


SECTION B – GENERAL

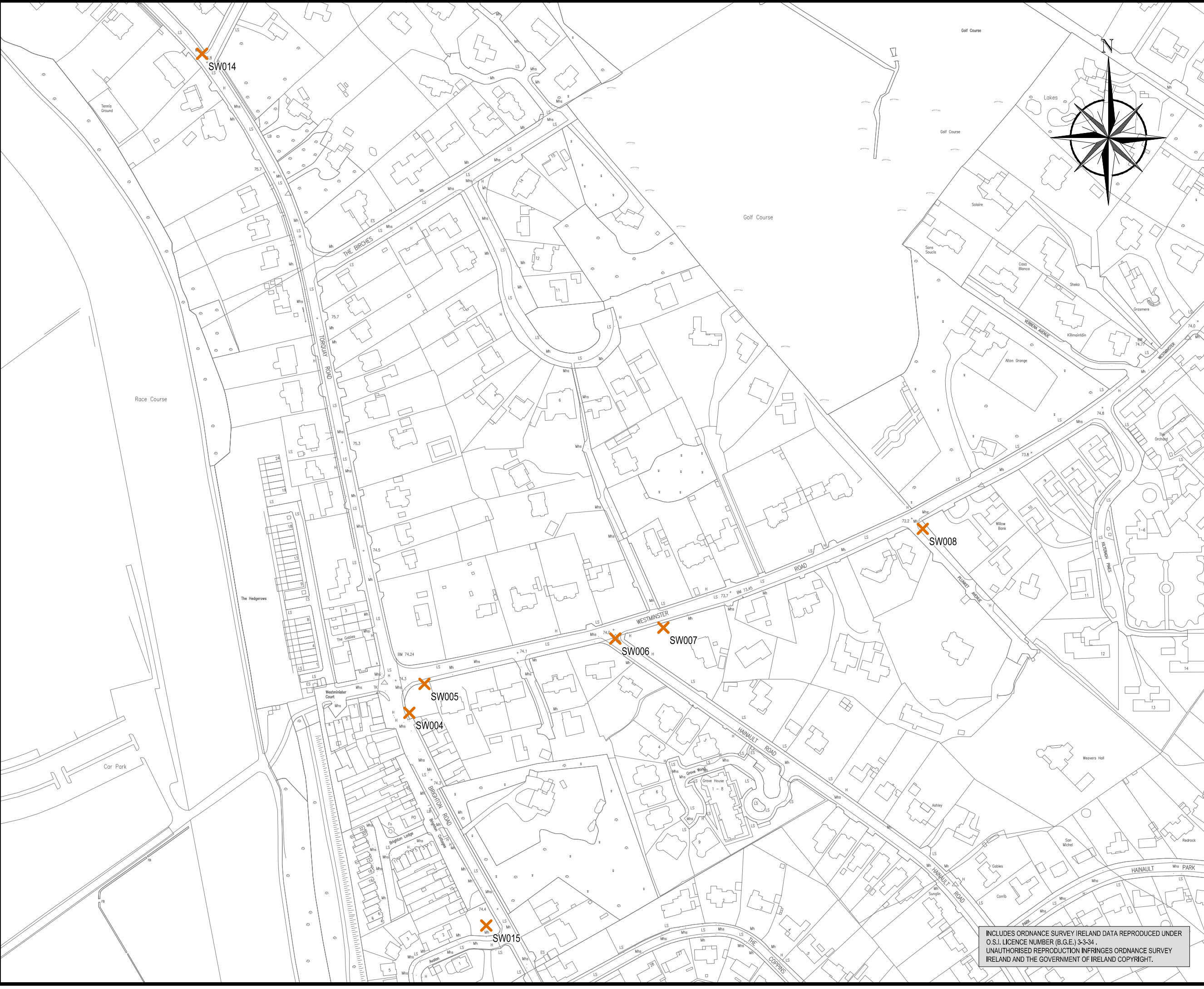
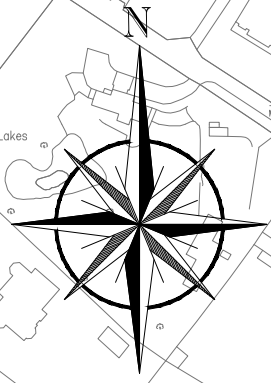
Attachment B5: Location of Stormwater Overflow

- **Drawing Nos.5 – 12: Location of Storm Water Overflows**

LEGEND

 STORM WATER OVERFLOW POINT

POINT	EASTING	NORTHING
SW004	321228	225548
SW005	321239	225569
SW006	321378	225602
SW007	321413	225610
SW008	321602	225682
SW014	321077	226028
SW015	321284	225393



SIGNED : _____

PRINT NAME : _____

POSITION : _____

DATE : _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

CLIENT
IRISH WATER

PROJECT
**SHANGANAGH-BRAY
WASTE WATER DISCHARGE
LICENCE TECHNICAL REVIEW**

TITLE
**LOCATION OF STORM WATER
OVERFLOWS AND DUAL FUNCTION
OVERFLOWS (SHEET 2 OF 8)**

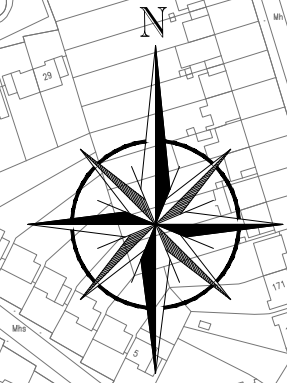
SCALES 1:2500	DRAWN D. Rimdzius
CAD REFERENCE B.5 20571-DL-BH-06	DATE 14.11.2016
SECTION B.5	DRAWING No. 06
REV -	

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LEGEND

✕ STORM WATER OVERFLOW POINT

POINT	EASTING	NORTHING
SW009	322034	225549
SW010	322139	225513
SW011	322640	225541



SIGNED: _____

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POSITION: _____

DATE: _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

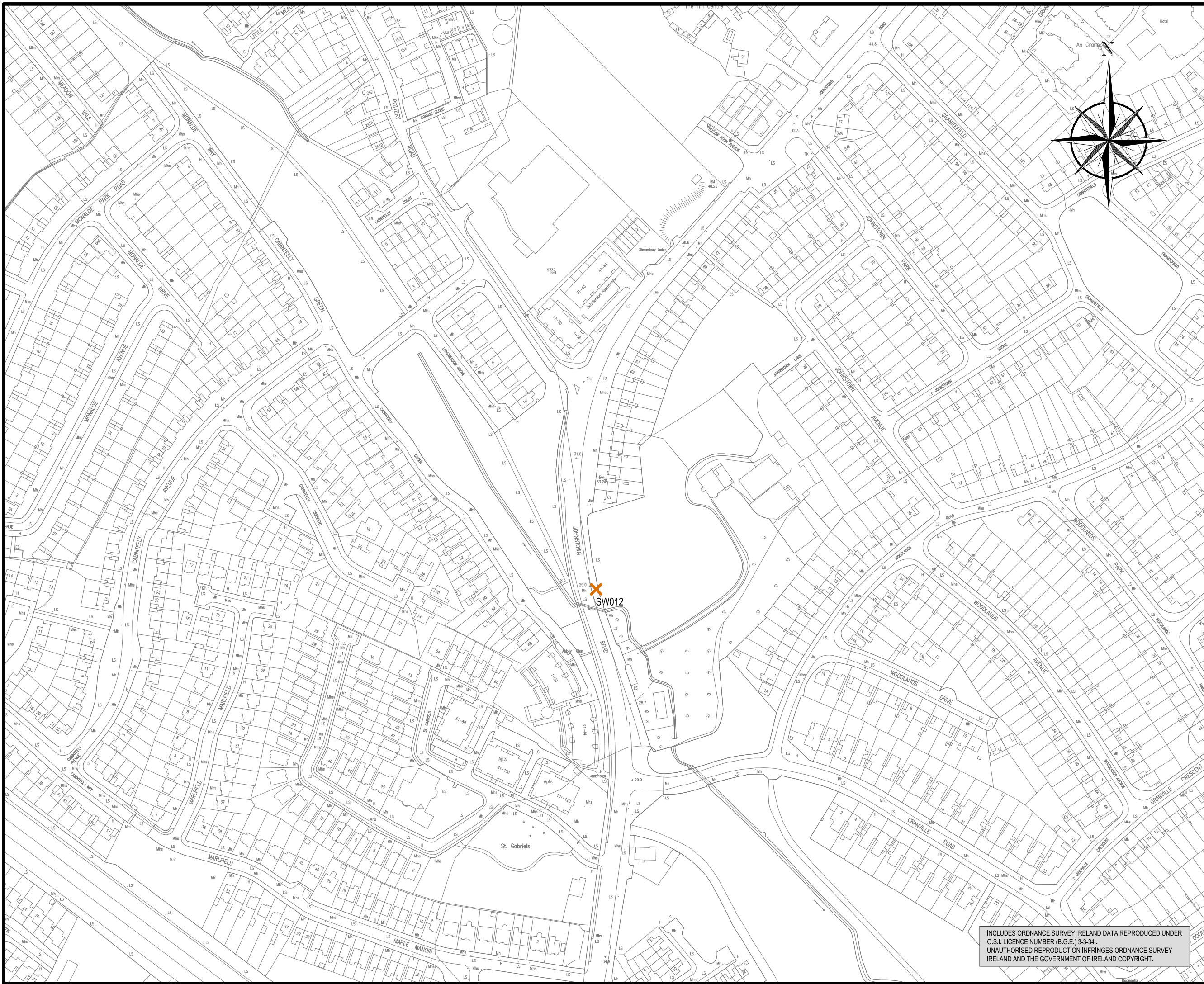
CLIENT
IRISH WATER

PROJECT
**SHANGANAGH-BRAY
WASTE WATER DISCHARGE
LICENCE TECHNICAL REVIEW**

TITLE
**LOCATION OF STORM WATER
OVERFLOWS AND DUAL FUNCTION
OVERFLOWS (SHEET 3 OF 8)**


SCALE 1:2500	DRAWN D. Rimdzius
CAD REFERENCE B.5 20571-DL-BH-07	DATE 14.11.2016
SECTION B.5	DRAWING No. 07
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NOTES

LEGEND

 STORM WATER OVERFLOW POINT

POINT	EASTING	NORTHING
SW012	323601	225512

SIGNED : _____

PRINT NAME : _____

POSITION : _____

DATE : _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

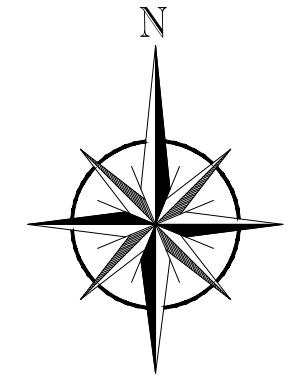
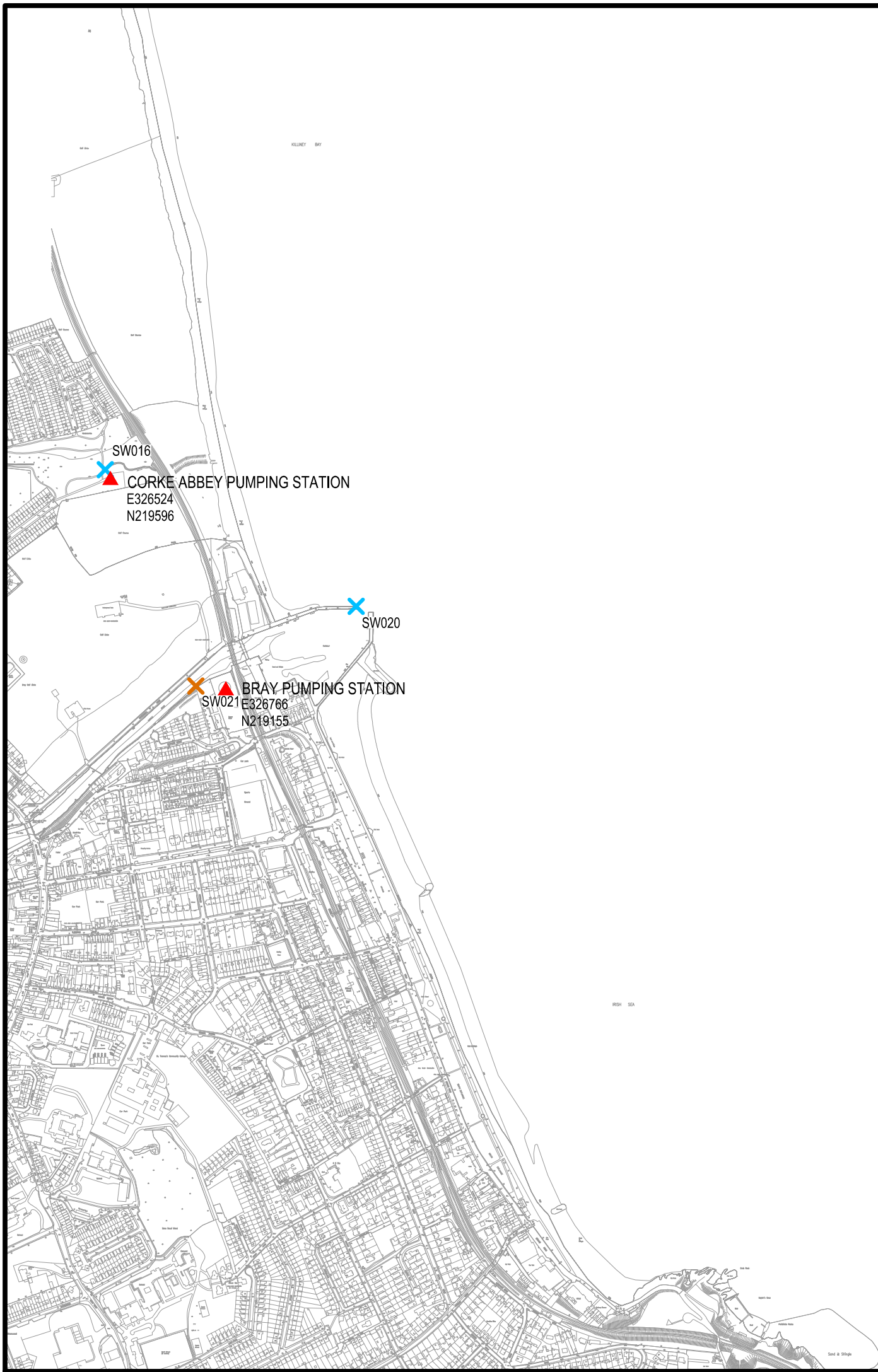
CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF STORM WATER OVERFLOWS AND DUAL FUNCTION OVERFLOWS (SHEET 4 OF 8)

SCALES 1:2500	DRAWN D. Rimdzius	DATE 14.11.2016
CAD REFERENCE B.5 20571-DL-BH-08	SECTION B.5	DRAWING No. 08
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NOTES

LEGEND

- ✕ DUAL FUNCTION OVERFLOW (STORM WATER OVERFLOW AND EMERGENCY OVERFLOW)
- ✕ STORM WATER OVERFLOW POINT
- ▲ EXISTING PUMPING STATIONS

POINT	EASTING	NORTHING
SW019	328217	220117
SW020	327039	219331
SW021	326703	219164
SW016	326513	219618

SIGNED : _____

PRINT NAME : _____

POSITION : _____

DATE : _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

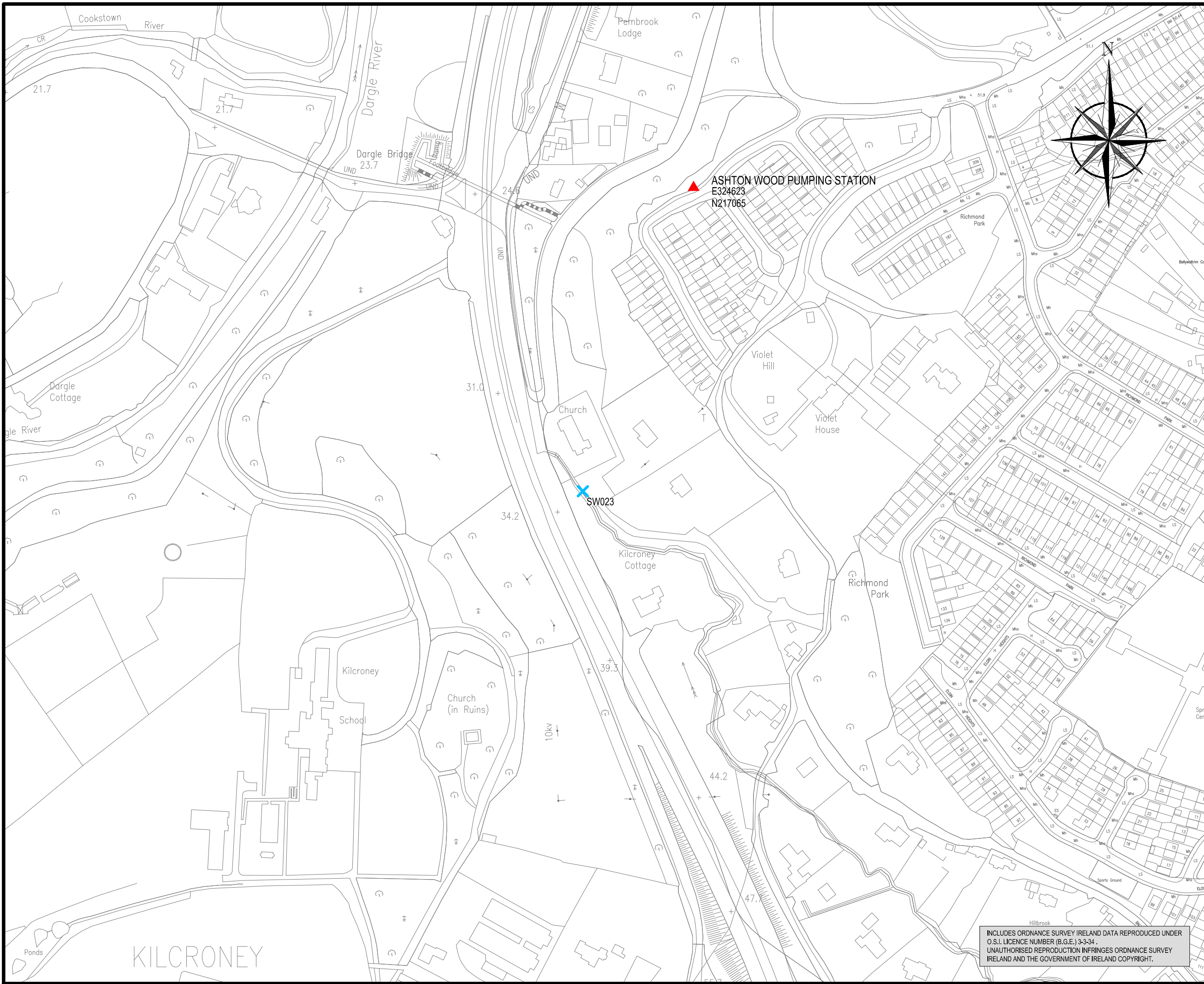
CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF STORM WATER OVERFLOWS AND DUAL FUNCTION OVERFLOWS (SHEET 6 OF 8)

SCALES 1:10,000	DRAWN D. Rimdzius	DATE 14.11.2016
CAD REFERENCE B.5 20571-DL-BH-10	SECTION B.5	DRAWING No. REV 10 -

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NOTES

LEGEND

- X DUAL FUNCTION OVERFLOW (STORM WATER OVERFLOW AND EMERGENCY OVERFLOW)
- X STORM WATER OVERFLOW POINT
- ▲ EXISTING PUMPING STATIONS

POINT	EASTING	NORTHING
SW023	324542	216843

SIGNED: _____

PRINT NAME: _____

POSITION: _____

DATE: _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF STORM WATER OVERFLOWS AND DUAL FUNCTION OVERFLOWS (SHEET 7 OF 8)

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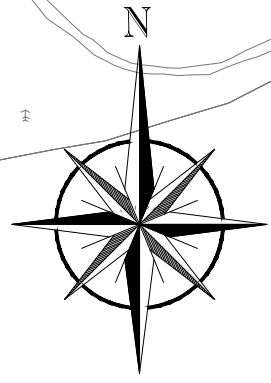
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CAD REFERENCE B.5 20571-DL-BH-11	DATE 14.11.2016
SECTION B.5	DRAWING No. 11
REV -	

KILCRONEY

LEGEND

- ✕ DUAL FUNCTION OVERFLOW (STORM WATER OVERFLOW AND EMERGENCY OVERFLOW)
- ✕ STORM WATER OVERFLOW POINT
- ▲ EXISTING PUMPING STATIONS

POINT	EASTING	NORTHING
SW022	324660	215080



SIGNED : _____

PRINT NAME : _____

POSITION : _____

DATE : _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF STORM WATER OVERFLOWS AND DUAL FUNCTION OVERFLOWS (SHEET 8 OF 8)

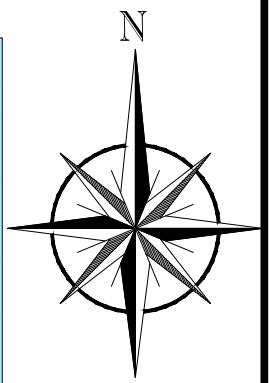
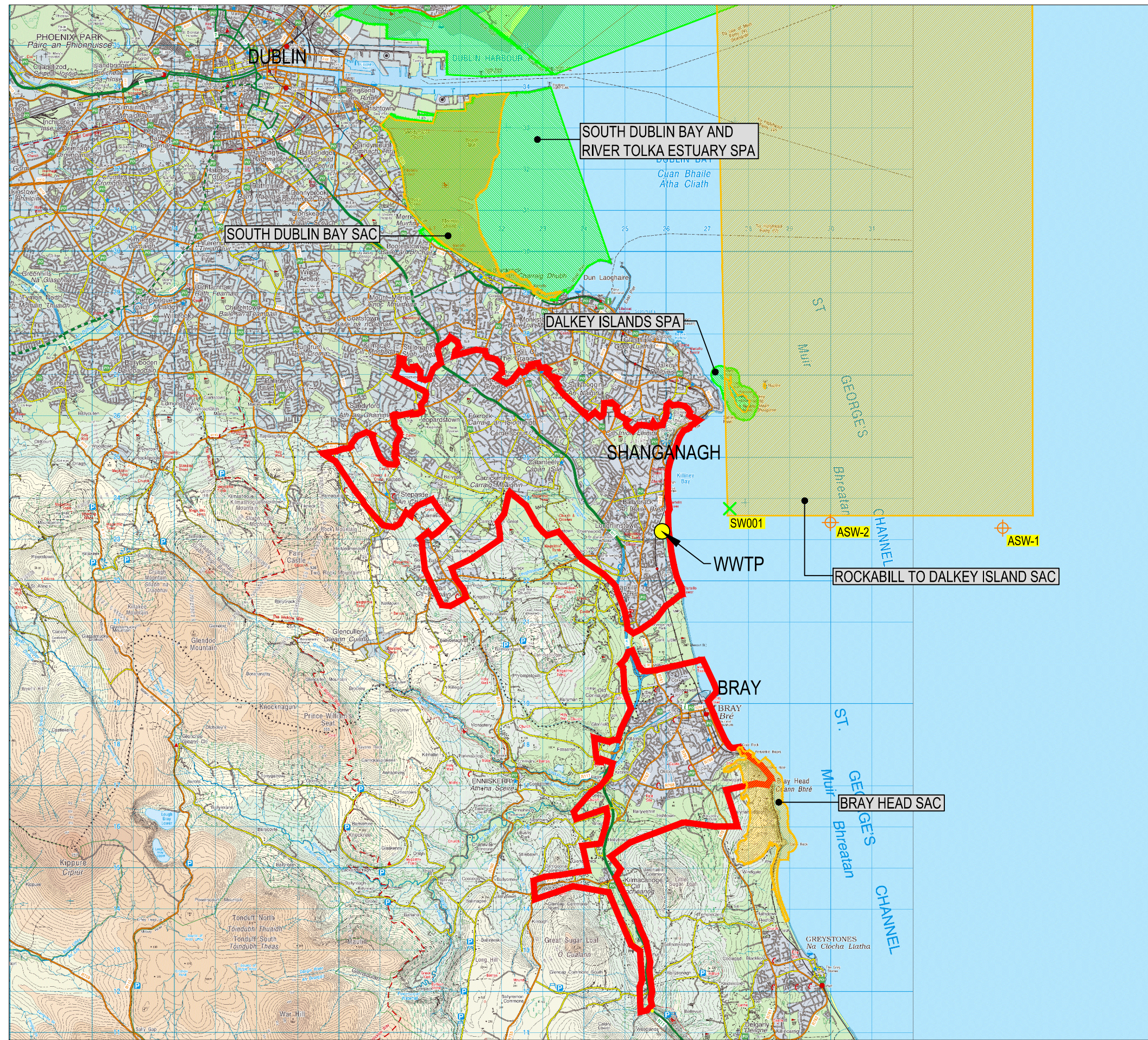
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CAD REFERENCE B.5 20571-DL-BH-12	SECTION B.5	DRAWING No. 12
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SECTION B – GENERAL

Attachment B6: Relevant Planning Authority

- **Drawing No.15: Location of Natura 2000 Sites**
- **Natura Impact Statement**
- **An Bord Pleanála Inspectors Report and order**



- LEGEND**
- AGGLOMERATION BOUNDARY
 - WASTEWATER TREATMENT PLANT LOCATION
 - ▭ SPECIAL AREA OF CONSERVATION (S.A.C.)
 - ▭ SPECIAL PROTECTION AREA (S.P.A.)
 - ✕ PRIMARY DISCHARGE POINT
SW001
 - ⊕ AMBIENT MONITORING POINT
ASW1

SIGNED: _____

PRINT NAME: _____

POSITION: _____

DATE: _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF NATURA 2000 SITES

SCALES 1:100,000	DRAWN D. Rimdzius	DATE 14.11.2016
CAD REFERENCE B.6 20571-DL-BH-15	SECTION B.6	DRAWING No. 15
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Irish Water Report

Natura Impact Statement as part of the Shanganagh-Bray
Discharge License Review (D0038-01 & D0005-01)



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Introduction

This report provides an Appropriate Assessment (AA) of the existing Waste Water Treatment Plant (WwTP) at Shanganagh, Co Dublin, for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007), as amended. This plant serves the Shanganagh and Bray agglomeration. It assesses whether the on-going operation of the plant, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 Site(s) in view of best scientific knowledge and the conservation objectives of the site(s). Natura 2000 Sites are those identified as sites of European Community importance designated as Special Areas of Conservation under the Habitats Directive or as Special Protection Areas under the Birds Directive.

This report follows the guidance for AA published by the Environmental Protection Agency's (EPA) 'Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)' (EPA, 2009); and takes account of the Department of the Environment, Heritage and Local Government's guidelines 'Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities' (DoEHLG, 2009) and Circular L8/08 'Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments' (DoEHLG, 2008).

Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "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 Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

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 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(4) states:

If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

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) and 6(4) 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, 2000b).
- 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).
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).

Stages Involved in the Appropriate Assessment Process

Stage 1: Screening / Test of Significance

This process identifies whether the WwTP discharge is directly connected to or necessary for the management of a Natura 2000 Site(s); and identifies whether the discharge is likely to have significant impacts upon a Natura 2000 Site(s) either alone or in combination with other projects or plans.

The output from this stage is a determination for each Natura 2000 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.

Stage 2: Appropriate Assessment

This stage considers the impact of the WwTP discharge on the integrity of a Natura 2000 Site(s), either alone or in combination with other projects or plans, with respect to (1) the site's conservation objectives; and (2) the site's structure and function and its overall integrity. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts is required.

The output from this stage is a Natura Impact Statement (NIS). This document must include sufficient information for the EPA to carry out the appropriate assessment. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must consider alternatives (Stage 3) or proceed to Stage 4.

Stage 3: Assessment of Alternatives

This process examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 Site. This assessment may be carried out concurrently with Stage 2 in order to find the most appropriate solution. If no alternatives exist or all alternatives would result in negative impacts to the integrity of the Natura 2000 Sites, then the process either moves to Stage 4 or the project is abandoned.

Stage 4: Assessment Where Adverse Impacts Remain

An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

Field Walkover Surveys

Field walkover surveys were undertaken on the 3rd June 2016 to identify the potential for qualifying species and habitats in the surrounding environs of the current WwTP discharge at Shanganagh. The field surveys and reporting were completed by a qualified ecologist.

Consultation

The EPA, as the Competent Authority, will seek NPWS advice as may be required in reaching their decision on a WwTP discharge. The NPWS can only communicate with the applicant (i.e. Irish Water) on request from the competent authority, when the formal application process to the competent authority has already commenced.

Screening

In the Inspectors report of 2009 for Licence D0038-01 it was determined there would be no significant effects on the nearest Natura 2000 sites. At that time the closest designated site was South Dublin Bay SAC over 7km north of the primary discharge point. Since this time, additional sites have been designated closer to the discharge point. In addition, the load from Bray has transferred to Shanganagh. Taking a precautionary approach therefore, a revised Appropriate Assessment has been carried out.

The Natura 2000 sites located within 15km of the primary discharge point are detailed below together with their qualifying interests. Considering the source-pathway-receptor model, proximity to the discharge point, and the dilution and dispersion available in intervening coastal waters all but two sites are Screened out of further stages of AA.

Table 1.0: Natura 2000 Sites and potential for impact

Designated Site	Qualifying Interests	Likely Significant Effect
Rockabill to Dalkey SAC Site Code: 003000	Reefs [1170] <i>Phocoena phocoena</i> (Harbour Porpoise) [1351]	Yes - Primary discharge is directly into this SAC. Designated since the previous AA.
Dalkey Island SPA Site Code: 004172	Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Yes - qualifying features are potentially breeding 2.4km from primary discharge point and potential foraging in the vicinity of the discharge. Designated since the previous AA.
Bray Head SAC Site Code: 000714	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	No – qualifying habitats are terrestrial with no potential to be impacted by the agglomeration discharges.
South Dublin Bay SAC Site Code: 000210	Mudflats and sandflats not covered by seawater at low tide [1140]	No – qualifying interests over 7km north of the discharge point. With the dilution and dispersal available in intervening coastal waters, there is no potential for impact.
South Dublin Bay and River Tolka Estuary SPA Site Code: 004024	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143]	No – special conservation interests over 7km north of the discharge point. With the dilution and dispersal available in intervening coastal waters, there is no potential for impact.

Designated Site	Qualifying Interests	Likely Significant Effect
	<p>Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Wetland and Waterbirds [A999]</p>	
Ballyman Glen SAC Site Code: 000713	<p>Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230]</p>	No – qualifying habitats are inland/terrestrial with no potential to be impacted by the agglomeration discharges.
Knocksink Woods SAC Site Code: 000725	<p>Petrifying springs with tufa formation (Cratoneurion) [7220] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0]</p>	No – qualifying habitats are inland/terrestrial with no potential to be impacted by the agglomeration discharges.
Wicklow Mountains SAC Site Code: 002122	<p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoetoneurion Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Species-rich <i>Nardus</i> 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] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with</p>	No – qualifying habitats are inland/terrestrial with no potential to be impacted by the agglomeration discharges.

Designated Site	Qualifying Interests	Likely Significant Effect
	chasmophytic vegetation [8220] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] <i>Lutra lutra</i> (Otter) [1355]	
Wicklow Mountains SPA Site Code: 004040	Merlin (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103]	No – Special conservation interests would not forage in the vicinity of the discharge.
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 (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]	No – qualifying interests over 12km north of the discharge point. With the dilution and dispersal available in intervening coastal waters, there is no potential for impact.
North Bull Island SPA Site Code: 004006	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160]	No – special conservation interests over 12km north of the discharge point. With the dilution and dispersal available in intervening coastal waters, there is no potential for impact.

Designated Site	Qualifying Interests	Likely Significant Effect
	Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]	
Howth Head SAC Site Code: 000202	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	No – qualifying habitats are terrestrial with no potential to be impacted by the agglomeration discharges.
Howth Head Coast SPA Site Code: 004113	Kittiwake (<i>Rissa tridactyla</i>) [A188]	No – special conservation interest over 12km north of the discharge point. With the dilution and dispersal available in intervening coastal waters, there is no potential for impact.
Glen of the Downs SAC Site Code: 000719	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	No – qualifying habitat is terrestrial with no potential to be impacted by the agglomeration discharges

Based on proximity to the discharge point, the following designated sites are considered in more detail:

- Rockabill to Dalkey SAC (Primary discharge point is within the southwestern boundary of this SAC)
- Dalkey Island SPA (Primary discharge is approximately 2.4 km south of this SPA)

Stage 2: Appropriate Assessment

The Natura 2000 sites, which have been determined as requiring AA, are described and all the potential impacts resulting from the Shanganagh WwTP discharge are discussed in relation to the conservation objectives of these designated sites.

Description of the Project

The new Shanganagh WwTP commenced operation in May 2012 and in October 2013 flows from Bray were transferred to the plant. Shanganagh WwTP has a design PE of 186,000. The current mean PE is 134,587 (IW, 2016).

The treatment process includes the following:-

- Preliminary treatment (including screening / grit removal)
- Primary treatment
- Secondary treatment - conventional activated sludge

There are currently 23 discharges to water from the Shanganagh agglomeration – the primary discharge and secondary discharge from the Shanganagh WwTP, 14 Storm Water Overflows from the sewer network, 5 dual function overflows (which can operate as Emergency Overflows and Storm Water Overflows) and 2 Emergency Overflows from pumping stations.

The treated and settled wastewater is discharged to the Irish Sea either by gravity or via the existing long sea outfall pumping station at the treatment plant through an existing 1.7km long, 1,170mm diameter outfall pipe to the Irish Sea, off Killiney Bay.

Only 1 of the Storm Water Overflows is considered not to comply with the DoEHLG guidelines and works to bring this overflow into compliance will be informed by the Shanganagh-Bray Drainage Area Plan which will commence in 2016. A further 5 newly identified storm water overflows and 1 upgraded storm water overflow will be assessed as part of this study.

The location of the primary discharge to Killiney Bay in the Irish Sea is E327548, N223736. The most recent 12 months of effluent data is presented in Table 2.0 together with the ELV's set in the discharge license.

The effluent from the primary discharge meets the Urban Wastewater Treatment Regulations 2001(S.I. No. 254/2001) as amended, and discharge license ELV's, for all relevant parameters (Table 2.0) with the exception of one exceedance for suspended solids. The agglomeration does not discharge to any waterbody listed as a Sensitive Area on Schedule 1 of the Urban Waste Water Treatment (Amendment) Regulations 2010 (S.I. No. 48/2010).

Table 2.0: Effluent Monitoring Data at Primary Discharge Point 2015-2016

Sample Date	BOD mg/l	COD mg/l	SS mg/l	Total Nitrogen mg/l	Total Phosphorous mg/l	Ammonia mg/l as N	TON as N mg/l
License ELV	25	125	35	-	-	-	-
04/06/2015	7	44	13	39.5	2	32.94	5.9
11/06/2015	7	43	10	51.3	2.68	44	6.13
25/06/2015	7	50	16	53.8	3.45	40.57	6.46
09/07/2015	3	26	<5	45.4	1.8	19.8	6.51
16/07/2015	8	49	12	42.6	3.09	35.09	7.28
23/07/2015	8	49	10	28.5	5.25	20.22	7.77
06/08/2015	11	46	10	29.6	8.48	17.63	10.82
13/08/2015	8	80	14	49.4	11.4	33.24	14.85
20/08/2015	6	48	8	31.9	7.26	14.03	15.49
03/09/2015	8	47	18	27.4	10.6	9.76	16.77
10/09/2015	6	42	18	28.1	5.38	12.08	13.97
17/09/2015	5	34	24	16.5	4.11	0.88	14.02
08/10/2015	5	29	14	19.9	1.6	3.12	10.27
15/10/2015	5	34	16	19.7	2.51	3.02	16.58
22/10/2015	7	36	9	22	4.12	9.13	11.6
05/11/2015	5	5	8	22.6	1.38	13.5	8.47
12/11/2015	6	6	9	20	2.12	12.6	7.21
03/12/2015	7	34	11	24.5	2.01	21.08	1.97
10/12/2015	8	26	12	14	1.17	11.82	1.46
14/01/2016	4	25	10	7.91	0.64	4.11	3.71
21/01/2016	6	33	6	30.5	3	25.85	1.76
28/01/2016	6	35	13	24.3	1.76	20.65	2.71
04/02/2016	6	35	11	-	2.84	-	3.7
11/02/2016	7	36	12	25.4	1.9	-	4.14
25/02/2016	6	36	10	29.9	1.22	-	4.5
10/03/2016	7	36	11	30.9	1.79	24.92	4.68
31/03/2016	8	44	19	40	1.94	32.32	7.27
07/04/2016	6	31	5	32.3	1.16	26	5.66
14/04/2016	10	41	21	-	1.19	21.62	3.06
21/04/2016	7	43	16	-	1.79	35.35	6.26
28/04/2016	7	50	15	45.1	2.21	34.51	5.79
12/05/2016	8	51	15	26.3	3.42	19.26	4.88
19/05/2016	6	44	91	43.4	3.3	35.77	5.78
26/05/2016	9	51	16	44.2	2.83	35.97	6.12

Description of the Receiving Environment and Monitoring Results

The WwTP discharges to the Irish Sea off the Shanganagh coastline. Data from two ambient monitoring locations is presented below. ASW-1 is located 8.1km due east of the Dalkey/Killiney coast. ASW-2 is located 3.9km northeast of Dalkey Island.

Water quality at these locations were compliant with Schedule 5 of the European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) with DIN levels indicating 'High status' waters (Table 3.0).

Table 3.0: Ambient Water Monitoring Data

	Sampling Date/ Parameter	Ammonia	BOD	Dissolved Inorganic Nitrogen	Bottom Oxygen	Oxygen at 0m Depth	Total Organic Nitrogen
		mg/l N	mg/l	mg/l	% Sat	% Sat	mg/l
SW EQS				≤0.17	80-120	80-120	
ASW-1	08/07/15	0.010	1	0.010	101.7	104.2	<0.010
ASW-2	08/07/15	0.009	<1	0.009	100.2	102.1	<0.010

The closest bathing water site is Killiney which achieved Excellent water quality status in 2014 and 2015, and Good status in all but one of the years tested prior to this from 2002. There are no designated shellfish waters in proximity to the discharges from the agglomeration.

The coastal waters of the Southwestern Irish Sea – Killiney Bay (HA10) are classed as Unpolluted by the EPA (2010-2012 data). The coastal waterbody is assigned 'Good' Water Framework Directive status.

A number of rivers/streams run through the Shanganagh agglomeration and enter the Irish Sea in Killiney Bay. These include the Shanganagh River (and Carrickmines stream tributary) and the Kill of the Grange Stream (Deansgrange Stream). The Shanganagh River is assigned Good water quality by the EPA both upstream and downstream of the confluence with the Moderate Carrickmines stream. The Kill of the Grange stream has been assigned Poor water quality (Q3 at RS10K020200 and RS10K020500). The Kill of the Grange stream is listed by the EPA (2013) as potentially being impacted by urban waste water discharges.

Field Walkover Survey

Habitats in the vicinity of the WwTP and discharges were surveyed in June 2016. The Shanganagh WwTP is situated in a suburban area, with adjacent land use dominated by residential developments and amenity grassland areas. In terms of coastal habitats, a stony beach backs onto soft sediment cliffs and areas of coastal grassland. Two streams, the Carrickmines Stream (which joins the Shanganagh River at Loughlinstown) and the Kill of Grange Stream (Deansgrange Stream), enter Killiney Bay just north of the WwTP. It is understood that these streams may receive some of the overflows from the agglomeration.

The grassland along the tops of the cliffs is dominated by tall grasses and herbs including hogweed *Heracleum sphondylium*, fools parsley *Aethusa cynapium*, nettle *Urtica dioica*, false oat grass *Arrhenatherum elatius*, cock's-foot grass *Dactylis glomerata*, Alexanders *Smyrniolum olusatrum* and winter heliotrope *Petasites fragrans*. Some areas of sandier soil between the beach and cliffs are colonised with a typical coastal vegetation including bird's foot trefoil *Lotus corniculatus*, lady's bedstraw *Galium verum*, kidney vetch *Anthyllis vulneraria*, red fescue *Festuca rubra*, sand sedge *Carex arenaria* and white clover *Trifolium repens*. The stream banksides are colonised with fools parsley, common reed *Phragmites australis*, bramble *Rubus fruticosus* agg., tufted vetch *Vicia recca* and scattered willow *Salix* spp.

The Marine Atlas¹ provides habitat data for the Irish Sea. The subtidal area in the coastal waters where the primary discharge is located is classed as 'Shallow sublittoral mud'. Studies for an EIS, undertaken in 2000 (MCOS, 2001), also identified a mud and sand dominated sediment community in the vicinity of the outfall.

Description of the Natura 2000 Sites Affected

Rockabill to Dalkey Island SAC²

This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muggins and Rockabill islands.

Reef habitat is uncommon along the eastern seaboard of Ireland due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.

The area selected for designation represents a key habitat for the Annex II species Harbour Porpoise within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. The selected site contains a wide array of habitats believed to be important for Harbour Porpoise including inshore shallow sand and mudbanks and rocky reefs scoured by strong current flow.

Description of the Qualifying Interests of the SAC

This site is designated for the following habitats/species:

- Reefs [1170]

¹ <http://atlas.marine.ie/>

² Information taken from Rockabill to Dalkey Island SAC Site Synopsis (3000). Dated 10.2.2014

- *Phocoena phocoena* (Harbour Porpoise) [1351]

A significant area of Intertidal and Subtidal Reef habitat is present around Dalkey Island. Subtidal habitats further south in Killiney Bay as identified as 'Sediment Communities' (NPWS, 2013a).

The Intertidal Reef Community Complex around Dalkey Island is characterised by exposed reef on the eastern side of the island and around the Muglins. Steep shorelines are characteristic. The species associated with this community complex include fucoid seaweeds, barnacles, mussels and limpets. Kelp is common at the low tide mark. Subtidal Reef Community Complex supports a range of species including algae (kelp, red algae), anemones, bryozoans, hydroids, ascidians, barnacles and echinoderms.

Population estimates indicate there is a consistent annual and seasonal occurrence of Harbour porpoise within the SAC and that they are present during the calving/breeding period (NPWS, 2013a). While there are some knowledge gaps with regard to population data, the SAC is considered to be an important coastal site for this species. Foraging areas for harbour porpoise are often associated with areas of strong tidal current and associated eddies; and therefore the occurrence of porpoises close to shore or adjacent to islands and prominent headlands is commonly reported (NPWS, 2013a).

Table 4.0: Qualifying SAC Features along Surveyed Stretch

Site	Qualifying Interests	Present within potential zone of influence of discharge
Rockabill to Dalkey Island SAC	Reefs	Yes
	Harbour Porpoise	Yes

Dalkey Island SPA³

The site comprises Dalkey Island, Lamb Island and Maiden Rock, the intervening rocks and reefs, and the surrounding sea to a distance of 200m. Dalkey Islands SPA is both a breeding and a staging site for *Sterna* terns. There is a good history of nesting by terns though success has been variable over the years. Common Tern is the most common species, usually outnumbering Arctic Tern by at least 3:1. Up to 1988, the range given for Common Tern was 15-53 pairs, and for Arctic Tern 'a few' pairs. Also, Roseate Tern attempted nesting in 1986, with 2 pairs recorded. A tern conservation scheme, co-ordinated by BirdWatch Ireland / National Parks and Wildlife Service, began in 1995, with wardening, nestbox deployment and monitoring being carried out. The ultimate aim was to attract Roseate Tern to breed. Numbers of terns increased in subsequent years, though numbers and breeding success is still variable between years. In 2003 62 pairs of Common Tern and 24 pairs of Arctic Tern were recorded. Of great significance is that Roseate Tern has returned, with 5 pairs recorded in 2003 and 11 pairs in 2004 – this is one of only three known sites in the country for this rare species.

The site, along with other parts of south Dublin Bay, is used by the three tern species as a major post-breeding/pre-migration autumn roost area. Birds are present from about late-July to

³ Information taken from Dalkey Islands SPA Site Synopsis (4172). Dated 14.5.2009

September, with c. 2,000 individuals of all three species being recorded. The origin of the birds is likely to be the Dublin breeding sites (Rockabill and Dublin Docks) though the numbers recorded suggests that birds from other sites, perhaps outside the State, are also present.

Description of the Conservation Interests of the SPA

The SPA is designated for the following bird species:

- Roseate Tern (*Sterna dougallii*) [A192]
- Common Tern (*Sterna hirundo*) [A193]
- Arctic Tern (*Sterna paradisaea*) [A194]

Information on populations (where available), requirements and sensitivities of key species are considered in more detail below with data taken from Crowe (2005), Colhoun & Cummins, (2013), BirdWatch Ireland’s website and NPWS (2015).

Terns are summer visitors to Ireland. They nest colonially on the ground on shingle beaches making them vulnerable to poor weather and ground predators. They feed mainly on marine fish. They are amber-listed bird of conservation concern in Ireland due to their limited breeding distribution.

Roseate tern is a rare summer visitor. The most important colony in Europe is on Rockabill Island, off Skerries and there is also a site at Lady’s Island in Wexford. The Dalkey Island population established relatively recently with a colony on Maiden Rock. There are large **Common tern** colonies in Co Dublin, Co. Wexford and Co. Galway. They also breed inland on islets in freshwater lakes, most notably in Galway and Mayo. **Arctic tern** are a summer visitor along all Irish Coasts, particularly the west coast, and like common tern also breed inland in Galway and Mayo. The largest colonies are in Wexford, Kerry, Mayo and Donegal.

Table 5.0: Qualifying SPA Features along Surveyed Stretch

Site	Qualifying Species	Observed or signs of species presence within potential zone of influence of discharge	Suitable habitat present within potential zone of influence of discharge
Dalkey Island SPA	Roseate Tern	No	Yes
	Common Tern	No	Yes
	Arctic Tern	No	Yes

Conservation Objectives

Article 6 of the Habitats Directive states that:

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications of the site in view of the site’s conservation objectives.

The importance of a site designated under the Habitats Directive is defined by its qualifying features or interests. Qualifying interests for any Natura 2000 site are listed on a *pro forma*, called the Natura 2000 standard data form, which forms the basis of the rationale behind designation, and informs the Conservation Management Plan for targeted management and monitoring of key species and habitats.

Favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Rockabill to Dalkey Island SAC

The overarching conservation objective (NPWS, 2013b) is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- Reefs [1170]
- *Phocoena phocoena* (Harbour Porpoise) [1351]

Detailed conservation objectives for the qualifying interests assessed as having the potential to be impacted are as follows:

Reefs

To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

- Attribute: Habitat Area;
Target: Permanent habitat area stable or increasing subject to natural processes.
- Attribute: Habitat Distribution;
Target: The distribution of reefs remains stable, subject to natural processes.
- Attribute: Community Structure;
Target: Conserve the following community types in a natural condition: Intertidal reef community complex; and subtidal reef community complex.

Harbour porpoise

To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

- Attribute: Access to suitable habitat;

Target: Species range within the site should not be restricted by artificial barriers to site use.

- Attribute: Disturbance;

Target: Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site.

The latter target for harbour porpoise also relates to proposed activities or operations that may result in the deterioration of key resources (water quality) upon which harbour porpoises depend.

Dalkey Island SPA

The generic conservation objective (NPWS, 2015) for Dalkey Island SPA is:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

Site specific conservation objectives (SSCO's) are not available for this SPA however an example of typical SSCO's from other sites are presented below:

Objective 1: To maintain the favourable conservation condition of the breeding waterbird Special Conservation Interest species listed for the SPA.

This objective is defined by the following attributes and targets:-

- To be favourable, the long term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.
- To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.

Objective 2: To maintain the favourable conservation condition of the wetland habitat at SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

This objective is defined by the following attributes and targets:-

- To be favourable, the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of x ha (x specific to site), other than that occurring from natural patterns of variation.

Impact Prediction

Impacts on water quality

It is important to establish whether the receiving environments water quality has the potential to interact with the qualifying interests of the Natura 2000 Sites identified. The primary discharge from the WwTP discharges directly into the southwestern boundary of the Rockabill to Dalkey

Island SAC. There is no direct discharge from the Shanganagh and Bray agglomeration to any SPA, however the primary discharge is in relatively close proximity to the Dalkey Island SPA. As described in Table 1.0, other Natura 2000 sites are not considered to be at risk from the agglomeration discharges due to the distance from the sites and the dispersion and dilution available in coastal waters.

The treated effluent from the primary discharge is not anticipated to impact on water quality of the Rockabill to Dalkey Island SAC or the Dalkey Island SPA. The discharge complies with licence ELV's and the closest bathing water and surface water monitoring stations to the primary discharge indicates these waters achieve good-high status. Water quality sampling in the vicinity of the outfall undertaken as part of the EIS in 2000 indicated that the effluent is effectively dispersed (MCOS, 2001).

Other discharges associated with the agglomeration discharge into freshwater streams or the inshore marine environment are unmonitored and may potentially be having localised effects on the aquatic environment. In particular the EPA have identified overflows into the Kill of the Grange Stream (Deansgrange Stream) as potentially causing a deterioration in water quality. Localised water quality effects in these streams, or any overflows/secondary discharges to inshore waters around Bray and Killiney, are not expected to impact on water quality in the SAC and SPA under consideration as these sites are located away from the main coastline.

Cumulative impacts in the catchment possibly pose the greatest risk to the conservation objectives. The potential threat(s) of Shanganagh WwTP on water quality (long term or single event) is increased when taken in combination with other water quality concerns in the catchment.

The Eastern River Basin District – River Basin Management Plan (ERBD, 2010) indicates that the main risks to water quality in the Shanganagh and Bray agglomeration area are wastewater from industrial discharges and also from landfills/quarries/mines/contaminated land. The plan identified the requirement for the upgrade to the Shanganagh WwTP which has been completed. The suburban nature of the agglomeration means that local watercourses would be under pressure from diffuse pollution resulting from ongoing urban development and run-off from hard surfaces.

Other impacts which are likely to act cumulatively and impact on water quality in the catchment result from the following:

- Chemical fertiliser application to agricultural lands (the main fertilisers in use supply nitrogen, phosphorus, potassium and sulphur);
- Agricultural practices such as ploughing leads to greater mineralisation and nitrification, and in the case of old grassland, it can result in an increase in the release of nitrogen over a number of years (OECD, 1986);
- Artificial drainage increases nitrate leaching and reduce the morphological qualities of watercourses, thereby reducing the quality of habitat for flora and fauna;
- Endocrine disruptors in domestic sewage, including the main active component in the oral contraceptive pill, can interfere with the endocrine system of plants and animals which controls a wide range of processes including metabolism, growth and

reproduction. Effects include a high degree of intersexuality downstream of sewage works (Routledge *et al.* 1998);

- Forestry may alter water quality indirectly through increased evaporation losses and hence an increase in solute concentrations; and
- On-site wastewater treatment systems, poorly performing septic tank units and other small effluent systems can be significant sources of nutrients to rivers.

The coastal waters in which the designated sites under consideration are located are classed as Unpolluted, which would indicate such cumulative impacts are not significantly affecting these waters.

Impacts on Annex I Habitats

The magnitude of the impact to intertidal and subtidal habitats will depend on the extent of dilution of the effluent and the nature of its subsequent dispersal.

Dilution factors will be influenced by tide and wind currents, the bathymetry of the seabed, the density of the effluent and the design of the outfall (SEPA, 2013). The initial dilution is the process whereby the discharge from a submerged outfall is entrained by the surrounding waters as a result of turbulent mixing and discharge buoyancy relative to ambient water density. Subsequent dilution with the receiving waters occurs away from the initial dilution in an area defined as the mixing zone. The Shanganagh long sea outfall provides for effective dispersion of the treated effluent from the primary discharge.

Increases in anthropogenic nutrient input can favour fast-growing macroalgae in marine environments altering the structure and composition of algal assemblages which can have indirect effects on the structure of the entire community (Aquilino *et al.*, 2009; Worm & Lotze, 2006). There was no obvious effects of any of the agglomeration discharges within nearby intertidal habitats (shingle shore) or on the surface of the water (e.g. foam, discolouration), nor were there any foul odours. The primary discharge is the closest discharge to designated Reef habitat around Dalkey Island. Given the quality of the effluent and the dilution and dispersal available in coastal waters, the ongoing primary discharge is not expected to affect the favourable conservation status of 'Reefs' habitat in Rockabill to Dalkey Island SAC. The overflows inshore and in local streams are even further from Reef habitat, and while there may be limited dilution available in the freshwater environment, the additional dilution in intervening coastal waters means there is no potential for the overflows to affect the favourable conservation status of this habitat.

Table 6.0: Qualifying habitats potentially impacted by the WwTP discharges

Qualifying Habitats	Potential Impacts	Brief Explanation	Mitigation required
Reefs	No	Distance of secondary/overflow discharges from Reef habitat means no potential for significant effects	No

Impacts on Annex II Species

The only Annex II species under consideration is the Harbour Porpoise. Data suggests there is a healthy population of porpoise in the SAC. Any minor eutrophication effects within the mixing/dilution zones of the primary discharge or overflows are not expected to impact the favourable conservation status of this species. The primary discharge comprises treated effluent and is effectively dispersed, while the worst effects of the overflows will be within freshwater or shallow intertidal waters to the coast which would not be used by this species.

Table 7.0: Qualifying species potentially impacted by the WwTP discharges

Qualifying Species	Potential Impact	Brief Explanation	Mitigation Required
Harbour porpoise	No	Species not considered highly sensitive to indirect effects from what is likely to be only low levels of nutrient enrichment. Significant effects on the conservation status of harbour porpoise not predicted.	No

Impacts on designated features of the SPA

Eutrophication causing increased algal blooms may interfere with terns fishing during their breeding season, or potentially result in direct toxicity to fish species on which they prey. With respect to the discharges from the Shanganagh and Bray agglomeration however, they are not located in the vicinity of the tern colonies on Dalkey Island and any plumes would all receive sufficient dilution and dispersal in adjacent coastal waters. While terns may forage beyond the island, water quality has been classed as Unpolluted and there is no information to suggest algal blooms have been an issue for breeding terns to date. Furthermore, pollution is not listed as a threat or pressure on the Natura 2000 data form for the SPA.

Table 8.0: Qualifying Features of SPA Potentially Impacted by WwTP Discharge

Site	Qualifying Species	Potential Impacts	Brief Explanation	Mitigation Required
Dalkey Island SPA	Roseate Tern	No	Pollution not considered a threat to this species. No evidence to suggest the ongoing discharges interfering with tern foraging.	No
	Common Tern			
	Arctic Tern			

Mitigation Measures

No specific mitigation measures are required as no potential adverse effects of the existing Shanganagh discharges on Natura 2000 sites have been identified. A Drainage Area Plan will be undertaken for the Shanganagh and Bray agglomeration in 2016, which will identify where improvements are required to overflows. This will lead to works which will ameliorate any localised eutrophication impacts related to the overflows.

To ensure continued satisfactory operation of the Shanganagh WwTP mitigation measures recommended are as follows:

- Ensure that the capacity of the WwTP is not exceeded; and
- Continuation of monitoring of the discharge, including at the outfall, and the ambient background concentrations, on a consistent and regular basis.

Stage 2 Appropriate Assessment Conclusion Statement

The current Appropriate Assessment has been prepared following the EPA (2009) '*Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)*'. The Department of the Environment, Heritage and Local Government guidance '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*' (DoEHLG, 2009) has also been taken into account. The current assessment for the Waste Water Discharge Licence Review investigates the potential adverse effects on the aquatic qualifying interests of the Natura 2000 network arising from the plant discharge, in combination with other plans / projects affecting the aquatic environment. The assessment considers whether the discharge, alone or in combination with other projects or plans, will have adverse effects on the *integrity* of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects.

When the above mitigation measures are implemented in full, it is envisaged that there will be no significant adverse effects on the integrity of Rockabill to Dalkey Island SAC or Dalkey Island SPA, in view of these site's conservation objectives and that the conservation status of the Annex I habitats, Annex II species and protected bird species will not be compromised by the WwTP discharge either directly, indirectly or cumulatively.

It is therefore concluded that the Shanganagh WwTP discharge, alone or in-combination with other plans and / or projects will not give rise to significant effects on the integrity of Rockabill to Dalkey Island SAC or Dalkey Island SPA, Stage 2 concludes the Appropriate Assessment process for the Shanganagh Waste Water Discharge Licence Review.

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1. Deputy Planning Officer.

Dun Laoghaire/Rathdown County Council
Expansion and Upgrading of
Shanganagh Wastewater Treatment Works.
Environmental Impact Statement.

Introduction

Dun Laoghaire/Rathdown County Council has applied to An Bord Pleanala for certification of the above Environmental Impact Statement (E.I.S.) in accordance with Part IX Article 123 of the Local Government (Planning and Development) Regulations 1994, S.I.No.86 of 1994 as amended.

I have examined the E.I.S. document and inspected the proposed site on 13 August, 2001, and my report with recommendation is set out hereunder.

Proposed Development

The proposed development is the upgrading and expansion of the existing treatment works on an extended site. The design capacity of the existing long sea outfall is 250,000 population equivalent (p.e.), more than adequate for the 160,000 p.e. design capacity for the proposed upgrading and an estimated possible long term load of 200,000 p.e. However, the existing treatment works only screens and de-grits the raw sewage before pumping it out to sea. The level of treatment which will be required for a plant of this size and location to comply with current policy is secondary treatment. The E.I.S. discusses how to achieve this whilst minimising negative effects on the environment. There are no special designations in the area requiring a higher degree of treatment.

Environmental Impact Statement Format

The E.I.S. was prepared by M.C.O'Sullivan & Co.Ltd., Consulting Engineers and COWI Ltd., Consulting Engineers. It is a single volume report containing 17 chapters in four parts (including as the first part and chapter the Non-Technical Summary as required by the January 1997 Procedural Instructions, Environmental Impact Assessments for Local Authority Development, Part V Clause 5.2.(e)), 19 figures, 7 tables and 3 appendices. It describes the proposed development and contains the information required by the Second Schedule of the European Communities (Environmental Impact Assessment)(Amendment) Regulations, 1999, S.I.No.93 of 1999. The interrelation of effects is not covered under a heading of its own as are the other subjects, but dealt with if necessary under the other specific headings.

The three Appendices are Specialists' reports on "Control of Odour Emission" by Aquavarra Research Ltd., "Noise Aspects" by Environmental Services and "Marine Sediment, Water Chemistry & Benthic Fauna" by the Aquatic Services Unit, UCC.
Submissions/Observations

Prior to preparing the E.I.S., displays, with County Council/Consultants' staff in attendance to answer questions, were held at three locations in the area in July and August 2000. The concerns raised by the public with regard to the Shanganagh Wastewater Treatment Works development are addressed in the E.I.S. and I will refer further to them in this report. Thirteen bodies which might

have an interest in the development were also consulted prior to preparing the E.I.S. These are listed in Appendix 1 to this report.

The E.I.S. was presented, by the Consulting Engineers, to a meeting of the County Council on 11 December, 2000, and then to Members of the Ballybrack Electoral Area and a number of County Council Officers on 22 January, 2001.

In accordance with Article 120 of S.I.No.86 of 1994, the Local Authority published an advertisement in the "Irish Independent" of 23 May, 2001, stating that the E.I.S. would be available for inspection at four of their offices on specified dates in June 2001 and that copies of the full E.I.S. or the non-technical summary would also be available for purchase. The prices were reasonable. The latest date for submissions/observations was 16 July, 2001. No other European Union States are affected.

There were no formal submissions/observations received by An Bord Pleanála relating to this E.I.S.

Existing Wastewater Treatment Works

Historically there has always been a treatment works at this location. They were upgraded in 1983 to cater for significant actual and projected population growth in the catchment and the possible inclusion of the Bray catchment as well. At that time screening and grit removal followed by disposal through a 1.6 km long sea outfall (pump assisted if necessary) for 'marine treatment' was considered to be adequate.

Bray to date has never been connected to Shanganagh, but was provided with a similar treatment system of its own.

There are current concerns for bathing water quality at Bray beach and, possibly, evidence of slightly worsening quality of bathing water at Killiney beach. Water quality at Bullock Harbour and Dalkey Sound have not been monitored on a routine basis, but under certain conditions of tide and weather modelling work predicts possible non-compliance with bathing water regulations.

The current treatment process at Shanganagh results in the storage on site of screenings and grit in open skips for later removal to landfill. This results in complaints about odours from nearby housing areas, particularly in warm weather and/or easterly winds.

Need for the proposed development

The treatment of sewage at Shanganagh from which the effluent is to be discharged to sea must be a minimum of secondary treatment standard (this is defined as the effluent having values below specific biological/chemical parameters) as required by the Urban Wastewater Treatment Directive (91/241/EEC) and national regulations (S.I.No.419 of 1994).

Also to be considered is compliance with the bathing water directive (76/160/EEC) and national regulations (S.I.No.155 of 1992) plus the 'Blue Flag' beach targets, and the shellfish water directive (79/923/EEC) and national regulations (S.I.No.200 of 1994).

Do minimum situation

If the need for upgraded treatment was not followed up, Central Government would most probably find the European Union taking legal proceedings against it.

There would also be probable and possible degradation of bathing water quality at various locations on the coast.

There would also probably be pressure to restrict socio-economic development in the catchments.

Works to be constructed

Procurement process

The works covered by the E.I.S. are the upgrading of Shanganagh Wastewater Treatment Works. There are ancillary works off the treatment works site, but they are not relevant to this report and will be considered elsewhere.

Current policy of the Department of the Environment & Local Government is for procurement of wastewater treatment works by Public Private Partnership (PPP). Of the several types of PPP, the one favoured is the Design, Build, Operate (DBO) approach. This involves a private company designing, building and operating the works: typically the operating concession would be for 20 years. For the DBO process to work correctly, it is important that tenderers are not too rigidly confined in their options. Therefore the E.I.S. is structured in such a way as to identify various process and layout options.

Treatment process

There is considerable potential for development in the Shanganagh catchment and also for development in the Bray catchment. Studies in an estimated loading on the works by the year 2020 of 167,400 population equivalent (p.e.). It is prudent to allow for further increase beyond that date and extension later to a loading of 200,000 p.e. has been provided for in terms of space and layout. The retrofitting of ultra-violet (UV) treatment has been provided for (if found necessary to maintain bathing water standards).

To achieve the required effluent standards five proven treatment process options have been outlined. Their merits/demerits in terms of capital and operating costs can be assessed. All these processes produce sludge which must be treated and then disposed of off-site: three possible options for sludge treatment are outlined. It is for the tenderer to select the most financially advantageous, for him, process or combination of processes. The constraints on him are that he must produce an effluent that complies with the wastewater legislation and the limits on environmental impacts discussed below.

Also outlined are practical restrictions on the depth of foundations (high and tidal water table in permeable soils) which affect possible design choices impinging on visual impact (height and extent of structures).

Alternative sites

Alternative sites were considered in the Preliminary Report: separate treatment works for Shanganagh and Bray and three 'greenfield' sites. The problem at Bray is lack of space and the greenfield sites present a large number of issues in relation to planning (including loss of public lands and green belt), environment and access. The site at Shanganagh has had a treatment works for very many years, but would require some extension onto adjoining open public land. This would not be a material contravention of the development plan. Moreover, the most cost effective whole life options favour a single wastewater treatment works for the Shanganagh and Bray catchments at Shanganagh.

Public consultation

During the public consultation phase prior to the E.I.S. concerns were expressed by a number of groups associated with particular residential areas.

In my opinion the concerns are all adequately addressed in the E.I.S. as submitted to An Bord Pleanála; an opinion reinforced by the fact that no formal submissions/observations were made after that submission.

Significant Impacts

Human beings

Most of the impacts of upgrading a treatment works, whether positive or negative, affect the residents of the surrounding area, or in some cases even people in general. As this is so, this report deals with the impacts under their various headings so that the overall impact can be more clearly seen.

In general, the upgraded treatment works will have a positive impact on human beings in that it will cater for socio-economic development in the catchment.

Fauna & Flora

The site has no significant ecological value in a regional or county sense. The plants and mammals/birds that occur are a limited range of common species and would also be found in the adjacent hedges and grassland. There will be a temporary disturbance from construction work, but appropriate planting should in time enhance the local flora and have an overall positive effect on both flora and fauna.

Soil

No significant impacts on soils in or around the site are anticipated.

Water

The treatment works itself has no impacts on fresh waters other than possibly during the construction phase; see below.

Sea water quality at present is in general good, indicating high dispersion rates around the existing outfall. Samples of sea fauna are normal for an open coastal site. There will be a positive effect from improving effluent quality significantly, reducing the current bacterial loading.

Air/Odour

The existing works creates an odour nuisance at nearby housing. An odour analysis has been done for the proposed development with the intention that it shall be designed to an environmental odour standard of 1 OU/m³ at a 98% non-exceedance level at all adjacent residential dwellings (the nuisance threshold is 5 OU/m³ lasting more than 15 minutes). This can be achieved, within BATNEEC economic principles, by covering odour emitting processes and de-odourising the air ventilated from the enclosed spaces. (OU = odour unit).

Noise

The construction and operation of the treatment works can be undertaken without undue noise to disturb local residents. Sound from wastewater treatment works is broadband and does not generally cause nuisance. The design of the works

will include enclosure or screening of some items of plant as appropriate: impact will therefore be slight. The existing night-time 'background' noise level is 40 dB(A); the current widely applied criteria for industry are 45 dB(A) (night-time) and 55 dB(A) (daytime). The proposed criteria for these works are 43 and 55 dB(A) respectively. Construction noise is of a temporary nature and will be in accordance with the guidance given in British Standard BS 5228:1997 "Noise Control on Construction and Demolition Sites" and the European Communities (Construction Plant and Equipment)(Permissible Noise Levels) Regulations.

Climate

The treatment works will be a net consumer of electricity, 94% of which in Ireland is produced by burning fossil fuels, so producing greenhouse gases. However, if the sewage is not treated it will degrade naturally: if the degradation is anaerobic, methane, a greenhouse gas, will be produced. If the sewage is treated and the resulting sludge digested anaerobically, the methane produced can be collected and burnt as fuel to produce electricity to contribute towards the power requirements of the works, reducing the need for power from external sources and converting the methane to environmentally neutral gases. Thus the choice of treatment process affects the amount of power to be generated away from the works: it is possible that a treatment process could be selected that in the broader sense gives a net reduction in greenhouse gases.

Landscape

The existing treatment works is adjacent to, and south of, the mouth of the Shanganagh river. To the west is the DART railway line, on an embankment which lies between the works and Bayview Estate and screens the works from ground level views. To the south and east is open, public land; that to the east providing continuity along the foreshore and separating the works from the beach. The mature planting which defines most of the existing boundaries provides some screening.

The proposed development requires the site to be expanded to take in some of the open ground to the south, and removal of the planting along the existing southern boundary. There will be some negative visual impact during, and for a short time after, construction until new landscaping and screening develops and a permanent slight negative impact from the increased number of structures of a similar height to the existing pumping station; at present this is the only structure readily visible from nearby houses. The number and height of the new structures will depend on the treatment process selected.

The new structures will also be visible from the upstairs windows of some houses on Bayview Estate and also from some houses on Shanganagh Cliffs Estate. Structures will be located on the site so as to cause minimum visual impact, grouped together where possible and given a coherent high grade architectural treatment. The existing pumping station will be upgraded architecturally. The existing fence on the southern boundary will be replaced on the new southern, and part of the eastern, boundary by an elevated granite faced wall which will provide both screening and security. The open space between the wall and the rear of Shanganagh Cliffs Estate will be remodelled to gain additional screening augmented by new planting. These measures will minimize the visual impacts of the upgraded works: they are described as slight residual impacts.

Material assets

Loss of open space due to the extension of the site is the main impact.

However, the land would probably have houses built on it eventually if it were not used for the proposed development, so there is only a slight negative impact long-term.

A positive impact is that the upgrading of the works permits socio-economic development in the catchment.

Visual impacts have been discussed under landscape, above.

Cultural heritage

There are no known sites of archaeological importance within the extended site. However, it is always possible that something will be found in which case Duchas and the National Museum of Ireland would be notified immediately. Provision will be made to allow for and fund whatever archaeological work comes to be needed on site. However, my recommendation will propose that an archaeologist shall be employed on site while topsoil is being stripped.

Inter-relationships

There are no significant synergistic relationships between the above impacts. Where impacts could be regarded as coming under more than one heading in this report, they have been discussed where it seems most appropriate.

Construction phase

There will be significant impacts from construction work. These will be mitigated by tight control of traffic movements and speed, a temporary fenced access road on the seaward side of the Shanganagh Cliffs Estate, restriction of noise as discussed under "Noise" above, limits on vibration, damping down of dust, strict measures to minimize mud on roads and enforcement of road maintenance measures.

Settling ponds may have to be provided to limit silting in the Shanganagh river.

The Contractor will require a temporary compound on about one hectare of the open ground.

Operation

See the section on "Noise" above. This will not be significant in the operational phase.

Nothing is said in the E.I.S. about light pollution, but in view of the proximity of housing estates, there is a need for lighting to be designed to keep its impact to a minimum and my recommendation below will include a proposed modification.

Conclusion

The E.I.S. presents a detailed and comprehensive account of the positive and negative impacts of the proposed expansion and upgrading of Shanganagh Wastewater Treatment Works.

There were no formal submissions/observations after publication of the E.I.S.

The main positive impacts are the opportunities created for socio-economic developments in the catchments and the improvement in sea water (bathing water) quality.

The main negative impacts occur during the construction phase which is expected to be twenty-four months. Note that the main impacts of traffic occur for a relatively short time while excavation is taking place. Proposals are made to mitigate the worst of the impacts.

I am satisfied that with the recommended modifications on lighting and archaeology the proposed development will embody the best practicable means to prevent or limit adverse effects on the environment.

Recommendation

I recommend certification by An Bord Pleanala that, subject to the modifications outlined below, the expansion and upgrading of Shanganagh Wastewater Treatment Works will, in their opinion, embody the best practicable means to prevent or limit significant adverse effects on the environment.

1. An archaeologist shall be employed on site during removal of topsoil.
2. Site lighting in both the construction and operational phases shall be designed to minimize its impact on nearby housing estates.

Jonathan Evans,
11 September, 2001.

APPENDIX 1

Bodies consulted in connection to the preparation of the E.I.S.

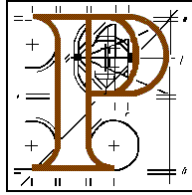
1. Eastern Regional Fisheries Board;
2. An Taisce;
3. Birdwatch Ireland;
4. Bord Failte;
5. Coastwatch Europe;
6. Dúchas;
7. Eastern Health Board;
8. Environmental Protection Agency;
9. Geological Survey of Ireland;
10. Health and Safety Authority;
11. Irish Underwater Council;
12. Bord Iascaigh Mhara;
13. Department of Marine and Natural Resources.

APPENDIX 2

Public bodies circulated with E.I.S.

1. An Chomhairle Ealaíona;
2. Bord Fáilte Éireann;
3. An Taisce - The National Trust for Ireland;
4. Commissioners of Public Works;
5. Irish Aviation Authority;
6. Eastern Regional Fisheries Board;
7. East Coast Area Health Board;
8. Environmental Protection Agency;
9. Bray Urban District Council;
10. Wicklow County Council.

An Bord Pleanála



Local Government (Planning and Development) Act 1963 as amended

Local Government (Planning and Development) Regulations 1994 as amended

County Dun Laoghaire/Rathdown

WHEREAS the Council of the County of Dun Laoghaire/Rathdown did, on 28th day of May 2001, make application to An Bord Pleanála pursuant to Article 123 of the Local Government (Planning and Development) Regulations, 1994 (as amended by the Local Government (Planning and Development) (No. 2) Regulations 2000), for the certification of the Shanganagh-Bray Main Drainage Scheme – Wastewater Treatment Works

AND WHEREAS the Board has considered the said Environmental Impact Statement prepared in respect of the proposed development

AND WHEREAS the Board has considered the report and recommendation of the person appointed by the Board to make a report and recommendation

NOW THEREFORE An Bord Pleanála, pursuant to Articles 119 and 127 of the said Local Government (Planning and Development) Regulations, 1994 (as amended by the Local Government (Planning and Development)(No.2) Regulations 2000), hereby certifies that, subject to the modifications set out in the schedule hereto, the proposed Shanganagh – Bray Wastewater Treatment Works will not have significant adverse effects on the environment.

SCHEDULE

1. An archaeologist shall be employed on site during removal of topsoil.

Reason: To protect the archaeological heritage of the area.

2. Site lighting in both the construction and operational phases shall be designed to minimize its impact on nearby housing estates.

Reason: To protect the amenities of property in the vicinity.

**Member of An Bord Pleanála duly authorised
to authenticate the seal of the Board.**

Dated this day of 2001.

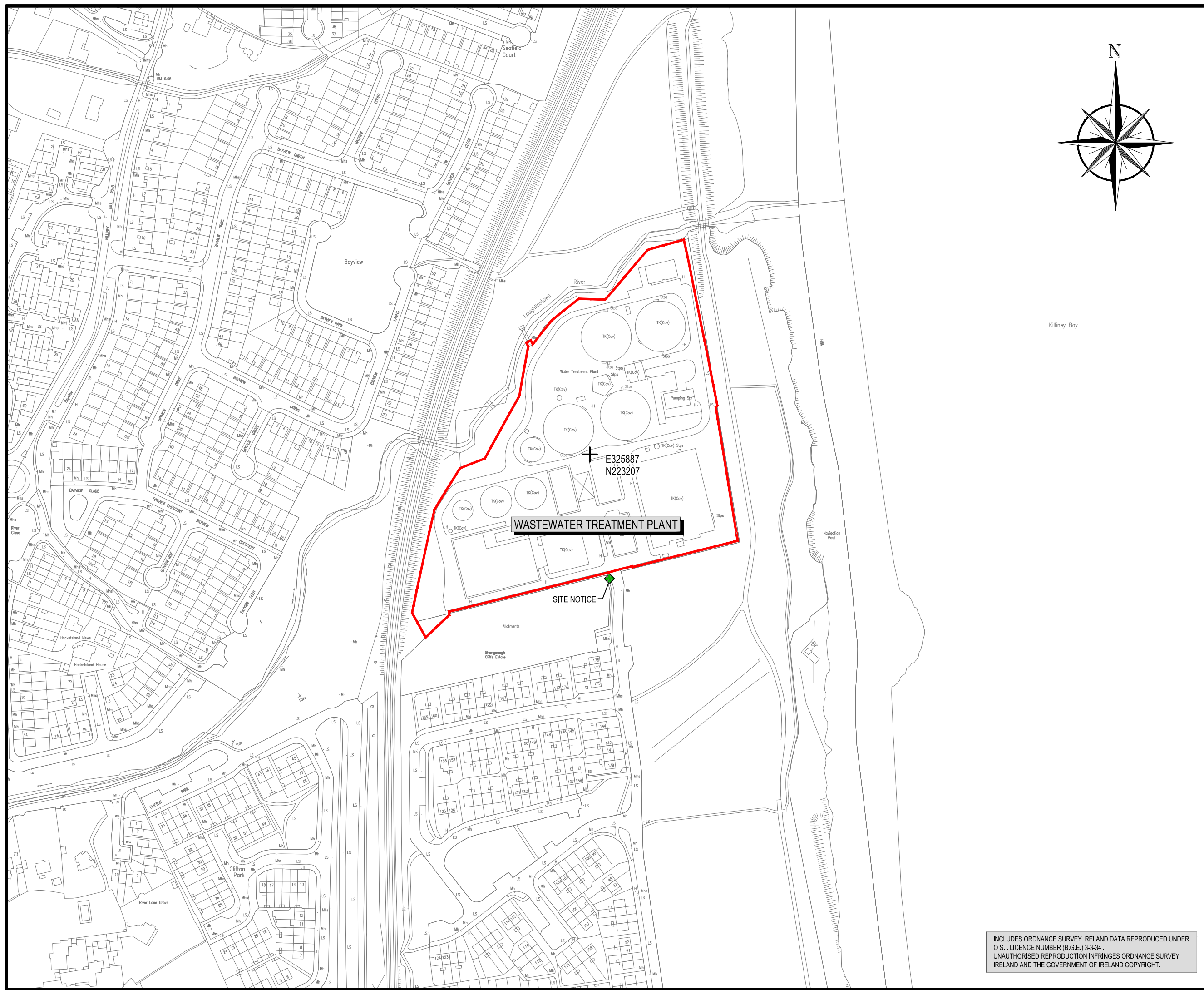
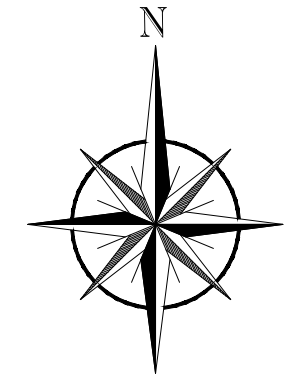
SECTION B – GENERAL

Attachment B8: Site Notice & Advertisement

- **Location of Site Notice**
- **Copy of Site Notice**
- **Original Page of Newspaper**

LEGEND

- SITE BOUNDARY OF WwTP
- ◆ SITE NOTICE LOCATION



WASTEWATER TREATMENT PLANT

E325887
N223207

SITE NOTICE

SIGNED : _____

PRINT NAME : _____

POSITION : _____

DATE : _____

FOR IRISH WATER

REV	DATE	DESCRIPTION	D	C	A

WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

CLIENT
IRISH WATER

PROJECT
SHANGANAGH-BRAY WASTE WATER DISCHARGE LICENCE TECHNICAL REVIEW

TITLE
LOCATION OF SITE NOTICE

SCALES 1:2500	DRAWN D. Rimdzius
CAD REFERENCE B.8 20571-DL-BH-16	DATE 14.11.2016
SECTION B.8	DRAWING No. 16
REV -	

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PUBLIC NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR THE REVIEW OF A WASTE WATER DISCHARGE LICENCE

Pursuant to Regulations 9 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007), Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1, intend to apply to the Environmental Protection Agency for a Review of Wastewater Discharge Licence (D0038-01) for the Shanganagh-Bray waste water works. The waste water works consists of a wastewater treatment plant at 325887E, 223207N, a primary discharge to the Irish Sea - Killiney Bay, 1 No. Secondary Discharge Point, 14 No. Storm Water Overflows, 5 No. Dual Function Overflows (i.e. acts as a Storm Water or Emergency Overflow depending on the event) and associated sewer network and pumping stations. Details of the location of these works are as follows:-

Waste Water Works Item	Location	National Grid Reference
Wastewater treatment plant	Shanganagh WWTP, Dún Laoghaire	325887E, 223207N
Primary discharge (SW001)	Irish Sea – Killiney Bay	327548E, 223736N
Secondary Discharge (SW002)	Irish Sea – Killiney Bay	326087E, 223329N
Stormwater overflow (SW003)	Kill Lane, Foxrock	322574E 226935N
Stormwater overflow (SW004)	Brighton Road, Foxrock	321228E 225548N
Stormwater overflow (SW005)	Westminster Road, Foxrock	321239E 225569N
Stormwater overflow (SW006)	Hainault Rd, Foxrock	321378E 225602N
Stormwater overflow (SW007)	Westminster Road, Foxrock	321413E 225610N
Stormwater overflow (SW008)	Plunkett Ave, Foxrock	321602E 225682N
Stormwater overflow (SW009)	Gordon Avenue, Foxrock	322034E 225549N
Stormwater overflow (SW010)	St Brigid’s Park, Cornelscourt	322139E 225513N
Stormwater overflow (SW011)	Old Bray Rd, Cabinteely	322640E 225541N
Stormwater overflow (SW012)	Johnstown Rd, Cabinteely	323601E 225512N
Stormwater overflow (SW013)	Achill Road, Ballybrack	325250E 223476N
Stormwater overflow (SW014)	Torquay Road, Foxrock	321077E 226028N
Stormwater overflow (SW015)	Avalon, Foxrock	321284E 225393N
Dual Function overflow (SW016)	Corke Abbey Pumping Station	326513E, 219618N
Dual Function overflow (SW019)	Bray Pumping Station	328217E 220117N
Dual Function overflow (SW020)	Bray Pumping Station	327039E 219331N
Stormwater overflow (SW021)	Seapoint Court	326703E 219164N
Dual Function overflow (SW022)	Kilmacanogue Pumping Station	324660E 215080N
Dual Function overflow (SW023)	Ashton Wood Pumping Station	324542E 216843N

A copy of the following documents shall, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the headquarters of the Environmental Protection Agency, P.O. Box 3000, Johnstown Castle Estate, Co. Wexford; at Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1; at Dún Laoighaire Rathdown County Council, County Hall, Marine Road, Dún Laoghaire, Co.Dublin and at Wicklow County Council, County Buildings, Station Road, Wicklow, Co.Wicklow.

- (i) the application for a review waste water discharge licence

- (ii) such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the application.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters at P.O. Box 3000, Johnstown Castle Estate, Co. Wexford.

ARKLOW
402 32130BRAY
01 2861347**NOTICE TO ADVERTISERS**

We, INM Regionals Ltd., T/A The People Newspapers Ltd, Channing House, Rowe Street, Wexford, publishers of the Wexford People, The New Ross Standard, The Guardian (Enniscorthy and Gorey), The Wicklow People and The Bray People accept advertisements only on the following conditions and the placing of an advertisement will be considered an acceptance of these conditions.

People Newspapers cannot guarantee the publication of any advertisement. We reserve the right to omit or suspend any advertisement. People Newspapers will not have any liability for any loss or damage if any advertisement is omitted or suspended for any cause whatsoever or if there is an error or inaccuracy in the publication of any advertisement. (However, we will refund money paid for an advertisement omitted or an advertisement published if there is a material error or inaccuracy in its publication).

The advertiser will indemnify us against all liability arising out of the publication of an advertisement (except to the extent that the liability arises out of an error or inaccuracy in the publication of the advertisement).

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(People Newspapers believes that these conditions are fair and reasonable under Section 40 of the Sale of Goods and Supply of Services Act 1980).

LEGAL NOTICES

LEGAL NOTICES

LEGAL NOTICES

PUBLIC NOTICE
APPLICATION TO THE ENVIRONMENTAL
PROTECTION AGENCY FOR THE REVIEW OF
A WASTEWATER DISCHARGE LICENCE

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Stormwater overflow (SW005)	Westminster Road, Foxrock	321239E 225569N
Stormwater overflow (SW006)	Hainault Rd, Foxrock	321378E 225602N
Stormwater overflow (SW007)	Westminster Road, Foxrock	321413E 225610N
Stormwater overflow (SW008)	Plunkett Ave, Foxrock	321602E 225682N
Stormwater overflow (SW009)	Gordon Avenue, Foxrock	322034E 225549N
Stormwater overflow (SW010)	St Brigid's Park, Cornelscourt	322139E 225513N
Stormwater overflow (SW011)	Old Bray Rd, Cabinteely	322640E 225541N
Stormwater overflow (SW012)	Johnstown Rd, Cabinteely	323601E 225512N
Stormwater overflow (SW013)	Achill Road, Ballybrack	325250E 223476N
Stormwater overflow (SW014)	Torquay Road, Foxrock	321077E 226028N
Stormwater overflow (SW015)	Avalon, Foxrock	321284E 225393N
Dual Function overflow (SW016)	Corke Abbey Pumping Station	326513E, 219618N
Dual Function overflow (SW019)	Bray Pumping Station	328217E 220117N
Dual Function overflow (SW020)	Bray Pumping Station	327039E 219331N
Stormwater overflow (SW021)	Seapoint Court	326703E 219164N
Dual Function overflow (SW022)	Kilmacanogue Pumping Station	324660E 215080N
Dual Function overflow (SW023)	Ashton Wood Pumping Station	324542E 216843N

A copy of the following documents shall, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the headquarters of the Environmental Protection Agency, P. O. Box 3000, Johnstown Castle Estate, Co. Wexford; at Irish Water, Colwill House, 24-26 Talbot Street, Dublin 1; at Dún Laoghaire Rathdown County Council, County Hall, Marine Road, Dún Laoghaire, Co. Dublin and at Wicklow County Council, County Buildings, Station Road, Wicklow, Co. Wicklow.

- (i) The application for a review wastewater discharge licence;
- (ii) The Environmental Impact Statement;
- (iii) Such further information relating to the review application as may be furnished to the Agency in the course of the Agency's consideration of the application.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters at P. O. Box 3000, Johnstown Castle Estate, Co. Wexford.

Find

SECTION B – GENERAL

Attachment B12: Foreshore Act Licences

- **Foreshore License**

**Department of the Marine
and Natural Resources**

Doimníocht Mhara agus Acmhainní Náúirtha

Ms. Marie Curren
Environment Department
Level 3
County Hall
Dun Laoghaire/Rathdown County Council
Dunlaoghaire
Co. Dublin

Date: 27/06/01
Our Ref: MS51/4/367

Dear Marie,

I write in reference to our telephone conversation of yesterday. Please find enclosed as requested the following information:

- Copy of Foreshore Licence dated 15 August 1979 for sewage outfall at Shanganagh.
- Copy of Foreshore Licence dated 23 September 1982 for storm water outfall at Shanganagh.

Hoping this is to your satisfaction, should you have any queries or questions in relation to the above, please do not hesitate to contact me at the address below or telephone (01) 6199 261.

Mise le meas,



Stephen Farrell
Coastal Zone Administration Division.

x261

2. cont. see 2HPA 50p 3/8/79

AGREEMENT made the 15th day of August one thousand nine hundred and Seventy-nine BETWEEN THE MINISTER FOR TOURISM AND TRANSPORT (hereinafter called "the Minister") of the one part and the County Council of the County of Dublin (hereinafter called "the Licensee" which expression shall include its successors where the context so admits or requires) of the other part WHEREAS the Licensee has applied to the Minister to grant it permission to use and occupy that part of the foreshore and bed of the sea at Shanganagh in the County of Dublin hereinafter described for the purpose of laying a sewerage outfall pipe on the foreshore at Shanganagh AND WHEREAS the Minister has agreed to grant such permission subject as here in NOW THEREFORE THIS AGREEMENT WITNESSETH that the Minister in exercise of the powers vested in him by the Foreshore Act, 1933 hereby grants to the Licensee licence to use and occupy that part of the Foreshore and bed of the sea at Shanganagh in the County of Dublin as more particularly delineated and shown in red colour on the map annexed hereto for the purpose aforesaid AND IT IS HEREBY AGREED by and between the Minister and the Licensee as follows that is to say:-

1. This licence shall remain in force for the term of ninety-nine years from the date hereof.
2. The Licensee shall at all times during the continuance of this Licence keep the said works in a good and proper state of repair and in proper condition to the satisfaction of the Minister, and so as to ensure that they will not be injurious to navigation the adjacent lands or the public interest.
3. The Licensee shall ensure that the pipeline is completely buried and marked by a sign to the satisfaction of the Minister to indicate its presence at all stages of the tides.
4. The Licensee shall ensure that a green buoy is placed at the exposed end of the pipe to mark the sewage discharge point.
5. The Licensee shall indemnify and keep indemnified the State and the Minister their officers, agents and employees against all actions loss claims damages costs expenses and demands arising in any manner whatsoever in connection with the construction maintenance and user of the said works or in the exercise of the permission hereby granted.
6. In the case of the breach non-performance or non-observance by the Licensee of any of the covenants and conditions contained herein the Minister shall have power forthwith to terminate this licence.
7. Any notice to be given to the Licensee in pursuance of this Licence may be transmitted through the Post Office addressed to the Licensee at 46/49 Upper O'Connell Street, Dublin 1.

IN WITNESS WHEREOF the Minister and the Licensee have caused their respective Seals to be hereunto affixed the day and year first herein WRITTEN.

PREPARED/.....



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2. Oct - Dec 1934 50p 31/8/39

AGREEMENT made the 15th day of August one thousand nine hundred and Seventy-nine BETWEEN THE MINISTER FOR TOURISM AND TRANSPORT (hereinafter called "the Minister") of the one part and the County Council of the County of Dublin (hereinafter called "the Licensee" which expression shall include its successors where the context so admits or requires) of the other part WHEREAS the Licensee has applied to the Minister to grant it permission to use and occupy that part of the foreshore and bed of the sea at Shanganagh in the County of Dublin hereinafter described for the purpose of laying a sewerage outfall pipe on the foreshore at Shanganagh AND WHEREAS the Minister has agreed to grant such permission subject as herein NOW THEREFORE THIS AGREEMENT WITNESSETH that the Minister in exercise of the powers vested in him by the Foreshore Act, 1933 hereby grants to the Licensee licence to use and occupy that part of the Foreshore and bed of the sea at Shanganagh in the County of Dublin as more particularly delineated and shown in red colour on the map annexed hereto for the purpose aforesaid AND IT IS HEREBY AGREED by and between the Minister and the Licensee as follows that it is to say:-



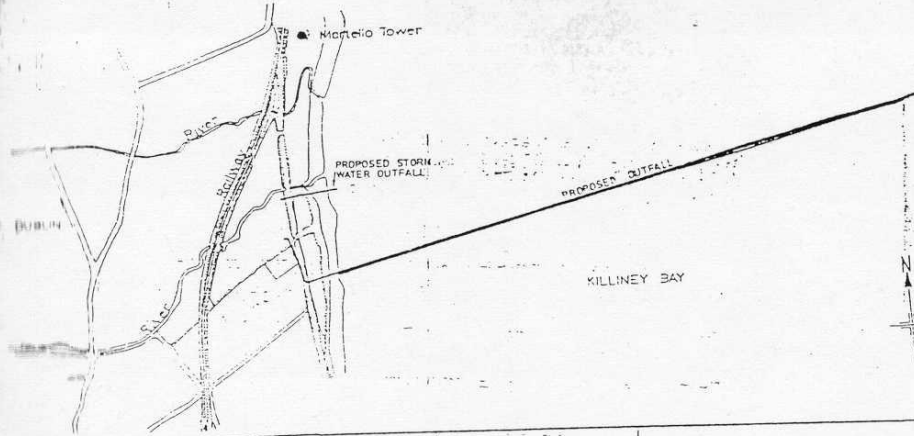
1. This Licence shall remain in force for the term of ninety-nine years from the date hereof.
2. The Licensee shall at all times during the continuance of this Licence keep the said works in a good and proper state of repair and in proper condition to the satisfaction of the Minister, and so as to ensure that they will not be injurious to navigation the adjacent lands or the public interest.
3. The Licensee shall ensure that the pipeline is completely buried and marked by a sign to the satisfaction of the Minister to indicate its presence at all stages of the line.
4. The Licensee shall ensure that a green buoy is placed at the exposed end of the pipe to mark the sewage discharge point.
5. The Licensee shall indemnify and keep indemnified the State and the Minister their officers, agents and employees against all actions loss claims damages costs expenses and demands arising in any manner whatsoever in connection with the construction maintenance and user of the said works or in the exercise of the permission hereby granted.
6. In the case of the breach non-performance or non-observance by the Licensee of any of the covenants and conditions contained herein the Minister shall have power forthwith to terminate this licence.
7. Any notice to be given to the Licensee in pursuance of this Licence may be transmitted through the Post Office addressed to the Licensee at 46/49 Upper O'Connell Street, Dublin 1.

IN WITNESS WHEREOF the Minister and the Licensee have caused their respective Seals to be hereunto affixed the day and year first herein WRITTEN.

PRESENT/.....

KEY PLAN 2.

SCALE = 1:10560



MENTS	DRAWN BY	CHECKED BY	CONTRACT No.
	T.J.L.		
	DATUM	IRISH ORDNANCE POOLBEG	
	SC-ES 1:2500, 1:10560 & 1:5000		

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AGREEMENT made the 15th day of September 1982
Thousand Nine Hundred and Eighty-two BETWEEN THE MINISTER
FOR TRANSPORT (hereinafter called "the Minister") of the
One Part and Dublin County Council of 11 Parnell Square in
the City and County of Dublin (hereinafter called "the
Licensee"), of the Other Part WHEREAS the Licensee has
applied to the Minister to grant it permission to use and
occupy that part of the foreshore at Shangannagh in the
County of Dublin hereinafter described for the purpose of
erecting maintaining and using a storm water outfall pipe in
connection with Shangannagh Sewerage Scheme AND WHEREAS
the Minister has agreed to grant such permission subject as



herein NOW THEREFORE THIS AGREEMENT WITNESSETH that the
Minister in exercise of the powers vested in him by Section
3 of the Foreshore Act, 1933 Hereby Grants to the Licensee
licence to use and occupy that part of the foreshore at
Shangannagh in the County of Dublin as more particularly
delineated in red colour on the map annexed hereto for the
purpose aforesaid AND IT IS HEREBY AGREED by and between
the Minister and the Licensee as follows that is to say:-

1. This Licence shall remain in force for the term of
99 years from the date hereof except as hereinafter
provided.
2. The Licensee shall at all times during the continuance
of this Licence keep the said storm water outfall pipe
in good and proper state of repair and condition to
the satisfaction of the Minister and so as to ensure
that it will not be injurious to navigation the
adjacent lands or the public interest.
3. The Licensee shall ensure that the said storm water
outfall pipe discharges below the line of low water
and is properly encased in the interests of visual

The Licensee shall ensure that the Stormwater Outfall
Bellmouth is not constructed at a higher level than

at shown on the contract drawings and shall also
ensure that it is fitted with a grating and navigation
marker as detailed in the Consulting Engineer's Sketch
No. 3 - (Marker Post) and that both the grating and
navigation marker are maintained in good condition.

The Licensee shall indemnify and keep indemnified the
State, the Minister, its and his officers agents and
employees against all actions loss claims damages
costs expenses and demands arising in any manner
whatsoever in connection with the laying maintenance
and user of the said storm water outfall pipe or in
exercise of the permission hereby granted.

The Minister shall be at liberty at any time to
terminate this licence by giving the Licensee twenty-
four months previous notice in writing of his
intention so to do and the Licensee shall within
twenty-four months of the receipt of such notice or
on the termination of this licence from any other
cause and at its own expense remove the said works and
restore the site to its former condition to the
satisfaction of the Minister and if it refuses or fails
so to do the Minister may cause the same to be removed

the site to be restored and shall be entitled to
be paid by and to recover from the Licensee as a civil
debt due to the State all costs and expenses incurred
by him in connection with such removal and restoration.

At the expiration or other sooner determination of the
term hereby granted the Licensee shall deliver up the
said area of foreshore and all buildings or works
erected thereon to the Minister in good and

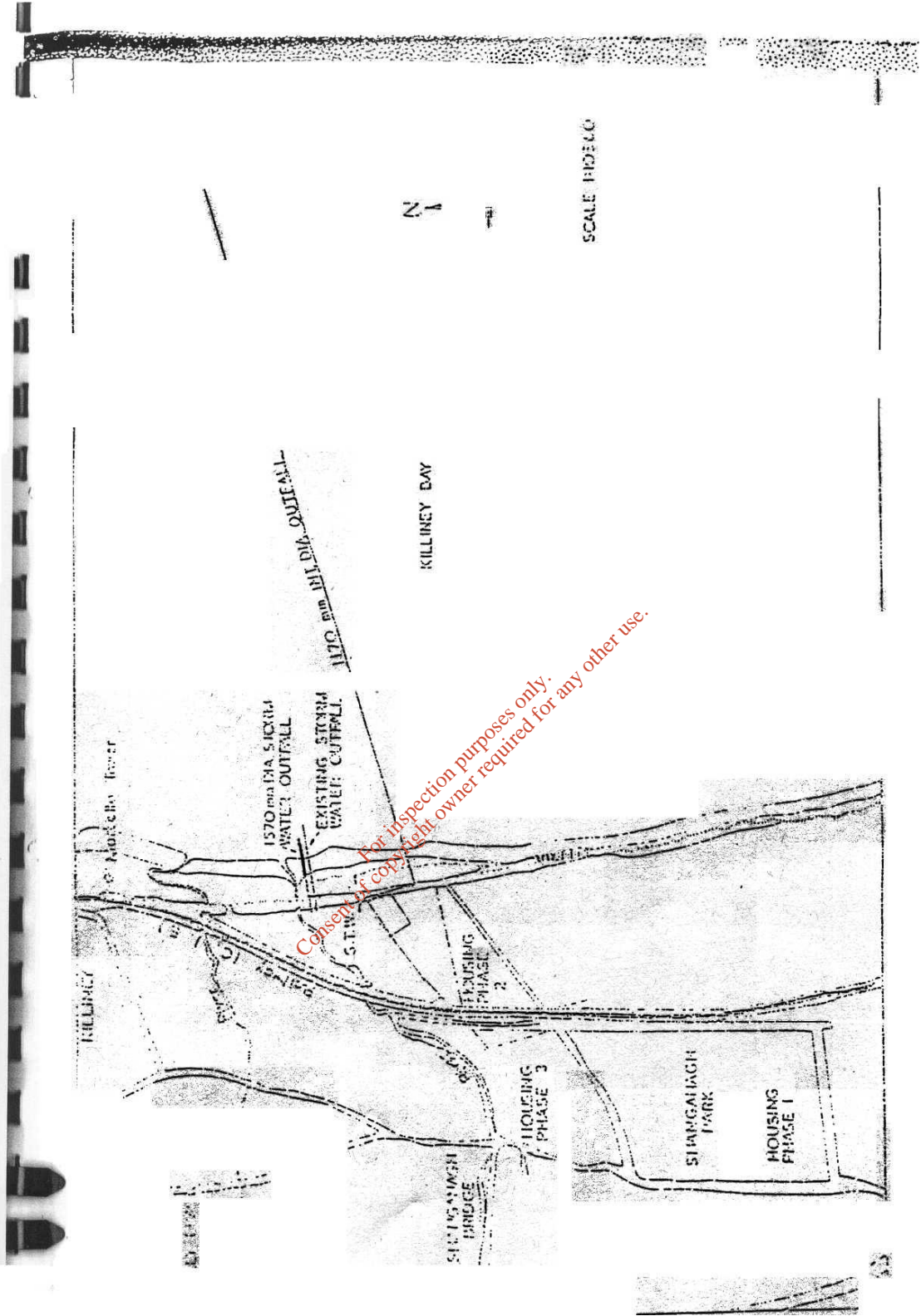
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No. 3 - (Marker Post) and that both the grating and
navigation marker are maintained in good condition.

The Licensee shall indemnify and keep indemnified the
State, the Minister, its and his officers agents and
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whatsoever in connection with the laying maintenance
and user of the said storm water outfall pipe or in
exercise of the permission hereby granted.

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intention so to do and the Licensee shall within
twenty-four months of the receipt of such notice or
on the termination of this Licence from any other
cause and at its own expense remove the said works and
restore the site to its former condition to the
satisfaction of the Minister and if it refuses or fails
so to do the Minister may cause the same to be removed

the site to be restored and shall be entitled to
be paid by and to recover from the Licensee as a civil
debt due to the State all costs and expenses incurred
by him in connection with such removal and restoration.
At the expiration or other sooner determination of the
term hereby granted the Licensee shall deliver up the
said area of foreshore and all buildings or works
erected thereon to the Minister in good and





Our Ref: MS51/4/367

21 January 2002

Mr. A.H. Pollins
Project Engineer
Dun Laoghaire-Rathdown County Council
Project Engineer's Office
9 George's Place
Dun Laoghaire
Co. Dublin

SHANGANAGH/BRAY MAIN DRAINAGE SCHEME: OUTFALLS AT SHANGANAGH AND BRAY

Dear Mr. Pollins,

I refer to your letter dated 21 December 2001 and to previous correspondence.

Upon consideration of your letter, and on the advice of the Department's technical advisors, it is considered that the current Foreshore Licences (i) dated 15 August 1979 in respect of the Shanganagh sewerage outfall, (ii) dated 23 September 1982 in respect of the Shanganagh storm water outfall and (iii) dated 30 July 1986 in respect of the Bray outfall, will adequately regulate the use of the existing outfalls in the context of the Shanganagh/Bray Main Drainage Scheme. Therefore, new Licences will not be necessary providing the situation remains as outlined in your letter.

Yours sincerely,

THOMAS J. TOBIN
Principal
Coastal Zone Administration Division



File
Dun Laoghaire - Rathdown County Council
Comhairle Chontae Dhún Laoghaire - Ráth an Duin

Project Engineer's Office,
9 George's Place,
Dun Laoghaire,
Co. Dublin.

Telephone: (01) 2054700
EXT: 4418/4453

Mr Thomas J. Tobin
Principal
Costal Zone Administration Division
Department of the Marine,
Lesson Lane,
Dublin 2.

21st December 2001

c.c. Mr. John Fitzgerald, Director of Environmental Services
Mr Peter Phelan, Bray Urban District Council
Mr Michael Geaney, Bray Urban District Council

RE: Shanganagh/Bray Main Drainage Scheme -
Foreshore Licences for Shanganagh Sewage Treatment Works and
Bray Pumping Station Sea Outfalls.

I would refer to my recent telephone conversation with your Mr. P. J. Shaw and previous correspondence from the Council concerning the above including your letter of 5th September 2001 (ref. MS51/4/367) in reply to Mr. John Fitzgerald's letter of 22nd August 2001.

It is the view of this County Council that our existing licences for the Shanganagh Sewage Treatment Works outfall, namely that of 15th August 1979 for the long sea outfall and that of 23rd September 1982 for the short sea outfall, do not require review or reapplication. The reason being that it is solely proposed to improve the level of treatment at the Shanganagh Sewage Treatment Works and accommodate the flows diverted from the Bray Urban District Council Pumping Station.

The original design for the Shanganagh Sewage Treatment Works, which incorporated the flows from Bray, was on an ultimate design for a 240,000 population equivalent (p.e.). This compares to an ultimate design of 200,000 population equivalent in the current proposals which is detailed in the EIS which recently received approval from An Bord Pleanála. In effect the new design proposal is still lower in ultimate population equivalent terms than that anticipated in the original design on which the licence was based.

We have examined the original licences of 15th September 1979 and 23rd October 1982 and we see no reference to the level of discharges nor population equivalents etc. Furthermore such information does not also appear to have been included in the applications for those licences.



There are no proposals in the Sewage Treatment Works upgrading either to alter the outfalls at Shanganagh or to construct further works on the foreshore. We will however continue to maintain the existing outfalls and markers etc in accordance with the requirements of the existing foreshore licences. This may include some works to the outlet diffusers on the long sea outfall either before or during the construction phase of the improved on-shore treatment facilities and /or subsequently during the lifetime of the existing foreshore licence period and all of which was envisaged in the original design on which the licences were based.

Irrespective of the ultimate population equivalent for which the present or proposed works were or are to be designed, the pollutant loads will be substantially reduced under the new proposals where secondary treatment is to be installed.

For the foregoing reasons and with reference to the various legislative Acts etc we see no reason why this Council should be required to re-apply for new foreshore licences for the Shanganagh outfalls as the existing licences in our view cover the use of the outfalls for the proposed redesign of the treatment works.

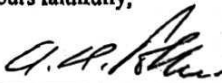
With regard to the existing licence for Bray of 30th July 1986 it is similarly the view of this Council and Bray Urban District Council that this also does not require a new/re-application for a foreshore licence as again the proposed discharges arising from the proposed diversion of flows to Shanganagh will be less than was detailed in the application for the original licence. As with the Shanganagh outfalls, maintenance of the existing outfalls and markers etc. in accordance with the requirements of the existing foreshore licence will continue and again some works may be required at the existing outfall outlets either before or during the construction of works associated with diversion of flows to Shanganagh and/or during the lifetime of the existing foreshore licence period and all of which was envisaged in the original design on which the licence was based.

The Council is anxious to resolve this matter, particularly now that we have obtained EIS approval for the scheme and that the various procurements need now to be urgently processed on a scheme which is already well behind schedule for its implementation.

If you have any further queries on this matter please do not hesitate to contact me.

We trust that in view of the above that you will now concur with the Council's position. If not, I would suggest that we meet with yourselves early in the New Year to discuss this matter further, so please revert to me to arrange a mutually convenient time and date.

Yours faithfully,



A.H. Pollins,
Project Engineer.