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Irish Water

Report for Stage One Appropriate Assessment Screening:
Blessington WWDL Review
November 2020

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Introduction

Screening for Appropriate Assessment is required pursuant to Article 6(3) of Directive 92/43/EEC ('the **Habitats Directive**') and European Communities (Birds and Natural Habitats) Regulations 2011, as amended (the '**2011 Regulations**'). Where it cannot be excluded that a project, either alone or in combination with other projects or plans, would have a significant effect on a European site, then the project shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives.

An Appropriate Assessment ('**AA**') is a required assessment to determine the likelihood of significant impacts, based on best scientific knowledge, of any plans or projects on European sites. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a European site, in view of its conservation objectives. The purpose of this screening exercise for AA is to determine whether it is necessary to carry out an AA of the implications for a European site of a project.

This report provides information to enable the competent authority (in this case, the Environmental Protection Agency ('**the** '**EPA**') to conduct a Stage One AA Screening in respect of the upgraded Blessington Waste Water Treatment Plant ('**WwTP**') discharge for the purposes of the European Union (Waste Water Discharge) Regulations 2007 to 2020. It appraises whether the on-going operation of this discharge, alone or in combination with any other plans and projects, is likely to have significant effects on a European Site(s) in view of best scientific knowledge and the conservation objectives of the site(s). European Sites are those identified as sites of European Community importance designated as Special Areas of Conservation ('**SAC**') under the Habitats Directive or as Special Protection Areas ('**SPA**') under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC (the '**Birds Directive**').

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Legislative Context

The Habitats Directive provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are SACs designated under the Habitats Directive and SPAs designated under the Birds Directive). Article 7 of the Habitats Directive provides that a number of provisions, including Article 6(3), are to apply to SPAs designated under the Birds Directive.

Articles 6(3) of the Habitats Directive states that:

> *Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only*

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after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(3) provides for a two-stage process. The first stage involves a screening for AA and the second stage arises where, having screened the application for the development, the competent authority determines that AA is required, in which case it must then carry out that AA. A competent authority does not have jurisdiction to grant development consent unless the AA is carried out correctly.

In relation to the assessments to be carried out under the Habitats Directive, Regulation 42 of the 2011 Regulations, as amended, require *"a screening for Appropriate Assessment of a… project for which an application for consent is received*".

In the event that a public authority (in this case, the EPA) determines that an AA is required, then a Natura Impact Statement ('')] must be submitted and *"a public authority shall give consent for a… project, only after having determined that the… project shall not adversely affect the integrity of a European site*". For the purposes of this AA Screening Report, it is assumed that Regulation 42 requires the EPA to carry out Stage One AA Screening and, if necessary, Stage Two AA, in respect of applications for Waste Water Discharge Licences ('**WWDL**s'), reviews of WWDLs and applications for Technical Amendments to WWDLs.

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Methodology

Guidance Followed

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) of that Directive. The methodology followed in relation to this AA Screening has had regard to the following guidance:

- Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Environmental Protection Agency, (EPA, 2009).

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, (DoEHLG, 2010).

- Circular L8/08 – Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Department of Environment, Heritage and Local Government, (DoEHLG, 2008).

- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a).

- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg, (EC, 2018).

- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001).

- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg, (EC, 2007).

- Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg (EC, 2006).

- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012).

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).

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- EPA Guidance for Irish Water on "Requests for Alterations to a Wastewater Discharge Licence or Certificate of Authorisation" (Revised March 2019).

Requirements of Appropriate Assessment Screening

Screening for AA is a process which identifies whether an activity/plan/project is directly connected to or necessary for the management of a European Site(s) and whether the activity/plan/project is likely to have significant effects upon a European Site(s) either alone or in combination with other projects or plans.

The output from this stage is a determination for each European Site(s) of not significant, significant, potentially significant, or uncertain effects. The latter three determinations will cause that site to be brought forward to Stage 2.

Regulation 42(1) of the 2011 Regulations implements and directly adopts the terminology used in Article 6(3) of the Habitats Directive, in terms of the test for screening, of considering whether the particular application for development was "likely to have a significant effect" on the European site.

In essence, when conducting a Stage One AA Screening, the competent authority (in this case, the EPA) is required to determine whether or not it can be excluded, on the basis of objective scientific information, that the project, individually or in combination with other plans or projects, will have a significant effect on a European site. If this cannot be done, the competent authority (in this case, the EPA) must move on to Stage Two AA.

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Interaction with Urban Waste Water Treatment & Water Framework Directives

When considering whether or not, in any given case, a Stage Two AA is required by the Habitats Directive in relation to an application for a Technical Review of a WWDL, we note that Directive 91/271/EEC ("the **Urban Waste Water Treatment Directive**") was adopted with the aim of protecting the adverse effects of the collection, treatment and discharge of urban wastewater. It should be noted that "*urban waste water*" is defined to mean "*domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water*".

The objective of the Urban Waste Water Treatment Directive is to protect the environment from the adverse effects of urban waste water discharges. Implementing the Urban Waste Water Treatment Directive remains crucial to meeting the objectives of other EU legislation, such as Directive 2000/60/EC ("the **Water Framework Directive**"). Irish Water has taken a coherent and balanced approach as between the fulfilment of the objectives of the Habitats Directive, Water Framework Directive and Urban Waste Water Treatment Directive - when considering the Habitats Directive assessments required in respect of applications for Technical Reviews to WWDLs.

When considering this application for a WWDL Technical Review, in addition to satisfying the Irish legislative requirements – which are largely set out in the Waste Water Discharge (Authorisation)

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Regulations 2007, as amended ("the **2007 Regulations**") – the competent authority (in this case, the EPA) should be mindful of the fact that the 2007 Regulations are expressly intended to give effect to a number of EU Directives, including the Water Framework and the Habitats Directives.

Steps in the Stage One AA Screening

In complying with the obligations under Article 6(3) and Regulation 42, and following the appropriate guidelines, this AA Screening has been structured as a stage by stage approach as follows:

1. Description of the project/activity;
2. Identification of European Sites within the Zone of Influence;
3. Identification and description of impacts likely to result;
4. Assessment of the likely significance of any effects on European Sites;
5. Exclusion of sites where it can be objectively concluded that there will be no significant effects; and
6. Screening conclusion.

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This assessment was completed by Kate Harrington MSc MCIEEM an aquatic ecology specialist who has 15 years' experience in undertaking ecological surveys and assessments in the freshwater and marine environment. Her experience includes the preparation of AA Screening, NIS', Ecological Impact Assessments and water quality studies for a range of infrastructure projects. She completes and reviews ecological assessments for Irish Water projects and activities as well as contributing to the development of guidance and best-practice advice and training.

This assessment was reviewed and approved by Dr Brian Deegan, who has a Masters Degree in Estuarine Ecology, a Doctorate (Ph.D.) in Freshwater Ecology and is a full member of the Chartered Institute of Ecology and Environmental Management. Brian has over 18 years of experience in the field of Ecological and Environmental Assessments. This experience includes AA, Ecological Impact Assessment, Environmental Impact Assessment, Ecological Appraisals, Ecological Clerk of Works, Water Quality Assessments and Ecological Monitoring Programmes, for a wide range of both linear and site-based infrastructure projects.

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Description of the Project/Activity

The Blessington WwTP was initially constructed in 1980 to serve 3,000 p.e. It was later upgraded in 2007 to serve 6,000 population equivalent (p.e.). Subsequent to the 2007 upgrade, Waste Water Discharge Licence (WWDL) D0063-01 came into effect on 12th June 2012, which included a limit for Ammonia of ≤ 5 mg/l and Ortho-P ≤ 1.0 mg/l. The current estimated p.e received into the works is approximately 6,544.

The current treatment process includes the following:

- Preliminary treatment (including screening / grit removal)
- Secondary treatment – extended aeration activated sludge.
- Chemical dosing for phosphorus removal

Due to significant growth within the Blessington WwTP catchment area, the plant has become biologically overloaded. The primary discharge is currently not meeting the ≤ 5 mg/l ELV that was set in the licence for Ammonia and consequently an upgrade is proposed.

The Blessington WwTP upgrade project comprises an upgrade to the plant to accommodate future loads and to provide full primary, secondary and tertiary treatment for up to 9,000 p.e. and to deliver final effluent compliant with the current WWDL ELVs i.e. BOD ≤20mg/l, COD ≤125mg/l, TSS ≤30mg/l, Ammonia (as N) ≤5.0mg/l and Ortho-phosphate (as P) ≤1.0mg/l. An Bord Pleanála granted consent for the WwTP on the 26th February 2019. The envisaged time period for the commencement of the construction of the upgrade works is Q4 2021 It is anticipated that the construction upgrade works will be completed in Q4 2023.

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The proposed treatment plant upgrade works includes the following:

- New Inlet Pipes from Inlet Works to Primary Settlement Tanks Lift Pumping Station (PST Pumping Station)
- New PST Pumping Station including pumps and instrumentation
- New Inlet Pipes from PST Pumping Station to Primary Settlement Tanks (PSTs)
- New PSTs including flow splitter chamber, covers, scrapers, sludge pumps, scum sump and instrumentation
- New Pipes from PSTs to Anoxic Tank and bypass to existing Flow Splitter Chamber
- New Anoxic tank without equipment*
- New Pipes from Anoxic tank to existing Flow Splitter Chamber
- Upgrade Aeration Tanks (New Mixers, new Aeration Tank Blowers, new Fine Bubble Diffusers, new weir plates, new walkway platforms)
- Increase in existing Aeration Tanks operating level
- New nitrate return Pipes from Aeration tanks to Anoxic Tank*
- New RAS Pumps in existing chamber
- New Odour Control System (New forced extraction system for Primary Settlement Tanks and their annexes, Extension of the sludge forced extraction system to the sludge room, New passive system for New Primary Settlement Tanks Lift Pumping Station)
- New MCC's, Instrumentation, & Scada System

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*These works are being constructed as part of the current upgrades works for efficiency, but it is not expected that this plant will be utilised in the next 10 years.

The primary discharge (SW001) from WwTP is into the River Liffey at a point just downstream of the Poulaphouca Reservoir and just upstream of the Golden Falls Lake at NGR 294246E 208328N (Figure 1.0) via approximately 5.5km of 250mm diameter pumped main. There are no secondary discharges or overflows associated with the agglomeration.

The upgraded Blessington WwTP discharge, catering for 9000p.e. and discharging at the existing ELV's, is the subject of this AA Screening

Table 1.0 shows the treated effluent monitoring results for the current (pre-upgrade) Blessington WwTP discharge. Samples which exceed the ELV's are highlighted in bold. There have been occasional exceedances of BOD, Suspending Solids and Ammonia ELV's. Ortho-phosphate levels have been consistently compliant.

Table 1.0: Blessington WwTP Effluent Data 2019-2020

Parameter	BOD	COD	Suspended Solids	Ammonia-Total (as N)	ortho-Phosphate (as P)	pH	Total Nitrogen	Total Phosphorus (as P)
ELV	20mg/l	125mg/l	30mg/l	5mg/l	1mg/l	6 to 9	n/a	n/a
10/01/2019	<18	62	13.3	2.1	0.24	7.71	16.7	1.73
07/02/2019	<2	24	11.3	2.6	0.23	7.5	18.2	0.85
13/03/2019	5	51	12.9	**8.5**	0.21	7.58	27.7	0.52
04/04/2019	1	48	**34.1**	**5.5**	0.22	7.67	22.4	0.52
01/05/2019	3.89	58	21	2.86	0.41	7.91	11.8	1.1
05/06/2019	**41.5**	45	**33**	4	0.23	7.76	20.4	1.04
11/07/2019	<2	36	**37.8**	1.68	0.41	7.78	23.1	1.04
02/08/2019	7	46	24.2	0.36	0.77	7.6	18.5	1.29
10/09/2019	<2	45	20	0.43	0.65	7.83	18	1.02
08/10/2019	3	28	<3	0.41	0.21	7.87	21.4	0.34
13/11/2019	<2	47	26.7	0.63	0.56	7.61	23.5	1.27
04/12/2019	4.7	38	**38.7**	<0.02	0.37	7.79	26.4	0.43
09/01/2020	3	34	4.9	**12.8**	0.11	8.02	27.2	0.44
11/02/2020	10	55	18.1	**11**	0.19	7.4	21.5	0.93
10/03/2020	4.29	45	20.6	1.31	0.2	7.94	18.6	0.57
13/05/2020	5	43	11.8	4	0.45	7.69	17.4	0.76
10/06/2020	<2	38	4.1	4	0.75	7.74	16.3	0.94
17/06/2020	2.37	57	8.5	4	0.57	7.59	20	0.79
11/08/2020	1.4	55	21.1	1.04	0.38	7.57	42.1	0.83
08/09/2020	3.2	68	3.8	2.5	0.18	7.65	13.7	0.41

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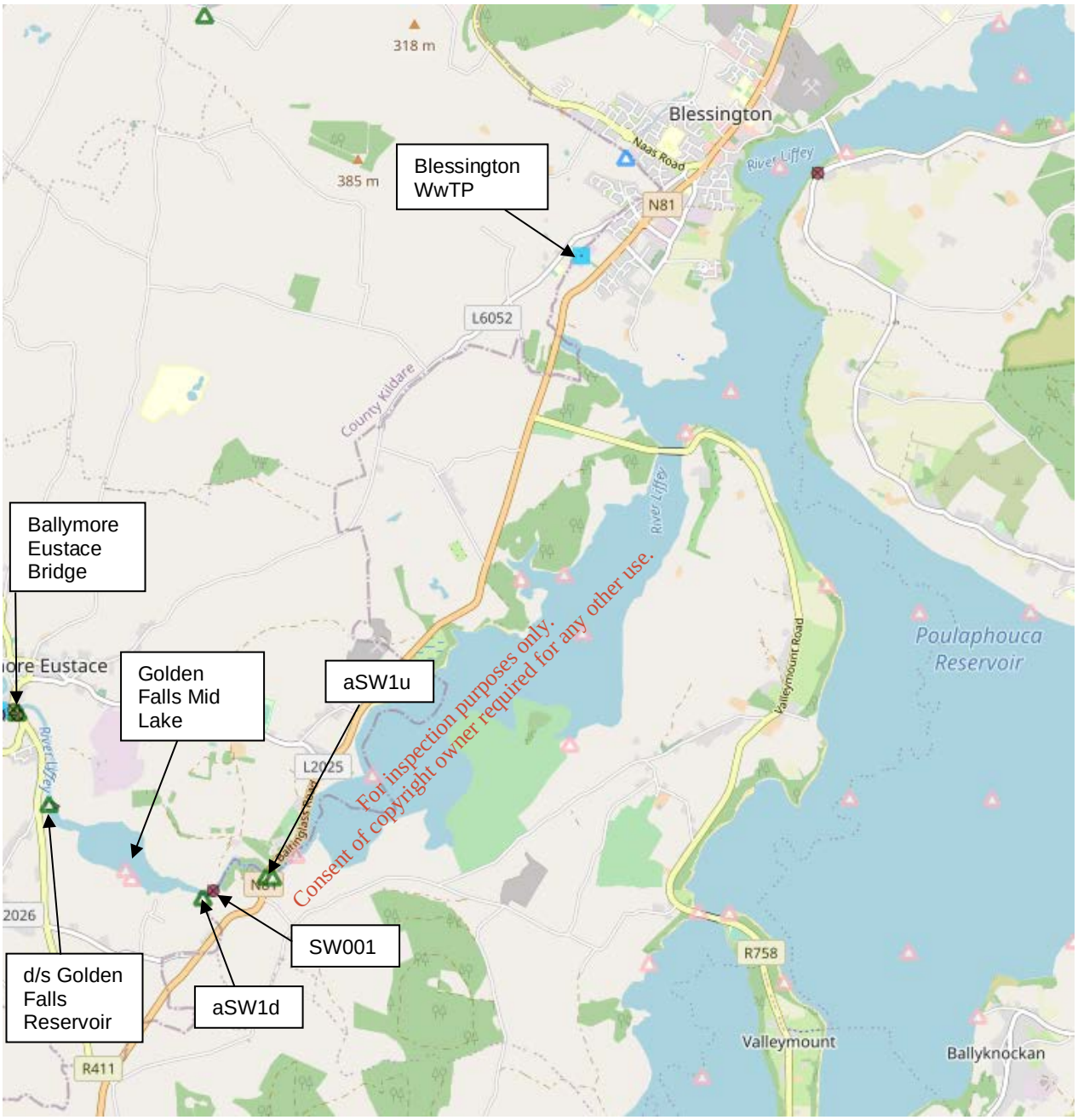


Figure 1 Location of Blessington WwTP, discharge and monitoring points (Source EPA online maps accessed 13.11.20)

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Description of the Receiving Environment and Monitoring Results

The WwTP discharges to the River Liffey downstream of the Poulaphouca Reservoir and upstream of Golden Falls Lake. The EPA has confirmed via email on the 30th May 2018 that the Blessington WwTP primary discharge receiving water "*is currently defined as river water body channel and falls between Pollaphouca and Golden Falls*. The receiving water is a section of the river water body Liffey_040 (IE-EA_09L010400)" which in total is over 83km in length. The 2013-2018 WFD status of the receiving waterbody is "Moderate", and is driven by Invertebrate Status of "Moderate", with supporting Chemistry Conditions (including Nutrient Conditions) indicative of at least "Good" status. Poulaphouca Reservoir upstream is currently assigned "Good" WFD status (2013-2018). Downstream of Poulaphouca Reservoir, as mentioned above, the River Liffey achieves "Moderate" status, improving to "Good" status downstream of Kilcullen. Golden Falls Lake is currently unassigned.

The closest EPA biological water quality monitoring location is ca. 2.5km downstream of the discharge point (Ballymore Eustace Br RS09L010400) which is currently (2019) assigned Q4 indicating "Good" water quality (previously Q3-4 "Moderate" water quality).

The 2nd cycle River Basin Management Plan identifies that the Liffey_040 and Golden Falls lake are 'At Risk' with significant pressures being Blessington WwTP and Hydromorphology. The extractive industry is noted as a non-significant pressure for the Liffey_040. Poulaphouca reservoir is 'Not At Risk', with non-significant pressures noted as water treatment discharges, hydromorphology and 'unknown anthropogenic'.

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Monitoring takes place at a number of stations along the course of the River Liffey and Golden Falls lake. Monitoring results for relevant sites is presented below in Table 2.0. These sites are: upstream of the primary discharge point, downstream of the primary discharge point, Golden Falls mid-lake, and the Liffey downstream of Golden Falls lake. The results were compared with the European Communities Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 2009 (as amended) EQS's for rivers and lakes (mean Total P; Chlorophyll, 95%ile Ammonia, Orthophosphate and BOD). The results indicate that EQS's for Good status are met at all stations, with the exception of elevated Chlorophyll levels in June 2020 in Golden Falls lake. The elevated Chlorophyll levels in the lake in June 2020 do not appear to align with any increased nutrient discharges from the existing Blessington WwTP discharge, and are likely to have resulted from the preceding 3 month drought period and associated high temperature and light levels.

It is noted that all monitoring results to date reflect the nutrient contributions from the current plant, which as noted earlier is pending an upgrade to improve treatment for Ammonia.

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Table 2.0: Ambient Monitoring Data 2019-2020

Parameter	Ammonium NH_4-N mg/l	BOD mg/l	Chlorophyll µg/l	ortho-Phosphate (as P) mg/l	pH	Total Nitrogen mg/l	Total Phosphorus (as P) mg/l
EQS SW Regs River[1]	≤0.14 (good) ≤0.090 (high)	≤2.6 (good) ≤2.2 (high)		≤0.075 (good) ≤0.045 (high)			
EQS SW Regs Lake[2]	≤0.14 (good) ≤0.090 (high)		5.6-6 (good) 9-10 (high)				≤ 0.025 (good) ≤ 0.010 (high)
aSW1u (u/s Blessington WwTP) (EPA Code RS09L010370)							
11/01/2019	< 0.02	1	< 4	< 0.02	6.82	0.8	< 0.02
27/02/2019	0.03	< 1	< 7	0.03	6.03	0.9	< 0.01
19/03/2019	0.02	< 1	< 4	0.06	7.25	0.8	< 0.01
05/04/2019	< 0.02	< 1	< 4	0.03	7.29	1	0.01
01/05/2019	< 0.02	2.14	< 4	< 0.02	7.85	0.9	< 0.01
04/06/2019	0.02	2		< 0.03	7.58	0.7	0.03
02/07/2019	< 0.02	< 1	5.71	< 0.02	7.88	0.8	< 0.01
02/08/2019	0.02	2	10.29	< 0.02	7.57	0.8	0.02
10/09/2019	0.11	< 1	5.77	< 0.02	7.76	0.7	0.06
08/10/2019	0.06	< 1	5.24	< 0.02	7.71	0.9	0.02
05/11/2019	0.06	< 2	5.35	< 0.02	7.6	1	< 0.01
06/12/2019	< 0.02	< 1	< 4	< 0.02	7.76	0.9	< 0.01
10/12/2019	0.06	< 1	< 4	< 0.02	7.78	0.9	< 0.01
09/01/2020	< 0.02	< 1	4.98	< 0.03	7.83	0.7	0.03
12/02/2020	0.03	< 1	< 4	< 0.02	7.6	0.9	< 0.01
05/03/2020	< 0.02	< 1	< 4	< 0.02	7.7	0.7	0.02
14/05/2020	0.03	< 2	53	< 0.02	7.6	0.8	< 0.02
05/06/2020	< 0.02	< 2	10.5	< 0.02	7.6	0.7	0.02
07/07/2020	<0.02	<2	5.11	0.03	7.93	0.7	0.03
14/08/2020	< 0.02	<2	7.77	<0.02	7.35		
08/09/2020	0.04	<2	5.06	<0.02	7.07	0.82	<0.02
aSW1d (Golden Falls d/s WWDL) (EPA Code RS09L010390)							
11/01/2019	< 0.02	< 1	< 4	< 0.02	7.18	0.8	< 0.02
27/02/2019	0.06	1	< 7	0.02	5.84	1.1	0.01
19/03/2019	0.04	< 1	< 4	0.04	7.1	0.8	0.02
05/04/2019	0.08	< 1	< 4	< 0.02	7.65	0.9	0.02
01/05/2019	0.12	2.52	< 4	0.02	7.76	0.9	0.02
04/06/2019	0.02	3		< 0.02	7.61	0.8	0.02
02/07/2019	< 0.02	1	5.99	< 0.02	7.82	0.7	< 0.01
02/08/2019	0.02	2	5.89	< 0.02	7.62	0.9	0.02
10/09/2019	0.03	< 1	6.32	< 0.02	7.49	1.2	0.02
08/10/2019	0.05	< 1	4.04	< 0.02	7.69	1	0.01
05/11/2019	0.07	< 2	< 4	0.02	7.6	0.8	0.02
06/12/2019	< 0.02	< 1	< 4	< 0.02	7.77	1.1	0.01
10/12/2019	0.06	< 1	< 4	< 0.02	7.84	1	0.01
09/01/2020	0.03	< 1	< 4	< 0.03	7.79	0.8	0.01
12/02/2020	0.07	< 1	< 4	0.1	7.7	0.9	0.02
05/03/2020	< 0.02	< 1	< 4	< 0.02	7.6	0.7	< 0.01

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Parameter	Ammonium NH_4-N mg/l	BOD mg/l	Chlorophyll µg/l	ortho-Phosphate (as P) mg/l	pH	Total Nitrogen mg/l	Total Phosphorus (as P) mg/l
EQS SW Regs River[1]	≤0.14 (good) ≤0.090 (high)	≤2.6 (good) ≤2.2 (high)		≤0.075 (good) ≤0.045 (high)			
EQS SW Regs Lake[2]	≤0.14 (good) ≤0.090 (high)		5.6-6 (good) 9-10 (high)				≤ 0.025 (good) ≤ 0.010 (high)
14/05/2020	0.08	< 2	< 4	< 0.02	7.5	0.6	< 0.02
05/06/2020	0.02	< 2	25.5	< 0.02	7.8	0.9	< 0.01
07/07/2020	0.04	<2	9.37	0.03	7.99	0.7	0.03
14/08/2020	<0.02	<2	5.8	<0.02	7.47		
08/09/2020	0.02	<2	4.01	0.03	7.22	0.6	<0.02
Golden Falls Mid Lake (293554E 208642N)							
09/01/2020	0.04	< 1	< 4	< 0.03	7.79	0.9	0.02
12/02/2020	0.03	< 1	< 4	0.03	7.6	0.9	0.02
05/03/2020	< 0.02	1	< 4	< 0.02	7.6	0.8	< 0.01
14/05/2020	0.06	< 2	< 4	< 0.02	7.7	0.6	< 0.02
05/06/2020	0.03	< 2	25.1	< 0.02	7.7	0.8	0.01
07/07/2020	<0.02	<2	9.96	< 0.02	7.98	0.8	< 0.02
14/08/2020	0.02	<2	4.53	<0.02	7.51		
08/09/2020	0.02	<2	< 4	0.02	7.23	0.82	< 0.02
d/s Golden Falls Reservoir (EPA Code RS09L010392)							
11/01/2019	< 0.02	< 1	< 4	< 0.02	7.02	0.9	< 0.02
27/02/2019	0.04	< 1	< 4	0.05	6.14	1.1	0.01
19/03/2019	0.05	< 1	< 4	0.04	7.52	0.8	< 0.01
05/04/2019	0.05	< 1	< 4	< 0.02	7.72	0.9	0.01
01/05/2019	0.06	2.04	4.36	< 0.02	7.92	0.9	< 0.01
04/06/2019	< 0.02	1		< 0.02	7.61	0.9	0.02
02/07/2019	< 0.02	< 1	4.56	< 0.02	7.68	1	< 0.01
02/08/2019	0.02	< 1	5.52	< 0.02	7.56	0.8	0.02
10/09/2019	< 0.02	< 1	4.74	< 0.02	7.56	0.7	0.03
08/10/2019	0.03	< 1	< 4	< 0.02	7.48	0.9	0.01
05/11/2019	0.02	< 2	< 4	< 0.02	7.6	0.9	0.02
06/12/2019	< 0.02	< 1	< 4	< 0.02	7.76	1.2	0.01
10/12/2019	0.06	1	< 4	< 0.02	7.72	1	0.01
09/01/2020	0.04	< 1	< 4	< 0.03	7.93	0.9	0.01
12/02/2020	0.03	< 1	< 4	0.02	7.6	0.9	0.01
05/03/2020	< 0.02	< 1	< 4	< 0.02	7.6	0.9	< 0.01
14/05/2020	0.03	< 2	6	< 0.02	7.8	0.8	< 0.02
05/06/2020	0.03	< 2	< 4	< 0.02	7.5	0.9	< 0.01
07/07/2020	0.03	< 2	7.87	< 0.02	7.9	0.7	< 0.02
14/08/2020	0.07	< 2	< 4	< 0.02	7.44		
08/09/2020	0.03	<2	< 4	0.02	7.3	0.54	< 0.02

[1]European Communities Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 2009 (95%ile EQS Rivers)
[2]European Communities Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 2009 (mean Total P, 95%ile Ammonia – EQS's for lakes).

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Waste Assimilative Calculations and Water Quality Modelling

Irish Water has carried out water quality assessments of the proposed upgraded WwTP discharge based on two different approaches, in order to demonstrate the likely impact of Blessington WWTP treated effluent on the general receiving water environment. The dual assessment approach was used as although the receiving waterbody is classed as a river, it enters Golden Falls lake a short distance downstream, and so Irish Water has sought to demonstrate that both river and lake quality standards for nutrients will be met by the upgraded discharge. Both these approaches come to similar conclusions and are described below. The WAC and water quality study conclude that even though the capacity of the plant is increasing by 3,000PE, , due to the improved treatment, the additional flows and loads at current ELVs will not cause a negative impact on the environment.

Waste Assimilative Calculations

A Waste Assimilative Capacity (WAC) analysis has been carried out for the proposed discharge (9,000 p.e) on the receiving waterbody, the River Liffey (Liffey_040 (IE-EA_09L010400).

The calculations were based on the EPA adopted approach utilising theoretical dry weather flows from the treatment plant (estimated as 225l/p/d) against 95%ile flows in the river at the discharge point. The calculations were performed using September 2019 to September 2020 mean background river water quality data and the "*notionally clean river*" concentrations. In reality, the effluent dry weather flows are less than the theoretical 225l/p/d as it is mostly a separate system and any future developments will be fully separated into foul and surface. Measured flows indicate it is closer to 155 l/p/d.

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This analysis (Table 3.0) clearly illustrates that, under minimum river flow conditions (1.5 m^3/s), the resulting concentrations of Ammonia, BOD and Ortho-P in the receiving water downstream from the discharge point for the proposed 9,000 p.e plant would be below the limits for "Good" status waters as specified in the EC Environmental Objectives (Surface Water) Regulations, as amended.

Table 3.0: Assimilative Capacity Calculations *Using Sept 2019 to Sept 2020 Ambient Monitoring Data*

Parameter	Background		WW DL ELV	Predicted D/S Concentration	Relevant Standard – Good Status
BOD	Actual	0.731 Note 3	20	1.0385	<2.6 Note 2
	Notionally Clean	0.26 Note 1		0.57	
Ortho-phosphate	Actual	0.012 Note 3	1	0.027	<0.075 Note 2
	Notionally Clean	0.005 Note 1		0.020	
Ammonia	Actual	0.035 Note 3	5	0.112	<0.14 Note 2
	Notionally Clean	0.008 Note 1		0.085	

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Note 1: The *"notionally clean"* river approach considers a hypothetically clean stretch of river (*i.e.* river of pristine water quality where the EPA's Office of Environmental Assessment uses background concentrations of 0.26mg/l BOD, 0.005mg/l Ortho-phosphate, 0.008mg/l Ammonia) to determine if a discharge on its own is likely to cause a significant deterioration in the status of the water body into which it enters.
Note 2: European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (95%ile standards for Good status water bodies)
Note 3: Background water quality data – Sept 2019 to Sept 2020 (Station: U/S of Blessington WwTP)

Water Quality Study

A Vollenweider-type modelling approach (OECD, 1982) was used to assess the likely future impact on the Golden Falls Reservoir (Lake) from the 9,000 p.e. Blessington WwTP (Limnos, 2020[1]). This model was used to predict in-lake concentrations of Total Phosphorus (TP), Total Nitrogen (TN) and Chlorophyll using inflowing concentrations and taking the residence time of the water body into account. The study estimated future WWTP discharge flows pro-rata based on actual existing flows. Flows in the receiving water were based on 12 months' time series data provided in relation to release of flows from Poulaphouca Reservoir.

This study concluded the concentration of TP in Golden Falls would increase from 0.0126 mg P/l to 0.0168 mg P/l. This increase would not alter the ecological status or ecological potential of the Golden Falls Reservoir as it remains in the 'Good' status band as set out in S.I No. 77 of 2019, i.e. between 0.10 and 0.025mg P/l.

Similarly, the mean Total Ammonia will remain below the 0.065 mg/l EQS and likewise the 95%ile for Total Ammonia would remain below the 0.140 mg/l EQS in S.I No. 272 of 2009, as amended (current 95%ile value is ~0.07 mg/l).

Chlorophyll levels are predicted to increase from the current 3.21 µg/l to 4.07 µg/l. The growing season chlorophyll EQS for high status is 5.8 or 6 µg/l depending on lake type and the model predicts that Golden Falls would remain below this.

The WAC calculations and Water Quality Study demonstrate that there is sufficient assimilative capacity in the receiving waters to accommodate the discharge and to ensure compliance with the Environmental Quality Standards (EQSs) for a lake or river waterbody as set out for "Good status" in S.I No. 77 of 2019 (European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019).

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[1] Limnos (2020) Blessington WwTP Water Quality Study. M. McGarrigle, Limnos Consultancy, September 2020. WWDL Application Appendix D 1 (ii)

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European Sites within the potential zone of influence of the WwTP discharge

As Blessington WwTP discharges into the River Liffey catchment, in the first instance all European Sites which could potentially interact with the River Liffey/Golden Falls lake downstream, or immediately adjoining transitional waterbodies, are considered for source-pathway-receptor connectivity in order to establish the potential zone of influence of the discharges. This captures European Sites within any potential dilution/dispersion zone or those with mobile species for which any ex-situ effects must be considered. These sites are presented below in Table 4.0.

Marine European Sites beyond the catchment and adjoining waterbodies, due to the magnitude of dilution and dispersion present in outer coastal waters, have no potential to support connectivity. Likewise, terrestrial sites which do not interact with the River Liffey/Golden Falls lake and adjoining waterbodies have no potential to support connectivity.

The nearest hydrologically connected designated sites via the River Liffey are those of Dublin Bay over 90km downstream of the discharge point.

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Table 4.0: European Sites considered in defining the potential zone of influence

Site Name & Code	Qualifying Interests	Pathway and Distance
Poulaphouca Reservoir SPA Site Code 004063	Greylag Goose (Anser anser) [A043] Lesser Black-backed Gull (Larus fuscus) [A183]	700m to the northeast, and upstream of, of the discharge point. Ex-situ qualifying interests could roost and forage in Golden Falls lake downstream of the discharge point.
Wicklow Mountains SAC Site Code 002122	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the Violetalia calaminariae [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]	7km to the east of the discharge point, on the eastern side of Poulaphouca reservoir. Ex-situ otter associated with this site could potentially forage in Golden Falls lake and the river liffey downstream of the discharge point.

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Site Name & Code	Qualifying Interests	Pathway and Distance
	Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] *Lutra lutra* (Otter) [1355]	
Wicklow Mountains SPA Site Code 004040	Merlin (*Falco columbarius*) [A098] Peregrine (*Falco peregrinus*) [A103]	7km to the east of the discharge point, on the eastern side of Poulaphouca reservoir. Qualifying interests do not rely on aquatic prey. There is no pathway to this SPA.
South Dublin Bay SAC Site Code: 000210	Mudflats and sandflats not covered by seawater at low tide [1140]	Qualifying interests of this site are located over 90km downstream of the discharge point via the River Liffey.
North Dublin Bay SAC Site Code: 000206	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] *Petalophyllum ralfsii* (Petalwort) [1395]	Qualifying interests of this site are located over 90km downstream of the discharge point via the River Liffey.
South Dublin Bay and River Tolka Estuary SPA Site Code: 004024	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141]	Qualifying interests of this site are located over 90km downstream of the discharge point via the River Liffey.

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Site Name & Code	Qualifying Interests	Pathway and Distance
	Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]	
North Bull Island SPA Site Code: 004006	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999]	Qualifying interests of this site are located over 90km downstream of the discharge point via the River Liffey.

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Of the sites presented above, considering the source-pathway-receptor model, certain qualifying interests of all sites with the exception of the Wicklow Mountains SPA are considered to be potentially within the zone of influence of the Blessington WwTP discharge.

Wicklow Mountains SPA is designated for breeding birds of prey which do not have an aquatic prey source. There is no source-pathway-receptor connection between the Blessington WwTP discharge and this European Site and it is therefore not within the potential zone of influence of the WwTP discharge.

All other sites are within the potential zone of influence of the Blessington WwTP discharge and therefore the potential impacts that could arise, and likely significant effects that could result, are considered further below.

Identification & Description of Potential Impacts

Elevated nutrient input from wastewater effluent into aquatic environments can lead to an altered nutrient balance (eutrophication), increased primary productivity, and the potential for algal blooms. Such impacts have the potential to affect the qualifying interests of European sites directly, indirectly or cumulatively with other activities, projects or plans.

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A review of recent monitoring data demonstrates that Good status water chemistry conditions prevail upstream and downstream of the existing Blessington WwTP discharge, despite the fact that the WwTP is due an upgrade to reduce Ammonia levels in the discharge. A conservative approach was taken with regard to predicting the downstream impacts of the discharge, treating the receiving water body as both a lake and a river, and with minimal flow in the river scenario. The waste assimilative capacity calculations demonstrated that at least Good status chemistry conditions can be met for all relevant parameters under the river scenario. The Limnos water quality study looked at relevant nutrient parameters and at Chlorophyll, an indicator of eutrophication, with the model predicting that the upgraded effluent would not affect nutrient or Chlorophyll levels in the lake, which again are modelled to meet at least Good status. Based on the monitoring data reviewed and calculations/modelling undertaken there is no evidence to suggest that the upgraded primary discharge from Blessington WwTP at 9000PE will have an impact on the water quality of Golden Falls lake or the River Liffey downstream.

Likely Significant Effects

The purpose of this section of the screening is to examine the possibility that the future Blessington WwTP discharge, either individually or in combination with other plans and projects, are likely to result in significant effects to any European Site. It further considers the water dependent qualifying interests which may be sensitive to the potential impacts of the discharges, in the context of the nature and scale of these discharges.

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The Conservation Objectives of the 6-no. relevant European Sites were reviewed as part of this Screening Assessment:

- NPWS (2020) Conservation objectives for Poulaphouca Reservoir SPA [004063]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.
- NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
- NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
- NPWS (201ǫ) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (201ǫ) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

The upgraded Blessington WwTP discharge is not directly connected with or necessary to the management of any site for nature conservation.

The only qualifying interest of Wicklow Mountains SAC of relevance is Otter. All other qualifying interests are terrestrial habitats or hydrologically-separate lake habitats that have no interaction with the waters of Golden Falls lake or the River Liffey. The conservation objectives for Otter do not describe specific water quality attributes or targets. This is a highly mobile species and may forage beyond the boundary of the SAC within Golden Falls lake or the River Liffey downstream. Theoretically a discharge causing significant pollution in these waterbodies could impact the availability of prey species, though with Otter not being specialist-feeders and with the abundant alternative sources of prey throughout the Wicklow Mountains and Poulaphouca reservoir this is highly unlikely. Both ambient monitoring data, and waste assimilative capacity calculations and modelling, demonstrate that the receiving waters have the capacity to assimilate the discharge and continue to meet at least Good status environmental quality standards. The discharge is considered to have no potential to affect the availability of any prey species. Consequently, there is no potential for direct or indirect significant effects to the Otter population of the Wicklow Mountains SAC.

Poulaphouca Reservoir SPA is designated for Greylag Goose and Lesser Black-backed Gull. . The Blessington WwTP discharge is to the River Liffey downstream of Poulaphouca Reservoir SPA. Greylag Goose forage in agricultural grasslands around the reservoir while Lesser Black-backed Gull are versatile feeders and scavangers within the lake and adjacent habitats. Poulaphouca reservoir provides abundant and optimal foraging habitats for these species. Ex-situ use of Golden Falls lake by Lesser Black-backed Gull is possible, however for any adverse effect to this species , the impacts to water quality would have to be sufficient in magnitude to result in severe eutrophication at a waterbody scale such as to significantly impact available food resources or drive toxic effects. Both ambient monitoring data, and waste assimilative capacity calculations and modelling, demonstrate that the receiving waters have the capacity to assimilate the upgraded discharge and continue to meet at least Good status environmental quality standards. The discharge is considered to have no potential to affect the availability of foraging

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for Greylag Goose or Lesser Black-backed Gull. Consequently, there is no potential for direct or indirect significant effects to the special conservation interests of Poulaphouca Reservoir SPA.

The European Sites within Dublin Bay are located over 90km downstream of the Blessington WwTP discharge. Both ambient monitoring data, and waste assimilative capacity calculations and modelling, demonstrate that the receiving waters have the capacity to assimilate the discharge and continue to meet at least Good status environmental quality standards. Furthermore, a large proportion of the intervening reaches of the River Liffey maintain Good status indicating any pressures affecting water quality locally, and driving Moderate invertebrate status in the Liffey_040, are not persisting downstream. Consequently, there is no potential for direct or indirect significant effects to the special conservation interests of North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA or North Bull Island SPA.

Potential Cumulative or In-combination Effects

As part of AA Screening, in addition to the upgraded WwTP discharge, other relevant projects and plans in the region must also be considered. This report aims to identify at this early stage any possible significant effects on the European Sites from the upgraded discharge in-combination or cumulative with other plans and projects.

Ballymore Eustace WTP discharges backwash water downstream of Golden Falls. The discharge is compliant with the discharge standards prescribed by Kildare County Council. As noted above the discharge from Blessington WwTP has been demonstrated not to impact on the quality of receiving waters, and consequently there is no potential for cumulative impacts with the Ballymore Eustace WTP discharge.

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Existing plans which have been examined include:

<u>Wicklow County Development Plan 2016-2022</u>

The wastewater objectives identified in this plan are as follows:

- WI6 In order to fulfil the objectives of the Core Strategy, Wicklow County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned for development are serviced by an adequate wastewater collection and treatment system and in particular, to endeavour to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the development of a WWTP in Arklow, at an optimal location following detailed technical and environmental assessment and public consultation.
- WI7 Permission will be considered for private wastewater treatment plants for single rural houses where: the specific ground conditions have been shown to be suitable for the construction of a treatment plant and any associated percolation area; the system will not give rise to unacceptable adverse impacts on ground waters / aquifers and the type of treatment proposed has been drawn up in accordance with the appropriate groundwater protection response set out in the Wicklow Groundwater Protection

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Scheme (2003); the proposed method of treatment and disposal complies with Wicklow County Council's Policy for Wastewater Treatment & Disposal Systems for Single Houses (PE ≤ 10) and the Environmental Protection Agency "Waste Water Treatment Manuals"; and in all cases the protection of ground and surface water quality shall remain the overriding priority and proposals must definitively demonstrate that the proposed development will not have an adverse impact on water quality standards and requirements set out in EU and national legislation and guidance documents.

- WI8 Private wastewater treatment plants for multi-house developments will not be permitted.
- WI9 Private wastewater treatment plants for commercial / employment generating development will only be considered where: Irish Water has confirmed the site is due to be connected to a future public system in the area or Irish Water have confirmed there are no plans for a public system in the area; it can clearly demonstrated that the proposed system can meet all EPA / Local Authority environmental criteria; and an annually renewed contract for the management and maintenance of the system is contracted with a reputable company / person, details of which shall be provided to the Local Authority.
- WI10 Where any application for a private treatment plant would require a discharge licence under the Water Pollution Acts, a simultaneous application for same shall be required to be made when submitting the planning application.

The NIS for this plan does not identify any specific WwTP upgrades required to protect European Sites.

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River Basin Management Plan (2018-2021) and associated information on the catchments available on www.catchments.ie

- The 2nd Cycle RBMP sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2027. On the basis of the actions set out in the RBMP for Ireland it is expected that general water quality improvements will be achieved in the 762 water bodies which are being prioritised for this planning cycle (2018 – 2021). The plan states that "…it is conservatively estimated that the actions outlined will likely result in some 152 additional waterbodies showing improvement in status by 2021, with further improvements being made thereafter. The remaining At Risk water bodies which fall outside the 190 Areas for Action will still benefit from existing and newly introduced measures. As resources allow these will be targeted for investigative assessments and further action, where necessary, through the prioritisation processes at regional committee level."
- Wastewater infrastructure upgrades are identified as principal actions with regard to urban wastewater. Blessington WwTP is identified as being scheduled for upgrade by 2021, though not in association with a protected area requirement.

The above plans – and, in particular, the Natura Impact Reports prepared in relation to those plans – have been assessed in accordance with Article 6(3) of the Habitats Directive and Part XAB of the Planning and Development Act, 2000, and are not envisaged to result in significant effects on the European site(s). Hence considered cumulatively with the upgraded Blessington

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WwTP discharge, there is no potential for effects upon the aquatic-dependant qualifying interests of Wicklow Mountains SAC, Poulaphouca Reservoir SPA, North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA or North Bull Island SPA.

Wicklow County Council's planning maps website was reviewed in order to identify projects that could potentially combine with the upgraded Blessington WwTP discharge to result in significant effects on European sites. Notable recent (post 2018) proposed developments (for which planning has yet to be granted) include three housing developments (planning reference SH202001, 201146 and 191020) and one nursing home development (planning reference 20184). Other recent applications are for the construction or alternation of small residential or business properties. IW reviews available capacity for treatment prior to any connection to the IW network and therefore these developments do not have the potential to interact cumulatively with the Blessington WwTP discharge to result in significant effects on European Sites. Hence considered cumulatively with the upgraded Blessington WwTP discharge, there is no potential for effects upon the aquatic-dependant qualifying interests of Wicklow Mountains SAC, Poulaphouca Reservoir SPA, North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA or North Bull Island SPA.

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I

Screening Conclusions

The likely impacts that will arise from the upgraded Blessington WwTP discharge has been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network.

This AA Screening Report concludes that it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed activity, individually or in combination with other plans and projects, would be likely to have a significant effect on all other European sites.

As a result, it is submitted that a Stage Two Appropriate Assessment is not required.

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ATTACHMENT NO: D.2.(ii)

DRAWING NO. 09:
LOCATION OF EUROPEAN SITES

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BLESSINGTON

WwTP

SW001

BLESSINGTON
Baile Coimin

BALLYMORE EUSTACE
An Baile Mór

POLLAPHUCA RESERVOIR
Taiscumar Pholl an Phúca

Hollywood
Cillín Chaoimhín

Valleymount
An Chreis

Ballyknockan

Moanbane

Sorrel Hill

Silsean

Glenbride

Kilbride
Cill Bhride

Boystown or Baltyboys Lower

Boystown or Baltyboys Upper

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NOTES

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LEGEND

- WASTEWATER TREATMENT PLANT
- PRIMARY DISCHARGE POINT SW001
- SPECIAL AREA OF CONSERVATION (S.A.C.)
- SPECIAL PROTECTION AREA (S.P.A.)

SIGNED :

PRINT NAME :

POSITION :

DATE :

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

DISCHARGE LICENSE

CLIENT

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

PROJECT

BLESSINGTON
WASTEWATER
DISCHARGE LICENSE APPLICATION

TITLE

LOCATION OF
EUROPEAN SITES

SCALES	DRAWN	DATE	
1:5,000	D. Smithers	13.11.2020	
CAD REFERENCE	SECTION	DRAWING No.	REV
D.2 20647-DL-09	D.2	09	-

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