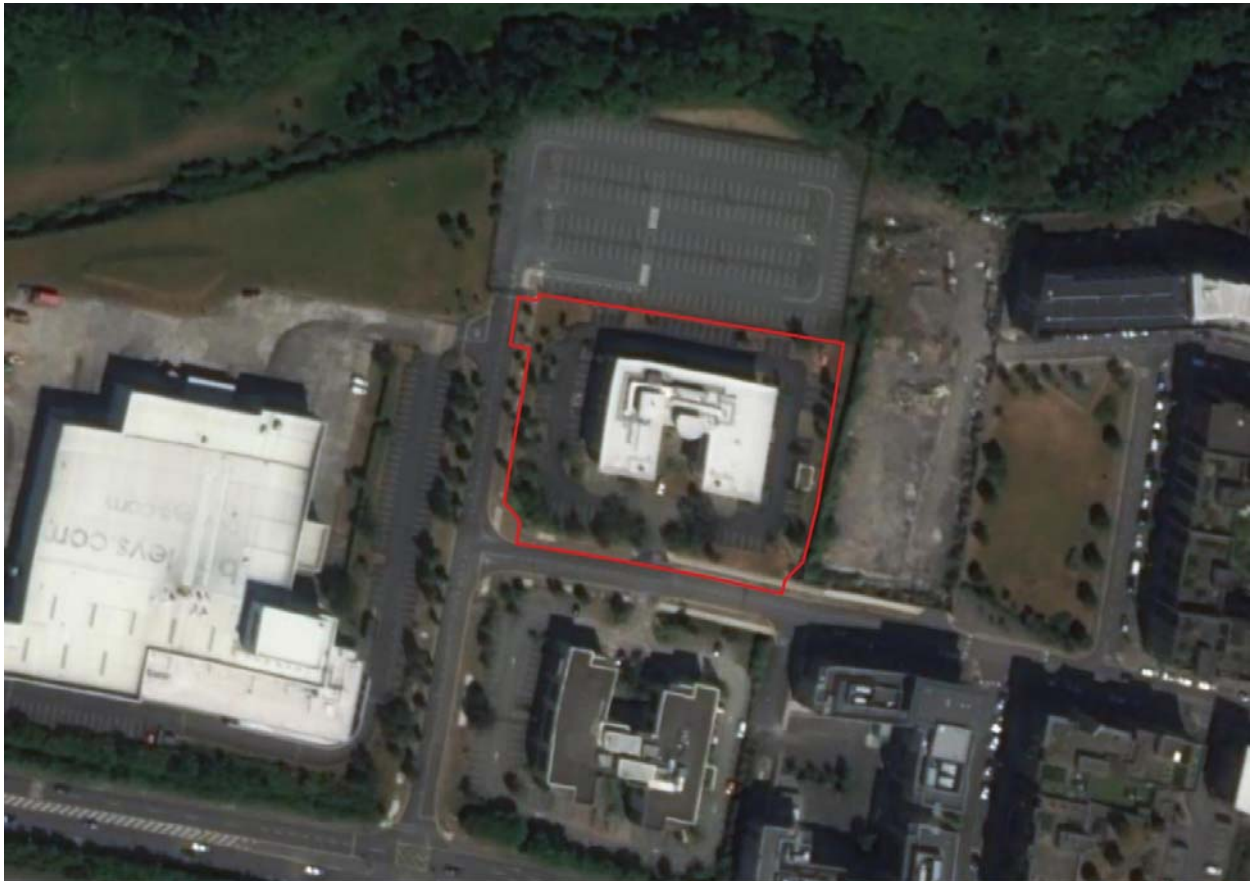


Appropriate Assessment Screening & Natura Impact Statement - Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for a proposed Strategic Housing Development on lands at Rosemount House, Northern Cross, Malahide Road, Dublin 17.



12th August 2022

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.

On behalf of: Walls Construction Ltd.

Altemar Ltd., 50 Templecarrig Upper, Delgany, Co. Wicklow. 00-353-1-2010713. info@altemar.ie

Directors: Bryan Deegan and Sara Corcoran

Company No.427560 VAT No. 9649832U

www.altemar.ie

Table of Contents

Introduction	1
Altamar Ltd.	1
Background to the Appropriate Assessment.....	1
Stages of the Appropriate Assessment	3
Stage 1 Screening Assessment	4
Management of the Site.....	4
Description of the Proposed Project	4
Landscape & Arboriculture	4
Drainage.....	12
Flood Risk Assessment.....	12
Identification of Relevant European sites (Natura 2000 sites).....	15
In-Combination Effects	34
Appropriate Assessment Screening Conclusions.....	36
Stage 2: Natura Impact Statement	38
Baldoyle Bay SAC (Site code: 000199)	38
Site-specific data.....	38
Baldoyle Bay SPA (Site code: 004016)	44
Site-specific data.....	44
Analysis of the Potential Impacts on the Baldoyle Bay SAC and Baldoyle Bay SPA.	48
Construction Impacts.....	48
<i>Designated European Sites</i>	48
Operational Impacts	48
Mitigation Measures and Monitoring	48
Adverse Effects on the conservation objectives of European sites likely to occur from the project (post mitigation)	54
Conclusion	54
Data used for the AA Screening/NIS Assessment.....	54
References	55
Appendix I Habitats and Species	56

Introduction

The following Appropriate Assessment (AA) (Screening Stage) and Natura Impact Statement has been prepared by **Altamar Ltd.** at the request of Walls Construction Ltd. The project relates to an application for permission for a proposed Strategic Housing Development on lands at Rosemount House, Northern Cross, Malahide Road, Dublin 17.

An Appropriate Assessment is an assessment of the potential effects of a proposed project or plan, on its own, or in combination with other plans or projects, on one or more European sites. European sites are those sites designated as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).

The AA Screening stage examines the likely significant effects of a plan or project, either on its own, or in combination with other plans and projects, upon a European site and considers whether, on the basis of objective scientific evidence, it can be concluded that there are no likely significant effects on any European site, in view of best scientific knowledge and the conservation objectives of the relevant European sites.

The Natura Impact Statement examines whether the plan or project, either alone, or in combination with other plans and projects, in the view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European sites.

Altamar Ltd.

Since its inception in 2001, Altamar has been delivering ecological and environmental services to a broad range of clients. Operational areas include: residential; infrastructural; renewable; oil & gas; private industry; Local Authorities; EC projects; and, State/semi-State Departments. Bryan Deegan, the managing director of Altamar, is an Environmental Scientist and Marine Biologist with 27 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. He is currently contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/1477/EC)) forms the cornerstone of Europe's nature conservation policy. The Habitats Directive protects over 1000 animals and plant species and over 200 "habitat types" which are of European importance. In the Habitats Directive, Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of conservation sites (NATURA, 2000). These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive), Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"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 and 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 implication for the site and subject to the provisions of paragraph 4, the component 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."

As outlined in "Managing European sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" (European Commission, 21 November 2018) *"The purpose of the appropriate assessment is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in combination with other plans or projects. The conclusions should enable the competent authorities to ascertain*

whether the plan or project will adversely affect the integrity of the site concerned. The focus of the appropriate assessment is therefore specifically on the species and/or the habitats for which the European site is designated.”

As outlined in the EC guidance document on Article 6(4) (January 2007)¹:

“Appropriate assessments of the implications of the plan or project for the site concerned must precede its approval and take into account the cumulative effects which result from the combination of that plan or project with other plans or projects in view of the site's conservation objectives. This implies that all aspects of the plan or project which can, either individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.

Assessment procedures of plans or projects likely to affect European sites should guarantee full consideration of all elements contributing to the site integrity and to the overall coherence of the network, both in the definition of the baseline conditions and in the stages leading to identification of potential impacts, mitigation measures and residual impacts. These determine what has to be compensated, both in quality and quantity. Regardless of whether the provisions of Article 6(3) are delivered following existing environmental impact assessment procedures or other specific methods, it must be ensured that:

- *Article 6(3) assessment results allow full traceability of the decisions eventually made, including the selection of alternatives and any imperative reasons of overriding public interest.*
- *The assessment should include all elements contributing to the site's integrity and to the overall coherence of the network as defined in the site's conservation objectives and Standard Data Form, and be based on best available scientific knowledge in the field. The information required should be updated and could include the following issues:*
 - *Structure and function, and the respective role of the site's ecological assets;*
 - *Area, representativity and conservation status of the priority and nonpriority habitats in the site;*
 - *Population size, degree of isolation, ecotype, genetic pool, age class structure, and conservation status of species under Annex II of the Habitats Directive or Annex I of the Birds Directive present in the site;*
 - *Role of the site within the biographical region and in the coherence of the European network; and,*
 - *Any other ecological assets and functions identified in the site.*
- *It should include a comprehensive identification of all the potential impacts of the plan or project likely to be significant on the site, taking into account cumulative impacts and other impacts likely to arise as a result of the combined action of the plan or project under assessment and other plans or projects.*
- *The assessment under Article 6(3) applies the best available techniques and methods, to estimate the extent of the effects of the plan or project on the biological integrity of the site(s) likely to be damaged.*
- *The assessment provides for the incorporation of the most effective mitigation measures into the plan or project concerned, in order to avoid, reduce or even cancel the negative impacts on the site.*
- *The characterisation of the biological integrity and the impact assessment should be based on the best possible indicators specific to the European assets which must also be useful to monitor the plan or project implementation.”*

¹European Commission. (2007). 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;

Stages of the Appropriate Assessment

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2021), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process has been structured as follows:

- 1) Screening stage:
 - Description of plan or project, and local site or plan area characteristics;
 - Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
 - Identification and description of individual in combination effects likely to result from the proposed project;
 - Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,
 - Conclusions
- 2) Appropriate Assessment (Natura Impact Statement):
 - Description of the European sites that will be considered further;
 - Identification and description of potential adverse impacts on the conservation objectives of these sites likely to occur from the project or plan; and,
 - Mitigation Measures that will be implemented to avoid, reduce or remedy any such potential adverse impacts
 - Assessment as to whether, following the implementation of the proposed mitigation measures, it can be concluded, beyond all reasonable scientific doubt, that there will be no adverse impact on the integrity of the relevant European Site in light of its conservation objectives"
 - Conclusions.

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a Natura 2000 site, then no further AA (Stage 2) will be required. It is important to note that there is a requirement to apply a precautionary approach to AA screening. Therefore, where effects are possible, certain or unknown at the screening stage, AA will be required.

In addition, it should be noted that Article 6(3) of the Habitats Directive must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an AA of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site.

Stage 1 Screening Assessment

Management of the Site

The plan or project is not directly connected with, or necessary to the management of European sites.

Description of the Proposed Project

Walls Construction Ltd. intend to apply to An Bord Pleanála for permission for a strategic housing development on lands at Rosemount House, Northern Cross, Malahide Road, Dublin 17, on a site of c. 0.6462 ha. The subject site is bound by Mayne River Avenue to the west and south, a site to the north in use as a building compound for the construction of the permitted development to the east (ABP Ref.: 307887-20).

The proposal comprises the demolition of an existing 3 storey office building and the construction of a mixed-use development in a single block (up to 9 storeys over basement) including 176 no. apartments, office and café use.

The proposed development shall consist of:

- Demolition of existing c. 3,315 sq.m, 3 storey office building on site and existing ancillary facilities and the construction of a single mixed-use block (Block A) of up to 9 storeys (over basement), consisting of a 4-sided structure based around a central courtyard area.
- c. 1,050 sq.m. of office space at ground floor level with own door access and associated infrastructure including staff kitchen, meeting rooms and designated car parking (7 spaces) at basement level.
- A café unit of c. 143.7 sq.m at ground floor level with own door access to the south and east, accessed via proposed public open space.
- 176 no. residential units from 1st to 8th floor level comprising 72 no. 1 bed units (41%), 57 no. 2 bed units (32%) and 47 no. 3 bed units (27%) [each with private amenity space in the form of balcony or terrace], with separate access to the proposed commercial uses at ground floor level.
- c. 1,846 sq. m. of communal open space at ground floor, first floor podium, 4th floor and 7th floor level, and public open space of c. 1,577 sq.m. at ground floor level, including a public courtyard area located to the southeast of the proposed block.
- Resident amenity and support services are proposed at ground floor level to include a cinema room, post room, games room, co-working spaces, gym and concierge services.
- 134 no. car parking spaces, 7 of which are accessible, and 6 no. motorcycle parking spaces, located at basement level and accessed by a vehicular ramp via Mayne River Avenue to the west (with a vehicular set down areas fronting Mayne River Avenue), in addition to 2 no. car club spaces at the southern boundary.
- 424 no. bicycle parking spaces, 416 of which at ground floor and at surface level and 8 no. spaces at basement level.
- All associated vehicular and pedestrian access routes (including links to the adjoining site to the north), external communal play facilities, E.S.B substation, Meter rooms, foul and surface water drainage, hard and soft landscaping, lighting, plant at basement level, bin stores, PV panels and green roof, telecommunications infrastructure all associated and ancillary site works.

The application contains a statement setting out how the proposal will be consistent with the objectives of the relevant development plan and local area plan. The application contains a statement indicating why permission should be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act, 2000, as amended, notwithstanding that the proposed development materially contravenes a relevant development plan or local area plan other than in relation to the zoning of the land.

The proposed site outline, location, layout plan, and elevations are demonstrated in Figures 1-5.

Landscape & Arboriculture

A landscape masterplan has been prepared by Plus Architecture to accompany this planning application. The proposed landscape masterplan is demonstrated in Figure 6.

A tree removal and retention plan has been prepared by Plus Architecture to accompany this planning application. This is demonstrated in Figure 7.

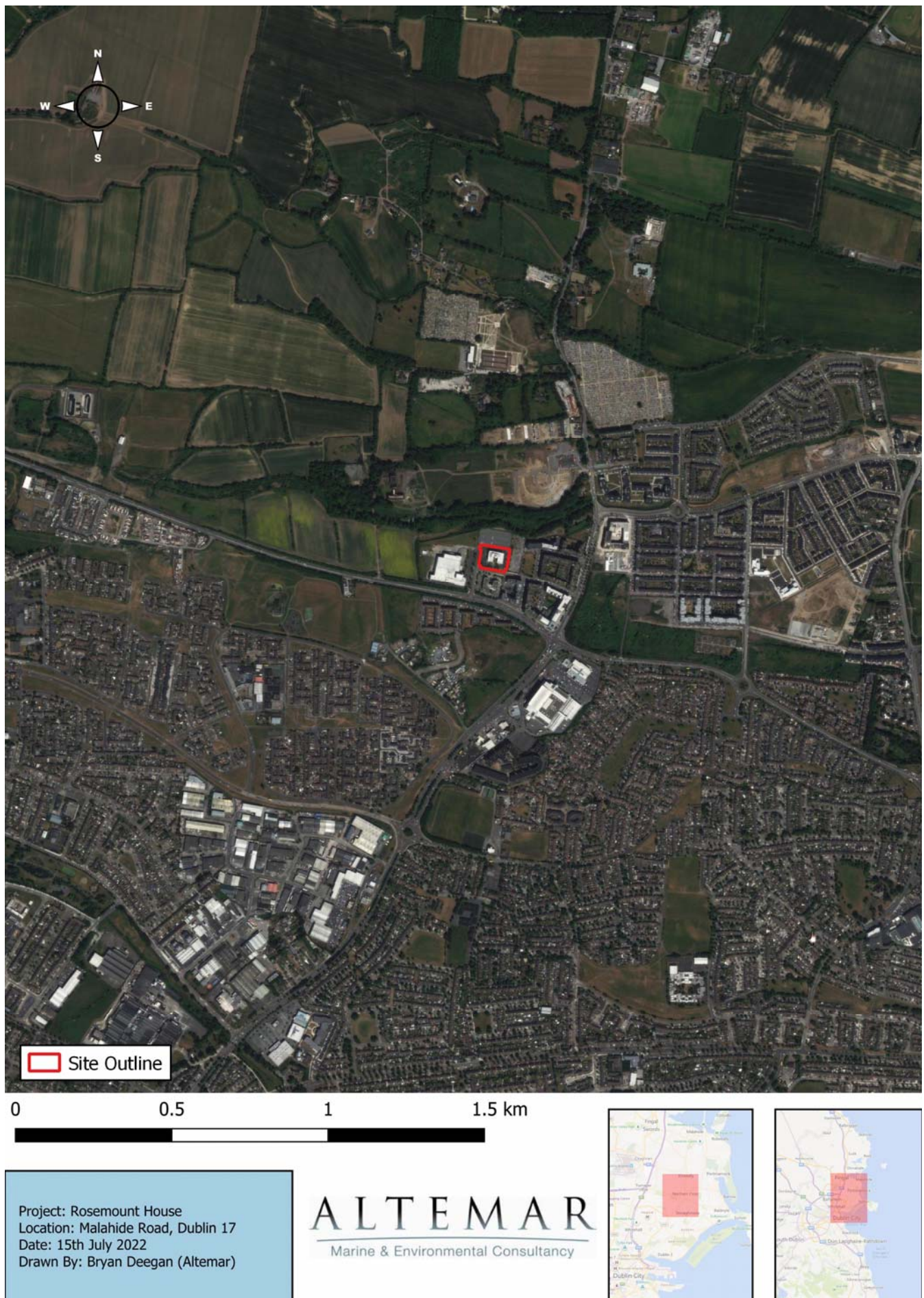


Figure 1. Proposed site outline and location



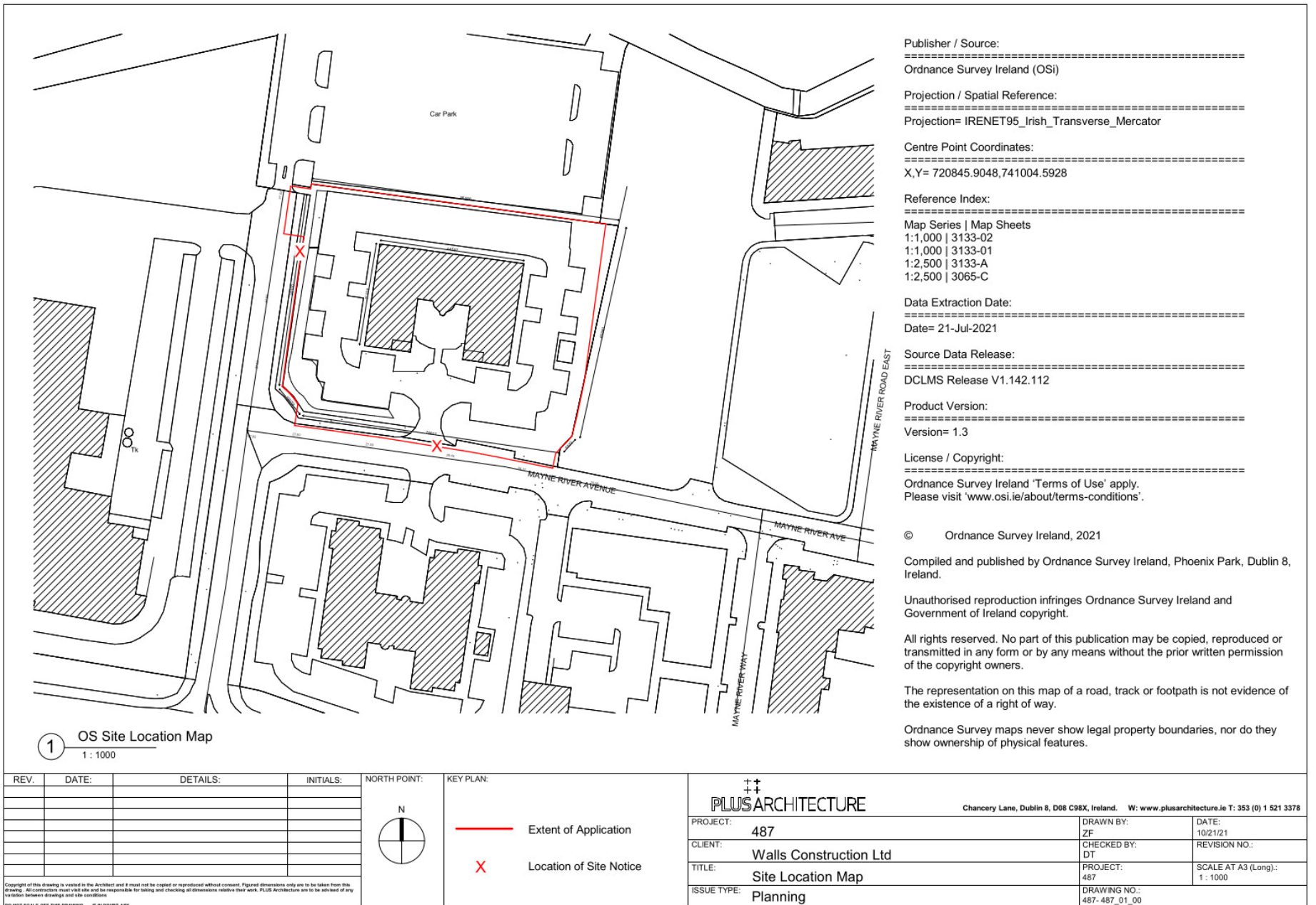
0 25 50 75 100 m

Project: Rosemount House
 Location: Malahide Road, Dublin 17
 Date: 15th July 2022
 Drawn By: Bryan Deegan (Altamar)

ALTEMAR
 Marine & Environmental Consultancy



Figure 2. Proposed site outline



Publisher / Source:
=====

Ordnance Survey Ireland (OSi)
=====

Projection / Spatial Reference:
=====

Projection= IREN95_Irish_Transverse_Mercator
=====

Centre Point Coordinates:
=====

X,Y= 720845.9048,741004.5928
=====

Reference Index:
=====

Map Series | Map Sheets
1:1,000 | 3133-02
1:1,000 | 3133-01
1:2,500 | 3133-A
1:2,500 | 3065-C
=====

Data Extraction Date:
=====

Date= 21-Jul-2021
=====

Source Data Release:
=====

DCLMS Release V1.142.112
=====

Product Version:
=====

Version= 1.3
=====

License / Copyright:
=====

Ordnance Survey Ireland 'Terms of Use' apply.
Please visit 'www.osi.ie/about/terms-conditions'.
=====

© Ordnance Survey Ireland, 2021

Compiled and published by Ordnance Survey Ireland, Phoenix Park, Dublin 8, Ireland.

Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright.

All rights reserved. No part of this publication may be copied, reproduced or transmitted in any form or by any means without the prior written permission of the copyright owners.

The representation on this map of a road, track or footpath is not evidence of the existence of a right of way.

Ordnance Survey maps never show legal property boundaries, nor do they show ownership of physical features.

Figure 3. Site location map

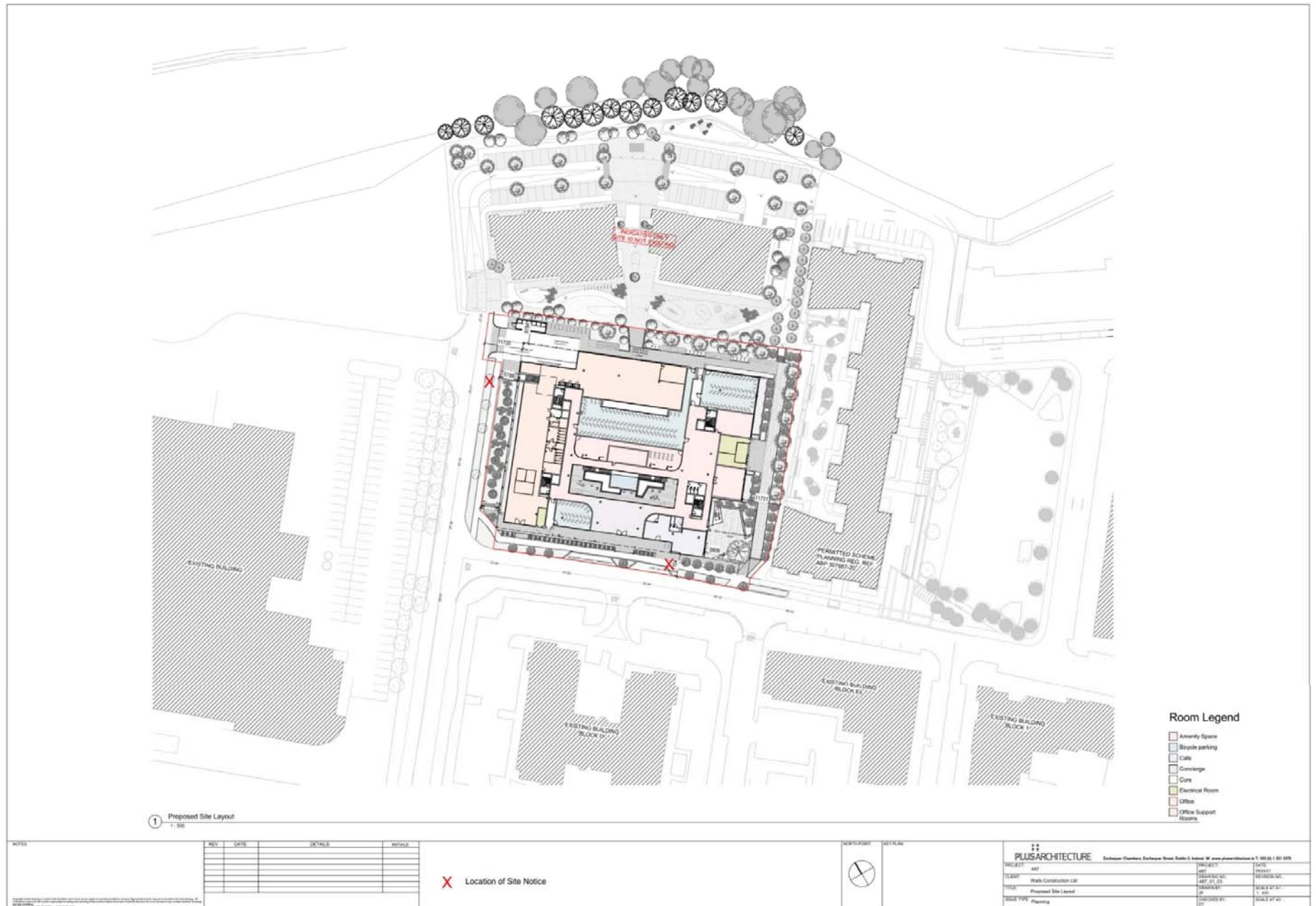
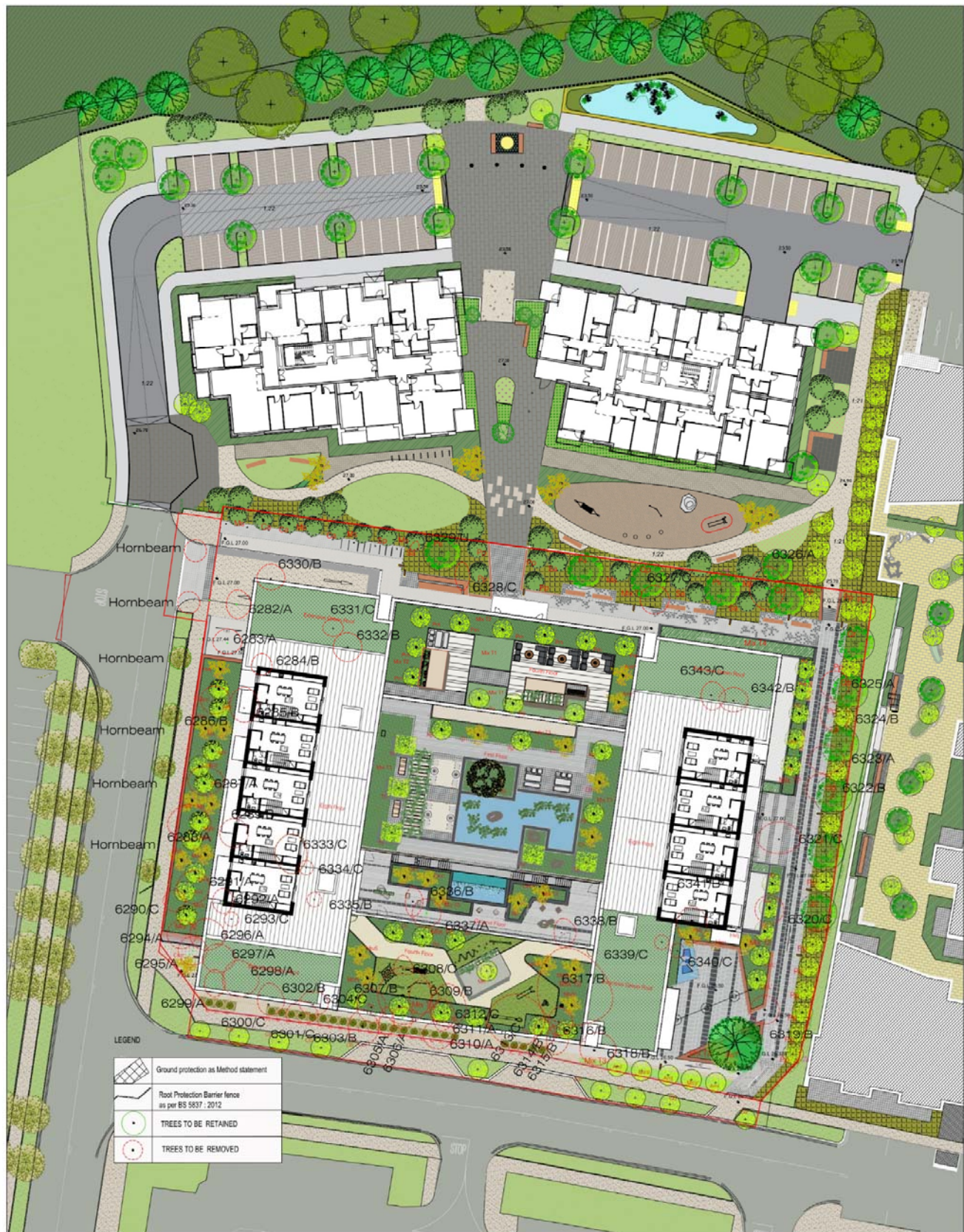


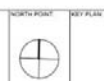
Figure 4. Site layout plan



Proposed tree removal and retention plan 1:250

Site Boundary

NOTES
This drawing should be read in conjunction with the landscape masterplan drawing 487-15_01 and associated Arborist drawing and report for tree removal /retention information



PILLUS ARCHITECTURE Residential Architects, Residential Design & Interiors 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000			
PROJECT:	Residential	DATE:	10/11/2015
CLIENT:	Private	PROPOSAL NO.:	487-15_01
TITLE:	Tree removal and retention plan	ISSUED BY:	1:250
DATE:	10/11/2015	DESIGNED BY:	1:250
		CHECKED BY:	1:250

Figure 7. Tree removal and retention plan

Drainage

An Infrastructure Design Report has been prepared by DBFL Consulting Engineers to accompany this planning application. This report details the following foul and surface water drainage strategy for the proposed development:

Foul Drainage

In relation to the existing foul drainage, this report outlines the following:

'Foul drainage flows from the existing 3-storey office block on the site discharge to the north via an existing 225mm diameter foul sewer, which in turn outfalls to existing Irish Water foul drainage infrastructure located to the north of the site.'

In terms of the proposed foul drainage for the subject site, this report outlines the following:

'an existing 225mm diameter foul sewer is located adjacent to the site's northern boundary, which outfalls to existing Irish Water foul drainage infrastructure located to the north of the site. Proposed foul drainage infrastructure serving the development will discharge to the existing foul drainage infrastructure noted above.'

Surface Water Drainage

In relation to the existing surface water drainage, this report outlines the following: *'Surface water drainage flows from the existing 3-storey office block on the site discharge to an existing 300mm diameter surface water drain located along Mayne River Avenue (to the west of the site). This 300mm diameter surface water drain ultimately discharges to the Mayne River.'*

In terms of the proposed surface water drainage design, this report outlines the following:

'The 300mm diameter surface water drain located along Mayne River Avenue, which serves the existing development on site, will provide a suitable surface water discharge point for the proposed development.'

'Surface water discharge rates from the proposed surface water drainage network will be controlled by a flow control devices and attenuation systems (underground storage and blue/ green roofs). Surface water discharge will also pass via a full retention fuel / oil separator (sized in accordance with permitted discharge rate from the site).

All surface water runoff will be discharged off site via an attenuation and flow control system. Runoff from road areas will also be routed through a separator arrangement prior to discharge onto the surface water network.

The site services layout plan and proposed suds layout plan are demonstrated in Figures 8 & 9.

Flood Risk Assessment

A Site Specific Flood Risk Assessment report has been prepared by DBFL Consulting Engineers to accompany this planning application. This report concludes with the following:

'The Site-Specific Flood Risk Assessment for proposed development has been undertaken in accordance with the requirements of "The Planning System and Flood Risk Management, Guidelines for Planning Authorities" and its Technical Appendices.

Following the Flood Risk Assessment, it has been determined that the site is located in Flood Zone C as defined by the Guidelines.

It is concluded that the;

- Proposed residential development is appropriate for the site's flood zone category.*
- The sequential approach outlined in Planning System and Flood Risk Management Guidelines has been adhered to and that the 'Avoid' principal has been achieved.*

In conclusion the proposed development is considered to have the required level of flood protection up to and including the 100 year return event. Overland flow paths have been identified for pluvial flooding exceeding the capacity of the proposed surface water drainage network.'

Figure 8. Site services layout

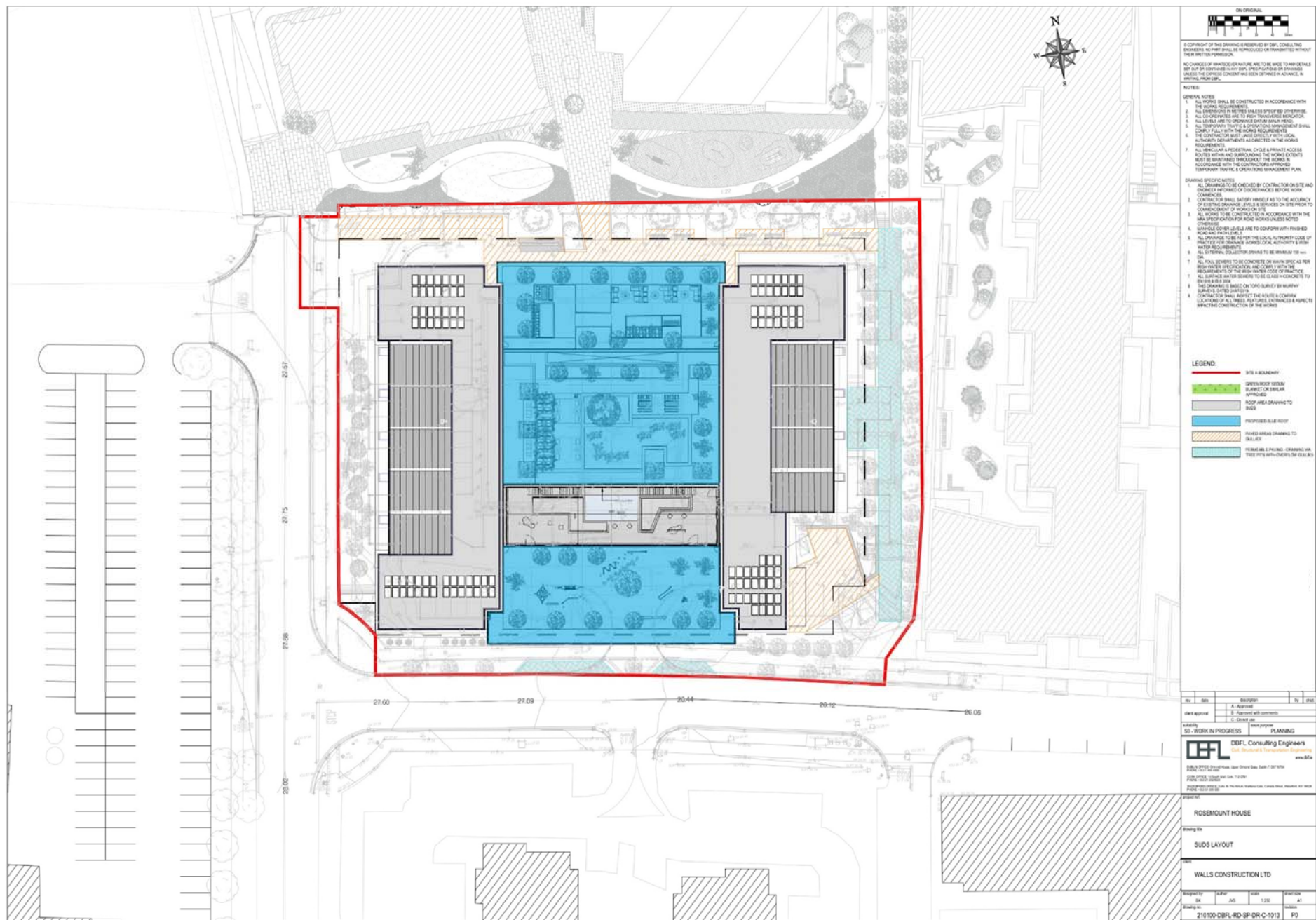


Figure 9. Proposed SUDS layout

Identification of Relevant European sites (Natura 2000 sites)

As outlined in the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018) 'The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.' In line with best practice guidance an initial zone of influence should be set at a radius of 2km for non-linear projects (IEA, 1995).

The potential ZOI of the project, in the absence of mitigation, is deemed to be within the site outline, nearby sensitive receptors including the River Mayne and Baldoyle Bay SAC & SPA (located downstream of the subject site). The project would also involve demolition of buildings, reprofiling, excavations and construction, which may impact beyond the site through noise, dust and light impacts. Standard but robust construction phase controls need to be implemented to limit the potential impact of the proposed development into the surrounding environment. The ZOI of the operation of the proposed development would be the immediate area of the proposed development site, including the potential for significant impacts on European Sites located downstream of the subject site.

In the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the area of assessment was expanded beyond the ZOI to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were taken into account. The Natura 2000 sites within 15km are seen in Figures 10 & 11. Watercourses and Natura 2000 sites located proximate to the proposed development are demonstrated in Figures 12 - 14. All Natura 2000 sites within 15km are listed in Table 1. The conservation objectives, qualifying interests, and the potential impact of the development on each European site and qualifying interest, are outlined in Table 2. There is no direct or indirect pathway to Natura 2000 sites beyond 15km. No European Sites outside of the 15km zone of influence could be impacted by the proposed development.

Table 1. Proximity to designated sites of conservation importance

Site Code	NATURA 2000 Site	Distance
<i>Special Areas of Conservation</i>		
IE000199	Baldoyle Bay SAC	2.5 km
IE000206	North Dublin Bay SAC	3.3 km
IE000205	Malahide Estuary SAC	4.9 km
IE000202	Howth Head SAC	6.6 km
IE000210	South Dublin Bay SAC	7.1 km
IE002193	Ireland's Eye SAC	7.4 km
IE003000	Rockabill to Dalkey Island SAC	7.4 km
IE000208	Rogerstown Estuary SAC	10 km
IE000204	Lambay Island SAC	13.4 km
<i>Special Protection Areas</i>		
IE004016	Baldoyle Bay SPA	2.9 km
IE004006	North Bull Island SPA	3.3 km
IE004024	South Dublin Bay and River Tolka Estuary SPA	4.9 km
IE004025	Malahide Estuary SPA	5.3 km
IE004117	Ireland's Eye SPA	7.1 km
IE004113	Howth Head Coast SPA	8.5 km
IE004015	Rogerstown Estuary SPA	10.2 km
IE004069	Lambay Island SPA	13.3 km

Table 2. Initial screening of European sites within 15km and European sites with potential of hydrological connection to the proposed development – Screened IN (NIS Required)

European Site Code	Name	Screened IN/OUT	Details/Reason
Special Areas of Conservation			
IE000199	Baldoyle Bay SAC	IN	<p>Conservation Objectives</p> <p>The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.</p> <p>Qualifying Interests</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia 16etanus16</i>) [1410]</p> <p>Potential Impact</p> <p>The proposed development is 2.5 km from Baldoyle Bay SAC. There is an indirect hydrological pathway to Baldoyle Bay SAC via the surface water drainage system. Given the proximity to the River Mayne (85m) and the fact that surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne), there is potential for pollutants to enter the Mayne River which is directly linked to the SAC via the surface water outfall (Figure 10).</p> <p>Mitigation measures are required to protect the qualifying interests of the SAC.</p> <p>Stage 2 AA is Required.</p>
Special Protection Areas			
IE004016	Baldoyle Bay SPA	IN	<p>Conservation Objectives</p> <p>The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.</p> <p>Qualifying Interests</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Wetland and Waterbirds [A999]</p> <p>Potential Impact</p> <p>The proposed development site is 2.9 km from this SPA. There is an indirect hydrological pathway to this SPA via the surface water drainage system. Given the proximity to the River Mayne (85m) and the fact that surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne), there is potential for pollutants to enter the Mayne River which is directly linked to the SPA via the surface water outfall (Figure 12).</p>

European Site Code	Name	Screened IN/OUT	Details/Reason
			<p>Given that this SPA is located 2.9 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Mitigation measures are required to protect the Qualifying Interests of the SPA.</p> <p>Stage 2 AA (Natura Impact Statement) is Required.</p>

Table 3. Initial screening of European sites within 15km and European sites beyond 15km with potential of hydrological connection to the proposed development – Screened OUT for stage 2 AA.

NATURA Code	Name	Screened IN/OUT	Details/Reason
Special Areas of Conservation			
IE000206	North Dublin Bay SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interest</p> <p>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 maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia 17etanus17</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] Petalwort (<i>Petalophyllum ralfsii</i>) [1395]</p> <p>Potential Impact</p> <p>The proposed development is located 3.3 km from the North Dublin Bay SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WWTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (3.3 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE000205	Malahide Estuary SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interests</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia 18etanus18</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Potential Impact</p> <p>The proposed development is located 4.9 km from the Malahide Estuary SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WWTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (4.9 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE000202	Howth Head SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interests</p> <p>(1230) Vegetated sea cliffs of the Atlantic and Baltic coasts (4030) European dry heaths</p> <p>Potential Impact</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>The proposed development is over 6.6 km from the Howth Head SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (6.6 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE000210	South Dublin Bay SAC	OUT	<p>Conservation Objectives</p> <p>To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC, which is defined by the following list of targets:</p> <ul style="list-style-type: none"> • The permanent habitat area is stable or increasing, subject to natural processes. • Maintain the extent of the <i>Zostera</i> –dominated community, subject to natural processes. • Conserve the high quality of the <i>Zostera</i> –dominated community, subject to natural processes • Conserve the following community type in a natural condition: Fine sands with <i>Angulus tenuis</i> community complex. <p>Qualifying Interest</p> <p>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] Embryonic shifting dunes [2110]</p> <p>Potential Impact</p> <p>The proposed development is located 7.1 km from the SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (7.1 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE0002193	Ireland's Eye SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interest</p> <p>1220 Perennial vegetation of stony banks. 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts.</p> <p>Potential Impact</p> <p>The proposed development is located 7.4 km from the SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WWTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (7.4 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE003000	Rockabill to Dalkey Island SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interests</p> <p>1170 Reefs 1351 Harbour porpoise <i>Phocoena phocoena</i></p> <p>Potential Impact</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>The proposed development is located 7.4 km from the Rockabill to Dalkey Island SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WWTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (7.4 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE000208	Rogerstown Estuary SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interests</p> <p>Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia 21etanus21</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Potential Impact</p> <p>The proposed development is located 10 km from the SAC. No potential impact is foreseen. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WWTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (10 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE000204	Lambay Island SAC	OUT	<p>Conservation Objectives</p> <p>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.</p> <p>Qualifying Interests</p> <p>1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal (<i>Halichoerus grypus</i>) 1365 Harbour seal (<i>Phoca vitulina</i>)</p> <p>Potential Impact</p> <p>The proposed development is 13.4 km from the Ireland's Eye SAC. There is no direct hydrological pathway to the SAC.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this coastal SAC. However, given the distance along this pathway to the SAC (13.4 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SAC.</p> <p>Impacts caused by the proposed development, in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
Special Protection Areas			
IE004006	North Bull Island SPA	OUT	<p>Conservation Objectives</p> <p>The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.</p> <p>Qualifying Interests</p> <p>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] Redshank (<i>Tringa 23etanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]</p> <p>Potential Impact</p> <p>The proposed development is 3.3 km from the North Bull Island SPA. There is no direct hydrological connection from the site to this SPA. There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (3.3 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 3.3 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
IE004024	South Dublin Bay and River Tolka Estuary SPA	OUT	<p>Conservation Objectives</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p> <p>Qualifying Interests</p> <p>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] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa 24etanus</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> <p>Potential Impact</p> <p>The proposed development is located 4.9 km from this SPA. There is no direct hydrological connection from the site to this SPA.</p> <p>There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (4.9 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 4.9 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE004025	Malahide Estuary SPA	OUT	<p>Conservation Objectives</p> <p>The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.</p> <p>Qualifying Interests</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Pintail (<i>Anas acuta</i>) [A054] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] 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] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa 2setanus</i>) [A162] Wetland and Waterbirds [A999]</p> <p>Potential Impact</p> <p>The proposed development is 5.3 km from the Malahide Estuary SPA. There is no direct hydrological connection from the site to this SPA.</p> <p>There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (5.3 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 5.3 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE004117	Ireland's Eye SPA	OUT	<p>Conservation Objectives</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <p>Qualifying Interests</p> <p>A017 Cormorant (<i>Phalacrocorax carbo</i>) A184 Herring Gull (<i>Larus argentatus</i>) A188 Kittiwake (<i>Rissa tridactyla</i>) A199 Guillemot (<i>Uria aalge</i>)</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>A200 Razorbill (<i>Alca torda</i>)</p> <p>Potential Impact</p> <p>The proposed development is 7.1 km from the Ireland's Eye SPA. This SPA for coastal species, is surrounded by the marine environment and there is no direct hydrological connection from the proposed development to this SPA.</p> <p>There is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (7.1 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 7.1 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely</p>
IE004113	Howth Head Coast SPA	OUT	<p>Conservation Objectives</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p> <p>Qualifying Interests</p> <p>A188 Kittiwake (<i>Rissa tridactyla</i>)</p> <p>Potential Impact</p> <p>The proposed development is 8.5 km from the Howth Head Coast SPA. This SPA is for Kittiwake and there is no direct hydrological connection from the proposed development to this SPA.</p> <p>There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (8.5 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 8.5 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen.</p> <p>No significant effects are likely.</p>
IE004015	Rogerstown Estuary SPA	OUT	<p>Conservation Objectives</p> <p>The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.</p> <p>Qualifying Interests</p> <p>Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Shoveler (<i>Anas clypeata</i>) [A056] 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] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Redshank (<i>Tringa 27etanus</i>) [A162] Wetland and Waterbirds [A999]</p> <p>Potential Impact</p> <p>The proposed development is 10.2 km from the Rogerstown Estuary SPA. There is no direct hydrological connection from the site to this SPA.</p> <p>There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (10.2 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 10.2 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying</p>

NATURA Code	Name	Screened IN/OUT	Details/Reason
			<p>interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen. No significant effects are likely.</p>
IE004069	Lambay Island SPA	OUT	<p>Conservation Objectives</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p> <p>Qualifying Interests</p> <p>A009 Fulmar (<i>Fulmarus glacialis</i>) A017 Cormorant (<i>Phalacrocorax carbo</i>) A018 Shag (<i>Phalacrocorax aristotelis</i>) A043 Greylag Goose (<i>Anser anser</i>) A183 Lesser Black-backed Gull (<i>Larus fuscus</i>) A184 Herring Gull (<i>Larus argentatus</i>) A188 Kittiwake (<i>Rissa tridactyla</i>) A199 Guillemot (<i>Uria aalge</i>) A200 Razorbill (<i>Alca torda</i>) A204 Puffin (<i>Fratercula arctica</i>)</p> <p>Potential Impact</p> <p>The proposed development is 13.3 km from the Lambay Island SPA. No impact on the qualifying interests of this SPA is foreseen. This SPA is for coastal birds and there is no direct hydrological connection from the proposed development to this SPA.</p> <p>There is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage networks. Foul wastewater will be connected to an existing public foul network. Foul wastewater will then be treated at Ringsend WwTP.</p> <p>The surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). There is an indirect hydrological pathway to this SPA. However, given the distance along this pathway to the SPA (13.3 km), any pollutants or silt within the surface water will settle, be dispersed, or diluted within the marine environment. The indirect hydrological pathway of foul or surface water will not impact on the conservation objectives of this SPA.</p> <p>Given that this SPA is located 13.3 km from the proposed development site, it is unlikely that heightened noise levels during construction and operation will impact on the designated qualifying interests of this site. Further, given that the subject site is currently an active industrial unit, the site is not an important roosting or foraging habitat for the qualifying interests of this SPA.</p> <p>Impacts caused by the proposed development in the absence of any mitigation measures, would be expected to be localised to the immediate environs of the site, Mayne River and Baldoyle Bay. No impacts on the qualifying interests of this European site are foreseen. No significant effects are likely.</p>

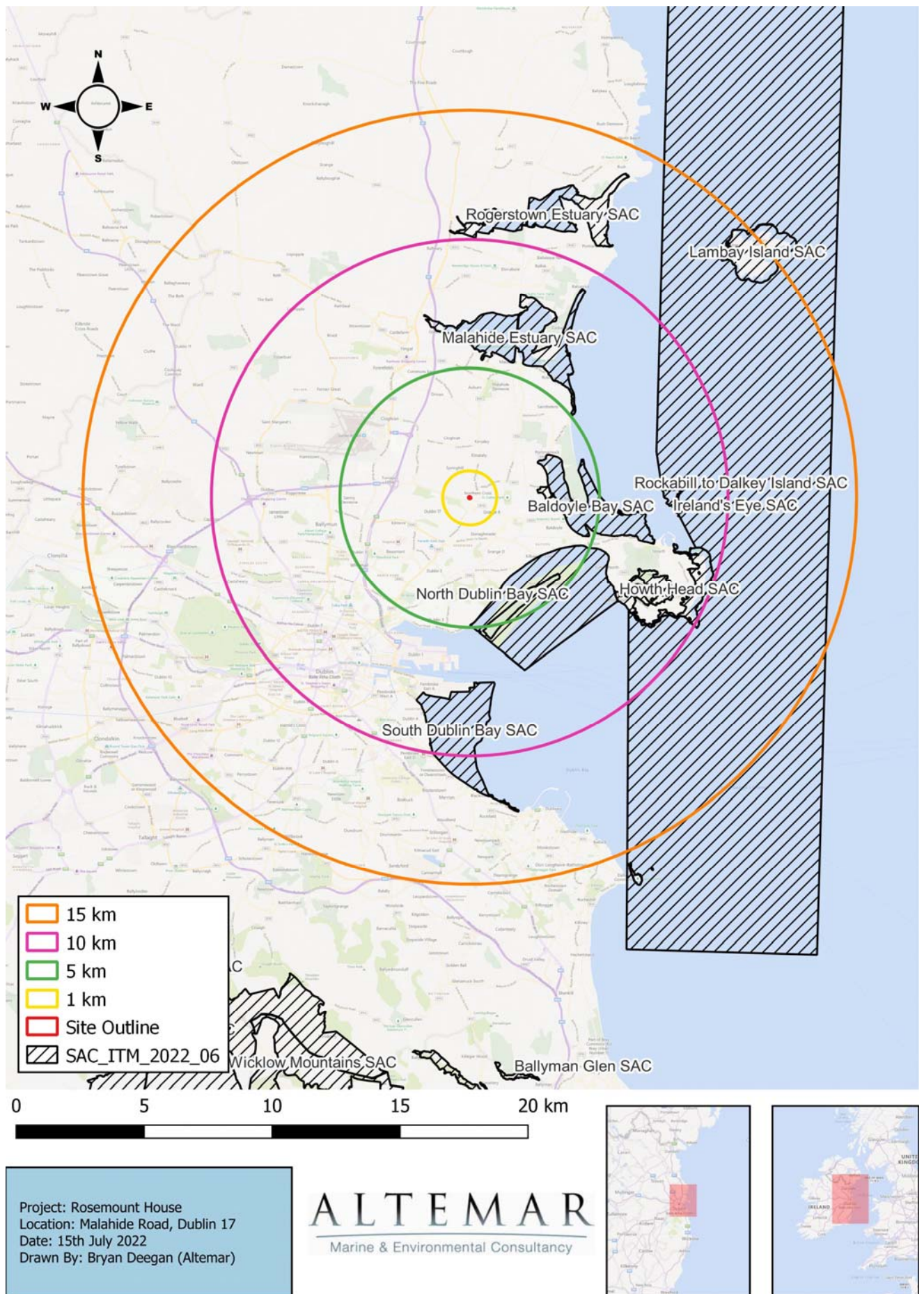


Figure 10. Special Areas of Conservation (SAC) within 15km of proposed development

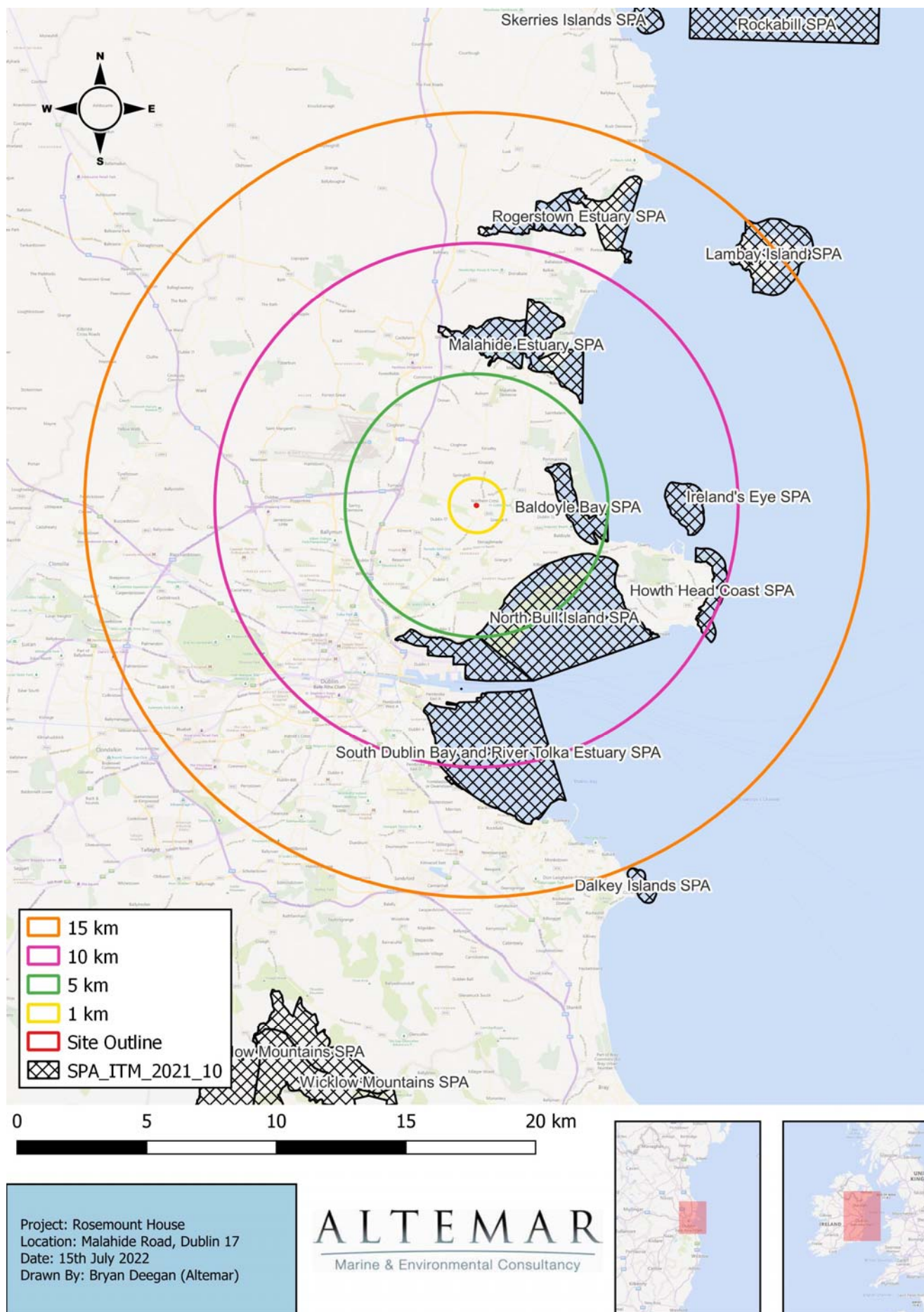




Figure 12. Watercourses within 1km of the proposed development



Figure 13. Watercourses and SACs within 5km of the proposed development



Figure 14. Watercourses and SPAs within 5km of the proposed development

In-Combination Effects

The following is a list of planning applications as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal²:

Table 4. In combination effects evaluated.

Ref. No.	Address	Proposal
F21A/0488	Belcamp Hall (A Protected Structure, RPS No. 463), Malahide Road, Dublin 17.	<p>Construction of 77 no. residential units (20 no. 1-bedroom units; 55 no. 2-bedroom units and 2 no. 3-bedroom units) across 2 no. apartment blocks as follows;</p> <p>Block 1 with is a part 3 and part 4 storey apartment block comprising 51 no. units (16 no. 1 bedrooms; 33 no. 2 bedrooms and 2 no. 3 bedroom units) with balconies/terraces to all units;</p> <p>Block 2, which is a part 3 and part 4 storey apartment block comprising 26 no. units (4 no. 1 bedrooms and 22 no. 2 bedroom units) with balconies/terraces to all units.</p> <p>65 no. surface level parking spaces, a total of 184 no. bicycle parking spaces (comprising 88 no. resident spaces and 26 no. visitor spaces in Block 1 and 56 no. resident spaces and 14 no. visitor spaces in Block 2); bin stores; landscaping and boundary treatments.</p> <p>The proposed development also consists of all associated site infrastructure and engineering works necessary to facilitate the development (on foot of planning permissions granted under Reg. Refs. F15A/0609, PL06F.248052; F18A/0058; F19A/0220 and F19A/0221).</p> <p>No works are proposed which directly affect the structures at Belcamp Hall (a protected structure), or any other protected structures associated with it.</p>
F21A/0401	Lands at Belcamp Hall, Malahide Road, Dublin 17	<p>Residential development on lands at Belcamp Hall (a Protected Structure). The proposed development will consist of the construction of 78 no. residential units comprising 58 no. houses (41 no. two storey 3-beds, 12 no. two storey 4-beds and 5 no. three storey 4-beds, all with associated car parking, and one no. three storey multi-dwelling block consisting of 10 no. own-door duplex units (6 no. 2-beds and 4 no. 3-beds), 2 no. 2-beds own-door triplex units, and 8 no. apartments (6 no. 1-beds and 2 no. 2-beds), all provided with private balconies/terraces and associated car parking and bicycle parking; landscaping; boundary treatments; public lighting; and all associated site infrastructure and engineering works necessary to facilitate the development.</p> <p>The proposed development also includes new road infrastructure pertaining to the East West Link Road and the upgrading of the R107 Malahide Road junction with R123 to include the East West Link Road. These upgrade works to the R107/R123 junction include the closing of the existing Belcamp Manor access off Malahide Road and the provision of a new access off the East West Link Road. Access is from Malahide Road via a new internal road permitted under Reg. Ref. F15A/0609 (ABP Ref. PL06F.248052) and the East West Link Road from Malahide Road. No works are proposed which directly affect the structures at Belcamp Hall (a Protected Structure), or any other protected structures associated with it.</p>
3506/20	Lands known as Site 5, Northern Cross, Malahide Road, Dublin 17	<p>Planning permission on lands known as Site 5, Northern Cross, Malahide Road, Dublin 17. The site is bound by the Malahide Road to the east, the existing Northern Cross development to the south and west, and detached dwellings and the River Mayne corridor to the north.</p> <p>The proposed development consists of the construction of 55 no. apartments and 2 no. double height commercial units (for Class 1- Shop or Class 2- Office/ Professional Services or Restaurant/ Café use). The building ranges from 8 to 12 storeys in height, including double height ground floor commercial units, above basement level. The 55 no. apartments consist of 3 no. studio units, 27 no. one bed units, 22 no. two bed units and 3 no. three bed units. All apartments are provided with private amenity space in the form of balconies/ terraces.</p> <p>The basement includes storage, plant/ service areas, laundry area and storage space allocated to the residential units. The proposal includes communal amenity space, including roof garden at 8th and 10th floor levels, and public realm improvements/public open space adjacent to the Malahide Road. The proposal contains a total of 27 no. car parking spaces, 87 no. secure bicycle parking spaces and 34 no. visitor bicycle parking spaces within the public realm. The proposed development includes PV panels at roof level, foul and surface water drainage, hard and soft landscaping, lighting, and all associated and ancillary site works.</p>

² <https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de>

Ref. No.	Address	Proposal
F18A/0735	Sth/West corner, junction Malahide Rd/Carr's Lane, Balgriffin, Dublin 17	Demolition of the two existing office blocks (Balgriffin House and Glandore House), 'The Cottage' (residential dwelling) and related outbuildings; and the construction of a residential apartment scheme with a gross floor area of c.5,749sq.m. in 2 no.blocks with an overall height of 4 storeys(with roof mounted solar collector panels and rooftop plant, which is setback and screened); comprising 59 no. residential apartments (consisting of 22 no. one-bedroom units, 30 no. two-bedroom units and 7 no. three-bedroom units); creation of a new vehicular access from Carr's Lane to the north (and removal of existing vehicular access from Malahide Road at the northeast corner of the site); creation of new pedestrian access points from Malahide Road to the east; communal open space (c.700 sq.m.) at ground floor level including provision of a dedicated children's play space; external bin storage; 68 no. car parking spaces (including 2 no. disabled spaces) and 144 no. cycle car parking spaces. The overall development will also include a new ESB substation; hard and soft landscaping; changes in level; boundary treatments; drainage works; communal refuse storage areas; internal roads; pedestrian footpaths and lighting; and all associated site development and excavation works above and below ground.
F15A/0609	Belcamp, Malahide Road, Dublin 17.	<p>The proposed development comprises a development of houses, apartments and shops and the change of use of Belcamp Hall, a Protected Structure (RPS No. 463), and its associated later extensions from educational uses to residential use, the chapel and the room in the north east part of Belcamp Hall ground floor to a community use, the three storey building on the north east to residential, cafe and childcare use. The works involve the refurbishment of Belcamp Hall and its later extension to provide 34 apartments (15 no. 1-bed, 13 no. 2-bed, 5 no. 3-bed and 1 no. 4-bed), and comprise the general repair and conservation of the existing buildings, and other works as is necessary to adapt the buildings to their new uses. The works to the Georgian House involve the general repair and conservation of the historic building fabric, upgrading the floors and installation of a new pitched roof. The works to the existing extensions to the south involve the complete refurbishment and fit out of the fire damaged blocks including installing new pitched roofs with dormer windows and the installation of balconies. An existing stairs on the south east will be demolished and a replacement staircase constructed. An additional floor will be inserted into the southern block to provide additional accommodation at roof level. The works to the chapel involve the repair, conservation and reinstatement of the building fabric and its fittings and works to adapt it to its new use. The three storey building to the north will be extended and converted to residential use on the first floor level, restaurant use on the ground floor and part basement level and a childcare facility at basement level. External brickwork and stone will be re-pointed and cleaned and rainwater goods and leadwork replaced. Decorative metal railings will be reinstated. Disabled access facilities will be provided to the chapel. New mechanical, electrical and waste services will be installed throughout. The works will also include external works, hard and soft landscaping, underground services, repairs to the external entrance stone bridge and other external stone paved features. The existing stone pillars and gates at the Malahide Road entrance to be relocated to a position within the development.</p> <p>The new works comprise: a courtyard of 27 dwellings (6 no. three storey 3-bed houses and one 3 storey block containing 8 no. 1-bed, 1 no. 2-bed & 1 no. 3-bed apartments, 5 no. 2-bed & 1 no. 3-bed duplex live/work units, and 5 no. 3-bed duplex units) and 1 no. corner retail unit (51m²), on lands east of the walled garden; and one 3-4 storey block of 47 apartments (12 no. 1-bed, 32 no. 2-bed & 3 no. 3-bed); one 3 storey block of 16 apartments (4 no. 1-bed, & 12 no. 2-bed) over 8 no. retail units (621.5m² gross area); and 139 no. terraced, semi-detached and detached 2 storey houses (3 no. 2-bed, 86 no. 3-bed and 50 no. 4-bed) on lands between Belcamp Hall and Malahide Road. The development will include associated roads and infrastructure including a new east-west main road; services networks; 524 no. car parking spaces (incl. 273 on-curtilage); 118 no. bicycle spaces; bin stores; landscaping works including regeneration of existing woodland and provision of foot paths along Mayne River valley east and south of Belcamp Hall and protection and management of walled garden and woodland west of Belcamp Hall; and all associated ancillary and site works; all on a site of c.15.3ha, on lands bounded by the Malahide Road to the east, Mayne River to the south and development lands to the west and north, with access from the Malahide Road.</p>
TA29N .30788 7	Site 2, Mayne River Avenue, Northern Cross, Dublin 17.	<p>www.ncblock2shd.ie</p> <p>The proposal, as per the submitted public notices, comprises the construction of 191 no. apartments and associated site works.</p>

The sewage discharge will be licensed by Irish Water, collected in the public sewer and treated at Irish Water's WWTP at Ringsend prior to discharge to Dublin Bay. This WWTP is required to operate under an EPA licence (D0034-01) and to meet environmental legislative requirements. The plant has received planning permission (2019) and will be upgraded with increased treatment capacity over the next five years. The peak foul discharge calculated for the proposed development is well within the current capacity of the WWTP.

The projects outlined will be required to comply with Water Pollution Acts to ensure that there are no significant impacts on watercourses. Following an assessment of the projects outlined including supporting documentation it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on European sites will be seen as a result of the proposed development alone or combination with other projects. **No projects in the vicinity of the proposed development would be seen to have a significant in combination effect on European sites.**

Appropriate Assessment Screening Conclusions

An initial screening of the proposed works, using the precautionary principle (without the use of any standard construction phase controls or mitigation measures) and the Source/Pathway/Receptor links between the proposed works and European sites with the potential to result in significant effects on the conservation objectives and features of interest of the European sites was carried out in Tables 2 and 3. Based on best scientific knowledge and objective information and assessment, the possibility of significant effects caused by the proposed project was excluded for the following European sites within 15km in addition to sites beyond 15km with a direct/indirect pathway:

Special Areas of Conservation

- IE0000206 North Dublin Bay SAC
- IE0000205 Malahide Estuary SAC
- IE0000202 Howth Head SAC
- IE0003000 Rockabill to Dalkey Island SAC
- IE0002193 Ireland's Eye SAC
- IE0000210 South Dublin Bay SAC
- IE0000208 Rogerstown Estuary SAC
- IE0000204 Lambay Island SAC

Special Protection Areas

- IE0004006 North Bull Island SPA
- IE0004025 Malahide Estuary SPA
- IE0004117 Ireland's Eye SPA
- IE0004024 South Dublin Bay and River Tolka Estuary SPA
- IE0004113 Howth Head Coast SPA
- IE0004015 Rogerstown Estuary SPA
- IE0004069 Lambay Island SPA

The project is limited in scale and extent and the potential zone of influence is restricted to the immediate vicinity of the proposed development. However, in the absence of mitigation measures there is potential for silt laden material or pollution to enter the Maybe River and European sites immediately downstream from the works in Baldoyle Bay.

Acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on the Baldoyle Bay SAC and Baldoyle Bay SPA because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures that the plan or project, individually and/or in combination with other plans or projects, will not have a significant effect on the named European Site/s.

An NIS or Stage 2 Appropriate Assessment is not required for the effects of the project on all other listed Natura sites and those beyond 15km because it can be excluded on the basis of the best objective scientific information following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the European Site/s.

A Natura Impact Statement is required for the proposed development.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed Strategic Housing Development on lands at Rosemount House, Northern Cross, Malahide Road, Dublin 17, acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on the Baldoyle Bay SAC and Baldoyle Bay SPA (due to the potential for downstream impacts during construction and operation via the surface water drainage network), because it cannot be excluded on the basis of best objective scientific information, in the absence of control or mitigation measures, following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

A Stage 2 Appropriate Assessment or NIS is not required for the effects of the project on all other listed Natura sites within, and sites beyond, 15km because, it can be excluded, on the basis of the best objective scientific information following screening, that the plan or project, individually and/or in combination with other plans or projects, will have not a significant effect on the European Site/s.

The NIS evaluates the potential for direct, indirect effects, alone or in combination with other plans and projects having taken into account the use of mitigation measures. The NIS is informed by the accompanying EIAR including the proposed mitigation measures that are outlined to reduce the potential effects of the proposed project on species/habitats of conservation importance and the surrounding environment.

A further review of the Conservation Objectives and features of interest is necessary to determine if significant effects are likely to impact the Baldoyle Bay SAC and Baldoyle Bay SPA.

Baldoyle Bay SAC (Site code: 000199)

Baldoyle Bay SAC is located 2.5 km from the planning boundary. The proposed development is directly hydrologically connected to Baldoyle Bay SAC via the proposed surface water drainage strategy. Surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). The Mayne River ultimately outfalls to Baldoyle Bay.

Site-specific data

As outlined in the Baldoyle Bay SAC Site Synopsis (NPWS, Version date 12.08.2013):

'Baldoyle Bay SAC extends from just below Portmarnock village to the west pier at Howth in Co. Dublin. It is a tidal estuarine bay protected from the open sea by a large sand-dune system. Two small rivers, the Mayne and the Sluice, flow into the bay.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are European codes):*

[1140] Tidal Mudflats and Sandflats; [1310] Salicornia Mud; [1330] Atlantic Salt Meadows and; [1410] Mediterranean Salt Meadows.

*Large areas of intertidal flats are exposed at low tide at this site. These are mostly sands but grade to muds in the inner sheltered parts of the estuary. Extensive areas of Common Cord-grass (*Spartina anglica*) occur in the inner estuary. Both the Narrow-leaved Eelgrass (*Zostera angustifolia*) and the Dwarf Eelgrass (*Z. noltii*) are also found here. During summer, the sandflats of the sheltered areas are covered by mats of green algae (*Enteromorpha* spp. and *Ulva lactuca*).*

*The sediments have a typical macrofauna, with Lugworm (*Arenicola marina*) dominating the sandy flats. The tubeworm *Lanice conchilega* is present in high densities at the low tide mark and the small gastropod *Hydrobia ulvae* occurs in the muddy areas, along with the crustacean *Corophium volutator*.*

*Areas of saltmarsh occur near Portmarnock Bridge and at Portmarnock Point, with narrow strips along other parts of the estuary. Species such as glassworts (*Salicornia* spp.), Sea-purslane (*Halimione portulacoides*), Sea Plantain (*Plantago maritima*) and Sea Rush (*Juncus maritimus*) are found here. Portmarnock Spit formerly had a welldeveloped sand dune system but this has been largely replaced by golf courses and is mostly excluded from the site. A few dune hills are still intact at Portmarnock Point, and there are small dune hills east of Cush Point and*

below the Claremont Hotel. These are mostly dominated by Marram (*Ammophila arenaria*), though Lyme grass (*Leymus arenarius*) is also found.

The site includes a brackish marsh along the Mayne River. Soils here have a high organic content and are poorly drained, and some pools occur. Rushes (*Juncus* spp.) and salt tolerant species such as Common Scurvygrass (*Cochleria officinalis*) and Greater Sea-spurrey (*Spergularia media*) are typical of this area. Knotted Hedgeparsley (*Torilis nodosa*), a scarce plant in eastern Ireland, has been recorded here, along with Brackish Water-crowfoot (*Ranunculus baudotti*), a species of brackish pools and ditches which has declined in most places due to habitat loss. Two plant species, legally protected under the Flora (Protection) Order, 1999, occur in the Mayne marsh, Borrer's Saltmarsh-grass (*Puccinellia fasciculata*) and Meadow Barley (*Hordeum secalinum*).

Baldoyle Bay is an important bird site for wintering waterfowl and the inner part of the estuary is a Special Protection Area under the E.U. Birds Directive as well as being a Statutory Nature Reserve. Internationally important numbers of Pale-bellied Brent Goose (418) and nationally important numbers of two Annex I Birds Directive species - Golden Plover (1,900) and Bar-tailed Godwit (283) - have been recorded. Four other species also reached nationally important numbers: Shelduck (147), Pintail (26), Grey Plover (148) and Ringed Plover (218) - all figures are average peaks for four winters 1994/95 to 1997/1998. Breeding wetland birds at the site include Shelduck, Mallard and Ringed Plover. Small numbers of Little Tern, a species listed on Annex I of the E.U. Birds Directive, have bred on a few occasions at Portmarnock Point but not since 1991.

The area surrounding Baldoyle Bay is densely populated and so the main threats to the site include visitor pressure, disturbance to wildfowl and dumping. In particular, the dumping of spoil onto the foreshore presents a threat to the value of the site.

Baldoyle Bay is a fine example of an estuarine system. It contains four habitats listed on Annex I of the E.U. Habitats Directive, and supports two legally protected plant species. The site is also an important bird area and part of it is a Special Protection Area under the E.U. Birds Directive, as well as being a Statutory Nature Reserve. It supports internationally important numbers of Brent Goose and nationally important numbers of six other bird species, including two Annex I Birds Directive species.'

The Qualifying Interests (QI) (Features of Interest) and the National conservation status of the QI for Baldoyle Bay SAC are seen in Table 5.

Table 5. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for Baldoyle Bay SAC.

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	Qualifying Interests	Current Conservation Status & Trend
Baldoyle Bay SAC IE0000199	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	Inadequate Favourable Inadequate Inadequate

The Conservation Objectives and overall status of species and habitats in Baldoyle Bay SAC are as follows^{3 4}:

'Objective: To maintain the favourable conservation condition of Mudflats and sandflats (Figure 16) not covered by seawater at low tide in Baldoyle Bay SAC, which is defined by the following list of attributes and targets.

Target 1. The permanent habitat area is stable or increasing, subject to natural processes.

³ NPWS (2012). Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

⁴NPWS (2012) Baldoyle Bay SAC (site code: 199) Conservation objectives supporting document -Marine Habitats

This target refers to activities or operations that propose to permanently remove habitat from a site, thereby reducing the permanent amount of habitat area. It does not refer to long or short-term disturbance of the biology of a site.

Target 2. Conserve the following community types in a natural condition:

- Fine sand dominated by *Angulus tenuis* community complex; 257ha.
- Estuarine sandy mud with *Pygospio elegans* and *Tubificoides benedii* community complex; 152ha.
- Significant continuous or ongoing disturbance of communities should not exceed an approximate area of 15% of the interpolated area of each community type, at which point an inter - Departmental management review is recommended prior to further licensing of such activities.
- Proposed activities or operations that cause significant disturbance to communities but may not necessarily represent a continuous or ongoing source of disturbance over time and space may be assessed in a context - specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.'

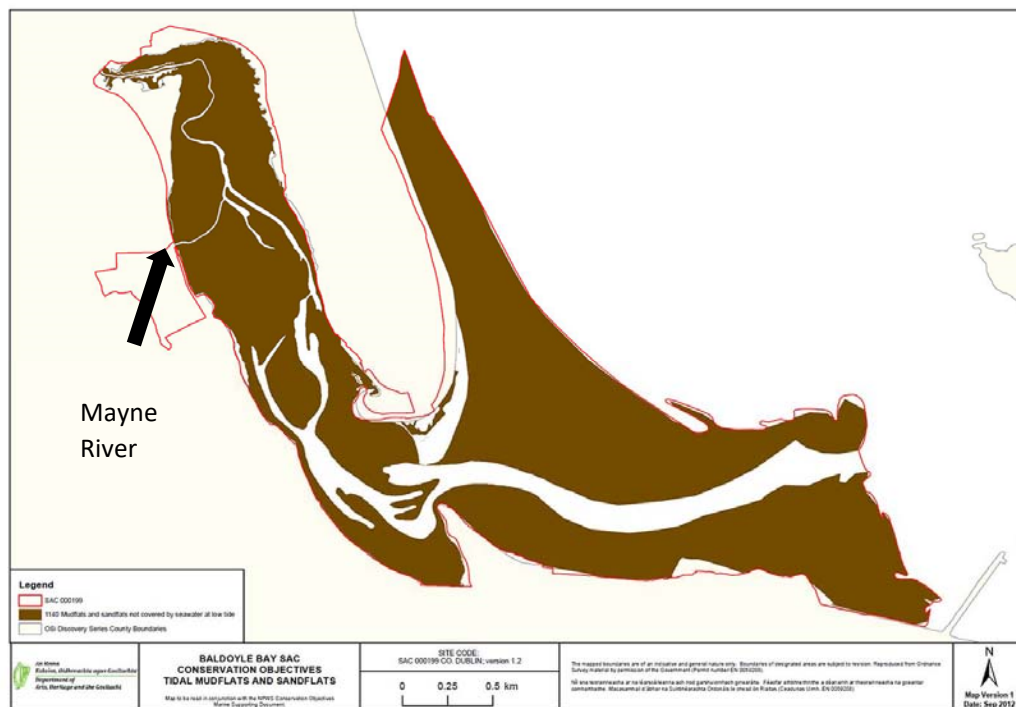


Figure 15. Distribution of Mudflats and Sandflats not covered by seawater at low tide in Baldoye Bay SAC

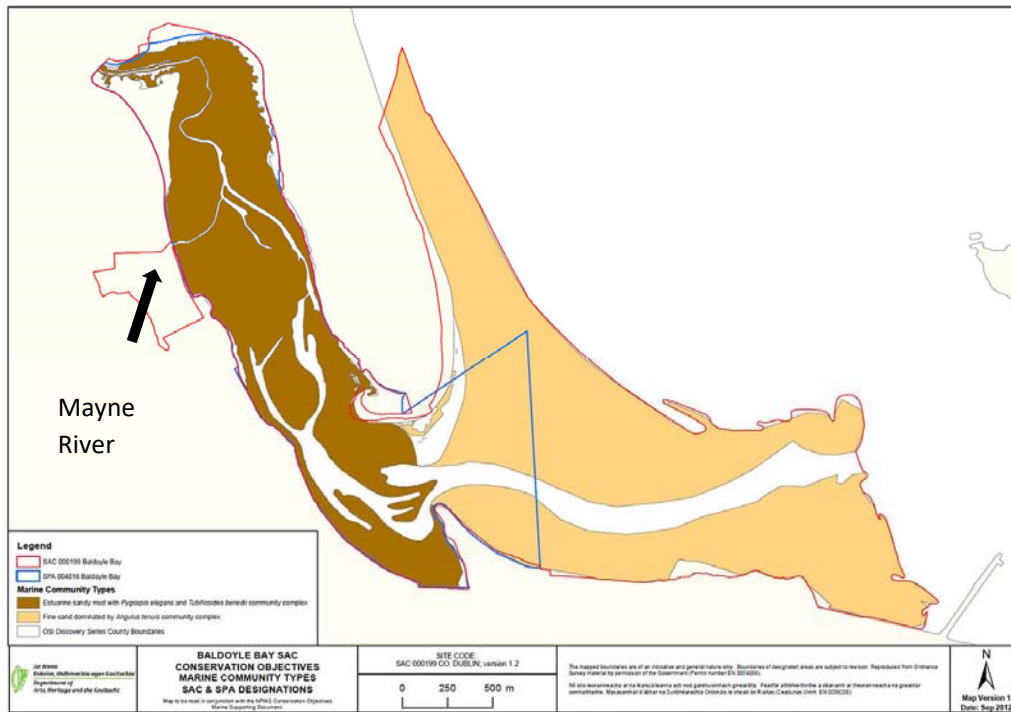


Figure 16. Distribution of marine community types in Baldoye Bay SAC & Baldoye Bay SPA

As outlined in the Conservation objectives supporting document – coastal habitats (NPWS, 2012):

'Baldoye Bay SAC (site code: 199) is designated for a range of coastal habitats, including saltmarsh. The following three coastal habitats are included in the qualifying interests for the site (denotes a priority habitat):*

- *Salicornia and other annuals colonising mud and sand (1310)*
- *Atlantic salt meadows (Glaucopuccinellietalia maritimae) (ASM) (1330)*
- *Mediterranean salt meadows (Juncetalia maritimi) (MSM) (1410)*

These saltmarsh habitats are found in close association with each other.

The following habitats were recorded during the Coastal Monitoring Project (Ryle et al. 2009),⁵ but they are not listed in the qualifying interests for the site:

- *Annual vegetation of drift lines (1210)*
- *Embryonic shifting dunes (2110)*
- *Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (2120)*
- *Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130)**
- *Humid dune slacks (2190)**

Within Baldoye Bay SAC, there are five main areas of saltmarsh and Atlantic salt meadow (ASM) is the dominant saltmarsh habitat type (Figure 17). As outlined in NPWS 2012:

'The main area occurs in the north-west corner of the estuary to the south of the estuarine river channel. This area contains the largest area of ASM and contains a band of MSM on its landward side. There is extensive Spartina sward formation on the seaward side, along the river channel and into the estuary.

There are several patches of Salicornia habitat located on both sides, towards the lower end of the estuary. ASM habitat dominates the older area and is covered by spring tides in Baldoye Estuary. The MSM habitat is

⁵ Ryle, T., Murray, A., Connolly, K. and Swann, M. (2009). Coastal Monitoring Project 2004-2006. Unpublished report to the National Parks and Wildlife Service, Dublin.

characterised by clumps of sea rush (*Juncus maritimus*) and is found in small scattered clumps along the landward side of most of the saltmarsh (McCorry, 2007) ⁶.

The target is that there should be no decline or change in the distribution of these saltmarsh habitats, unless it is the result of natural processes, including erosion, accretion and succession’.

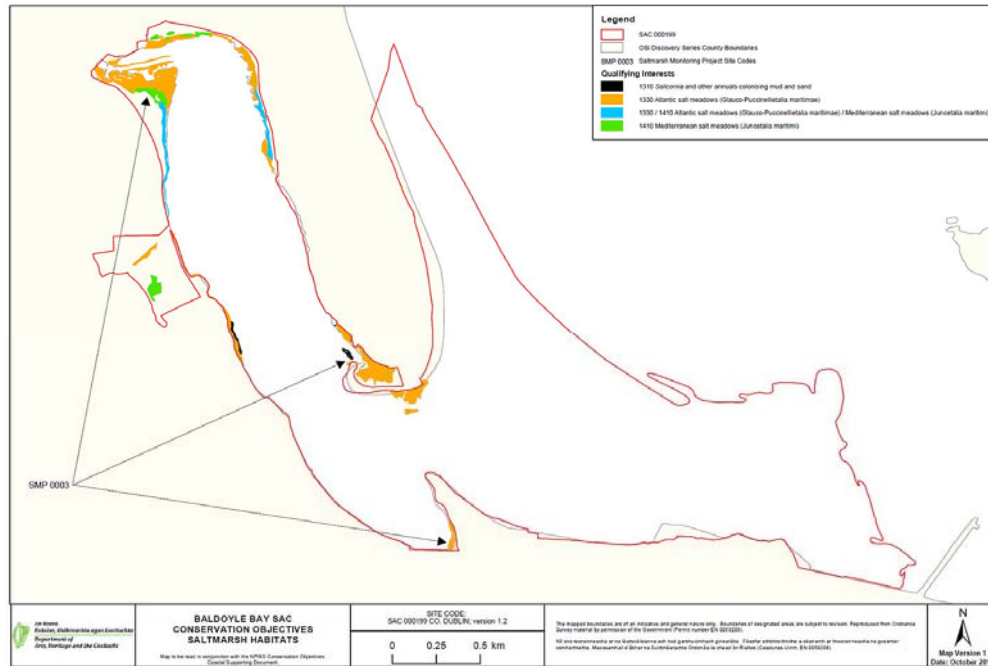


Figure 17. Saltmarsh habitats found in Baldoye Bay SAC

The attribute, measure and target of the site-specific Conservation Objectives for Baldoye Bay SAC are seen in Table 6.

Table 6. Attribute, measure and target of the site conservation objectives for Baldoye Bay SAC

Attribute	Measure	Target
Salicornia and other annuals colonising mud and sand [1310] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward

⁶ McCorry, M. (2007). Saltmarsh Monitoring Project 2006. Unpublished report to the National Parks and Wildlife Service, Dublin.

Attribute	Measure	Target
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and subcommunities	Percentage cover	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species- <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i> [1330] (Maintain the favourable conservation condition))		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure:vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%
Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] (Maintain the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure:flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to

Attribute	Measure	Target
		natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%

Baldoyle Bay SPA (Site code: 004016)

Baldoyle Bay SPA is located 2.9 km from the planning boundary. The proposed development is directly hydrologically connected to Baldoyle Bay SPA via the proposed surface water drainage strategy. Surface water drainage from the subject site will be directed to an existing public surface water network located on Mayne River Avenue (which in turn outfalls to the River Mayne). The River Mayne ultimately outfalls to Baldoyle Bay.

Site-specific data

As outlined in the Baldoyle Bay SPA Site Synopsis (NPWS, Version date 25.03.2014):

'Baldoyle Bay, located to the north and east of Baldoyle and to the south of Portmarnock, Co. Dublin, is a relatively small, narrow estuary separated from the open sea by a large sand dune system. Two small rivers, the Mayne River and the Sluice River, flow into the inner part of the estuary.

*Large areas of intertidal flats are exposed at low tide. These are mostly sands but grade to muds in the inner sheltered parts of the estuary. Extensive areas of Common Cord-grass (*Spartina anglica*) occur in the inner estuary. Both the Narrow-leaved Eelgrass (*Zostera angustifolia*) and the Dwarf Eelgrass (*Z. noltii*) are also found here. During summer, the sandflats of the sheltered areas are covered by mats of green algae (*Ulva* spp.). The sediments have a typical macrofauna, with Lugworm (*Arenicola marina*) dominating the sandy flats. Areas of saltmarsh occur near Portmarnock Bridge and at Portmarnock Point, with narrow strips found along other parts of the estuary. Species such as Glasswort (*Salicornia* spp.), Sea-purslane (*Halimione portulacoides*), Sea Plantain (*Plantago maritima*) and Sea Rush (*Juncus maritimus*) are found here.*

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Shelduck, Ringed Plover, Golden Plover, Grey Plover and Bar-tailed Godwit. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Baldoyle Bay is an important site for wintering waterfowl, providing good quality feeding areas and roost sites for an excellent diversity of waterfowl species. It supports an internationally important population of Light-bellied Brent Goose (726), and has a further five species with nationally important populations (all figures are mean peaks for the five winters 1995/96 to 1999/2000): Shelduck (147), Ringed Plover (223), Golden Plover (2,120), Grey Plover (200) and Bar-tailed Godwit (353). Other species which occur include Great Crested Grebe (42), Pintail (35), Teal (138), Mallard (46), Common Scoter (61), Oystercatcher (531), Lapwing (524), Knot (189), Dunlin (879), Black-tailed Godwit (113), Curlew (98), Redshank (224), Greenshank (11) and Turnstone (43).

Regular breeding birds include Shelduck, Mallard and Ringed Plover. In autumn, passage migrants such as Curlew Sandpiper, Spotted Redshank and Green Sandpiper are regular in small numbers. Little Egret, a species which has recently colonised Ireland, also occurs at this site.

Baldoyle Bay SPA is of high conservation importance, for supporting internationally important numbers of Light-bellied Brent Goose as well as nationally important populations of a further five species, including Golden Plover and Bar-tailed Godwit, both species that are listed on Annex I of the E.U. Birds Directive. The inner part of the site is a Statutory Nature Reserve and also designated as a wetland of international importance under the Ramsar Convention.’

The Special Conservation Interests (SCIs) for the Baldoyle Bay SPA and the National conservation status of the QI are seen in Table 7.

Table 7. Special Conservation Interests (SCIs) for Baldoyle Bay SPA and National status

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites			
European Site Name & Code	Qualifying Interests	Current Conservation Status & Trend	
Baldoyle Bay SPA IE0004016	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Amber	
	Shelduck (<i>Tadorna tadorna</i>) [A048]	Amber	
	Ringed Plover (<i>Charadrius hiaticula</i>) [A137]	Green	
	Golden Plover (<i>Pluvialis apricaria</i>) [A140]	Red	
	Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Amber	
	Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Amber	
	Wetland and Waterbirds [A999]	N/A	

The status of qualifying interest species listed for Baldoyle Bay SPA are as follows⁷:

- ‘During winter the site regularly supports 1% or more of the biogeographic population of Light-bellied Brent Geese (*Branta bernicla hrota*). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 726 individuals.
- During winter the site regularly supports 1% or more of the all-Ireland population of Ringed Plover (*Charadrius hiaticula*). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 223 individuals.
- During winter the site regularly supports 1% or more of the all – Ireland population of Bar-tailed Godwit (*Limosa lapponica*). The mean peak number of this Annex I species within the SPA during the baseline period (1995/96 – 1999/00) was 353 individuals.’

The current population data for waterbirds of Special Conservation Interest in Baldoyle SPA is outlined in the NPWS⁷.

‘Non - breeding waterbirds have been counted at Baldoyle Bay each winter as part of the Irish Wetland Bird Survey (I-WeBS) since the survey commenced in 1994/95. The site was counted once in 1994/95; otherwise the core survey months (September to March inclusive) were covered in all seasons. The core count period covers the main wintering period when many species occur in their largest concentrations, but also the autumn and spring passage periods when total waterbird numbers may be enhanced by staging/stopover birds.

Baldoyle SPA is an important feeding and roosting resource for Light-bellied Brent Geese, a listed Special Conservation Interest (SCI) species for the site. However, the same geese also utilise other locations that are outside of the SPA but may be inside or outside of the I-WeBS count boundary. These areas, which provide feeding

⁷ NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

resources for the geese, are largely amenity grasslands and/or agricultural fields. Bird counts for species of conservation importance are seen in Table 8.

Table 8. Bird counts of species of conservation importance in Baldoye Bay

	Light-bellied Brent Geese	Ringed Plover	Bar-tailed Godwit	Shelduck	Golden Plover	Grey Plover
(1995/96 -1999/00)	726 (i)	223 (n)	353 (n)	147 (n)	2,120 (n)	200 (n)
(2005/06 -2009/10)	874 (i)	122	134	290 (n)	914	96 (n)

(i) denotes numbers of international importance; (n) denotes numbers of all-Ireland importance.

Additional Special Conservation Interests for Baldoye Bay SPA are as follows:

- During winter the site regularly supports 1% or more of the all –Ireland population of Shelduck (*Tadorna tadorna*). The mean peak number of this species within the SPA during the baseline period (1995/96 –1999/00) was 147 individuals.
- During winter the site regularly supports 1% or more of the all – Ireland population of Golden Plover (*Pluvialis apricaria*). The mean peak number of this Annex I species within the SPA during the baseline period (1995/96 – 1999/00) was 2,120 individuals.
- During winter the site regularly supports 1% or more of the all - Ireland population of Grey Plover (*Pluvialis squatarola*). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 200 individuals.
- The wetland habitats contained within Baldoye Bay SPA are identified of conservation importance for non – breeding (wintering) migratory waterbirds. Therefore, the wet land habitats are considered to be an additional Special Conservation Interest.

The Conservation Objectives of Baldoye Bay SPA are as follows⁸:

‘Objective 1 is ‘To maintain the favourable conservation condition of the non - breeding waterbird Special Conservation Interest species listed for Baldoye Bay SPA’. This objective is defined by the following attributes and targets:

- To be favourable, the long-term population trend for each Special Conservation Interest species of waterbirds 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.

The factors that can adversely affect the achievement of Objective 1 include:

- **Habitat modification:** Activities that modify discreet areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or a reduction in their numbers.
- **Disturbance:** Anthropogenic disturbance that occurs in or near the site and is either singular or cumulative in nature could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and /or a reduction in their numbers.
- **Ex-situ factors:** Several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat changes or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers.

⁸ NPWS (2013) Conservation Objectives Supporting Document: Baldoye Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

Objective 2 is 'To maintain the favourable conservation condition of the wetland habitat at Baldoye Bay 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 263 ha, other than that occurring from natural patterns of variation. The boundary of Baldoye Bay SPA was defined to include the primary wetland habitats of this site. Objective 2 seeks to maintain the permanent extent of these wetland habitats, which constitute an important resource for regularly-occurring migratory waterbirds. The wetland habitats can be categorised into three broad types: subtidal; intertidal; and supratidal. Over time and though natural variation these subcomponents of the overall wetland complex may vary due to factors such as changing rates of sedimentation, erosion etc. Waterbird species may use more than one of the habitat types for different reasons (behaviours) throughout the tidal cycle.
- Subtidal areas refer to those areas contained within the SPA that lie below the mean low water mark and are predominantly covered by marine water. Tidal rivers, creeks and channels are included in this category. For Baldoye Bay SPA this broad category is estimated to be 34 ha. Subtidal areas are continuously available for benthic and surface feeding ducks (e.g. Wigeon) and piscivorous/other water birds. Various waterbirds roost in subtidal areas. The relatively low proportion of subtidal habitat is due to the fact that this SPA is designated primarily for birds using intertidal habitats.
- The intertidal area is defined, in this context, as the area contained between the mean high-water mark and the mean low water mark. For Baldoye Bay SPA this is estimated to be 164 ha. When exposed or partially exposed by the tide, intertidal habitats provide important foraging areas for many species of waterbirds, especially wading birds, as well as providing roosting/loafing areas. When the intertidal area is inundated by the tide it becomes available for benthic and surface feeding ducks and piscivorous/other waterbirds. During this tidal state this area can be used by various waterbirds as a loafing/roosting resource. The supratidal category refers to areas that are not frequently inundated by the tide (i.e. occurring above the mean high watermark) but contain shoreline and coastal habitats and can be regarded as an integral part of the shoreline.
- For Baldoye Bay SPA this is estimated to be 65 ha. Supratidal areas are used by a range of waterbird species as a roosting resource as well as providing feeding opportunities for some species. The maintenance of the 'quality' of wetland habitat lies outside the scope of Objective 2."

The maintenance of the 'quality' of wetland habitat lies outside the scope of Objective 2. However, for the species of Special Conservation Interest, the scope of Objective 1 covers the need to maintain, or improve where appropriate, the different properties of the wetland habitats contained within the SPA.'

The attribute, measure and target of the site-specific conservation Objectives for Baldoye Bay SPA are seen in Table 9.

Table 9. Attribute, measure and target of the site conservation objectives for Baldoye Bay SPA.

Attribute	Measure	Target
A046 Brent Goose (<i>Branta bernicla hrota</i>), A048 Shelduck (<i>Tadorna tadorna</i>), A137 Ringed Plover (<i>Charadrius hiaticula</i>), A140 Golden Plover (<i>Pluvialis apricaria</i>), A141 Grey Plover (<i>Pluvialis squatarola</i>), A157 Bar-tailed Godwit (<i>Limosa lapponica</i>), A999 Wetlands.		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation
Wetlands [A999] (Maintain the favourable conservation condition)		
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation

Analysis of the Potential Impacts on the Baldoyle Bay SAC and Baldoyle Bay SPA.

The proposed development will involve demolition, the removal of existing internal habitats on site, the construction of a Strategic Housing Development and the discharge of surface water to an existing surface water drainage network which will discharge to the Mayne River, leading to the Mayne Estuary and ultimately to Baldoyle Bay SAC and Baldoyle Bay SPA.

Construction Impacts

The construction of the proposed development would potentially impact on the existing ecology of the site and the surrounding area. These potential construction impacts would include impacts that may arise during the site clearance, re-profiling of the site and the building phases of the proposed development. The potential impacts are outlined in Table 10. Construction phase mitigation measures are required on site as there are proposals to discharge surface water to an existing surface water drainage network which will discharge to the Mayne River, leading to the Mayne Estuary and ultimately to Baldoyle Bay SAC and Baldoyle Bay SPA. There is potential for silt laden runoff, dust or contamination to enter surface water network and with potential for downstream impacts.

Designated European Sites

The proposed development is not within a designated conservation site. An indirect pathway exists via surface water to European sites (Baldoyle Bay SAC and Baldoyle Bay SPA) downstream from the proposed development site via the Mayne River. The construction of the proposed development would potentially impact on the watercourse through silt laden runoff and pollution entering the surface water system and being discharged from the site to the River Mayne. These potential construction impacts on European sites are seen in Table 10. Runoff during demolition, site clearance, re-profiling, the construction and operation of project elements including the drainage network, could enter the surface water system and the Mayne River which leads to the European sites. Compliance with the Water Pollution Acts and monitoring would be seen as the primary method of ensuring no significant impact on designated conservation sites. Mitigation measures are required to ensure that the proposed development will not impact on the conservation objectives of the European sites within Baldoyle Bay.

Operational Impacts

Once constructed all onsite drainage will be connected to separate foul and surface water systems. Surface water runoff will comply with SUDS and will discharge to an existing surface water drainage network that discharges to the Mayne River and ultimately outfalls to Baldoyle Bay and the designated European sites. Mitigation measures will be required to ensure that water quality is maintained prior to discharging to watercourses.

Mitigation Measures and Monitoring

Construction and operational mitigation will be incorporated into the proposed development project to minimise the potential negative impacts within the Zone of Influence (Zoi) including the Mayne River and downstream European sites (Table 11).

Table 10. Potential for adverse effects on the qualifying interests and conservation objectives of European sites

European Site & Site Code	Qualifying Interests	Potential for Adverse Effects
Baldoyle Bay SAC IE000199	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>[1310] <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>[1330] Atlantic salt meadows (<i>Glauco - Puccinellietalia maritima</i>)</p> <p>[1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p>	<p>Works on site, dust and surface water runoff on site during construction or operation may lead to silt or contaminated materials from site entering the surface water network on Mayne Avenue which discharges to the Mayne River and ultimately Baldoyle Bay SAC. Concrete, silt or pollution could enter the surface water runoff during enabling works including, site clearance, reprofiling and dewatering of foundations, if required during construction. If on-site concrete production is required or cement works are carried out in the vicinity of drains, there is potential for contamination of the watercourse.</p> <p>The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals in addition to exporting materials offsite could lead to pollution on site or in adjacent watercourses. The storage of topsoil or works onsite could lead to dust, soil or silt laden runoff entering adjacent watercourses. The use of haul roads could lead to silt laden runoff or dust with downstream effects on the SAC. Contaminated wastewater from onsite toilets, could cause localised pollution.</p> <p>Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site and would have little effect on European sites. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the watercourse, leading to the Baldoyle Bay SAC.</p> <p>Given the nature of the potential effects outlined above, the proposed project could impact on the:</p> <ol style="list-style-type: none"> 1) Habitat area, Community distribution of Mudflats and sandflats not covered by seawater at low tide [1140] 2) Habitat area, Habitat distribution, Physical structure: sediment supply, Physical structure: creeks and pans, Physical structure: flooding regime, Vegetation structure: zonation, Vegetation structure: vegetation height, Vegetation structure: vegetation cover, Vegetation composition: typical species and subcommunities, Vegetation structure: negative indicator species-<i>Spartina anglica</i> of <i>Salicornia</i> and other annuals colonising mud and sand [1310]. 3) Habitat area, Habitat distribution, Physical structure: sediment supply, Physical structure: creeks and pans, Physical structure: flooding regime, Vegetation structure: zonation, Vegetation structure: vegetation height, Vegetation structure: vegetation cover, Vegetation composition: typical species and subcommunities, Vegetation structure: negative indicator species –1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 4) Habitat area, Habitat distribution, Physical structure: functionality sediment supply, Vegetation structure: zonation, Vegetation composition: plant health of fore dune grasses, Vegetation composition: typical species and subcommunities Vegetation composition: negative indicator species of 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)
Baldoyle Bay SPA IE004016	<p>A046 Brent Goose (<i>Branta bernicla hrota</i>)</p> <p>A048 Shelduck (<i>Tadorna tadorna</i>)</p>	<p>Works on site, dust and surface water runoff on site during construction may lead to silt or contaminated materials from site entering the Mayne River. Concrete, silt or pollution could enter the watercourse during enabling works including, site clearance, reprofiling and dewatering of foundations, if required during construction. If on-site concrete production is required or cement works are carried out in the vicinity of drains there is potential for contamination of the watercourse.</p>

	<p>A137 Ringed Plover (<i>Charadrius hiaticula</i>)</p> <p>A140 Golden Plover (<i>Pluvialis apricaria</i>)</p> <p>A141 Grey Plover (<i>Pluvialis squatarola</i>)</p> <p>A157 Bar-tailed Godwit (<i>Limosa lapponica</i>)</p> <p>A999 Wetlands.</p>	<p>The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses. The storage of topsoil or works onsite could lead to dust, soil or silt laden runoff entering adjacent watercourses. The use of haul roads could lead to silt laden runoff or dust with downstream effects on the SPA.</p> <p>Noise would be generated by the construction. However, the distance to this SPA is 2.9km, across an urban environment and due to the distance and urban nature of the environment, noise levels would not be expected to be above baseline conditions at the SPA.</p> <p>Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site and would have little effect on European sites. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the surface water network and River Mayne, leading to the Baldoyle Bay SPA. Significant quantities of silt could impact on the infauna and diet of birds within the SPA and the A999 Wetlands.</p> <p>Given the nature of the potential effects outlined above, the proposed project could affect the:</p> <ol style="list-style-type: none"> 1. Distribution and Range, timing and intensity of use of areas of the SPA for Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]. The area of Wetlands [A999] <p>Mitigation measures are required to limit the effect of the project on the qualifying interests of the proposed development site.</p>
--	--	--

Table 11. Mitigation Measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Baldoyle Bay SAC and Baldoyle Bay SPA
Baldoyle Bay SAC Baldoyle Bay SPA	<ul style="list-style-type: none"> • Habitat degradation • Dust deposition • Pollution • Silt ingress from site runoff • Downstream impacts • Negative impacts on aquatic and bird fauna. • Disturbance. 	<p>Construction</p> <p><u>Contamination of watercourses leading to European Sites</u></p> <ul style="list-style-type: none"> • Appointment of an ecologist to oversee demolition, enabling works and the implementation of mitigation measures outlined. • Earthwork operations will be carried out such that surfaces, as they are being raised, shall be designed with adequate drainage, falls and profile to control run-off and prevent ponding and flowing. • Any discharges to the watercourse during construction must be discussed with the ecologist, undergo desilting and petrochemical interception and have twice daily turbidity monitoring. • Local silt traps will be established throughout site as discussed with the ecologist. • Mitigation measures on site include dust control, stockpiling away from watercourse and drains • Stockpiling of loose materials will be kept to a minimum of 20m from watercourses and drains. • Stockpiles and runoff areas following clearance will have suitable barriers to prevent runoff of fines into the drainage system and watercourses. • Fuel, oil and chemical storage will be sited within a bunded area. The bund will be at least 50m away from drains, ditches or the watercourse, excavations and other locations where it may cause pollution. • Bunds will be kept clean and spills within the bund area will be cleaned immediately to prevent groundwater contamination. Any water-filled excavations, including the attenuation tank during construction, that require pumping will not directly discharge to the stream. Prior to discharge of water from excavations adequate filtration will be provided to ensure no deterioration of water quality. • Stockpiles and runoff areas following clearance will have suitable barriers to prevent runoff of fines into the drainage system and watercourses. • Bunds will be kept clean and spills within the bund area will be cleaned immediately to prevent groundwater contamination. • During the construction works silt traps will be put in place in the vicinity of all runoff channels the stream to prevent sediment entering the watercourse. • Planting in the vicinity of the stream crossings should be put in place as soon as possible to allow biodiversity corridors to establish. • On-site inspections will be carried out by project ecologist during enabling works and until drainage connection is complete. • Maintenance of any drainage structures (e.g. de-silting operations) must not result in the release of contaminated water to the surface water network. • No entry of solids or concrete to the associated stream or drainage network during the connection of pipework <p><u>Air & Dust</u></p> <ul style="list-style-type: none"> • The pro-active control of fugitive dust will ensure prevention of significant emissions arising, rather than a less effective attempt to control them once they have been released. • Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic.

		<ul style="list-style-type: none"> Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and / or windy conditions. Vehicles exiting the Site shall make use of a wheel wash facility where appropriate, prior to entering onto public roads. Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly. On any un-surfaced site road, this will be 20kph, and on hard surfaced roads as site management dictates. Public roads outside the Site will be regularly inspected for cleanliness and cleaned as necessary. Material handling systems and Site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods. During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions. Dust may enter the onsite watercourse via air or surface water with potential downstream impacts. Mitigation measures will be carried out to reduce dust emissions to a level that avoids the possibility of adverse effects on the onsite watercourse. The main activities that may give rise to dust emissions during construction include the following: <ul style="list-style-type: none"> Excavation of material; Materials handling and storage; Movement of vehicles (particularly HGV's) and mobile plant. Contaminated surface runoff Trucks leaving the site with excavated material will be covered so as to avoid dust emissions along the haulage routes. Speed limits will be implemented on site (15kmh) to reduce dust generation and mobilisation. The stream is to be protected from dust on site. This may require additional measures in the vicinity of the bridge (east of the site) if this road is used for machinery e.g. placing of terram/protective material over the stream. Regular inspections of the site and boundary should be carried out to monitor dust, records and notes on these inspections should be logged. Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the complaints log available to the local authority when asked. Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book. <p><u>Monitoring</u></p> <ul style="list-style-type: none"> Daily on-site and off-site inspections will be carried out, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces within 100 m of site boundary, integrity of the silt control measures, with cleaning and / or repair to be provided if necessary. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period. Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below. Cover, seed or fence stockpiles to prevent wind whipping.
--	--	--

		<ul style="list-style-type: none"> • Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic. • Any road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions. • Maintain a vegetated strip and vehicle exclusion zone between the works and the onsite watercourse in consultation with the project ecologist. • Regular inspection of surface water run-off and any sediment control measures e.g. silt traps will be carried out during the Construction Phase. Regular auditing of construction / mitigation measures will be undertaken e.g. concrete pouring, refuelling in designated areas etc. • Weather conditions will be considered when planning construction activities to minimise the risk of run-off from the Site and the suitable distance of topsoil piles from surface water drains will be maintained. <p>Measures Specific to Earthworks</p> <ul style="list-style-type: none"> • Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. • Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. • Only remove the cover in small areas during work and not all at once. • During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser will operate to ensure moisture content is high enough to increase the stability of the soil and thus suppress dust. • Due to the proximity of the onsite watercourse an ecologist will oversee works in particular the excavation of material from the perimeter of the site. • The Contractor will be required to consult with an ecologist prior to the beginning of works to identify any additional measures that may be appropriate and/or required. <p><u>Storage/Use of Materials, Plant & Equipment</u></p> <ul style="list-style-type: none"> • Materials, plant and equipment shall be stored in the proposed site compound location; • Plant and equipment will not be parked within 50m of the onsite watercourse at the end of the working day; • Hazardous liquid materials or materials with potential to generate run-off shall not be stored within 50m of the onsite watercourse. • All oils, fuels and other hazardous liquid materials shall be clearly labelled and stored in an upright position in an enclosed bunded area within the proposed development site compound. The capacity of the bunded area shall conform with EPA Guidelines – hold 110% of the contents or 110% of the largest container whichever is greater; • Fuel may be stored in the designated bunded area or in fuel bowzers located in the proposed compound location. Fuel bowzers shall be double skinned and equipped with certificates of conformity or integrity tested, in good condition and have no signs of leaks or spillages; • Waters collected in drip trays must be assessed prior to discharge. If classified as contaminated, they shall be disposed by a permitted waste contractor in accordance with current waste management legal and regulatory requirements; <p>All persons working will receive work specific induction in relation to material storage arrangements and actions to be taken in the event of an accidental spillage. Daily environmental toolbox talks / briefing sessions will be conducted for all persons working to outline the relevant environmental control measures and to identify any environment risk areas/works.</p>
--	--	---

Adverse Effects on the conservation objectives of European sites likely to occur from the project (post mitigation)

As outlined in Table 11, a robust series of mitigation measures will be implemented as part of this development. These would ensure that water entering the Mayne River, is clean and uncontaminated, that dust and noise levels are controlled on site and that operational measures are in place to prevent pollution. Early implementation of ecological supervision on site at initial mobilisation and enabling works is seen as an important element to the project, particularly in relation to the implementation of surface water runoff mitigation.

With the successful implementation of the outlined mitigation measures, no significant impacts are foreseen from the construction or operation of the proposed project. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works. The construction and operational mitigation proposed for the development satisfactorily addresses the potential impacts on designated conservation sites through the application of the construction and operational phase controls as outlined above. In particular, mitigation measures to ensure compliance with Water Pollution Acts and prevent silt, dust and pollution entering the River Mayne will satisfactorily address the potential impacts on downstream biodiversity and European sites. No significant adverse impacts on the conservation objectives of European sites are likely following the implementation of the mitigation measures outlined above.

Conclusion

In a strict application of the precautionary principle, it has been concluded that mitigation measures were required to prevent impacts on Baldoyle Bay SAC and Baldoyle SPA. Impacts are likely from the proposed works in the absence of mitigation measures, primarily as a result of direct hydrological connection to the site via the proposed outfall of surface water drainage to an existing surface water drainage network that outfalls to the Mayne River. As a result, there is potential for downstream impacts from the project during site clearance, enabling, construction, landscaping and drainage works. For this reason, a NIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European

Mitigation measures will be in place to ensure there are no significant impacts on the Mayne River that leads to conservation sites. A project ecologist will be appointed to oversee works in relation to the enabling works and the implementation of mitigation measures as outlined on site. The implementation of mitigation measures outlined, which will be followed, will be sufficient to prevent adverse effects on the integrity of European sites.

Following the implementation of the mitigation measures outlined, the construction and presence of this development will not have a significant impact on the integrity of European sites. No significant impacts are likely on European sites, alone and in combination with other plans and projects based on the implementation of standard construction phase mitigation measures.

This report presents an Appropriate Assessment Screening and NIS for the proposed development. It outlines the information required for the competent authority to screen for appropriate assessment and to determine whether or not the proposed development, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European site.

On the basis of the content of this report, the competent authority is enabled to conduct an Appropriate Assessment and consider whether, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European site. **No significant effects are likely on European sites, their features of interest or conservation objectives. The proposed project will not will adversely affect the integrity of European sites.**

Data used for the AA Screening/NIS Assessment

NPWS site synopses and Conservation objectives of sites within 15km were examined. European sites beyond 15km have no direct connection to the proposed development site. Site visits were carried out by Bryan Deegan (MCIEEM) to determine if the site contained possible threats to a European site or any European species or habitats (Appendix I). No species or habitats of terrestrial conservation importance were noted on site.

References

1. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities March 2010.
2. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing EUROPEAN Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. 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; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
6. Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
7. The Status of EU Protected Habitats and Species in Ireland. www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf
8. Ringsend Wastewater Treatment Plant Upgrade Project Planning Application
9. [180601 RGD-Planning-App-Planning-App-Report.pdf](http://180601.RGD-Planning-App-Planning-App-Report.pdf) (ringsendwwtupgrade.ie)
10. NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
11. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
12. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
13. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
14. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
15. NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
16. NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
17. NPWS (2013) Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
18. NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
19. NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
20. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
21. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
22. NPWS (2022) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
23. NPWS (2022) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
24. NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
25. NPWS (2022) Conservation objectives for Lambay Island SPA [004069]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
26. NPWS (2013) Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Appendix I Habitats and Species

A site assessment was carried out on the 30th June and 2nd July 2022. Habitats within the proposed site were classified according to Fossitt (2000) (Figure AI-1).

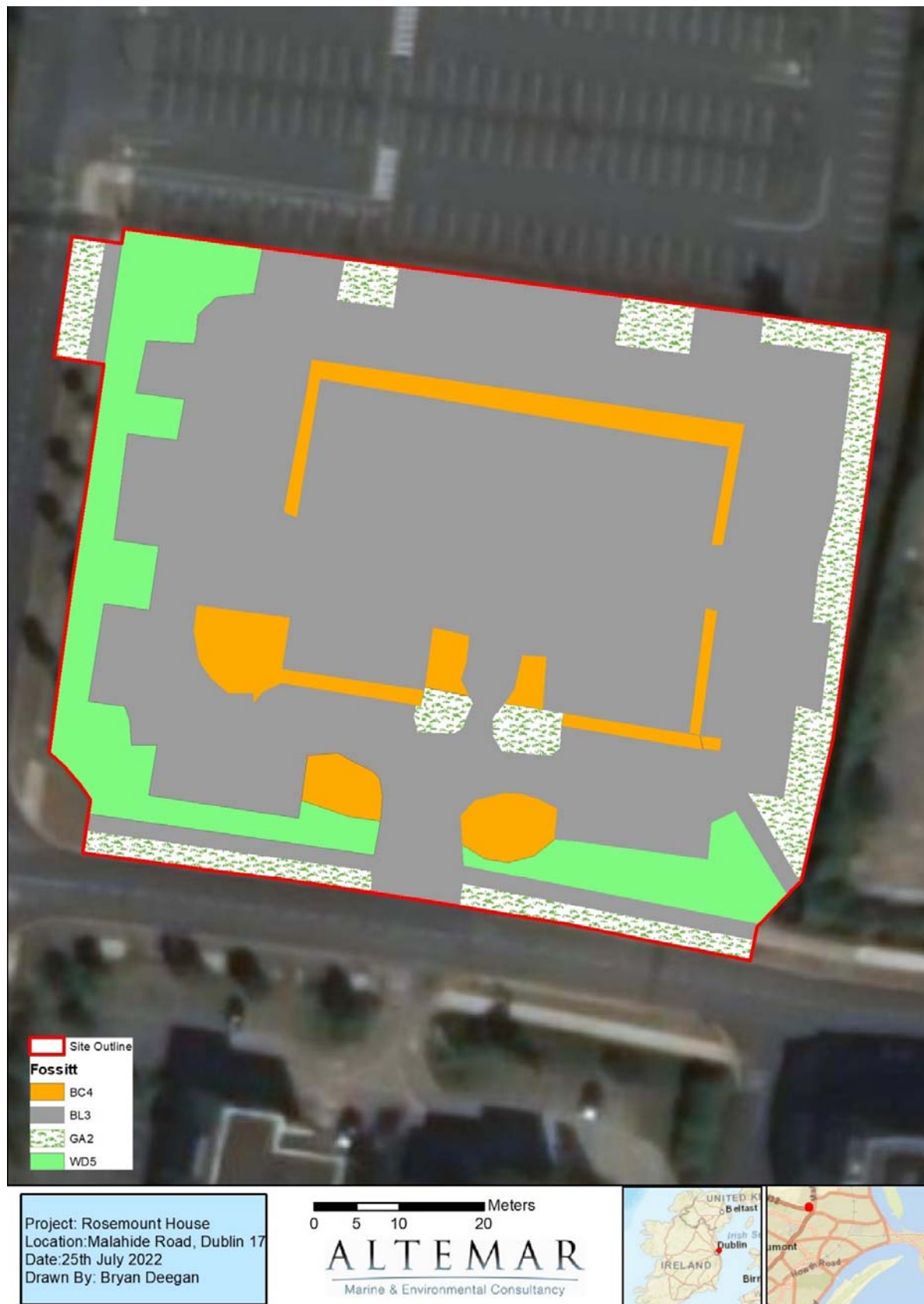


Figure AI-1. Fossitt (2000) Habitat map of proposed development site



Plate 1. Buildings and artificial surfaces

BL3- (Buildings and artificial surfaces)

The building on site is a very modern office development that is well maintained with no obvious ingress points for bats. As outlined in Appendix I there was no evidence of bat activity in the buildings and no bats were observed emerging from the buildings. A derogation licence is not required to demolish the buildings as bats no evidence of bats roosting in these buildings was observed. All Buildings and artificial surfaces were maintained with evidence of herbicide use. No flora or fauna of conservation importance were noted in these areas.

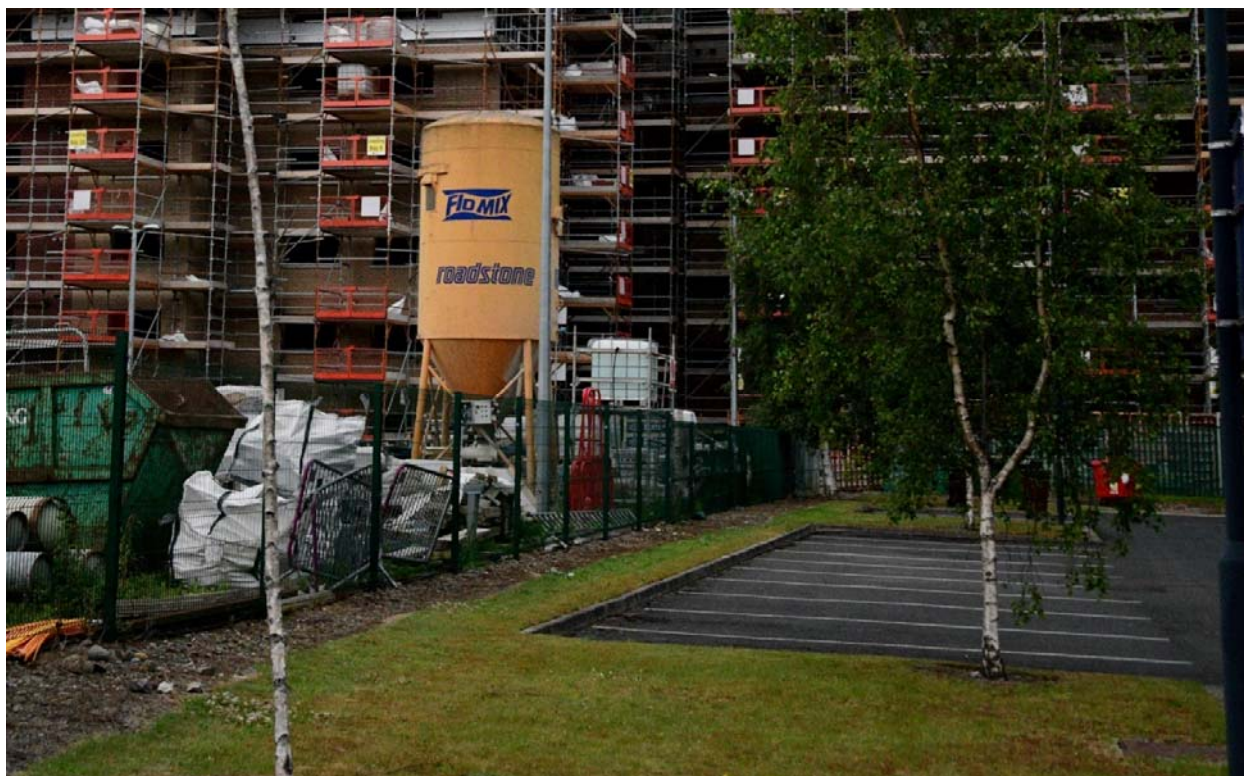


Plate 2. Amenity Grassland

GA2-Amenity Grassland

Amenity Grassland occupies approximately 15% of the proposed development site and had a very short sward. Species within the habitat included dandelion (*Taraxacum spp.*), docks (*Rumex spp.*), daisy (*Bellis perennis*), plantains (*Plantago spp.*), thistles (*Cirsium vulgare*), clovers (*Trifolium sp.*), buttercup (*Ranunculus sp.*), thistles (*Cirsium sp.*), self-heal (*Prunella vulgaris*) and nettle (*Urtica dioica*). No flora or fauna of conservation importance were noted in these areas.



WD5-Scattered Trees and Parkland.

The Scattered trees and parkland habitat is essentially areas of maintained amenity grassland with the species above, with landscaped/manicured trees. Additional flora species included hoary willowherb (*Epilobium parviflorum*), ragwort (*Jacobaea vulgaris*) and pineappleweed (*Matricaria discoidea*). Tree species included Rowan (*Sorbus aucuparia*), Birch (*Betula pendula*) and hornbeam (*Carpinus betulus*).

BC4- Flower beds and borders

Maintained flower beds and borders were located proximate to the main office building and at the entrance for traffic to the site. Species included ornamental shrubs in addition to rowan (*Sorbus aucuparia*), birch (*Betula pendula*) cider gum (*Eucalyptus gunnii*), Scot's pine (*Pinus sylvestris*), New Zealand Flax (*Phormium sp.*), hawthorn (*Crataegus monogyna*), lesser hawkbit (*Leontodon saxatilis*), bramble (*Rubus fruticosus agg.*), sun spurge (*Euphorbia helioscopia*), montbretia (*Crocasmia x crocosmiflora*), ash (*Fraxinus excelsior*), bush vetch (*Vicia sepium*) and bell heather (*Erica cinerea*).

Evaluation of Habitats

The site is mainly comprised of buildings as mentioned above. No habitats of conservation importance were noted on site.

Plant Species

No rare or plant species of conservation value were noted during the field assessment. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened plant species were recorded within the proposed development site. No invasive species were noted on site.

Fauna

No mammal of conservation importance was noted on site. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened terrestrial faunal species were recorded within the proposed site.

Bats

Bat surveys were carried out and the results of the surveys are seen in Appendix I. There were no seasonal or climatic constraints as surveys were undertaken within the active bat season in good weather conditions with temperatures of 10°C after dark. Winds were very light and there was no rainfall. Survey was carried out with an Echo Meter Touch Pro 2 bat detector. The site is brightly lit and no roosting or foraging was noted on site.

Amphibians/Reptiles

No amphibians or mammals of importance were noted on site.

Birds

No rare birds or bird species of conservation value (red or amber listed) were noted during the field assessment. Species noted are seen in table 6.

Table 3: Bird Species noted in the vicinity of the proposed development.

Common Name	Scientific Name
Robin	<i>Erithacus rubecula</i>
Magpie	<i>Pica pica</i>
Blackbird	<i>Turdus merula</i>
Woodpigeon	<i>Columba palumbus</i>

Historic Records of Biodiversity

The National Biodiversity Data Centre's online viewer was consulted in order to determine the extent of biodiversity and/or species of interest in the area. First, an assessment of the site specific area was carried out and it recorded no species of interest in the site area. Following this a 2km² grid (O24A) was assessed. Table 4 provides a list of all species recorded in both grid areas that possess a specific designation, such as Invasive Species or Protected Species.

Table 4. Recorded species, associated designations and grid references

Date of Record	Species Name	Designation
14/05/2001	Arctic Tern (Sterna paradisaea)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Barn Swallow (Hirundo rustica)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Bar-tailed Godwit (Limosa lapponica)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Black Guillemot (Cepphus grylle)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Black-headed Gull (Larus ridibundus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
03/01/2003	Black-legged Kittiwake (Rissa tridactyla)	Protected Species: Wildlife Acts Threatened Species: OSPAR Convention Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Black-tailed Godwit (Limosa limosa)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Brent Goose (Branta bernicla)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List

Date of Record	Species Name	Designation
31/12/2011	Common Coot (<i>Fulica atra</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Common Goldeneye (<i>Bucephala clangula</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Common Greenshank (<i>Tringa nebularia</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
03/01/2003	Common Guillemot (<i>Uria aalge</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Kestrel (<i>Falco tinnunculus</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Linnet (<i>Carduelis cannabina</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/07/1991	Common Pheasant (<i>Phasianus colchicus</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
04/01/2003	Common Pochard (<i>Aythya ferina</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
03/01/2003	Common Redshank (<i>Tringa totanus</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
04/01/2003	Common Scoter (<i>Melanitta nigra</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
04/01/2003	Common Shelduck (<i>Tadorna tadorna</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Common Snipe (<i>Gallinago gallinago</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Starling (<i>Sturnus vulgaris</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/07/1991	Common Swift (<i>Apus apus</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Wood Pigeon (<i>Columba palumbus</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
04/01/2003	Dunlin (<i>Calidris alpina</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List

Date of Record	Species Name	Designation
03/01/2003	Eurasian Curlew (Numenius arquata)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	Eurasian Oystercatcher (Haematopus ostralegus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Eurasian Teal (Anas crecca)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Eurasian Wigeon (Anas penelope)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	European Golden Plover (Pluvialis apricaria)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
04/01/2003	European Shag (Phalacrocorax aristotelis)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
03/01/2003	Great Black-backed Gull (Larus marinus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Great Cormorant (Phalacrocorax carbo)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Great Crested Grebe (Podiceps cristatus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Great Northern Diver (Gavia immer)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species
04/01/2003	Grey Plover (Pluvialis squatarola)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Herring Gull (Larus argentatus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/07/1991	House Martin (Delichon urbicum)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	House Sparrow (Passer domesticus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Lesser Black-backed Gull (Larus fuscus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Little Egret (Egretta garzetta)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species

Date of Record	Species Name	Designation
04/01/2003	Little Grebe (<i>Tachybaptus ruficollis</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Mallard (Anas platyrhynchos)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
04/01/2003	Mediterranean Gull (<i>Larus melanocephalus</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Merlin (<i>Falco columbarius</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Mew Gull (<i>Larus canus</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Mute Swan (<i>Cygnus olor</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
03/01/2003	Northern Lapwing (<i>Vanellus vanellus</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
04/01/2003	Northern Pintail (<i>Anas acuta</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
01/01/2003	Northern Shoveler (<i>Anas clypeata</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
03/01/2003	Razorbill (<i>Alca torda</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
06/01/2001	Red Knot (<i>Calidris canutus</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
03/01/2003	Red-breasted Merganser (<i>Mergus serrator</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species
04/01/2003	Red-throated Diver (<i>Gavia stellata</i>)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Ringed Plover (<i>Charadrius hiaticula</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Sand Martin (<i>Riparia riparia</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Sky Lark (<i>Alauda arvensis</i>)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List

Date of Record	Species Name	Designation
31/07/1991	Spotted Flycatcher (Muscicapa striata)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
06/01/2001	Stock Pigeon (Columba oenas)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Tufted Duck (Aythya fuligula)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Water Rail (Rallus aquaticus)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Whooper Swan (Cygnus cygnus)	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
08/08/2017	Yellowhammer (Emberiza citrinella)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
08/05/2017	Butterfly-bush (Buddleja davidii)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species
28/05/2019	Giant Hogweed (Heracleum mantegazzianum)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
22/02/1992	European Rabbit (Oryctolagus cuniculus)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species
20/09/2005	Soprano Pipistrelle (Pipistrellus pygmaeus)	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
25/06/2021	West European Hedgehog (Erinaceus europaeus)	Protected Species: Wildlife Acts

An assessment of files received from the NPWS (Code No. 2022_120) which contain records of rare and protected species and grid references for sightings of these species was carried out as part of this EcIA. No species of conservation importance were noted within the site boundaries. The following table provides a summary of the species identified, the year of identification, survey name and Grid Reference.

Table 5. Recorded species within NPWS Records proximate to the site.

Sample ID	Species	Survey Name	Sample Year
9356	Common Frog (<i>Rana temporaria</i>)	Frog - National Frog Survey 2011 additional records	2011
24841	Opposite-leaved Pondweed (<i>Groenlandia densa</i>)	Miscellaneous Vascular Plant Records 2020	2017
15248	Borrer's Saltmarsh-grass (<i>Puccinellia fasciculata</i>)	Puccinellia fasciculata	1990
6694	Otter (<i>Lutra lutra</i>)	Otter Survey of Ireland 1982 – Vincent Wildlife Trust	1980