ATTACHMENT A.1.1 NON-TECHNICAL SUMMARY

1. Introduction

The twin-towns of Ballybofey and Stranorlar are located on the West and East banks of the River Finn respectively, in Co Donegal. They are situated on the N15 National Primary route, approximately 30 km to the North East of Donegal town in the centre of the county. The agglomeration is spread over 15 townlands namely, Glebe, Cappry, Ironworks, Stranorlar, Ballybofey, Admiran, Drumboe Lower, Drumboe Upper, Magherapaste, Tircallan, Greenhill, Navenny, Dunwiley, Mullandrait and Dreenan.

Ballybofey and Stranorlar are served by separate gravity foul/combined sewer systems which join upstream of the Ballybofey-Stranorlar WwTP.

There are no active IPC or waste licensed activities discharging to the agglomeration or to the River Finn upstream or downstream of the agglomeration. There are 9 no. licensed Trade Effluent activities (namely 1 no. industrial, 2 no. commercial and 6 no. relating to food service establishments) discharging to the agglomeration sewers under Section 16 of the Local Government (Water Pollution) Acts 1977.

At the time of the EPA's determination and granting of D0120-01, the WwTP serving both Ballybofey and Stranorlar, located at NGR 214646E, 394775N, had a capacity of 4,000 p.e. Treated effluent from the WwTP discharged to the River Finn at NGR 214908E 394443N *ca*. 440 metres South East of the treatment plant. The WwTP was organically overloaded at the time and therefore upgrades to the WwTP were needed to increase the capacity of the plant to cater for current and future design loadings.

An upgrade of the WwTP to 9,200 p.e commenced in March 2018 and the plant was commissioned and fully operational in January 2020. The plant provides secondary treatment with phosphorous removal to the standards required by the Urban Wastewater Treatment (UWWT) Regulation (S.I. No. 254 of 2001).

The objectives of the WwTP upgrade works were to increase the treatment capacity of the plant to meet the current needs of the towns and to allow for future growth (9,200 p.e. 10 year horizon, secondary treatment) and to ensure that wastewater from the agglomeration is treated and discharged in compliance with the Urban Wastewater Treatment Regulations 2001, and the conditions as set out in the WWDL D0120-01 issued by the EPA in December 2010, thereby improving the water quality of the River Finn, and the aquatic environment.

There are 3 other Projects which are currently being progressed by Irish Water, as follows:

- St. Joseph's Pumping Station Outfall and Rising Main Project
- Navenny Pumping Station, Rising Main and Chestnut Road Sewer Upgrades Project
- Meetinghouse Lane to Ballybofey Bridge Sewer Upgrade Project.

These Projects are due to commence construction in Q1 2023, with an estimated 18-month construction programme anticipated.

Completion of all these Projects will (i) ensure that there is sufficient capacity at the Ballybofey-Stranorlar WwTP, (ii) ensure the works meet the requirements of WWDL D0120-01, (iii) help effectively manage the service capacity of the network, (iv) will future proof Ballybofey-Stranorlar and the surrounds for wastewater services and (v) will ensure that the Ballybofey-Stranorlar WwTW operates in a manner that supports the achievement

ATTACHMENT A.1.1:

NON-TECHNICAL SUMMARY

of the receiving waterbodies (River Finn) objectives under the Water Framework Directive, and that Irish Water's obligations under the Birds and Habitats Directives, and all applicable Directives and National Regulations, are met.

Ultimately, the completion of the Ballybofey-Stranorlar WwTP and Networks Projects will ensure that the environmental requirements of the WWDA Regulations can be met.

Refer to **Attachment A.1.2** for the area of interest and **Attachment B.2.1** for a map of the Ballybofey-Stranorlar agglomeration.

2. Description of the waste water discharges from the waste water works serving the agglomeration

Discharge Scenario as per D0120-01

Primary Discharge (SW001):

Treated Effluent from the WwTP is discharged *via* a 900mm diameter outfall at NGR 214908E, 394443N into the receiving waters, the River Finn (Finn (Donegal)_060).

Secondary Discharges:

There are no secondary discharge points associated with the current waste water works.

Overflows:

There are 5 no. licensed Storm Water Overflows (SWOs) in the agglomeration which when activated discharge into the River Finn and its tributaries. The licensed SWOs are located at the Fire Station (SW002), Villa Rose (SW003), Woodlawn (SW004), Chapel Close (SW005) and the WwTP Storm Tank Overflow (SW006). Currently SW002 and SW005 do not meet 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. However, it should be noted that both of these SWOs will be decommissioned.

Overflow	Asset	Coords as per D0120-01	Receiving Waterbody
SW002[a,b]	Located at Fire Station, main St, Stranorlar	214462E 394837N	Finn (Donegal)_060
SW003[c]	Located at Villa Rose, Back Lane Ballybofey	214069N 394831N	Finn (Donegal)_060
SW004	Located at Fern View, Woodlawn, Stranorlar	215178E, 394996N	Finn (Donegal)_070
SW005[a,d]	Located at Chapel Close	214749E 395330N	Finn (Donegal)_060
SW006[e]	WwTP Storm Tank Overflow	214596E, 394771N	Finn (Donegal)_060

** To be decommissioned*

[b] Correct co-ords - 214476E 394832N; [c] Correct co-ords - 214061E 394837N

[d] Correct co-ords - 214766E 395301N; [e] Correct co-ords - 214908E 394443N

There are currently 4 no. unlicensed overflows within the agglomeration, as tabled below

Asset	Discharge Location Coords	Receiving Waterbody
WwTP PS	214908E 394443N	Finn (Donegal)_060
Glenfinn PS	TBC*	Finn (Donegal)_060
Drumboe Ave. PS	214470E 395059N	Finn (Donegal)_060
Navenny PS	214382E 394251N	Daurnett Burn (part of the Finn (Donegal)_060

**Coordinates for the Glenfinn PS discharge location will be forwarded to the Agency as the exact discharge location is currently being investigated.*

Discharges as per Subject Matter of Licence Review

Primary Discharge (SW001):

Treated Effluent is discharged *via* the existing outfall pipe NGR 214908E, 394443N into the receiving waters, the River Finn (Finn (Donegal)_060).

Secondary Discharge:

There are no secondary discharge points associated with the waste water works.

Overflows:

There will be 9 no. overflows within the agglomeration.

5 no. overflows will act as Dual Function Overflows and 4 no. overflows will act as Storm Water Overflows.

All SWOs have been design and will operate to meet 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.

Overflow	Asset	Type	Coords as per D0120-01	Receiving Waterbody
SW003*	Located at Villa Rose, Back Lane Ballybofey	SWO	214061E 394837N	Finn (Donegal)_060
SW004*	Fern View / Woodlawn SWO	SWO	215178E 394996N	Finn (Donegal)_070
SW006*	WwTP Storm Tank Overflow	SWO	214908E 394443N	Finn (Donegal)_060
SW007	WwTP Storm Pumps u/s of inlet works	SWO/EO	214908E 394443N	Finn (Donegal)_060
SW008	Main Street SWO	SWO	214474E 394835N	Finn (Donegal)_060
SW009	St Josephs PS	SWO/EO	215592E 394631N	Finn (Donegal)_070
SW010	Navenny PS	SWO/EO	214382E 394251N	Finn (Donegal)_060
SW011	Glenfinn PS	SWO/EO	TBC**	Finn (Donegal)_060

Overflow	Asset	Type	Coords as per D0120-01	Receiving Waterbody
SW012	Drumboe Ave. PS	SWO/EO	214470E 395059N	Finn (Donegal)_060

** Existing overflows as per D0120-01. Note that the above coordinates are as surveyed under the IW's SWO Assessment Programme and coordinates have been updated, as required (due to increased accuracy, therefore deemed not required to change Codes).*
***Coordinates for Glenfinn PS discharge location will be forwarded to the agency as the exact discharge location is currently being investigated.*

Refer to **Attachment B.2.2: Map 4** and **Map 5** for the location of the proposed discharges.

3. Description of the wastewater works and associated waste water treatment plant

Works as per D0120-01

As noted above, at the time of the EPA's determination and granting of D0120-01, the Ballybofey-Stranorlar WwTP was organically overloaded and an upgrade to the WwTP was needed to increase the capacity of the plant to cater for current and future design loadings.

The objectives of the upgrade works at the WwTP which were completed in January 2020 were to increase the treatment capacity of the plant to 9,200 p.e. (10-year horizon - secondary treatment) and to ensure compliance with the Urban Wastewater Treatment Regulations 2001 and the conditions as set out in the WWDL D0120-01.

The current p.e. based on 2021 collected loads is 6,167 p.e (2021 AER).

Treated effluent from the WwTP discharges directly to the Finn River at NGR 214908E 394443N which is part of the Foyle Catchment (Hydrometric Area 01).

There are 4 no. network Pumping Stations within the agglomeration serving low lying areas, namely Navenny Pumping Station (PS) (NGR 214389E 394239N), Glenfinn PS (NGR 212892E 394940N), St. Joseph's PS (NGR 215388E 394982N) and Drumboe Avenue PS (NGR 214467E 395063N), and 1 no. Pumping Station at the WwTP (NGR 214578E 394713N).

Details of all overflows licensed under D0120-01 are provided in **Section 2** above.

Works as per Subject Matter of Licence Review

The waste water works under this WWDL review consists of a WwTP (design capacity 9,200 p.e.) at Stranorlar Townland (NGR 214646E, 394775E); a Primary Discharge (SW001) which discharges to the River Finn (same location as D0120-01); 5 no. overflows which will act as Dual Function Overflows (*i.e.*, an overflow which can act as a Storm Water Overflow (SWO) or as an Emergency Overflow (EO) depending on the event); and 4 no. overflows which will act as SWOs.

WwTP

The WwTP with a design capacity of 9,200 p.e, provides secondary treatment with P removal to the waste water generated within the Ballybofey-Stranorlar Agglomeration.

The upgrade works to the WwTP completed in January 2020 consisted of the following:

- New Coarse Screens
- New Storm Overflow Screen
- Wet Well – New Foul Pumps and Mixer

- Upgrade foul pumps and controls
- Replace storm pumps and install new flow meter
- New additional storm tank
- Upgrade existing Return Pumping Station
- New grease separator upstream of inlet works
- Upgrades to inlet works
- New flow division chamber
- New Contact Tank to serve new Sequencing Batch Reactors
- Upgrades to biological treatment units
- New Picket Fence Thickener
- New flow measurement from storm tank
- Upgrades to SCADA system

The design of the WwTP is for Formula A to the inlet works. Flows in excess of 3 x Dry Weather Flow (DWF) will flow to the new storm water tank until the capacity of this tank (495m^3) is exceeded. Flow to the existing storm tank will occur when capacity of the new tank is exceeded (446m^3). In total there is a combined storm water storage of 941m^3. Once the capacity of both storm water tanks is exceeded, water will overflow simultaneously from the high-level overflows situated on both tanks. The overflows from the new and existing tanks merge and are monitored by a flow meter before being discharged to the Finn (Donegal)_060 *via* SW006 (NGR 214908E 394443N).

SW007 (NGR 214908E 394443N) is a Dual Function Overflow from the WwTP inlet Pumping Station. The Inlet Pumping Station foul pumps are designed to pump Formula A flows (169 l/s) to the inlet works. Flows in excess of Formula A will be pumped to a manhole that intercepts flows coming from both the inlet Pumping Station and the storm tank overflow pipe and will be discharged to the Finn (Donegal)_060 *via* SW007.

All flows are monitored continuously and recorded at the electromagnetic flowmeters at the WwTP.

The performance standards for final effluent (as per D0120-01) have been set to ensure compliance with the Urban Waste Water Treatment Directive and associated Treatment Standards and to ensure there is no significant adverse effect on the receiving aquatic environment, the River Finn. Refer to **Table A.1.1** below:

Table A.1.1 Proposed Operational Standards/ELVs

Parameter	Treated Effluent Standard
pH	6-9
BOD	25 mg/l
COD	125 mg/l
Suspended Solids	35 mg/l
Total Ammonia (N)	2.0 mg/l
Orthophosphate (P)	1.0 mg/l

These standards as set by the EPA in 2010, and which were subsequently re-assessed in 2022 by Irish Water to ensure they were suitable for an increased load (*i.e.*, 9,200 p.e. WwTP), give effect to the principle of the Combined Approach as defined in Waste Water

Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations, and the status and objectives of the receiving waterbody of the primary discharge, the Finn River (refer to **Attachment D.2.3**: Waste Assimilative Capacity (WAC).

The design of the upgraded WwTP is greater than 2,000 p.e. and therefore in line Article 4 of the Urban Waste Water Treatment Directive, "*Member States shall ensure that urban waste water entering a collecting system shall before discharge be subject to secondary treatment or an equivalent treatment […] for discharges to freshwater from agglomerations of between 2,000 and 10,000 pe*". In line with the above, the upgraded WwTP provides for secondary treatment, with P removal.

The Ballybofey-Stranorlar WwTP Upgrade Project has been designed to ensure that emissions from the works will not result in the contravention of any relevant EU Directives and National Regulations.

Network

The 3 no. networks projects (*i.e.,* St. Joseph's Pumping Station Outfall and Rising Main Project; Navenny Pumping Station, Rising Main and Chestnut Road Sewer Upgrades Project and Meetinghouse Lane to Ballybofey Bridge Sewer Upgrade Project) will commence construction in Q1 2023, with an 18-month construction period anticipated. A summary of these projects is provided below:

St. Joseph's Pumping Station Outfall and Rising Main Project

The proposed development will consist of an upgrade of St. Joseph's Pumping Station rising main and the construction of a new overflow pipeline from the existing St. Joseph's Pumping Station to the River Finn.

Navenny Pumping Station, Rising Main and Chestnut Road Sewer Upgrades Project

At the Navenny Pumping Station, there is an existing overflow to the Daurnett Burn part of the Finn (Donegal)_060. This watercourse meets the River Finn directly downstream of the Navenny Street bridge crossing. The existing overflow was designed as "*emergency*" only but is currently acting as an undesigned SWO due to regular flooding of the network at this location. The existing overflow currently fails to meet with Irish Water's SWO Criteria as detailed in IW-TEC-800-03 Storm Water Overflows. This development will consist of upgrades to the existing Navenny Pumping Station and rising main on Navenny Street, a new gravity sewer on Chestnut Road and all associated site works. In terms of operational discharges this project will eliminate the discharge of untreated wastewater to the River Finn through substandard SWOs and will eliminate unnecessary Emergency Overflow discharges from the pumping Station.

Meetinghouse Lane to Ballybofey Bridge Sewer Upgrade Project

This project involves the upsizing of sewers in the agglomeration and the decommissioning of the 2 no. overflows which are not meeting the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows'*, 1995 *i.e.,* SWOs at Main Street (SW002) and Chapel Close (SW005). The project also involves the construction of a new SWO (SW008), which will be designed to meet the above-mentioned criteria.

Upon completion of the above-mentioned projects, all SWOs within the agglomeration will meet 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.

The main objectives of the Projects associated with the Ballybofey-Stranorlar agglomeration are to meet the requirements of the current Waste Water Discharge Licence (WWDL) - Licence Register Number: D0120-01, originally 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) in 2010, and subsequently amended by Technical Amendments A to C.

4. Description of the features and measures, if any, envisaged to avoid, prevent, or reduce and, if possible, offset the significant adverse effects on the environment

Irish Water are committed to ensuring that water services infrastructure operates in a manner that supports the achievement of the water body objectives under the Water Framework Directive, and their obligations under the Birds and Habitats Directives.

The WwTP has been designed to cater for a hydraulic and biological load of 9,200p.e. Secondary treatment with P removal is provided to ensure that the treated effluent discharge does not have a significant adverse effect on the receiving aquatic environment, and that all relevant legislative requirements are complied with.

The ELVs as listed above give effect to the principle of the Combined Approach as defined in Waste Water Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations and the relevant status of the receiving waterbody, the River Finn (Finn (Donegal)_060) (see **Attachment D.2.1**: Impact Assessment Report, September 2022 and **Attachment D.2.3**: Waste Assimilative Capacity (WAC), September 2022).

Upon completion of the 3 no, Networks Projects, the SWOs of the agglomeration will all operate to meet 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.

Refer to **Section C.2** for further details of the proposed robust measures to prevent any unintended discharges to the River Finn.

5. The proposed technology and other techniques for preventing or, where this is not possible, reducing discharges from the wastewater works

As noted above, the WwTP has been designed, and will be operated, to ensure the primary discharge of treated effluent (SW001) does not cause a significant adverse effect on the receiving environment *i.e.*, Finn (Donegal)_060.

Refer to **Section C.2** for details of the proposed measures to prevent any unintended discharges to the River Finn.

6. Description of the receiving waterbody

The operational discharges from the Ballybofey-Stranorlar agglomeration discharge to the River Finn (Donegal) which is part of the Foyle Catchment (Hydrometric Area 01). This catchment includes the area drained by the River Foyle and by all streams entering tidal water between Culmore Point, Co. Derry and Coolkeeragh, Co. Derry. This is a cross border catchment with a surface area of 2,919km², 914km² of which is located within the Republic of Ireland (RoI).

The draft 3rd Cycle Catchment Report (2021) for this Hydrometric Area (HA), determined that for At Risk river waterbodies excess nutrients and chemical impacts remain the most prevalent issues, along with morphology, organic pollution, and hydrology. Pressures identified affecting the greatest number of waterbodies within HA 01 include agriculture, followed by forestry, peat, urban wastewater, hydromorphology, domestic waste water, urban run-off, and industry.

Although the Ballybofey-Stranorlar agglomeration, and specifically the SWOs, are listed as a significant pressure in At Risk waterbodies (namely the Finn (Donegal)_060) in the draft 3rd cycle catchment assessment, the report makes note that "*The Ballybofey-Stranorlar (D0120) agglomeration, which is impacting Finn (Donegal)_060, is due to be upgraded in 2022*".

The WFD status of the Finn (Donegal)_060 is Poor (WFD 2013-2018) and At Risk of not achieving Good water quality status by 2027. Further downstream the Finn (Donegal)_060 flows to the Finn (Donegal)_070 and then to the Finn (Donegal)_080 which are both Poor status. The River Finn then flows into the River Mourne at the town of Strabane, a town in Tyrone, Northern Ireland, approximately 22km downstream.

The Finn (Donegal)_060 waterbody trends at Station RS01F010700 (Finn (Donegal) - Ballybofey Br) for Ammonia is Downwards (*i.e.,* decreasing concentrations). There is no trend cited for Ortho-P at this station. At Station RS01F010800 (Br S of Stranorlar) downstream of the operational discharges, the trend for Ammonia is Upwards (*i.e.,* increasing concentrations). In terms of Ortho-P at this station, the trend is Downwards (*i.e.,* decreasing concentrations). For 2013-2018, the WFD status of both Ammonium and Ortho-P are noted as High in the Finn (Donegal)_060.

The EPA undertake biological monitoring of the River Finn at various locations. Upstream of the primary discharge at RS01F010600 (*ca*. 3.8 km upstream of the primary discharge point), the 2019 monitoring reported a Q value of 3-4 (Moderate). Downstream of the primary discharge at RS01F010800 (*ca*. 0.4km), the 2020 monitoring reported a Q value of 3 (Poor).

Based on the Irish Water Compliance Data for 2020– 2022 at RS01F010700 *ca*. 1.2km u/s of the WwTP discharges and the downstream ambient monitoring location RS01F010800 *ca*. 0.4km d/s downstream of all operational discharges, it is noted that the operational discharges do not have a significant observable impact on the water quality of the receiving waterbody. The mean concentration for Ammonia is within the required EQSs for Good and High status (mean and 95%ile) both upstream and downstream. In relation to BOD, the mean upstream (1.15mg/l) is within the required EQSs for Good and High status (mean and 95%ile). The mean BOD downstream is 1.43mg/l, therefore the mean High status EQS of ≤1.3 is not met. The mean Good status EQS and the 95%ile EQS for Good and High status are met however. In terms of Ortho-P, the mean upstream concentration is 0.042mg/l and the mean downstream is 0.035mg/l. Therefore, the mean Good and High status EQS for Ortho-P are not met upstream or downstream of the operational discharges but the 95%ile Good and High status EQS are met.

There are no nutrient sensitive waters, designated shellfish area or drinking water abstraction points in proximity to the Ballybofey-Stranorlar agglomeration, or downstream of its operational discharges.

The River Finn is designated as a "*Salmonid Water*" under the European Commission's (Quality of Salmonid waters) Regulations, 1988. The Finn and its tributary the Reelin are

probably the most prolific salmon and grilse rivers in Donegal, and throughout the Foyle catchment. The River is also designated as a SAC, of which Atlantic Salmon are a water dependent Qualifying Interest. The completed upgrade works at the WwTP to meet the ELVs as per D0120-01, and the completion of the proposed Networks Projects, will contribute towards compliance with the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 77 of 2019), and will assist in the efforts to achieve Good WFD Status by 2027, and also in maintaining the current High status for both Ammonium and Ortho-P. This will provide a high level of protection to the River Finn and the Atlantic Salmon contained therein; thereby ensuring that the operational discharges do not cause a breach of the European Communities (Quality of Salmonid Waters) Regulations, 1988 (S.I No. 203 of 1988) in the River Finn.

The River Finn is not a designated pearl mussel habitat under the European Objectives (Freshwater Pearl Mussel) Regulation, 2009. There is a record for pearl mussel being found on the River Finn downstream of the Castlefinn WwTP's primary discharge, which is *ca*. 14.5km downstream of the Ballybofey-Stranorlar primary discharge point. A single shell fragment was found at the site in 1993/94. There were no other pearl mussels found anywhere in the River Finn, even after extensive searches.

There are no NHAs or pNHA downstream of the operational discharges. The nearest NHA is the Meenagarranroe Bog NHA (Site code: 002437) which is located *ca*. 6.2 km south west of the primary discharge point, however no pathway exists by which the operational discharges could impact upon this site. The closest NHA/pNHA downstream of the operational discharges is the River Foyle, Mongavlin to Carrigans pNHA (Site code: 002067) which is located a significant distance (*ca*. 29km) downstream of the operational discharges and is considered to be too remote to be influenced by the Ballybofey-Stranorlar operational discharges.

The operational discharges from the Ballybofey-Stranorlar WwTP discharge directly to the River Finn SAC (Site code:002301). The River Finn SAC has a number of water dependent Qualifying Interests *i.e.,* [3110] Oligotrophic waters containing very few minerals of sandy plains, [1106] Salmon (*Salmo salar*) and [1355] Otter (*Lutra lutra*). Further downstream (*ca.* 16km) where the UK border meets the River Finn upstream of Clady, is a SAC designated in the UK, namely the River Foyle & Tributaries SAC. This SAC includes the River Foyle and its tributaries *i.e*., that part of the River Finn which lies within Northern Ireland. The water dependent Qualifying Interests of this site includes Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260], Otter (*Lutra lutra*) and Salmon (*Salmo salar*).

The WAC calculations which support this application show that the receiving Finn (Donegal)_060 river has adequate assimilative capacity for the primary discharge (9,200 p.e load) based on notionally clean river background concentrations to meet 95%ile High EQS status for BOD, Ammonia and Otho-P. The completed upgrade works at the WwTP to meet the ELVs as per D0120-01 and the completion of the proposed Networks Projects, which includes for the upgrade of St Joseph's Pumping Station and the Navenny Pumping Station, network improvements, and the upgrade of Storm Water Overflows to meet the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows*', 1995., will contribute towards compliance with the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 77 of 2019), and will assist in the efforts to achieve Good WFD Status by 2027, and in maintaining the current High status for both Ammonium and Ortho-P. All of which will

provide a high level of protection to the River Finn SAC, and the downstream River Foyle & Tributaries SAC and their water-dependent Qualifying Interests.

7. Description of the likely significant effects of the discharges on the environment

The main objectives of the Projects associated with the Ballybofey-Stranorlar agglomeration are to meet the requirements of the current Waste Water Discharge Licence (WWDL) - Licence Register Number: D0120-01, orignally 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) in 2010, and subsequently amended by Technical Amendments A to C.

A Small Stream Risk Score (SSRS) was completed in 2020. The report concluded that the discharges are not posing a pollution risk. Both upstream and downstream results had a final SSR Score of > 6.6 – 7.25 indicating an Intermediate (Stream May be At Risk) status. This report concluded that there is no apparent impact on the macroinvertebrate community of the River Finn downstream of the WwTP due to the WwTP discharges (refer to **Attachment D.2.5**).

Based on the proposed effluent discharge standards (see **Table A.1.1** above) and the WAC calculations carried out for same (see **Attachment D.2.3**), and the design of the SWOs and the benefits of the proposed network upgrade works on the receiving waters, it is considered that the operational discharges from the Ballybofey-Stranorlar agglomeration will have no real likelihood of significant effects on the receiving aquatic environment, alone or in combination with other plans and projects.

The proposed effluent discharge standards, along with the operation of the agglomeration overflows as detailed in this review application will ensure that the operational discharges from the agglomeration (i) contribute towards the River Finn's WFD objective of achieving Good status by 2027 (ii) assist in maintaining the High Status of Ortho-P and Ammonia in the River Finn (Donegal)_060 and (iv) will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration

The above would indicate that the operational discharges from the Ballybofey-Stranorlar WwTP will not have an observable significant adverse effect on the receiving waterbody.

8. Measures planned to monitor discharges into the environment

Effluent Monitoring:

The proposed effluent monitoring regime is tabled below.

Table A.1.4 – Proposed Effluent Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
pH	pH unit	Daily	pH electrode/meter and recorder
BOD	mg/l	Monthly	Standard Method
COD	mg/l	Monthly	Standard Method
Suspended Solids	mg/l	Monthly	Standard Method
Total Ammonia (N)	mg/l	Monthly	Standard Method
Orthophosphate	mg/l	Monthly	Standard Method

Parameter	Units	Monitoring Frequency	Analysis method/Technique
Conductivity	us/cm	Monthly	Conductivity Meter
Flow	m^3/s	Continuous	On-line flow meter with recorder

Ambient Monitoring:

The proposed monitoring locations and parameters to be monitored are tabled below.

Table A.1.5 – Proposed Ambient Monitoring Locations and Parameters

Monitoring Location					Name of Receiving Water
214444	E	394835	N	Upstream aSW001u	Finn (Donegal)_060
215246	E	394601	N	Downstream aSW001d	Finn (Donegal)_060

Table A.1.6 – Proposed Ambient Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
pH	pH units	Ten samples/year	pH electrode/meter
BOD	mg/l	Ten samples/year	Standard Method
DO	% Saturation	Ten samples/year	DO Probe
Suspended Solids	mg/l	Ten samples/year	Standard Method
Total Nitrogen (as N)	mg/l	Ten samples/year	Standard Method
Total Ammonia (N)	mg/l	Ten samples/year	Standard Method
Orthophosphate	mg/l	Ten samples/year	Standard Method

9. Hours during which the wastewater works is supervised or manned and days per week of this supervision

The WwTP runs automatically and is capable of being monitored remotely on a daily basis *via* the SCADA system. There is a 24 hour call out response to alarms from the WwTP.

10. In the event of a review application, state the grounds for which this review application is being made

Following a Waste Water Discharge Authorisation examination by the EPA on 29th June 2021, it was recommended that a Waste Water Discharge Authorisation (WWDA) application was prepared and submitted to the EPA for determination. It was considered that the current WWDA, D0120-01, does not satisfy the environmental requirements of the WWDA Regulations as amended, and that a WWDA review was required.

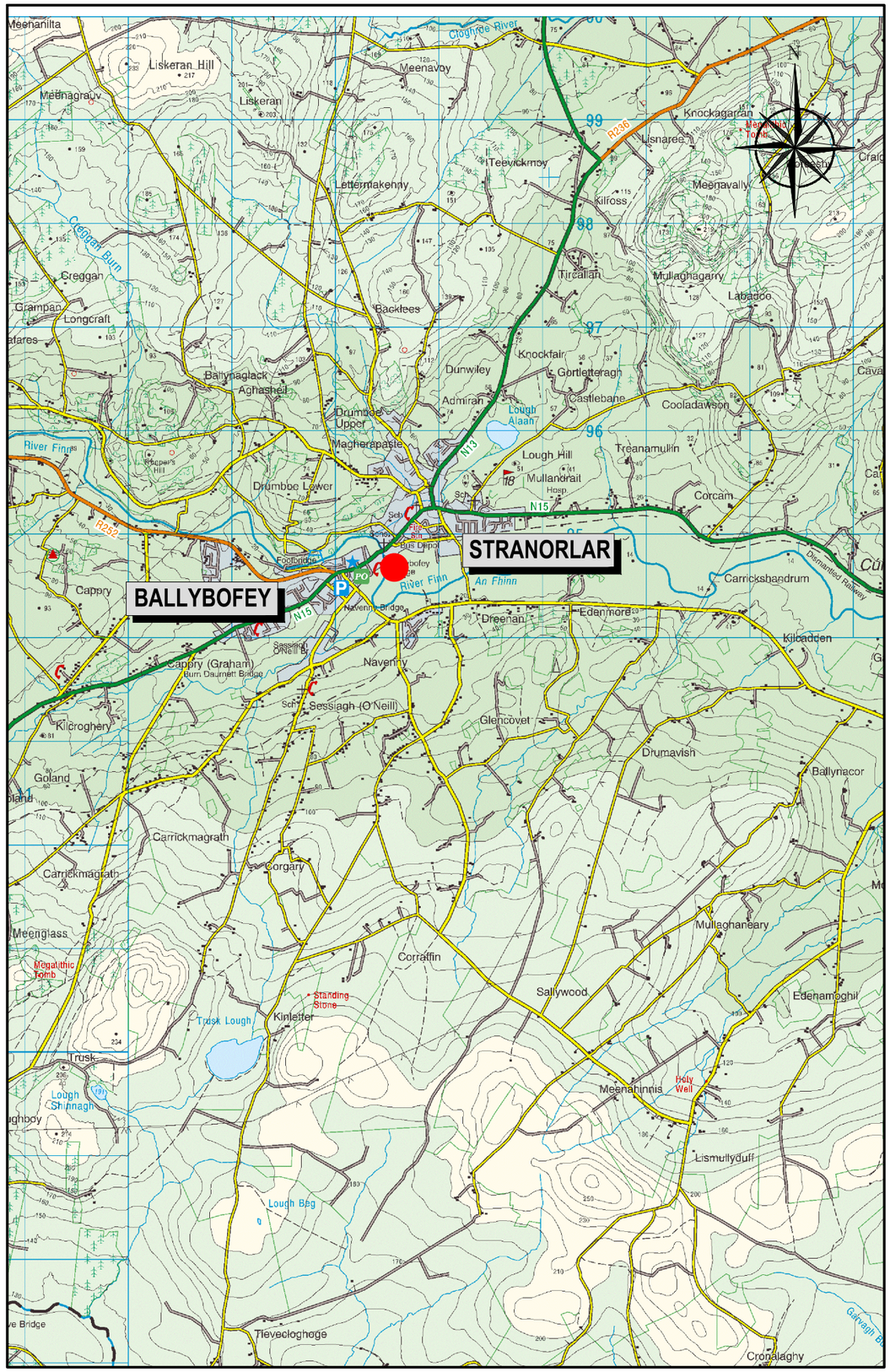
The reasons for this conclusion and recommendation are summarised as follows:

1. The licence was granted over 3 years ago.
2. Planning permission has been granted for proposed development works associated with the licence.
3. The agglomeration is included in Irish Water's investment plan.

4. Non-compliance with: - Completion of the expansion and upgrade of the waste water treatment plant to 6,000 p.e. capacity and ancillary works as set out in Schedule C: Specified Improvement Programme, of this licence, by 31/12/2015; - Completion of waste water sewer network improvements (including upgrade of pumping stations) as set out in Schedule C: Specified Improvement Programme, of this licence, by 31/12/2012; - Storm water overflows do not comply with the criteria outlined in the DoEHLG "*Procedures and Criteria in relation to Storm Water Overflows, 1995*" as set out in Schedule C: Specified Improvement Programme, of this licence, by 31/12/2012; - The upgrade of emergency overflows from pumping station so that the overflows do not activate in response to rainfall events or lack of capacity in the sewer network as set out in Schedule C: Specified Improvement Programme, of this licence, by 31/12/2012.

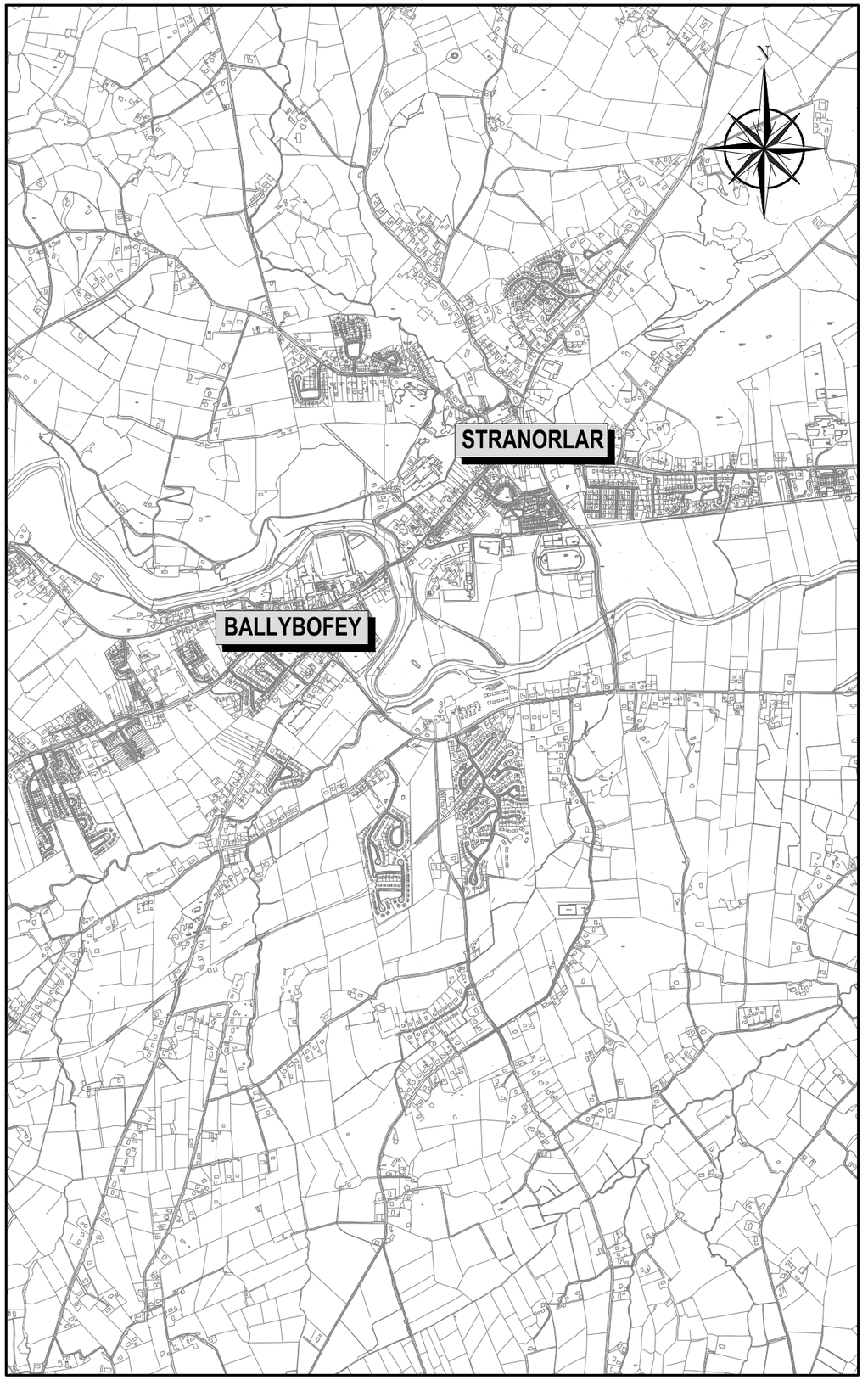
ATTACHMENT A.1.2:

MAP 1 – AREA OF INTEREST



BALLYBOFEY STRANORLAR LOCATION MAP

SCALE 1:50,000



BALLYBOFEY STRANORLAR LOCATION PLAN

SCALE 1:20,000

NOTES

SIGNED :	
PRINT NAME :	
POSITION :	
DATE :	
FOR IRISH WATER	

REV	DATE	DESCRIPTION	D	C	A

DISCHARGE LICENCE

CLIENT

IRISH WATER
Colvill House,
24-26 Talbot Street,
Dublin 1.
Tel. 1890 278 278 Web. www.water.ie

PROJECT

BALLYBOFEY STRANORLAR WASTE WATER DISCHARGE LICENCE APPLICATION

TITLE

MAP 1
AREA OF INTEREST

SCALES	DRAWN	
AS SHOWN	D. Rimdzius	
	DATE 05.10.2022	
CAD REFERENCE 20893-NOD-WWDL-18	ATTACHMENT A.1.2	REV -