006 is a new Dual Function Overflow associated with the new inlet Pumping Station (*i.e.*, an overflow which can act as a Storm Water Overflow (SWO) or as an Emergency Overflow (EO) depending on the event). During a storm event where flows are greater than Formula A, water overflows from the inlet Pumping Station at the WwTP *via* a 6mm mechanical overflow screen and discharges to the Inniscarra Reservoir, *via* the primary discharge outfall pipe (see configuration of outfall pipe above), at NGR 145231E, 72297N.

In the event of an emergency (*i.e.*, power failure or pump failure), water will overflow from the inlet Pumping Station *via* the inlet SWO chamber and discharge to the Inniscarra reservoir *via* SW006.

##### Storm Water Overflows from WwTP (SW005 & SW007)

There is a high-level overflow located on the storm tank at the new WwTP. The storm water tank starts to fill when flows greater than 3DWF are pumped forward from the inlet Pumping Station. All influent pumped forward undergoes preliminary treatment *via* the Inlet Works. The storm water tank has a capacity of 120m<sup>3</sup> which provides for up to 2 hours retention time. In the event of a prolonged storm event, water will continue to fill the storm tank until the capacity of the tank is exceeded. Once the capacity is exceeded, water will overflow from the storm tank and discharge

to the Inniscarra Reservoir (SW007), via the primary discharge outfall pipe, at NGR 145231E, 72297N.

The new SWO, SW005, will only be triggered during a storm event when the hydraulic capacity of the existing component of the primary discharge outfall pipe is overloaded. The design capacity of the existing primary outfall is estimated to be 175 l/s. The primary discharge outfall pipe has capacity for the flows through the WwTP provided that SW006 has not been activated. If SW006 is activated *i.e.*, when flows are greater than Formula A, and if flows are greater than the design capacity of the existing outfall, then the excess flows will discharge via the new outfall headwall structure located at the edge of reservoir (SW005 - NGR 145257E, 72497N).

The 3 no. SWOs have been designed to meet the definition of 'Storm Water Overflow' as per Regulation 3 of the European Union (Waste Water Discharge) Regulations 2007 to 2020 and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

#### **4. Key Measures to Avoid/Prevent Significant Adverse Effects**

The Waste Water Treatment Works at Coachford has been designed and incorporates the following key measures to prevent unintended discharges to the Inniscarra Lake Reservoir:

- SWOs (SW005, SW006 and SW007) have been designed to meet the definition of 'Storm Water Overflow' as per Regulation 3 of the European Union (Waste Water Discharge) Regulations 2007 to 2020 and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.
- Provision of 120m<sup>3</sup> of storm storage provided at the WwTP.
- All alarms are linked to level measurement to alert to any spillage and are linked to SCADA with alarms sent to operators in the result of an emergency event.
- Uninterruptible Power Supply (UPS) backup for telemetry/plant controllers.
- An Emergency Response Plan and Procedures, Operation and Maintenance Procedures for all equipment will be in place and implemented by the appointed plant operator, as required.
- All operators will be fully familiar with all operational plans and procedures pertaining to the plant and network *etc.*
- At the Storm Water Tank, a standby pump will activate upon failure in order to pump Storm Water back to WwTP.
- Storm Water Overflows are screened to 6mm.
- Upon activation, overflow volumes are recorded via flow meters.
- Daily Flow Reports from the WwTP are received by the Control Room via SCADA.
- In the event of an emergency, a call out alarm system is in place in order to alert the contractor.
- FOG treatment is not included in the WwTP as fats, oils and greases were never an issue to the existing works. However, the design will give due consideration to a layout that will enable FOG equipment to be retro-fit at a later date if required.
- 30kVA mobile standby generator to be provided to WwTP, along with a connection point in the event of an interruption to the plants power supply.

Refer to **Section C.2** of the application form for further details on the prevention and monitoring measures at the WwTP, and on the network.

The Coachford WwTW has been designed to prevent unintended discharges from the works and to ensure that all emissions from the agglomeration comply with or will not result in the contravention, of any national or European legislation.

## 5. Compliance with EU & National Legislation

The effluent discharge standards proposed will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.

The Coachford WwTW will operate to ensure that the emissions from the agglomeration will comply with, and will not result in the contravention of, EU and National legislation. Please refer to **Attachment B.6 Compliance with EU Directives / National Regulations** of the WWDA application, for further confirmation of same.

## 6. Description of the Receiving Water Environment

The new Coachford WwTP discharges its treated effluent to the Inniscarra Lake Reservoir (IE\_SW\_19\_138). The Inniscarra Reservoir is within the Lee, Cork Harbour, and Youghal Bay Catchment (Hydrometric Area 19). This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153km<sup>2</sup>.

The draft 3<sup>rd</sup> cycle Catchment Report (2021) for this hydrometric area, determined that for river waterbodies excess nutrients remain the most prevalent issue, along with morphology, organic pollution, and hydrology. Pressures identified affecting the greatest number of waterbodies within Hydrometric Area 19 include hydromorphology, followed by agriculture, urban run-off, urban wastewater, domestic waste water, forestry, mines and quarries and industry. Coachford is not listed as an area for action under the 3<sup>rd</sup> cycle (or the 2<sup>nd</sup> cycle).

The WFD status of the Inniscarra Reservoir is Good. No significant pressures have been identified by the 3<sup>rd</sup> cycle Catchment Report (2021) for the Inniscarra Reservoir.

The Lee (Cork\_090) which is fed by the Inniscarra Reservoir ca. 11km downstream of the operational discharges has a Good WFD status.

At RS19L030600 (NGR 157242E, 71016N), ca. 14km downstream of the discharge location in the Lee (Cork\_090) waterbody the Q-value is 4 which corresponds to a 'Good' biological river water quality.

Downstream of the WwTP primary discharge location ca. 1.3km, ambient monitoring is tested at LS190022800800020 (NGR 146156E, 71656N).

Ambient monitoring is taken at LS190022800800020 at NGR 146156E, 71656N ca. 1.3km downstream of the primary discharge location. Based on recent water quality from January 2022 – October 2023 at this station, the mean concentration for Ammonia is within the required EQSs for Good status (mean and 95%ile). However, the Total Phosphorous mean concentration is not compliant with EQSs for Good status (mean).

Recent ambient monitoring data (January 2022 – October 2023) for LS190022800800020 Lake Station Code, at Inniscarra Lake Reservoir is shown in **Table 2**.

**Table 2: Ambient Monitoring – downstream monitoring results<sup>1</sup> (Data January 2022 – October 2023 <sup>2</sup>: Source: catchments.ie)**

Parameter	pH	BOD	Ortho-P	Ammonia (N)	DO	TSS	Temp	Total P
	pH unit	mg/l	mg/l	mg/l	% Sat	mg/l	°C	mg/l
Number of Samples	22	6	22	22	23	6	22	23
Max result	7.9	5.00	0.040	0.140	103.9	66.0	20.80	0.090
Min result	7.0	1.50	0.004	0.010	92.00	3.0	7.10	0.014
<b>Average result</b>	<b>7.53</b>	<b>2.27</b>	<b>0.010</b>	<b>0.047</b>	<b>99.03</b>	<b>20.17</b>	<b>13.43</b>	<b>0.029</b>
Mean EQS as per S.I. No. 77/2019 Good Status*	6-9			≤0.065				≤0.025
95%ile EQS as per S.I. No. 77/2019 Good Status*	6-9			≤0.140				-
Overall compliance with relevant Mean EQS <b>Good Status</b> *	Yes			Yes				No
Overall compliance with relevant 95%ile EQS <b>Good Status</b> *	Yes			Yes				-

<sup>1</sup>Where data was reported as less than the limit of detection, a value of 50% of the LOD was applied.

<sup>2</sup>Post commencement of operations of the new Coachford WwTP which was constructed as of Q4 2021.

Based on recent water quality data for the Inniscarra Reservoir at the downstream ambient monitoring point (ca. 1.3km downstream of primary discharge point), LS190022800800020 from January 2022 – October 2023, the mean concentration for Ammonia is within the required EQSs for Good status (mean and 95%ile). The Total Phosphorous mean concentration is not compliant with the Good status EQS (mean).

The Inniscarra Reservoir intersects the Lee River which is a WFD Designated Salmonid Waters under S.I. No. 293/1988. A proposed effluent design standard of 25 mg/l for Total Suspended Solids and Ammonia of 6.5mg/l have therefore been set in keeping with the protection required under the WFD for salmonid waters.

The River Lee, which drains Inniscarra Reservoir, is *Margaritifera margaritifera* pearl mussel site. The National Parks and Wildlife Service (NPWS) were consulted with in relation to the status of the Freshwater Pearl Mussel (*Margaritifera margaritifera*) during the EPA's determination of the WWDL in 2015. It was concluded that "Good" WFD status is required to protect the Pearl Mussel. The new WwTP will satisfy all relevant regulatory requirements and the WwTP will be operated in line with the current EPA WWDL conditions. By applying the current EPA conditioned ELVs (i.e., the proposed effluent standards for this licence review), no significant impact on water quality in Inniscarra Reservoir as a result of the discharge from Coachford WwTP is anticipated (see



**Attachment D.2.3:** Dispersion Modeling Report, December 2023). Adhering to these limits will contribute towards the receiving water maintaining its current “Good” WFD status. This will ensure the protection of any downstream Freshwater Pearl Mussel populations.

There are no designated shellfish waters or bathing waters located in the downstream vicinity of the operational discharges.

There are two drinking water abstraction points downstream of the operational discharges. These include 04000PUB1001 for the Lee Road Water Treatment Plant and 0500PUB3401 for the Inniscarra Water Treatment Plant. The 0400PUB1001 abstraction point is ca. 9.3km downstream of the primary discharge location and 0500PUB3401 is located ca. 9.7km downstream. Based on the Drinking Water Risk Assessment completed to inform this licence review (see Attachment D.2.5), the overall risk from the Coachford agglomeration operational discharges can be classified as ‘low risk’. Drinking water quality is unlikely to be impacted during normal and abnormal operational conditions. This has been based on the high level of dilution in the receiving waterbody, the level of treatment at the new WwTP, the unintended discharges prevention measures at the WwTP, the design and operation of the overflows, and the distance to the downstream abstraction points.

The nearest pNHA/NHA hydrologically connected to the operational discharges is the Lee Valley pNHA (Site Code: 000094), located ca. 11.8km downstream of the agglomeration. However as noted above, it is considered that the operation of the WwTP and the operational discharges will not have a detrimental impact on the water quality of the Inniscarra/Lee Reservoir or downstream Lee Valley.

There are no European sites immediately downstream of the operational discharges. The Cork Harbour SPA is ca. 30.2km downstream of the discharge location *via* the River Lee. The Great Island Channel SAC is ca. 34.8km downstream *via* the River Lee.

The Gearagh SPA (Site Code: 004109) and The Gearagh SAC (Site Code:000108) are the closest European sites to the Coachford agglomerations operational discharge location. These sites are located ca. 16.9km and 15.6km upstream of the agglomeration, respectively (*via* the River Lee (incl. Inniscarra and Carrigadrohid Reservoirs)).

An Appropriate Assessment (AA) Screening of the operational discharges assessed whether the discharge activity, alone or in combination with other plans and projects, are likely to have significant effects on European Sites in view of best scientific knowledge and the conservation objectives of the sites. On the basis of the information set out in the AA Screening, and documentation referenced therein, the likelihood of significant effects to the Cork Harbour SPA, Great Island Channel SAC, The Gearagh SAC and The Gearagh SPA, and any other European Sites, can be excluded, and a Stage Two Appropriate Assessment is not required. Refer to **Attachment D.2.2** for a copy of the AA Screening Report for further details on the receiving environment.

## **7. Water Quality Dispersion Modelling**

A Water Quality Dispersion Modelling Report, which has been prepared by Dr. Zeinab Bedri (TU Dublin) on behalf of UÉ, presents the findings of a desktop modelling study conducted to determine the distance (m) downstream of the effluent discharge from the new Coachford WwTP where the relevant EQSs for Ammonia (as N) and Total Phosphorus (as P), as set out in the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 288 of 2022), will be met in Inniscarra Reservoir, using the proposed effluent standards and the WwTP 10-year design horizon p.e. of 1,400.

The model predictions indicate that the mean EQS for TP (Good Status) will be met under the proposed effluent standard/ELV of 1.2 mg/l for TP at a distance of 21m downstream of the discharge location. The predictions also indicate that the mean and 95<sup>th</sup> percentile EQS for Ammonia (Good Status) will be met under the proposed effluent standard/ELV for Ammonia of 6.5 mg/l at a distance of 45m and 247m respectively (under the scenario in which a notionally clean background concentration was adopted), and 303m and 477m (under the scenario in which an average background concentration was used). All predicted distances are well below the defined mixing zone of 662m, indicating that the Water Framework Directive Objectives will be met under the proposed effluent standards/ELVs for TP and Ammonia.

The results also indicate that the plume footprint was less than 1% in most simulations. Also, the maximum predicted plume width was 35.4 m (approximately 13 % of the lake width in the vicinity of the discharge outfall).

The results also highlight the effect of the background concentrations on the assimilation of the effluent where a higher background concentration limits the dilution/assimilative capacity of the receiving water body.

In summary, the desktop dispersion model based on the proposed primary discharge effluent standards/ELVs at 1,400 p.e (10-year design horizon), using an average daily effluent discharge of 393.75 m<sup>3</sup>/d (1.25\*DWF), shows that the receiving waterbody, Inniscarra Reservoir, has the capacity to accommodate the discharge from the new WwTP without causing a breach in the relevant standards as outlined in National and European legislation. This includes ensuring compliance with the relevant standards set for the waterbody as a whole as set out in the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended.

Refer to **Attachment D.2.3** for a copy of the Dispersion Modelling Report (December 2023).

## 8. EIA Screening Criteria Assessment

This section of the EIA Screening Report considers the development (*i.e.*, operational discharged from the new Coachford WwTW) against the Schedule 7 criteria. Schedule 7 specifies ‘*Criteria for determining whether a development would or would not be likely to have significant effects on the environment*’ under these three headings.

1. Characteristics of development
2. Location of development
3. Characteristics of potential impacts

Schedule 7A of the Planning and Development Regulations sets out ‘*Information to be provided by the Applicant or Developer for the Purposes of Screening Sub-threshold Development for Environmental Impact Assessment*’. This information includes:

1. A description of the development
2. A description of the aspects of the environment likely to be significantly affected by the development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the development on the environment
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7

This Screening Report includes the relevant Schedule 7A information. This is contained in **Sections 2 to 7** above, and in the Schedule 7 criteria commentary provided in the tables below.

8.1 Characteristic of the Development	
a. The size and design of the whole of the development	<p>The 10-year design of the new WwTP is for 1,400 p.e which is significantly below the 10,000 p.e mandatory threshold for EIA.</p> <p>The proposed primary discharge operational standards will ensure that the discharge from the WwTP poses no environmental adverse risk to the receiving water environment (Refer <b>Appendix D.2.1 Impact Assessment Report</b> of the WWDA application).</p> <p>The SWOs will operate in compliance with the definition of ‘<i>Storm Water Overflow</i>’ as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG ‘<i>Procedures and Criteria in Relation to Storm Water Overflows</i>’, 1995.</p> <p>The EO (SW006) will only operate in an emergency event (<i>e.g.</i>, power outage). The likelihood of an emergency event is low, and there is provision for the connection of a mobile power generator facility in the event of a power failure.</p> <p>Refer to <b>Sections 2 and 3</b> of the EIA Screening Report for further details.</p>

8.1 Characteristic of the Development	
b. cumulation with other existing and/or approved projects	<p>The wastewater collected from the agglomeration is mainly from domestic sources, including educational and commercial sources. There are no IPC or waste licensed activities discharging to the agglomeration or to the Inniscarra Reservoir upstream or downstream of the agglomeration. There is 1 trade effluent activity discharging to the agglomeration sewers under Section 16 of the Local Government (Water Pollution) Acts 1977 and 1990, (WP(S)-11-03) (40 p.e.).</p> <p>In relation to other existing waste water discharges in the vicinity, the Dripsey WwTP is located ca. 4km (direct distance) from the Coachford WwTP. The Dripsey WwTW upgrade project, which was completed in November 2021 and was fully commissioned in Q1 2022, involved the design and construction of a new WwTP and outfall pipeline to serve the agglomeration of Dripsey (Model Village) and remedial network upgrade works to ensure compliance with the WWDL D0426-01 issued by the EPA on the 30<sup>th</sup> July 2012. The Dripsey agglomeration discharges discharge into the Dripsey_020 river which feeds into the Inniscarra Reservoir, over 7km downstream of the Coachford operational discharges. The current organic collated load is p.e of 431 (AER, 2022), and the plant was compliant with its WWDL ELVs in 2022. The Dripsey WWDL is currently under review by the EPA.</p> <p>Cork County Council planning portal was reviewed to identify any planning applications in Coachford which have been submitted and/or granted within the last 5 years of preparing this report. The majority of the applications are domestic in nature. This review did not identify any other projects, either existing or approved, which have the potential to interact with the Coachford agglomerations operational discharges, and result in significant cumulative impacts.</p>
c. the use of natural resources, in particular land, soil, water and biodiversity;	<p>The new Coachford WwTP incorporate key measures to avoid and prevent significant effects on the receiving water, the Inniscarra Lake Reservoir (refer to <b>Section 4</b> of this report)</p> <p>The proposed effluent discharge standards and the operational design of the overflows will ensure that there is no environmental risk posed to the receiving water environment or its associated biodiversity as a result of the discharges from the agglomeration.</p> <p>As such, the use of these resources is not considered significant.</p>
d. the production of waste;	Not applicable for operational discharges.
e. pollution and nuisances;	The new WwTP is expected to have a positive impact in terms of the reduction in the levels of nutrients being discharged into the Inniscarra Reservoir.

8.1 Characteristic of the Development	
	<p>The proposed effluent discharge standards and the design of the overflows have been set to ensure that the operational discharges from the agglomeration pose no environmental risk to the receiving environment.</p> <p>An assessment of the potential for impacts on receiving waters from priority substances in the primary discharge has been carried out to inform this WWDA application. It concluded that none of the substances listed in the Specific Pollutants, Priority and Priority Hazardous Substances as outlined in the Surface Water Regulations, are likely to be present in the effluent discharge to the Inniscarra Lake Reservoir, at concentrations above the specified standards as per European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (now S.I No. 77 of 2019).</p> <p>There are no other nuisances that would cause unusual, significant, or adverse effects of a type that would, in themselves require an EIA.</p>
f. the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;	<p>The Waste Water Treatment Works incorporates a number of key measures to prevent unintended discharges to the Inniscarra Reservoir. Refer to <b>Attachment C.2</b> of the WWDA application and <b>Section 4</b> of this EIA Screening Report for further details.</p> <p>It is considered that there is minimal potential for major accidents, and/or disasters which are relevant to operational discharges on the basis of best scientific knowledge.</p>
g. the risks to human health (for example due to water contamination or air pollution).	<p>There are two drinking water abstraction points downstream of the operational discharges. These include 04000PUB1001 for the Lee Road Water Treatment Plant and 0500PUB3401 for the Inniscarra Water Treatment Plant. The 0400PUB1001 abstraction point is <i>ca.</i> 9.3km downstream of the primary discharge location and 0500PUB3401 is located <i>ca.</i> 9.7km downstream. Based on the Drinking Water Risk Assessment completed to inform this licence review (see <b>Attachment D.2.5</b>), the overall risk from the Coachford agglomeration operational discharges can be classified as '<i>Low Risk</i>'.</p> <p>There are no risks to human health from the operational discharges that would cause unusual, significant, or adverse effects of a type that would, in themselves require an EIA.</p>

## 8.2 Location of Development

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:

<p>(a) the existing and approved land use;</p>	<p>Not applicable.</p>
<p>(b) the relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, land, water, and biodiversity) in the area and its underground;</p>	<p>The new Coachford WwTP discharges into the Inniscarra Reservoir (IE_SW_19_138) at 145231E, 72297N. The Inniscarra Reservoir is within the Lee, Cork Harbour, and Youghal Bay Catchment (Hydrometric Area 19). This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153 km<sup>2</sup>.</p> <p>The draft 3<sup>rd</sup> cycle Catchment Report (2021) for this hydrometric area, determined that for river waterbodies excess nutrients remain the most prevalent issue, along with morphology, organic pollution, and hydrology. Pressures identified affecting the greatest number of waterbodies within Hydrometric Area 19 include hydromorphology, followed by agriculture, urban run-off, urban wastewater, domestic waste water, forestry, mines and quarries and industry. Coachford WwTP has not been listed as a significant pressure in At Risk waterbodies in the 2<sup>nd</sup> or draft 3<sup>rd</sup> cycle catchment assessment. The Inniscarra Reservoir is not listed as an area for action under the 3<sup>rd</sup> cycle.</p> <p>The WFD status of the Inniscarra Reservoir is Good. There are no identified significant pressures for the Inniscarra Reservoir.</p> <p>The Lee (Cork_090), which is fed by the Inniscarra Reservoir, ca. 11km downstream of the operational discharges has a Good WFD status.</p> <p>At RS19L030600 (NGR 154482E, 072149N), ca. 14km downstream of the discharge location in the Lee (Cork_090) waterbody the Q-value is 4 which corresponds to a 'Good' biological river water quality.</p> <p>The upgrade WwTP is expected to have a positive impact in terms of reduction in the levels of nutrients and pathogens being discharged into Inniscarra Reservoir</p> <p>It is considered therefore that operational discharges are not likely to have a significant effect on the abundance, quality, or regenerative capacity of the Inniscarra Reservoir.</p>
<p>(c) the absorption capacity of the natural environment,</p>	<p>(i) wetlands, riparian areas, river mouths;</p>

## 8.2 Location of Development

paying particular attention to the following areas:

The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges.

(ii) coastal zones and the marine environment

The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges.

(iii) mountain and forest areas

The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges.

(iv) nature reserves and parks

The Farran Forest Park lies on the southern shore of the Inniscarra Reservoir. The primary discharge point is ca.4km upstream of the Forest Park. The operational discharges however have no potential to impact on these features of the natural environment due to the location of the discharges.

(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;

There are no designated shellfish waters or bathing water located in the downstream vicinity of the operational discharges.

There are no European sites immediately downstream of the operational discharges. The Cork Harbour SPA is ca. 30.2km downstream of the discharge location *via* the River Lee. The Great Island Channel SAC is ca. 34.8km downstream *via* the River Lee. The Gearagh SPA (Site Code: 004109) and The Gearagh SAC (Site Code:000108) are the closest European sites to the Coachford agglomerations operational discharge location. These sites are located ca. 16.9km and 15.6km upstream of the agglomeration, respectively (*via* the River Lee (incl. Inniscarra and Carrigadrohid Reservoirs)).

Based on the effluent standards proposed and the design and operation of the 3 no. Storm Water Overflows, it is considered that there will be no detrimental on the water quality of the Inniscarra Reservoir or the downstream River Lee, and any associated water dependent areas classified or protected under national legislation (Refer to **Attachment D.2.2:** AA Screening Report, December 2023 and **Attachment D.2.3:** Dispersion Modeling Report, December 2023 for supporting details).

(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure

8.2 Location of Development	
	<p>There are no areas which the environmental quality standards of the EU have already been exceeded.</p> <p>(vii) densely populated areas Not applicable.</p> <p>(viii) landscapes and sites of historical, cultural, or archaeological significance Not applicable.</p>

8.3 Type and characteristics of the potential impact	
<p>The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in Article 3(1), taking into account:</p>	
(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);	Inniscarra Reservoir (to which the Coachford agglomeration operational discharges SW001, SW005, SW006, and SW007 discharge) and downstream Lee (Cork)_090.
(b) the nature of the impact;	Based on the proposed effluent standards, along with design of the overflows and the measures in place to prevent unintended discharges, it is considered that the Coachford agglomeration operational discharges will have no real likelihood of significant effects on the environment, alone or in combination with other plans and projects.
(c) the transboundary nature of the impact;	The operational discharges will not result in transboundary impacts.
(d) the intensity and complexity of the impact;	The intensity and complexity of impacts associated with the operational discharges are not considered significant within the meaning of the EIA Directive.
(e) the probability of the impact;	The proposed effluent discharge standards and the operational design of the overflows from the WwTP will ensure that there are no significant environmental impacts to the receiving water environment from the Coachford operational discharges.



8.3 Type and characteristics of the potential impact	
(f) the expected onset, duration, frequency, and reversibility of the impact	It is considered that the proposed effluent standards for the primary discharge, and the design and operation of the overflows will ensure that no indirect impacts, <i>via</i> water quality impacts, on the environmental sensitivities are anticipated from the Coachford agglomeration operational discharges.
(g) the cumulation of the impact with the impact of other existing and/or approved projects	As noted above there are no other projects, either existing or approved, which have the potential to interact with the Coachford agglomeration operational discharges, and result in significant cumulative impacts.  Based on the above, there is no potential for significant in-combination impacts, within the meaning of the EIA Directive.
(h) the possibility of effectively reducing the impact	The new WwTW has been designed and incorporates a number of key measures to avoid and prevent unintended discharges and adverse effects on the receiving aquatic environment. Refer to <b>Section 4</b> of this Report.

Based on the review against the Schedule 7 criteria as detailed above, the environmental impacts associated with the operational discharges are not likely to be significant within the meaning of the Directive.

## 9. EIA Screening Conclusion

Based on the information as contained in this EIA Screening Report, there is no significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the development (*i.e.*, the operational discharges from the 1,400 p.e. Coachford WwTP in so far as they relate to the risk of environmental pollution of the receiving waters, Inniscarra Reservoir) and it is considered that an EIA is not required by virtue of its nature, size and location. The main reasons and considerations on which this conclusion is based are as follows:

1. The loads generated in agglomeration is well below the mandatory 10,000p.e.
2. The source of the waste water in the agglomeration is largely domestic in nature which is readily biodegradable.
3. There are no significant IPC or waste licensed activities discharging to the agglomeration or to Inniscarra Reservoir.
4. The proposed effluent discharge standards will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.
5. The Waste Water Treatment Works has been designed and incorporates a number of measures to avoid /prevent significant adverse effects on the receiving aquatic environment.
6. The Coachford WwTP has been designed to ensure that emissions from the plant will not result in the contravention of EU Directives and National Regulations.
7. Cumulative effects with other existing and planned discharges are not likely to give rise to significant effects, within the meaning of the EIA Directive
8. The design of the Storm Water Overflows (SW005, SW006, SW007) at the WwTP are in compliance with the definition of '*Storm Water Overflow*' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows*', 1995.
9. The WFD status of the Inniscarra Reservoir is Good.
10. There are no identified significant pressures for the Inniscarra Reservoir.

It is therefore concluded that there is no requirement for the EPA to conduct an EIA in respect of this application, and there is no requirement on Uisce Éireann to either prepare or submit an EIA Report.