

Natura Impact Statement for Swan Point Change of Use and Remedial Works to Martins Quay Wall, Swan Point, Sligo Town.



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October2019

DOCUMENT CONTROL

Document	Natura Impact Statement for Swan Point Change of Use and Remedial Works to Martins Quay, Swan Point, Sligo Town.
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Status / Version / Date	D01 / 06.09.2019

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1 INTRODUCTION

1.1 Background

Woodrow Sustainable Solutions Ltd., (Woodrow), was commissioned by their client (Vincent Hannon Architects) to collate information to inform an Appropriate Assessment the decision on which will ultimately be made by the Competent Authority, in this instance, Sligo County Council. This report assesses the potential for significant and adverse effects upon Natura 2000 Sites, also called European Sites, as a result of the proposed change of use of the Swan Point building and the remedial works to Martins Quay wall along the Garavogue, a river running through the centre of Sligo town.

European Sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The legal basis on which SACs are selected and designated is the EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended. SAC's are designated to assist the protection of certain habitats and species under the Habitats Directive. Ireland is required under the terms of the EU Birds Directive (2009/147/EC) to designate Special Protection Areas (SPAs) for the protection of endangered species of wild birds. The proposed site at Swan Point lies immediately adjacent to Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC and c. 480m south (upstream) of Cummeen Strand SPA. The proposed works are also in close proximity to Lough Gill SAC, located c. 150m to the north (downstream of the SAC).

1.2 Legislative Context for this report

1.2.1 Requirement for Appropriate Assessment Screening

An Appropriate Assessment Screening provides the information necessary to fulfil the requirements of Article 6 of the EU Habitats Directive 1992 and Regulation 42 of the (Birds and Natural Habitats) Regulations 2011 in determining the potential impacts on Natura 2000 sites of the proposal. The European Directive 92/43/EEC (The Habitats Directive) was transposed into Irish law by the European Communities (Natural Habitats) Regulations 1997 and European Communities (Birds and Natural Habitats) Regulations 2011 (Habitats Regulations). Regulation 42(1) of the 2011 Regulations requires that *“a screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a Natura 2000 site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the Natura 2000 site”*. If, following the screening process, a likely significant effect is predicted or cannot be ruled out; under Regulation 42(6), an Appropriate Assessment is required in order to determine the potential for impact on the integrity of a Natura 2000 site. In the event of a negative assessment in terms of an adverse effect on site integrity, a proposal can only be consented in the absence of feasible alternatives and for 'Imperative Reasons of Overriding Public Interest' (IROPI). In such cases, compensatory measures to ensure the integrity of the Natura 2000 site is maintained are required.

The Guidance document on Article 6(4) of the 'Habitats Directive' states that:

“any uncertainty over the precise nature and/or magnitude of the adverse effects should be thoroughly tested. Where appropriate, a precautionary approach should be adopted and the assessment of adverse effect based on a worse-case scenario.”¹

¹ (European Commission, 2007) http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf
(Accessed August 2019)

1.2.2 Requirement for a Natura Impact Statement

The Appropriate Assessment test assesses whether, in view of best scientific knowledge and applying the precautionary principle, and in light of the conservation objectives of the relevant Natura 2000 sites, the proposed project, either alone or in combination with other plans or projects, may adversely affect the integrity of any Natura 2000 sites.

If, following the screening process, a potential significant effect is predicted or cannot be ruled out; under Regulation 42(6) an Appropriate Assessment is required in order to determine the potential for impact on integrity of a Natura 2000 site.

Regulation 42 (9) of the 2011 Habitats Regulations states:

Where a public authority is required to conduct an Appropriate Assessment pursuant to *paragraph (6)* in relation to a plan or project that it proposes to undertake or adopt, it shall-

- Prepare a Natura Impact Statement;
- Compile any other evidence including, but not limited to, scientific evidence that is required for the purposes of the Appropriate Assessment; and,
- Submit a Natura Impact Statement together with evidence compiled under *subparagraph (b)* to the Minister not later than six weeks before it proposes to adopt or undertake the plan or project to which the Natura Impact Statement and evidence relates.

Section 177AE of the Planning and Development Acts 2000 to 2001 (as inserted by section 57 of the Planning and Development (Amendment) Act 2010) set out the appropriate procedure for Local Authority projects with potential to impact on Natura 2000 sites. This requires that, where an Appropriate Assessment is required in respect of a development by a local authority that is a planning authority, they will prepare, or cause to be prepared, a Natura Impact Statement. The Natura Impact Statement shall then be provided to the competent authority for them to undertake an Appropriate Assessment.

With the Screening for Appropriate Assessment having determined that potential significant effects on Natura 2000 sites could not be ruled out (see Section 4 of this report), a Natura Impact Statement as required under Regulation 42(9) of the European Communities (Birds and Natural habitats) Regulations 2011. This Natura Impact Statement provides an assessment of the proposal considering potential impacts on Qualifying Interests within Natura 2000 sites and provides mitigation proposals to avoid impacts on the integrity of Natura 2000 sites. This allows for an audit trail through Article 6 of the EU Habitats Directive to facilitate an Appropriate Assessment by a competent authority.

1.3 Structure/ Layout of the report

This Natura Impact Statement provides the information necessary for the Competent Authority, in this instance, Sligo Co. Co., to undertake an Appropriate Assessment of the proposal. The report sections, paragraphs and tables relate in sequence to the process of assessing the potential impact of the project in the context of sequential requirements of Article 6 of the EU Habitats Directive.

1.4 Main Sources of Information

The following information sources were consulted:

- Department of Environment, Heritage and Local Government (DoEHLG, 2009). *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*;
- European Community Habitats Directive (92/43/EEC) – The Habitats Directive;
- European Communities (Natural Habitats) Regulations 1997;
- European Commission Environment DG (2001). *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*;
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*;
- Environmental Protection Agency (EPA) Maps²;
- National Parks and Wildlife Services online MapViewer³;
- National Parks and Wildlife Service's data (downloaded GIS datafiles⁴); and,
- Sligo County Council Planning Portal⁵.
- Marlin

A site visit was also carried out on 16 May 2019 with an update site visit completed on 30 August 2019, the results of the surveys conducted are laid out in Section 2.6 and 2.7 which also informed this assessment.

² EPA Maps <https://gis.epa.ie/EPAMaps/> (Accessed August 2019)

³ NPWS Map Viewer <http://webgis.npws.ie/npwsviewer/> (Accessed August 2019)

⁴ NPWS Maps and Data <https://www.npws.ie/maps-and-data> (Accessed August 2019)

⁵ Sligo County Council Planning Portal <http://www.sligococo.ie/planning/> (Accessed August 2019)

2 DESCRIPTION AND FEATURES OF THE PROJECT AND AREA

2.1 Location

The proposed Swan Point site, measuring approximately 0.27ha, is situated immediately north of the Glasshouse Hotel, as illustrated in Figure 3 below. Fish Quay/Lower New Street is located to the west of the site, with the Garavogue River/estuary and Martins Quay to the east of the site.

The proposed works are positioned in the vicinity of National Grid Reference: G 69116 36148. The immediate area of the proposed works comprises the estuary of the Garavogue River and is tidal in nature. The site is located in the centre of Sligo Town. The building is currently vacant and unused following the economic crash, and is situated immediately beside the occupied Glasshouse Hotel. Figure 1 below illustrates the location of the proposed site in the context of the local land-cover setting and Figure 2 shows the location in the context of Sligo town.

2.2 Receiving Environment

The application site is located at the currently vacant Swan Point building in Sligo town, on the western side of the Garavogue River. Access to the site can be gained by Fish Quay which runs along its western boundary. The currently used Glasshouse Hotel, located at Hyde Bridge, lies adjacent to the site on its southern boundary. Historically, Sligo Corn Mill and Martin's Quay were located within the site boundary during the 19th century. More recently, The Silver Swan, one of Sligo's oldest hotels built in 1968, was replaced by the Glasshouse Hotel in 2006.

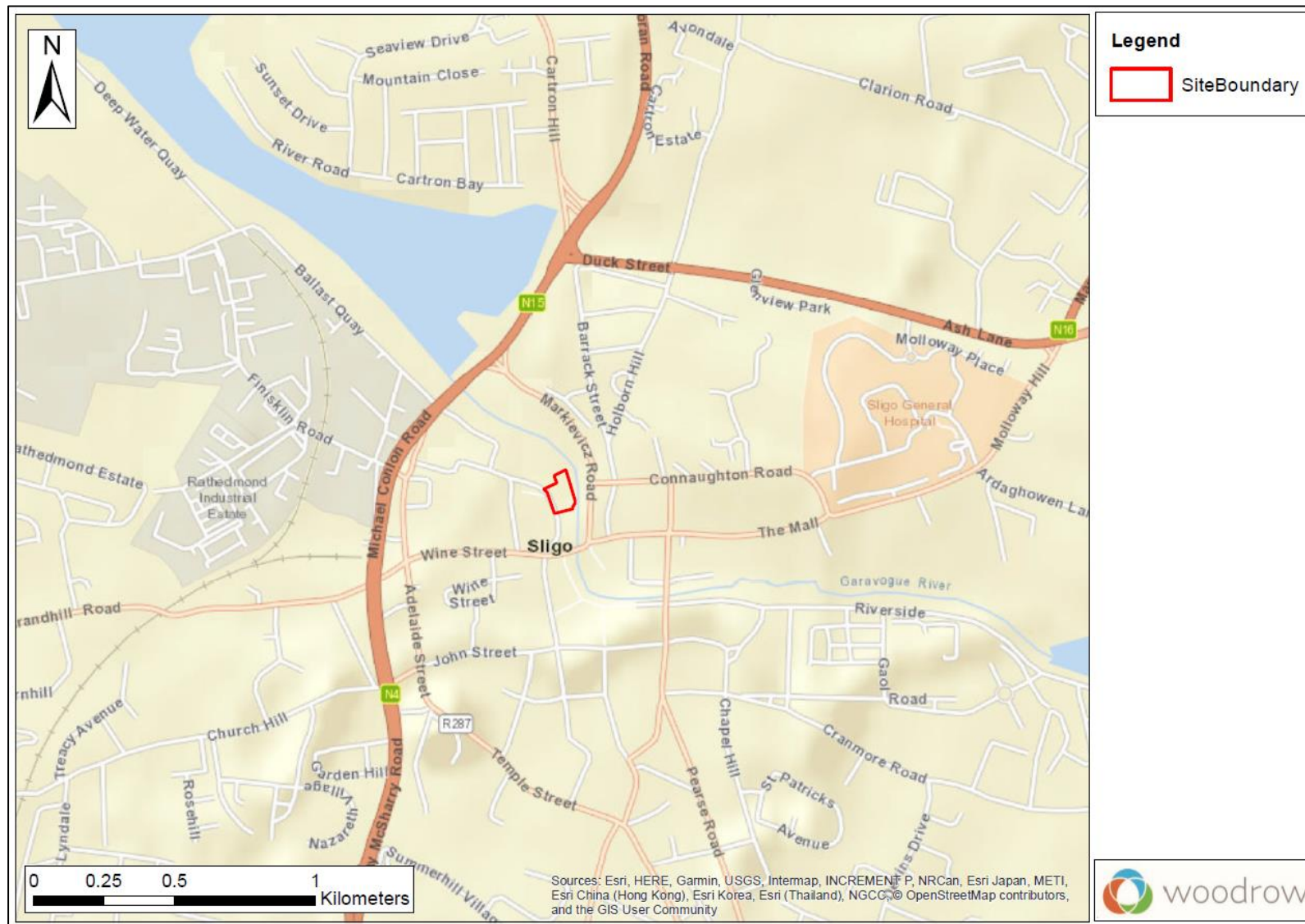
The current proposal relates to Swan Point where it is proposed to convert part of the Swan Point incomplete apartment building into Glasshouse Hotel rooms and office spaces.

The site is in close proximity to three Natura 2000 Sites which will be assessed within this Appropriate Assessment. The site is located immediately adjacent to Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC. This site is also c. 480m upstream of Cummeen Strand SPA and c. 150m downstream of the Lough Gill SAC. The location of the three Natura 2000 Sites being assessed further in the NIS can be seen in Figure 6.

Figure 1 – Location of the proposed project and survey area



Figure 2 – Geographic location of the proposed site



2.3 History of the Proposal

The Swan Point building, hereafter called the site, formed part of a larger development (Planning Ref. No.: 0470099) which was undertaken in 2005 following a successful planning application in 2004, by Tramac Developments Ltd.

Extensive works on the development took place, however, in the following years the economic crash impacted on the viability of the project, and the building only had its external envelope completed, and was never occupied. It is only now that it has become possible for the owner to revisit the Swan Point development.

The Glasshouse hotel which is located directly to the south of the site formed part of the overall original planning application for this development. The hotel comprises of 116 bedrooms with associated bars, restaurant, function room, conference rooms etc. A change of use is being sought to create 54 new bedrooms over 7 levels of the Swan Point building (2nd - 8th floors). As such, this proposal will allow increased bed numbers for the town centre and support the local tourism industry.

At present, under Planning Ref. No. 0470099, the Swan Point building was granted planning permission for a total of 64 No. apartments with an element of ground level retail and restaurant space. Along with the proposed change of use for the additional hotel bedrooms, it is proposed to change the use of the remainder of the building from residential, retail and restaurant space to 2,946m² of office space.

Under planning permission 0470099, works were also proposed to the existing Quay wall (Protected Structure No. 112 – Sligo County Development Plan 2017-2023). Prior to the development of Swan Point and the Glasshouse hotel, the level of Martin's Quay raged from +2.25m OD to +2.56m OD and as part of the previous planning application this level was raised using natural stone. The quay wall is in need of repair and this application proposes to repair, reinstate and make good as is necessary, the quay wall forming a large portion of the site boundary. These works were largely completed under the previous application and it is proposed to finish these works now. A heritage assessment has been included as part of this application setting out the Proposed Development in the context of the protected elements (Vincent Hannon Architects, Planning Report, 2019).

2.4 Description of the Proposal

This current application includes the following elements:

- Change of use of the currently vacant Swan Point building. The retail, restaurant and residential element of the previous planning application is proposed to be converted to 2,946m² of office space in this application.
- Addition of 54 new bedrooms over 7 floors within the Swan Point building.
- Repair and reinstatement work conducted on Martins Quay wall (See Figure 4).
- 5 no. surface parking spaces are also proposed as part of this planning application, increasing the parking from 181 No. to 186 No. units for the Glasshouse Hotel and Swan Point.
- Construction of two link bridges connecting the Glasshouse Hotel to the Swan Point building.
- Infilling of the current arch of the Swan Point building comprising c. 136 m² of new office space.

2.5 Method Statement for Remedial Works

A Method Statement is required for the repair and remedial works on Martins Quay wall to the east of Swan Point. According to Whitecroft Developments Ltd. (WDL), a Method Statement will be drawn up taking account of information and guidance from relevant parties to allow for a safe sequence of works to be agreed, it will then be forwarded to other relevant parties for approval. WDL will organise and supervise the works, the stonemasons will at all times work to their safe system of work and method statement, any items that may be in breach of safe work practices will be picked up by WDL supervisor and will be amended and rectified. The method statement, detailed below, sets out how the remediation works to Martins Quay wall will be conducted. Plate 1a – 1d below shows the status of Martins Quay wall during the site visit on 16 May 2019 through various photos.



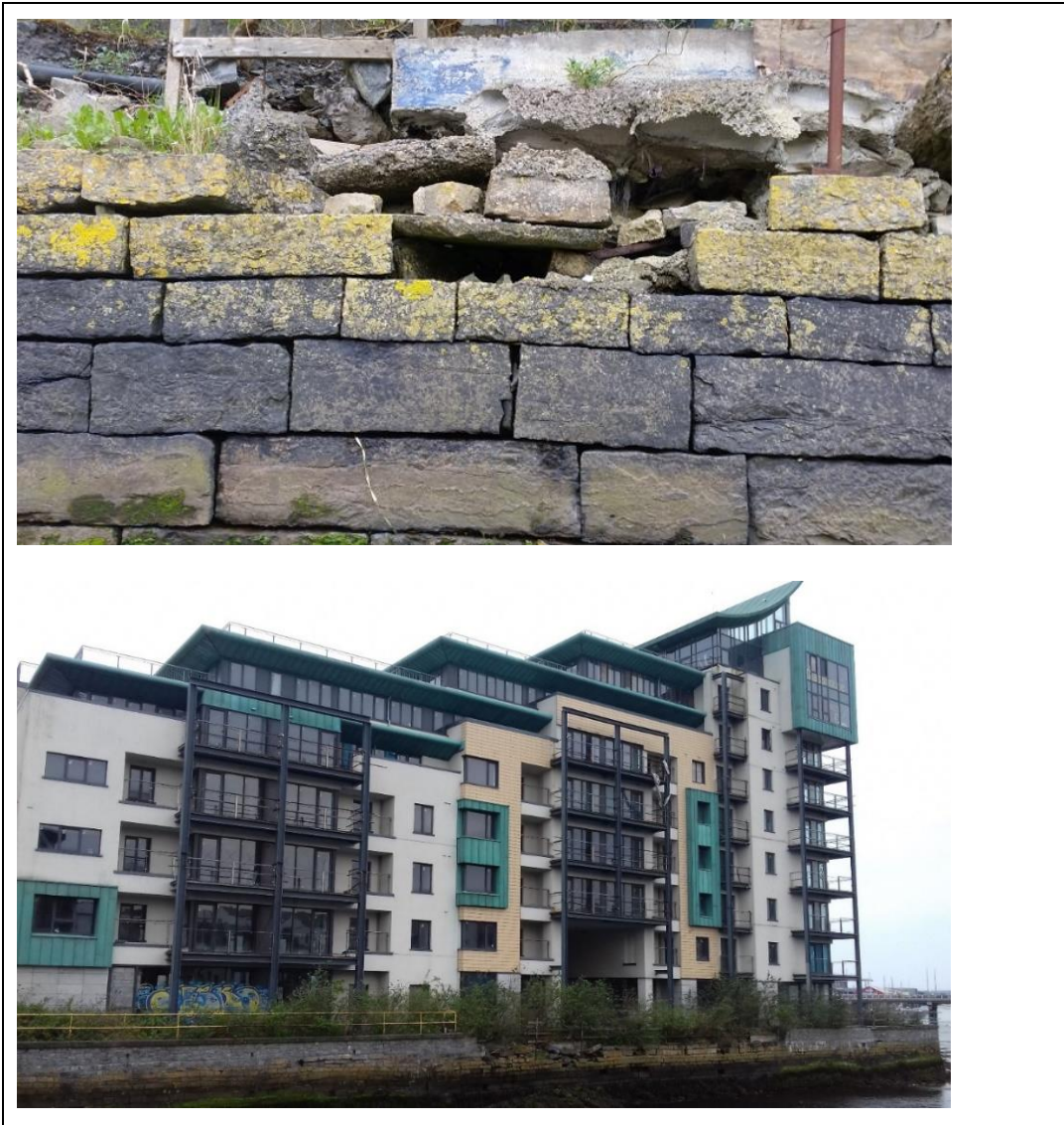


Plate 1a – 1d: Photos showing areas of disrepair along Martins Quay wall

According to the Heritage Assessment Report, the repair works to the wall shall involve the following:

- Where possible dislodged stones from the existing quay wall will be re-used.
- The existing stones are to be bedded and pointed using a suitable lime mortar, of similar colour to the existing.
- Where applicable the upper courses will be removed and reset in position and those unstable sections made good. Once completed, additional courses will be added to bring the quay wall to its final height.
- Where new-build is required, hopefully limited to the additional upper courses of the wall, construction methods employed, coursing and/or grouting will ensure that the modern addition to the quay will be readable.

Preliminary Method Statement

The preliminary Method Statement drawn up by WDL includes the following measures:

A lifebuoy will be in place along the river bank, persons working in the area will make themselves aware as to their location, 2 No. persons will be at work at any time, and no lone working will take place.

The Tide Times will be imperative to arrangement of work sessions and will be monitored to set work times in advance.

It is anticipated that WDL will supervise the erection of Kwikstage scaffold at the edge of the river wall allowing a work platform, from where work will take place. This will be done at receding/low tide and will be secured to the wall. Removal of the platform boards will be done after each work session, and access to the platform will be by a ladder which will also be removed after each session.

Materials and equipment (cement etc.) will be kept in a safe manner once brought to works area. Any waste wrapping will be secured and removed from site as it is produced.

Personal Protective Equipment (PPE) to include gloves will be of upmost importance along with good hygiene practices/handwashing. Any cuts will be covered.

A mixer will be used for the sand and cement. This mix will be altered to allow for quick drying *in situ*, prior to the return of the tide. The mixer will be cleaned out using minimum water which will be poured into drums to be disposed of offsite. No wash out from mixer is to be disposed of on site.

The area on the wall that requires attention will be cleaned out with hand tools and made good prior to replacing approved stone. Any debris from this part will be taken away from site and disposed of appropriately.

Once all works are complete, the work platform will be removed and taken away. All areas will be checked for waste/materials which shall be removed. (Whitecroft Developments Ltd., 2019).

Mitigation measures have been provided in Section 7 to avoid any potential impacts on the Natura 2000 Sites being assessed within this NIS.

2.6 Site Visit

Woodrow Sustainable Solutions Ltd. carried out a survey at this site on 16.05.2019. The survey was intended to gain a better understanding of the site to inform the Appropriate Assessment process. A habitat survey was conducted to confirm any QI habitats likely to be present at this location including:

- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC:
 - Estuaries [1130]; and,
 - Mudflats and sandflats not covered by seawater at low tide [1140].
- Lough Gill SAC:
 - None of the QI habitats for Lough Gill SAC were recorded during the site visit.

A fisheries and marine/riparian mammal assessment within 200m of the working area was carried out to assess the site for habitat suitability for the following QI species:

- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC
 - Sea Lamprey (*Petromyzon marinus*) [1095] – also QI for Lough Gill SAC
 - River Lamprey (*Lampetra fluviatilis*) [1099] – also QI for Lough Gill SAC
 - Harbour Seal (*Phoca vitulina*) [1365]
- Lough Gill SAC QI Species:
 - White-clawed Crayfish (*Austropotamobius pallipes*) [1092]
 - Salmon (*Salmo salar*) [1106]
 - Otter (*Lutra lutra*) [1355]

The results of the habitat survey identified estuaries and mudflats as being immediately adjacent to the site. The results of the suitability assessment showed no suitable substrate within the vicinity of Martins Quay wall for the above listed QI species to spawn within (see Plate 2 below). The Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC only covers marine/estuarine habitat and it was not anticipated that it contains suitable spawning or nursery habitat for these QI species. However, migrating adult lamprey pass through the site en-route to/from the Garavogue River (during spring and autumn migrations), which flows out of Lough Gill. Lough Gill SAC, which is adjacent to this SAC, encompasses the freshwater elements of river lamprey habitat.



Plate 2: Substrate immediately adjacent to Martins Quay wall (unsuitable for aquatic QI species of the Natura 2000 Sites).

2.7. Update Site Visit

An update site visit was conducted to confirm the status of the site on the 30th August 2019. Japanese knotweed (*Fallopia japonica*) was recorded at the site on St. Martins Quay wall at Grid Reference G 69120 36170. The extent of the invasive species is c. 8 x 2m. Japanese knotweed is a Third Schedule invasive plant species subject to restrictions under Regulations 49 and 50 of the Birds and Habitats Regulations 2011 (EC, 2011) and it is an offense to cause it to spread. It is recommended that this is treated by an appropriately qualified Japanese knotweed specialist prior to any remedial works on Martins Quay wall or any infilling works of the Swan Point archway. Figure 5 shows the location of the Japanese knotweed adjacent to the Swan Point building and Plate 3 shows the Japanese knotweed recorded during the update site visit.

Figure 5: Location of Japanese knotweed on Martins Quay wall.



Plate 3: Japanese knotweed on Martins Quay wall.

3 DESCRIPTION OF NATURA 2000 SITES

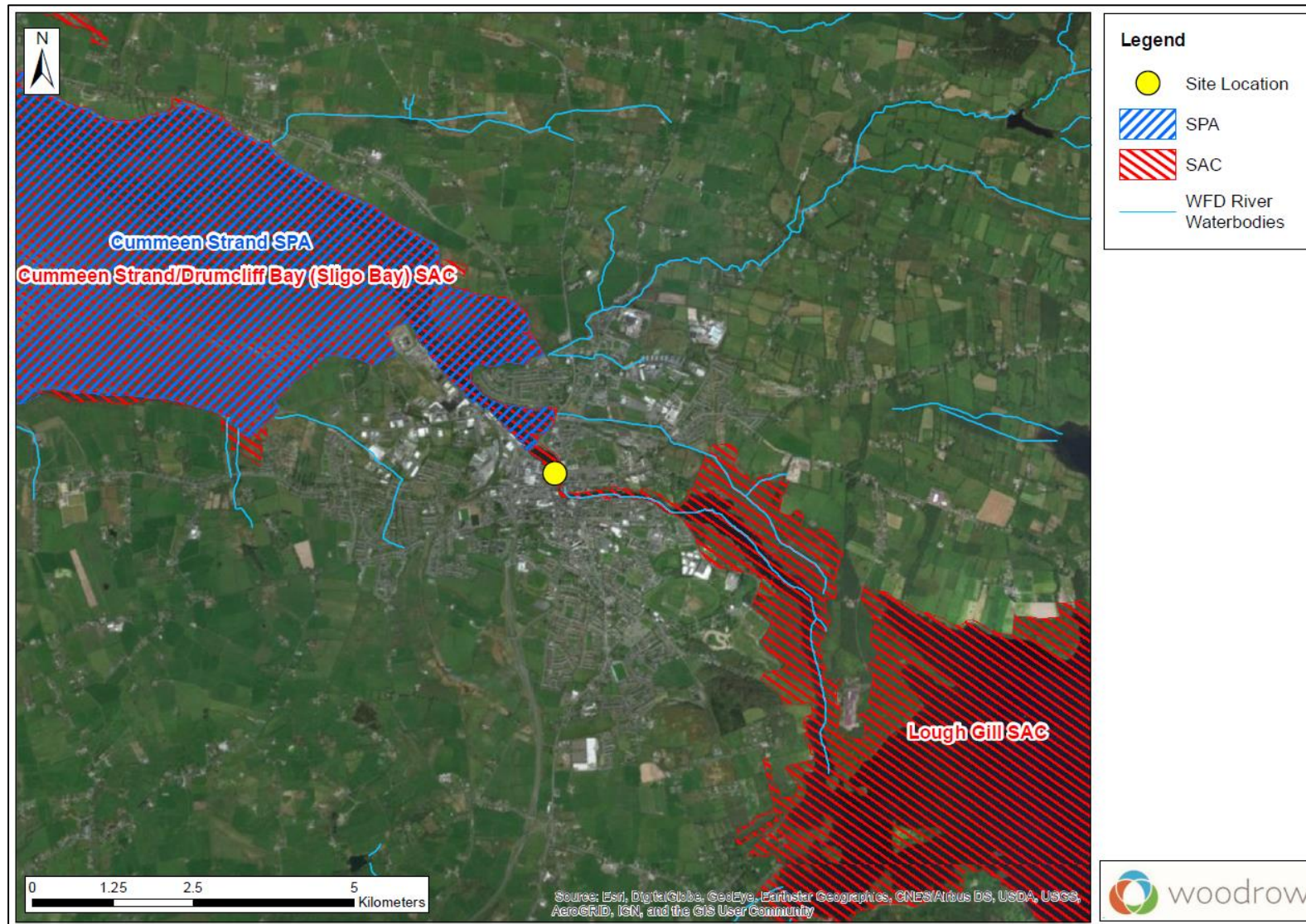
The Appropriate Assessment Screening can be found in Appendix I of this report along with the conclusion. On the basis of the screening assessment and when applying the 'precautionary principle', it has been shown that the potential for a significant effect upon three Natura 2000 Sites (Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC; Cummeen Strand SPA; and, Lough Gill SAC) could not be ruled out at this stage.

There will be no direct loss of Annex I habitat within any Natura 2000 Site. However, the potential for construction related water quality impacts on the Garavogue River/estuary (hydrologically connected to Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC; Cummeen Strand SPA; and, Lough Gill SAC) during construction works shall be considered further within the NIS along with the potential disturbance to otter and seals during the construction and operation phases.

This NIS assesses the Natura 2000 Sites and QIs identified within the AA Screening as needing further consideration in order to assess whether the Proposed Development has the potential to have an adverse impact upon such features, and therefore identifying if the proposal has the potential to have an adverse effect upon the integrity of any Natura 2000 Sites.

Figure 6 below shows the locations of these three Natura 2000 Sites being assessed further within this NIS.

Figure 6 – Natura 2000 Sites in close proximity to the proposed site



3.1 Natura 2000 Sites and QIs requiring further assessment during Stage 2 AA

Table 1 below details the Natura 2000 Sites for which the proposal has the potential to result in significant effects. It includes the Qualifying Interests with the potential to be affected along with potential impact type.

Table 1: Natura 2000 sites and QIs being assessed further in the NIS.

Qualifying Interest	Potential Impact Type
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	
(Site code: 000627) Area: c. 4917ha	
Estuaries	<ul style="list-style-type: none"> Water quality impacts during construction.
Mudflats and sandflats not covered by seawater at low tide [1140]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Phoca vitulina</i> (Harbour Seal) [1365]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction.
Cummeen Strand SPA	
(Site code: 004035) Area: c. 1731ha	
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction.
Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction.
Redshank (<i>Tringa totanus</i>) [A162]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction.
Wetland and Waterbirds [A999]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction.
Lough Gill SAC	
(Site code: 001976) Area: c. 3319ha	
<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Lampetra planeri</i> (Brook Lamprey) [1096]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Salmo salar</i> (Salmon) [1106]	<ul style="list-style-type: none"> Water quality impacts during construction.
<i>Lutra lutra</i> (Otter) [1355]	<ul style="list-style-type: none"> Water quality impacts during construction. Disturbance during construction. Disturbance during operation.

3.2 Description of Natura 2000 sites and QIs being assessed further

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

This large coastal site encompasses two large, shallow bays; Drumcliff Bay and Sligo Harbour. The dominant habitats on the site are estuaries and intertidal sand and mud flats. Sligo Harbour receives the waters of the Garavogue River, which flows from Lough Gill, while Drumcliff Bay receives the Drumcliff River which flows from Glencar Lough. At low tide extensive areas of intertidal flats are exposed in both of these sheltered estuarine bays. Other habitats include saltmarsh, calcareous grassland and dune systems while species include lamprey, whorl snail and common seal⁶.

QIs of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC being assessed further:

- Estuaries
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Sea Lamprey (*Petromyzon marinus*) [1095]
- River Lamprey (*Lampetra fluviatilis*) [1099]
- Harbour Seal (*Phoca vitulina*) [1365]

The conservation objective of each QI within the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC is:

“To maintain the favourable conservation condition of each QI in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, which is defined by the following list of attributes and targets found within the detailed conservation objectives document”⁷.

Cummeen Strand SPA

Cummeen Strand SPA is a large shallow bay stretching from Sligo Town westwards to Coney Island. It is one of three estuarine bays within Sligo Bay and is situated between Drumcliff Bay to the north and Ballisodare Bay to the south. The Garavogue River flows into the bay and forms a permanent channel. At low tide, extensive sand and mud flats are exposed. These support a diverse macro-invertebrate fauna which provides the main food supply for the wintering waterfowl. Eelgrass (*Zostera sp.*) beds also provide a valuable food stock for herbivorous wildfowl. Areas of salt marsh fringe the bay in places and provide roosting sites for birds during the high tide periods⁸.

QIs of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC being assessed further:

- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Redshank (*Tringa totanus*) [A162]
- Wetland and Waterbirds [A999]

The conservation objective of each QI within the Cummeen Strand SPA is:

“To maintain the favourable conservation condition of each QI in Cummeen Strand SPA, which is defined by the following list of attributes and targets found within the detailed conservation objectives document”⁹

⁶NPWS (2016) Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC – Site Synopsis <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000627.pdf> (Accessed: August 2019)

⁷NPWS (2013a) Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC – Conservation Objectives https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000627.pdf (Accessed: August 2019)

⁸NPWS (2014) Cummeen Strand SPA – Site Synopsis <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004035.pdf> (Accessed: August 2019)

⁹NPWS (2013b) Cummeen Strand SPA – Conservation Objectives https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004035.pdf (Accessed: August 2019)

Lough Gill SAC

Lough Gill is a large lake, 8km long, 20m deep in places and has steep limestone shores and underwater cliffs. The lake appears to be naturally eutrophic. The aquatic macrophyte flora is very limited. The site is of considerable importance for the presence of four Annex II fish species including brook lamprey (*Lampetra planeri*), river lamprey (*Lampetra fluviatilis*), sea lamprey (*Petromyzon marinus*) and Atlantic salmon (*Salmo salar*). Otter, another Annex II species, is also well established at this site. A number of interesting tree species occur. Strawberry tree (*Arbutus unedo*) is found in its most northerly site in the world¹⁰.

- Sea Lamprey (*Petromyzon marinus*) [1095]
- Brook Lamprey (*Lampetra planeri*) [1096]
- River Lamprey (*Lampetra fluviatilis*) [1099]
- Salmon (*Salmo salar*) [1106]
- Otter (*Lutra lutra*) [1355]

The conservation objective of each QI within the Lough Gill SAC is:

“To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected”¹¹.

4 CONCLUSIONS OF SCREENING ASSESSMENT

The Appropriate Assessment Stage One Screening Report for this proposal is provided in Appendix I.

The Proposed Development involves the change of use from residential, retail and restaurant space into hotel and office space with the addition of 54 No. bedrooms and 2,946m² of office space within the Swan Point building. These additional spaces will require 95 parking spaces which are currently provided for within 3 No. basement levels as approved in planning permission 0470099 and is shared with the Glasshouse hotel. This application also proposes 5 No. surface street parking spaces for Swan Point, two link bridges between the Glasshouse Hotel and Swan Point and the refurbishment of Martins Quay wall on the eastern boundary of the Swan Point building.

On the basis of the screening assessment and when applying the ‘precautionary principle’, it has been shown that the potential for a significant effect upon three Natura 2000 Sites cannot be ruled out at this stage.

This NIS will ascertain if there could be an adverse effect upon the integrity of the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC as a result of the proposed works, either alone or in combination with other plans or projects. Mitigation measures will be detailed in order to ensure no adverse impact will occur on these European Sites.

Sections 5 to 8 below provide the Appropriate Assessment Stage Two Natura Impact Statement (NIS).

¹⁰NPWS (2016) Lough Gill SAC – Site Synopsis <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY001976.pdf> (Accessed: August 2019)

¹¹NPWS (2018a) Lough Gill SAC – Conservation Objectives https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001976.pdf (Accessed: August 2019)

5 ASSESSMENT OF POTENTIAL IMPACTS

This section explores the potential impacts on the qualifying interests and examines the significance of the impacts on them, taking account of the nature of the Proposed Development and the sensitivity of the features in relation to the project and the chosen application site. Where an impact is identified, the need for appropriate mitigation is highlighted (and presented in Section 7 below) to avoid any potential for an adverse effect on any QI.

This section has been informed by a site visit to Swan Point, detailed in Section 2.6 and 2.7 and desk study information. Information regarding the site layout and construction methods for the proposed project has been provided by Vincent Hannon Architects, see Section 2.5 above for the preliminary Method Statement.

5.1 Potential impacts arising from the Proposed Development

The main elements of the application which are being assessed within this NIS include remedial construction works to Martins Quay wall and the construction of two link bridges between the Glasshouse Hotel and Swan Point building. Potential impacts from these works include:

Water Quality Impacts

Construction water quality impacts

- Water quality impacts on the Garavogue River and subsequently the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC which are all hydrologically or ecologically connected to this river.
- Water quality impacts from remedial works to the wall include toxic contamination (cementitious material and lime mortar) and non-toxic contamination (generation of silt, sediments, suspended solids and other materials used during repair works).
- Water quality impacts from the construction of the link bridges include toxic contamination in the form of hydrocarbons entering the Garavogue River.
- Water quality impacts from the infilling of the archway within the Swan Point building.
- Water quality impacts have the potential to significantly affect the aquatic habitats, fish and aquatic mammals of these Natura 2000 Sites listed in Section 3.

Operational water quality impacts

- Potential water quality impacts on aquatic QI habitats and species from the potential increase in effluent load on the Sligo Waste Water Treatment Plant (WWTP).
- However, the Sligo WWTP Design PE is 50,000 and the Agglomeration PE is 30,190 according to the EPA Map Viewer¹². Therefore, the WWTP has sufficient capacity to deal with the additional load. This will not be considered further in this section as there is no potential for an adverse effect on any of the Natura 2000 Sites being assessed.

¹² <https://gis.epa.ie/EPAMaps/SewageTreatment> (Accessed August 2019)

Disturbance Impacts

Construction disturbance impacts

- Temporary disturbance impacts to QI species including foraging otter, seal and waterbirds during the construction works to Martins Quay wall, link bridges and infilling of archway.

Operational lighting disturbance impacts

- Potential long-term lighting disturbance on nocturnal aquatic species such as otter, a QI species of Lough Gill SAC.

The specific potential impacts of the project on the relevant Qualifying Interest of the potentially affected Natura 2000 Site is discussed below. As the QIs overlap between the three Natura 2000 Sites being assessed, the assessment will be structured by QIs grouped by similar ecological requirements example species susceptible to water quality impacts, water dependent habitats susceptible to water quality impacts, species susceptibility to disturbance impacts etc.

Following the assessment of the above impacts, all QI species and QI habitats are considered in the next section. QIs have been grouped together as detailed below to assess the impact on species and habitats with the same susceptibilities and sensitivities, for example water quality impacts or disturbance.

Habitats susceptible to water quality impacts:

- Estuaries; and
- Mudflats.

Species susceptible to water quality impacts:

- Brook lamprey;
- Sea lamprey;
- River lamprey;
- Salmon;
- Otter; and
- Seal.

Bird species susceptible to water quality impacts:

- Light-bellied brent goose;
- Oystercatcher;
- Redshank; and
- Wetland and waterbirds.

Species susceptible to disturbance impacts:

- Otter; and
- Harbour seal.

5.2 Potential impacts on Habitats susceptible to water quality impacts

Estuaries, along with the other QI habitat, mudflats and sandflats not covered by seawater at low tide, hereafter called mudflats, have the potential to be impacted by both the remedial works to Martins Quay wall and the construction of the two bridges linking the two buildings. The estuaries QI habitat is located 0m from the proposed works on the quay wall and adjacent to the link bridges works which will be located to the east of Fish Quay and immediately adjacent to the River Garavogue. The mudflats QI habitat is located at its nearest point to the proposed works, 120m north east. The conservation objectives for these water dependent habitats, as detailed in Section 3.2, are to keep these habitats in favourable conservation status. The potential to undermine the conservation objectives for these habitats is discussed below by assessing each conservation objective for each QI. Conservation objectives for each QI are defined by specific attributes and targets. In this section, relevant attributes and targets which have the potential to be affected by the proposed works are assessed. The location of each Marine Community Type, common attributes of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, are shown in Figure 7.

Wetlands [A999]

The favourable conservation status of the wetlands and waterbirds QI habitat is defined by The Habitat Area attribute. The target of this is to ensure the permanent area occupied by the wetland habitat and should be stable and not significantly less than 1732 hectares, other than that occurring from natural patterns of variation. No wetland habitat will be lost during the works.

The proposed works will not result in any direct loss of this wetland habitat; therefore, this wetland habitat QI will not be adversely affected by the proposed development.

Mudflats [1140]

Favourable conservation status for mudflats is defined by certain attributes. The two relevant attributes of mudflats which have the potential to be affected include:

- **Community structure: *Mytilus edulis* density; and**
- **Community distribution**

These attributes are relevant to the proposal as *Mytilus edulis* and other Marine Community Types detailed in the “Community distribution” target have the potential to be affected by water quality impacts due to for example, their ecological niche.

Community structure: *Mytilus edulis* density

The target for the attribute “Community structure: *Mytilus edulis* density” is to “Conserve the high quality of the Mytilidae-dominated community complex, subject to natural processes”. This species is a filter feeder and therefore, potentially sensitive to water quality impacts. As illustrated in Figure 7, this specific Marine Community Type (shown in pink) is located within Sligo Harbour, c. 3km downstream of the proposed works. As discussed in Section 5, the main water quality impacts include chemical pollution (hydrocarbons and cementitious material) and an increase in silt and suspended solids entering the watercourse.

According to Marlin¹³, *Mytilus edulis* has a low sensitivity to hydrocarbon contamination and a high recoverability to this chemical pressure. Also, according to the Marlin Species Account and Sensitivity

¹³ Marlin (The Marine Life Information Network) <https://www.marlin.ac.uk/> (Accessed August 2019)

Review of *Mytilus edulis*¹⁴, *Mytilus edulis* is not sensitive to the physical pressure of an increase in suspended solids.

Due to a lack of sensitivity to the potential impacts of the proposed works, this marine community complex will not be adversely affected.

Community Distribution

The target for the attribute “Community distribution” is to “Conserve the following community types in a natural condition:

- Intertidal fine sand with *Peringia ulvae* and *Pygospio elegans* community complex;
- Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community complex;
- Fine sand with crustaceans and *Scololepis (Scololepis) squamata* community complex;
- Fine sand with *Angulus spp.* and *Nephtys spp.* community complex.

These marine community types will be discussed in turn below.

Intertidal fine sand with *Peringia ulvae* and *Pygospio elegans*

As show in Figure 7, the *Peringia ulvae* and *Pygospio elegans* community complex is located c. 2km downstream from the proposed works. According to Marlin, *Peringia ulvae*¹⁵ has a low sensitivity to hydrocarbon contamination and a high recoverability to this chemical pressure. Also, according to Marlin, *Peringia ulvae* is not sensitive to the physical pressure of an Increase in suspended solids¹⁶, however, there is no Sensitivity Review for *Pygospio elegans*.

Due to the distance and lack of sensitivities to the potential impacts, there will be no adverse effect on this community complex.

Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes

As illustrated in Figure 7, the Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community complex (shown in blue), is located immediately adjacent to the proposed works.

However, according to Marlin, *Hediste diversicolor* have a low level of sensitivity to hydrocarbon contamination and a high level of recoverability to this contaminant. *Hediste diversicolor* also has a low sensitivity to increased suspended solids¹⁷.

Due to the lack of sensitivities to the potential impacts and with mitigation measures implemented as per Section 7, there will be no adverse effect on this community complex.

Fine sand with crustaceans and *Scololepis (Scololepis) squamata*

As illustrated in Figure 7, the Fine sand with crustaceans and *Scololepis (Scololepis) squamata* community complex is located c. 7km from the proposed works (shown in light pink). *Scololepis*

¹⁴ The Marlin Species Account and Sensitivity Review of *Mytilus edulis* <https://www.marlin.ac.uk/species/detail/1421> (Accessed October 2019).

¹⁵ Marlin Species Account and Sensitivity Review of *Peringia ulvae* can be accessed here: <https://www.marlin.ac.uk/species/detail/1295> (Accessed October 2019)

¹⁶ The Marlin Species Account and Sensitivity Review of *Pygospio elegans* can be accessed here: <https://www.marlin.ac.uk/species/detail/1712> (Accessed October 2019)

¹⁷ The Marlin Species Account and Sensitivity Review of *Hediste diversicolor* can be accessed here: <https://www.marlin.ac.uk/species/detail/1426> (Accessed October 2019)

(*Scololepis squamata*) is a polychaete worm and as such would not be sensitive to increased suspended solids as the burrow under the silt and sediment. There was no data available for this species on Marlin.

Due to the distance (c. 7km) and with mitigation measures implemented as per Section 7, there will be no adverse effect on this community complex.

Fine sand with *Angulus* spp. and *Nephtys* spp. community complex

As illustrated in Figure 7, the Fine sand with *Angulus* spp. and *Nephtys* spp. is located c. 7km from the proposed works (shown in light yellow).

Nephtys spp., for example *Nephtys hombergii*, is a type of catworm. According to Marlin, *Nephtys hombergii* is not sensitive to the physical pressure of an increase in suspended solids. The Marlin Species Account and Sensitivity Review of *Nephtys hombergii* can be accessed here:

<https://www.marlin.ac.uk/species/detail/1710>

Polychaetes and *Angulus tenuis* in littoral fine sand is a biotope assessed on Marlin. The infaunal community is dominated by the abundant bivalve *Angulus tenuis* together with a range of polychaetes. Polychaetes that are characterizing for this biotope include *Nephtys cirrosa*, *Paraonis fulgens* and *Spio filicornis*. (Information from Connor *et al.*, 2004). According to Marlin¹⁸, this type of community complex is not sensitive to changes in suspended solids. The sensitivities of hydrocarbons have not been assessed on Marlin.

Due to the lack of sensitivities, distance (c. 7km) and with mitigation measures implemented as per Section 7, there will be no effect on this community complex.

¹⁸ Marlin biotope account here: <https://www.marlin.ac.uk/habitats/detail/1170> (Accessed October 2019)

Estuaries [1130]

Favourable conservation status for estuaries is defined by certain attributes. The two relevant attributes which have the potential to be affected include Community structure: *Mytilus edulis* density and Community distribution.

Community structure: *Mytilus edulis* density

This was discussed above and was found to not have the potential to be adversely affected.

Community Distribution

The target for the attribute “Community distribution” is to “Conserve the following community types in a natural condition:

- Intertidal fine sand with *Peringia ulvae* and *Pygospio elegans* community complex;
- Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community complex;
- Fine sand with *Angulus spp.* and *Nephtys spp.* community complex;
- Sand to mixed sediment with amphipods community; and
- Intertidal reef community”.

Only Sand to mixed sediment with amphipods community and Intertidal reef community complexes will be discussed here as all other community types were discussed above under mudflats.

Sand to mixed sediment with amphipods

This community type (shown in black in Figure 7) is located c. 5km from the proposed works. Amphipods and *Scolelepis* spp. in littoral medium-fine sand is a biotope assessed by Marlin¹⁹. This biotope was assessed as having a low sensitivity to smothering and siltation rate changes (heavy) and not sensitive to smothering and siltation rate changes (light). The chemical pressure of hydrocarbon contamination was not assessed.

Due to the distance (c. 5km) and with mitigation measures implemented as per Section 7, there will not be an adverse effect on this marine community type.

Intertidal reef

This community type (shown in light green in Figure 7) is located c. 2km from the proposed works.

Intertidal reef communities occur throughout the site Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC as shown in Figure 7. According to NPWS (2013f), the substrate type of intertidal reefs is variable from cobbles, cobbles and boulders to bedrock and also a mosaic of bedrock, boulders and cobbles. The conspicuous species are *fucoids*, unidentified barnacles, *Littorina littorea* and *Patella vulgata*. Occasionally the green algae *Ulva sp.* occurs. In the very exposed reef along the shore north of Ballyconnell, coralline algae is common in the rock pools, here the brown algae *Himanthalia elongata* also occurs.

Fucoids and kelp in deep eulittoral rockpools have been assessed by Marlin. This biotope was shown to have a medium sensitivity to the physical pressure of smothering and siltation rate changes

¹⁹ Summary and Sensitivity Review: <https://www.marlin.ac.uk/habitats/detail/232> (Accessed October 2019)

(heavy)²⁰. The chemical pressure of hydrocarbon contamination was not assessed. However, *Fucus vesiculosus* shows limited intolerance to oil, for example, after the Amoco Cadiz oil spill *Fucus vesiculosus* suffered very little (Floc'h & Diouris, 1980). *Fucus vesiculosus* may increase significantly in abundance on a shore where grazing gastropods have been killed by oil, although very heavy fouling could reduce light available for photosynthesis and in Norway a heavy oil spill reduced fucoid cover.

Due to the distance and with mitigation measures implemented as per Section 7 to prevent any hydrocarbons entering the watercourse, there will not be an adverse effect on this marine community type.

Conclusion:

The closest marine community type to the proposed works with the highest potential to be impacted is **Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community complex**, located adjacent to the Proposed Development and shown in blue in Figure 7. According to NPWS (2013f), it is 102ha in area and occurs from the intertidal to a depth of approximately 3m. This marine community type is present within both estuary and mudflat QI habitats. This community type is located where the repair works to the wall are proposed to take place and adjacent to the construction works of the link bridges and infilling of the arch.

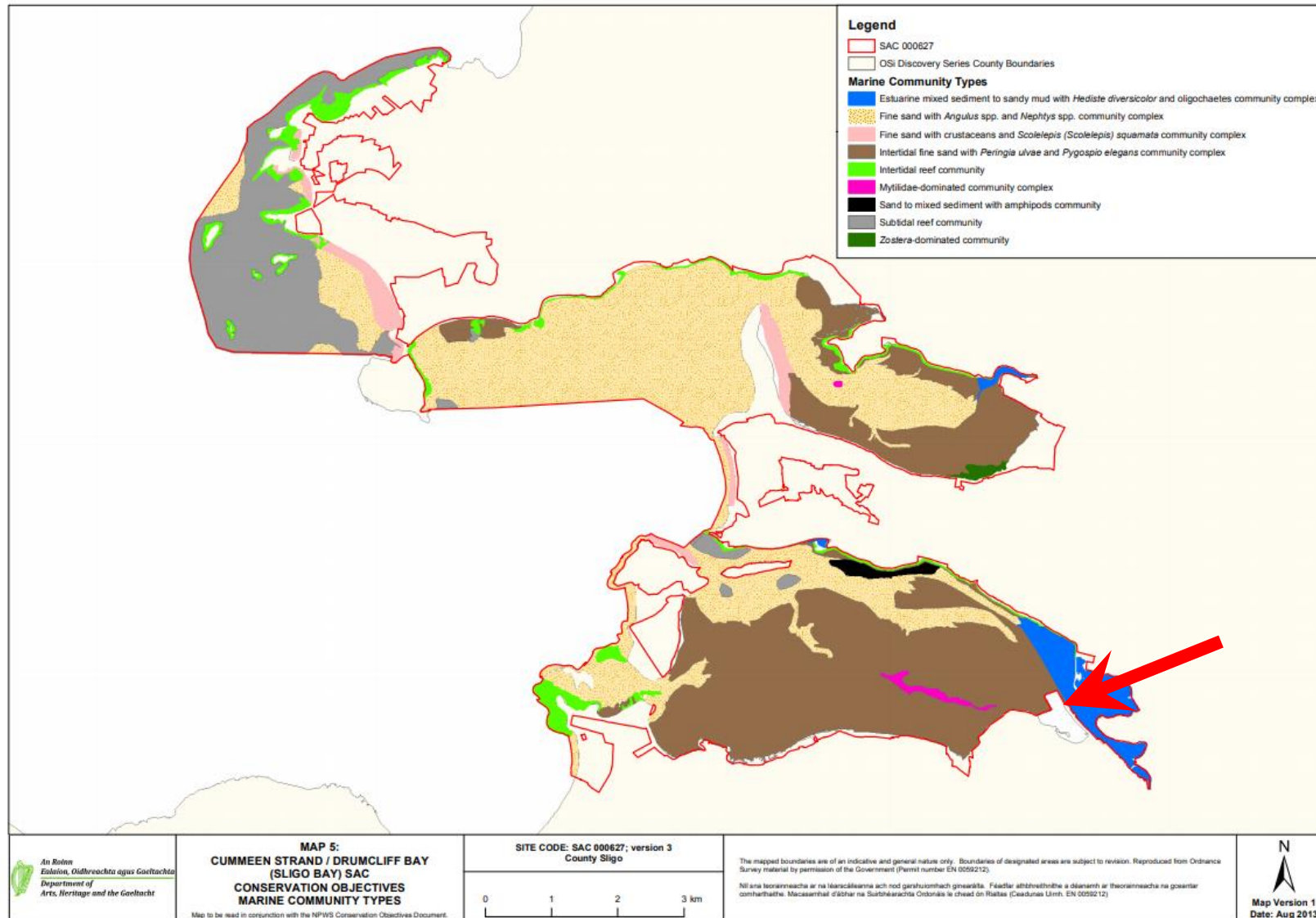
Impacts from the construction of the link bridges and infilling of the arch include potential for hydrocarbons being released into the river from construction machinery. According to Marlin, *Hediste diversicolor* have a low level of sensitivity to hydrocarbon contamination and a high level of recoverability to this contaminant.²¹ The repair works to the wall may result in an increase of suspended solids entering the River Garavogue and subsequently the Cummeen Strand /Drumcliff Bay (Sligo Bay) SAC. According to Marlin, *Hediste diversicolor* are not sensitive to this physical pressure due to their ecological niche of living in burrows within sand and/or mud.

Overall, with the mitigation measures detailed in Section 7, there will be no adverse effect on either the Estuaries or Mudflats.

²⁰ The Summary and Sensitivity Review can be found here: https://www.marlin.ac.uk/habitats/detail/282/fucoids_and_kelp_in_deep_eulittoral_rockpools (As Accessed: October 2019)

²¹ Marlin Website: <https://www.marlin.ac.uk/species/detail/1426> (As Accessed: August 2019)

Figure 7: Location of marine community types in relation to the proposed works (indicated by red arrow).



5.3 Potential impacts on species susceptible to water quality impacts

River and Sea Lamprey [1099] and [1095]

River and sea lamprey are QIs of the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC. Their favourable conservation status is defined by Distribution extent of anadromy. A potential barrier to their migration could include anthropogenic physical barriers and chemical barriers e.g. oxygen depletion or discharge of noxious pollutants. The proposed works have the potential to result in discharge of pollutants including hydrocarbons or suspended solids if a pollution incident were to occur.

However, due to the nature of the works and the mitigation measures laid out in Section 7, there will be no adverse effect on these lamprey species.

Brook lamprey are a QI species of Lough Gill SAC located upstream of the proposed works. This Natura 2000 Site does not have a detailed conservation objective document; however, Lough Gill SAC was designated for breeding and spawning brook lamprey. The majority of attributes and targets in other detailed conservation objective documents (for example the River Moy SAC²²), relate to spawning habitat which, in this case, will not be lost or impacted by the proposed works due to these breeding habitats being located upstream of the proposed development. Brook lamprey are non-migratory so the number of brook lamprey found in the vicinity of the proposed works is limited.

Due to the low numbers of brook lamprey in the vicinity of the proposed works and the nature of the works, there will be no adverse effect on this lamprey QI species.

Salmon [1106]

Salmon do not spawn in the vicinity of the proposed development site but move through on migration between the sea and freshwater spawning grounds. The conservation status for salmon is classed as Inadequate by the latest Article 17 report, NPWS (2019a). There is no detailed conservation objectives document for the Lough Gill SAC, however, attributes from other Natura 2000 Sites, such as River Moy SAC, do not detail pollution or suspended solids as potentially undermining the conservation objectives of the QI species. The majority of attributes related to number and distribution of spawning redds etc.

Due to the lack of spawning sites in the vicinity of the proposed works, there will be no adverse effect on this QI species.

Otter [1355]

Otter are classed as Favourable by the latest Article 17 report. There is no detailed conservation objectives document for this QI species for Lough Gill SAC, however, other Natura 2000 Sites such as the River Moy SAC, detail a relevant attribute of Fish biomass availability. The proposed works could result in a release of hydrocarbons or suspended solids which could result in a reduction of fish biomass for otter to feed on, for example due to a fuel spill.

However, with mitigation measures detailed in Section 7, there will be no adverse effects on this QI species.

Harbour seal [1365]

In the latest Article 17 Report, harbour seal was currently found to be in favourable conservation status in Ireland (NPWS, 2019a).²³ The proposed works will not affect any of the attributes of targets

²² River Moy SAC – Conservation Objectives Document: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002298.pdf (As Accessed: August 2019)

²³ Article 17 Report (NPWS, 2019a): https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf

detailed in the conservation objectives document for this QI species. The majority of these related to moulting behaviour, breeding behaviour and resting behaviour which will not be affected by this project. Therefore, there will be no adverse effect on this QI species of Cummeen Strand SAC.

Due to the limited breeding, moulting and resting behaviour of harbour seals within the vicinity of the proposed works, there will be no adverse effects on this QI species.

5.4 Potential impacts on bird species susceptible to water quality impacts

Brent geese, redshank, oystercatcher [A046] [A162] [A130]

To maintain favourable conservation status of the bird species in the site, long term population trends must be stable or increasing and there should be no significant decrease in the range, timing and intensity of use of areas by these species, other than that occurring from natural patterns of variation. The number of these species foraging in the vicinity of the proposed works is limited, however, further west within Sligo harbour numbers would become significant (NPWS, 2013c). With mitigation measures stated in Section 7 however, the proposed works will not affect these attribute or targets. Due to the scale and nature of the works, the QI bird species of the Cummeen Strand SPA will not be adversely affected by the proposed works.

Waterbirds [A999]

The favourable conservation status of the wetlands and waterbirds QI habitat is defined by The Habitat Area attribute. The target of this is to ensure the permanent area occupied by the wetland habitat and should be stable and not significantly less than 1732 hectares, other than that occurring from natural patterns of variation. No wetland habitat will be lost during the works.

The proposed works will not result in any direct loss of this wetland habitat; therefore, this wetland habitat QI will not be adversely affected by the proposed development.

Potential impacts on species susceptible to temporary disturbance impacts

Harbour seal [1365]

Harbour seal forage in the vicinity of the proposed works. As detailed above, the attributes for this QI species related to moulting behaviour, breeding behaviour and resting behaviour which will not be affected by this project as these behaviours do not take place in this area. The small-scale nature of the works and low numbers of seals present in this area will not result in significant disturbance.

Therefore, due to the limited numbers of seals exhibiting breeding, moulting and resting behaviour within the zone of influence of the construction works, there will be no adverse disturbance effect on this QI species.

Otter [1355]

Otter forage in the vicinity of the proposed works. The works will involve some level of disturbance including installation of scaffolding, machinery working to construct the link bridges and infill archway and masons on the river edge repairing Martins Quay wall. A site visit found there were no resting sites or holts for otter in the vicinity of the proposed works, the sea wall in the area was deemed unlikely to provide suitable habitat for otter holts during the surveys, therefore, there will be no adverse disturbance effect on this QI species.

Therefore, due to the lack of holts or resting sites for otter within the zone of influence of the construction works, there will be no adverse disturbance effect on this QI species.

Waterbirds [A999]

The waterbird assemblage of Cummeen Strand SPA, including the QI bird species (brent goose, redshank and oystercatcher) have the potential to be disturbed while either foraging, loafing or roosting in the vicinity of the proposed works. As described below, no significant numbers of waterbirds congregate within the zone of influence of the construction works to result in an adverse effect on these QI species and the significant numbers of birds of this SPA are found further out in Sligo Harbour (NPWS, 2013c).

“Waterbirds” are defined as “birds that are ecologically dependent on wetlands” (Ramsar Convention, 1971). They are a diverse group that includes divers, grebes, swans, geese and ducks, gulls, terns and wading birds. During the data period 1995/96 – 2010/11 the I-WeBS database shows a total of 53 waterbird species that have been recorded at Cummeen Strand. These species represent eleven waterbird families: *Gaviidae* (divers), *Podicipedidae* (grebes), *Anatidae* (swans, geese and ducks), *Rallidae* (Water Rail, Moorhen and Coot), *Haematopodidae* (oystercatchers), *Charadriidae* (plovers and lapwings), *Scolopacidae* (sandpipers and allies) and *Laridae* (gulls and terns) plus *Phalacrocoracidae* (Cormorants), *Ardeidae* (Herons) and *Alcedinidae* (Kingfisher).

During site visits by Woodrow during May and late August 2019, waterbird species recorded in the vicinity of the Proposed Development included grey heron (*Ardea cinerea*), black-headed gull (*Chroicocephalus ridibundus*), herring gull (*Larus argentatus*), lesser black-backed gull (*Larus fuscus*), greater black-backed gull (*Larus marinus*), common gull (*Larus canus*), mallard (*Anas platyrhynchos*) and mute swan (*Cygnus olor*). These species roost along the exposed seaweed at low tide, use the walls along the Lower Quay street car park to roost at high tide and forage in the vicinity of the Proposed Development. These birds may be disturbed temporarily during construction works, particularly off the link bridges and infilling of the arch. However, these waterbirds are habituated to human disturbance in this area within Sligo town and due to the lack of significant numbers of waterbirds using this area, this QI will not be adversely affected.

A Waterbird Survey Programme was conducted by NPWS in 2010/2011. The proposed development is located within the count section 0C479. The subsite 0C479 is the smallest subsite of this Cummeen Strand SPA with an area of 3.6ha and had the lowest species richness out of all subsites during the Waterbird Survey Programme 2010/11²⁴ (NPWS, 2013c), of 5 species. Oystercatchers were widespread and occurred in all ten subsites overall (however, subsite 0C479 only recorded a single individual). Redshanks were widespread within Cummeen Strand SPA, recorded in all subsites apart from 0C479. No brent geese were recorded within 0C479.

A roost survey was also conducted on 30 November 2010 by NPWS. Appendix IV shows the locations of waterbirds roost sites of the Cummeen Strand SPA. The subsite 0C479 is shown to hold a small roost site of c. 1-49 birds located c. 230m from the proposed works (see Appendix IV). This roost consisted of black-headed gull, mallard and mute swan. None of the QI species (brent goose, redshank or oystercatcher) were recorded roosting within this subsite (NPWS, 2013c).

Due to the lack of significant numbers of waterbirds within the zone of influence of the construction works, there will be no adverse disturbance effect on these QI bird species.

²⁴ Cummeen Strand SPA Conservation Objectives Supporting Document:

https://www.npws.ie/sites/default/files/publications/pdf/004035_Cummeen%20Strand%20SPA%20Supporting%20Doc_V1.pdf

Potential impacts on species susceptible to operational lighting disturbance impacts

Otter [1355]

Otter have the potential to be impacted by strong lights shining on the river where they commute, forage and have the potential to rest and breed. River corridors, such as the Garavogue River adjacent to this proposal, are important 'dark zones' for nocturnal and crepuscular species, particularly in urbanised environments such as Sligo town. Otter are crepuscular meaning they are more active at dusk and dawn when the impacts of any lighting along the river has the potential to disturb this QI species. It must also be taken into consideration that it is an offence to disturb an otter in its resting place and there may be potential for resting and laying up sites near the site to be used in future.

What are the current lux levels along this section of the estuary and will this development significantly increase the levels of light on the river?? The two proposed types of external lights to be used for this project are illustrated in Appendix II. The Proposed External Lighting Layout is found in Appendix III and shows the proposed number and locations of these external light fixtures to the Swan Point building. The Lighting Layout will implement mitigation measures from Section 7 to ensure no significant lighting disturbance impacts on otter from external lighting of the Swan Point building.

5.4 Summary of Potential Impacts

Potential for construction related water quality impacts from remedial works to Martins Quay wall include cement-based material, silt, suspended solids, and other materials entering the watercourse. The remedial works to the Martins Quay wall will be small scale with two operatives working together either side of low tide to repair sections of wall. The wall will be repaired by using new and existing fallen rocks and cement. Due to the small-scale work of repairing sections of a wall, there will not be significant amounts of cement or lime mortar on-site at any one time and therefore, there will be no adverse impacts on water susceptible QI species or habitats.

The construction of the link bridges and the infilling of the Swan Point arch will involve use of large machinery and plant in close proximity to the River Garavogue. There is a potential for hydrocarbons to enter the river and subsequently the Natura 2000 Sites. It was found that with mitigation measures, there will be no adverse effects on water susceptible QI species or habitats.

Potential for operational related water quality impacts were not assessed any further within the NIS as it was found that the Sligo WWTP had sufficient capacity to deal with the increased load of the additional hotel rooms and increased office space of Swan Point.

Temporary construction related disturbance impacts on otter, seal and waterbirds were assessed as not having potential to adversely affect these QI species.

Operational lighting disturbance impacts on otter were assessed. Mitigation measures were detailed in Section 7 in order to avoid any adverse disturbance effects on otter. These measures will be reviewed by the appropriate design party for this proposal to ensure these measures can be implemented in the External Lighting Layout Plan shown in Appendix III. If these measures are implemented, there will be no adverse impacts on this QI species.

6 POTENTIAL IN-COMBINATION EFFECTS

6.1 Context

Article 6 of the EU Habitats Directive and Regulation 28 of the European Communities (Natural Habitats) Regulations 2011 state that any plan or project that may, either alone or in combination with other activities, plans or projects, significantly affect a Natura 2000 site should be the subject of an Appropriate Assessment. The assessment of in-combination impacts is therefore an important part of the assessment process.

In-combination impacts can be a particular issue when proposals have a small impact on Natura 2000 sites as a result of factors such as disturbance or pollution, and when other adjacent proposals also have a small impact, the result can have an incremental affect resulting in a significant impact on the Natura site.

6.2 In-combination Assessment

As assessed above, the only potential for a cumulative / in-combination impact arising as a result of this development is considered to be the potential for sediment and/or hydrocarbon release which could result during a pollution event occurring during remedial works to the Quay Wall – and for which, taking a precautionary approach, it could not be definitively ruled out that there was no potential for adverse impacts upon three Natura 2000 sites (Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC) which are hydrologically connected to the proposed works.

Proposed Developments, which might have the potential to result in pollution of water quality in the absence of mitigation, particularly due to their immediate proximity to the Garavogue River, are listed below.

Sligo Co. Co. Planning Map²⁵

- 0070031 Extension to County Council Offices at Riverside. (1) Construction of two storey extension, (2) Landscaping improvements (3) Single storey storage facility to rear. Approved with conditions in 2000.
- 1270077 Client: Sligo Grammar School Ltd. (1) Replace existing chain-link fence to south side of hockey pitch with PVC coated mesh fence, (2) Resurface existing all-weather pitch and ball court with synthetic surface and (3) Provision of new flood lighting for hockey pitch and court with associated site works & services. Approved with conditions in 2012.
- 1270050 Client: Sligo Grammar School Ltd. Retention of extension as built with reduced floor area from 2184msq to 1777msq with subsequent elevation changes & treatments to that granted under PD 10/73.

There are numerous proposed and granted developments along the Garavogue River catchment which could potentially result in impacts upon water quality in the absence of mitigation.

The potential for in-combination water quality impacts upon the QIs of the Natura 2000 Sites listed in Section 3.2 is considered in this assessment. Mitigation is proposed to negate the potential for any impacts arising as a result of these proposals (see Section 7 below) below, in order to ensure that there is no adverse impact on the integrity of any Natura 2000 Sites as a result of the proposal, either alone or in combination with other plans or projects.

²⁵ Sligo Co. Co. Planning Map <http://lp4.sligococo.ie/LP4/default.aspx?topicname=Planning&featureid=0> (As accessed: August 2019)

7 MITIGATION OF EFFECTS

Due to the small-scale nature of the works, it is considered to be a low likelihood that the proposed project could have an adverse effect on the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC.

However, mitigation is proposed to ensure that this project does not have any possible risk of causing an adverse effect on the integrity of any Natura 2000 Sites, either alone, or in combination with other plans or projects.

7.1 Best practice mitigation intrinsic to the project design

The following mitigation will be incorporated into the design as part of Best Practice site environmental controls including the Method Statement for the remedial works to the Quay wall and the construction of the two link bridges between the Glasshouse Hotel and Swan Point. These procedures will be carried out to ensure that there are no significant adverse effects on the local environment during the remedial and repair works to the wall:

- IFI (2016) *Guidelines on protection of fisheries during construction works in and adjacent to waters - Guidance for consultants and contractors*;
- CIRIA (2006) *Control of water pollution from linear construction projects*. Site guide; and,
- SEPA (2017) *Works and maintenance in or near water*. GPP 5.

7.2 Mitigation to negate any water quality impacts upon Natura 2000 Sites

There is a low likelihood that the remedial works on Martins Quay wall has potential for adverse effects on the water quality of the Natura 2000 Sites being considered i.e. Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Lough Gill SAC. As such, standard best practice guidance for working near water and standard mitigation measures for controlling of pollution and sediments from construction sites should be consulted. These are listed above. Other additional mitigation measures deemed to be required to ensure no adverse effects on the Natura 2000 Sites are detailed below:

- Works on Martins Quay wall will only be undertaken during low or receding tides;
- These works will be undertaken during periods of dry weather. All works will cease during wet weather until it can be confirmed that sediment release is no longer an issue;
- Suitable equipment such as drip trays will be used by the operatives to ensure no cement or mortar falls into the Garavogue River during remedial works to the wall;
- Kickboards will be installed on the scaffolding to prevent any tools and other materials entering the river;
- The cement mixer will be placed in suitable bunded container to ensure no cement has the potential to fall into surrounding immediate environs of the Garavogue River and subsequently the Natura 2000 Sites;
- The Method Statement which the appointed contractor will adhere to will ensure no silt, sediment, cement or hydrocarbons from the construction of the link bridges enters the Garavogue River and subsequently the Natura 2000 Sites;
- The area surrounding the proposed link bridges between the two buildings will be protected prior to and during construction of the bridges to ensure that in the event of a fuel leak from machinery, no fuel has the potential to enter the Garavogue River;
- Any refuelling of plant will be carried out in a designated area as far from the rivers' edge as possible;

- A fuel spill kit will be retained on the site for the period of construction and in all plant working on the site;
- Plant nappies will be used when required, plant nappies will be kept within all machinery being used on the site and accessible at all times to all construction workers;
- If plant / equipment has been involved in in stream works, lakes, dredging or on sites where invasive species were present, it should be washed down with disinfectant, off site (e.g. Virkon **Aquatic** or similar, suitable for the aquatic environment) and rinsed with clean water prior to working on the site. This will eliminate the possibility of introducing invasive species or other contaminants; and
- The appointed contractor will implement an Environmental Management Plan that will cover these issues and assess risks and put controls in place to prevent any pollutants entering the Garavogue River.

7.3 Mitigation to negate any operational lighting disturbance on otter

Points below detail general mitigation measures to be implemented to avoid long-term, operational light impacts on otter.

- Use low-pressure sodium lights instead of high-pressure sodium lights or mercury lamps. If mercury lamps are to be used, fit them with UV filters.
- Light levels will be as low as guidelines permit under health and safety. If lighting is not required for this proposal it should not be installed, particularly along the river side of the building.
- It is preferable that no external lights are used on the railings along the river as part of this proposal.
- If external lighting is required along the river, lighting used must result in no light spilling onto the Garavogue River.
- If lights are required along the river these must be of a low lux value and be directed entirely on the Swan Point building and not on the river.
- Baffling of lights will ensure that no light is directed onto the river. This can be done using appropriate hoods, cowls or specific types of lights.
- The use of blue/white light should be avoided.
- The amount of light spillage will be reduced where no needed by restricting the height of lamp columns (e.g. <8 m where possible).
- Bespoke dimming regimes can be installed to lower lumens during dusk and dawn periods of low pedestrian use for the road side of the building. Hand rail LED lights can be used to illuminate walkways which direct light at the floor at a very low level, with no horizontal or upward light spill (lights can be full lateral cut off to ensure they are directed onto a footpath or for example away from the river).
- Small bollard lights might be useful which can be installed to have low mounting heights, reducing the reach of light spill (Stone, 2013).

8 CONCLUSIONS

This Natura Impact Statement has examined whether, in view of best scientific knowledge and applying the precautionary principle, the proposed project either individually, or in combination with other plans or projects, may have an adverse effect on the integrity of any Natura 2000 Sites (also known as European Sites). The NIS has identified mitigation measures to avoid and minimise these effects so that the structure and functions of the Natura 2000 Sites assessed, specifically the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC are not affected. Thereby demonstrating that the potential impacts of the proposal can be mitigated to avoid any adverse effects upon the integrity of Natura 2000 Sites.

These mitigation measures have been set out in Section 7 above. The incorporation of these measures in full, and their subsequent implementation on site during construction and operation phases will ensure that there will be no adverse effects, either individually or in combination with other plans or projects upon the conservation interests or conservation objectives of these Natura 2000 Sites.

It is therefore concluded that the proposal will not, beyond reasonable scientific doubt, adversely affect the integrity of any Natura 2000 Site either directly or indirectly.

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APPENDIX I Screening for Appropriate Assessment Report

The following section provides information on the Natura 2000 Sites in the vicinity of the Proposed Development at Swan Point which have the potential to be within the zone of influence of the proposal. In many cases a standard 15 km distance from a proposal is used as a potential zone of influence within which Natura 2000 Sites should be screened for potential impact. However, in reality, the potential impacts on sites are dependent on the nature of impacts arising, the sensitivity of receptors and the causal links and conduits, rather than distance. In many cases the potential zone of influence is considerably less than 15 km (for example noise and airborne pollution) while the potential zone of influence could be greater than 15 km, for example if there is a direct water connection.

Natura 2000 Sites with potential pathways for impacts are identified in order to establish the zone of influence of the proposal. These can then be assessed based on factors such as proximity to the Proposed Development, the Qualifying Interests (QI's) of the Natura 2000 sites (and the species or habitats upon which these rely), and their conservation status.

The screening process below highlights that there are three Natura 2000 Sites that have the potential to be significantly impacted by the Proposed Development. These are illustrated in Figure 2. All other Natura 2000 Sites within the wider area are shown in Figure 1.

Table 1 provides a Screening Matrix of all Natura 2000 sites assessed during the screening process. For each site, the QIs are listed, the conservation objectives are referenced, the potential for the proposal to affect them is considered and a conclusion on potential for the Proposed Development to have a significant effect on the QIs (and therefore the Natura 2000 Site) is made. Table 2 provides a Significance of Impact Matrix of all Natura 2000 Sites and all QIs within the zone of influence of the proposed works, giving distances to specific QI habitats and species from the proposed works.

Summary of Screening Assessment of Natura 2000 Sites

Applying the precautionary principle, it was not possible to rule out with certainty the potential for likely significant effects on Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Lough Gill SAC, without applying mitigation. Mitigation required for the NIS is for the remedial works on Martins Quay wall and the construction of the link bridges between the Glasshouse Hotel and Swan Point building. All other aspects of the application, e.g. change of use from residential, retail and/or restaurant space to office and hotel, was found not to have the potential to result in a significant effect on these Natura 2000 Sites during the screening stage. QI in bold have the potential to be adversely impacted

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (site code: 000627)

- ***Estuaries [1130]***
- ***Mudflats and sandflats not covered by seawater at low tide [1140]***
- *Embryonic shifting dunes [2110]*
- *Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]*
- *Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]*
- *Juniperus communis formations on heaths or calcareous grasslands [5130]*
- *Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]*
- *Petrifying springs with tufa formation (*Cratoneurion*) [7220]*

- *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Phoca vitulina* (Harbour Seal) [1365]

Cummeen Strand SPA (site code: 004035)

- ***Light-bellied Brent Goose (Branta bernicla hrota) [A046]***
- ***Oystercatcher (Haematopus ostralegus) [A130]***
- ***Redshank (Tringa totanus) [A162]***
- ***Wetland and Waterbirds [A999]***

Lough Gill SAC (site Code: 001976)

- *Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]*
- *Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]*
- *Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]*
- *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]*
- *Austropotamobius pallipes (White-clawed Crayfish) [1092]*
- ***Petromyzon marinus (Sea Lamprey) [1095]***
- ***Lampetra planeri (Brook Lamprey) [1096]***
- ***Lampetra fluviatilis (River Lamprey) [1099]***
- ***Salmo salar (Salmon) [1106]***
- ***Lutra lutra (Otter) [1355]***

Figure 1: Natura 2000 Sites in the vicinity of the Proposed Development

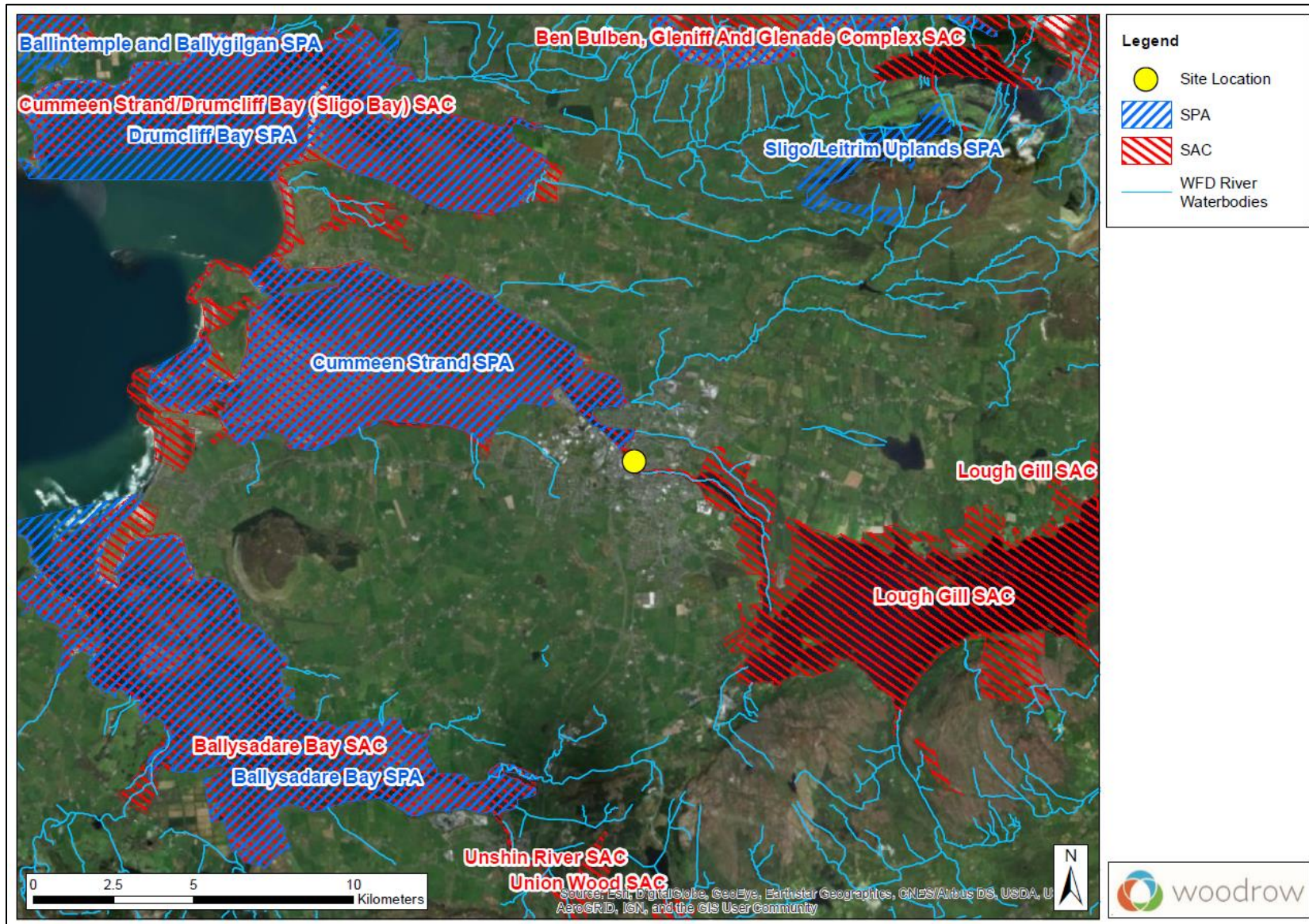


Figure 2: Closest Natura 2000 Sites in relation to the Proposed Development

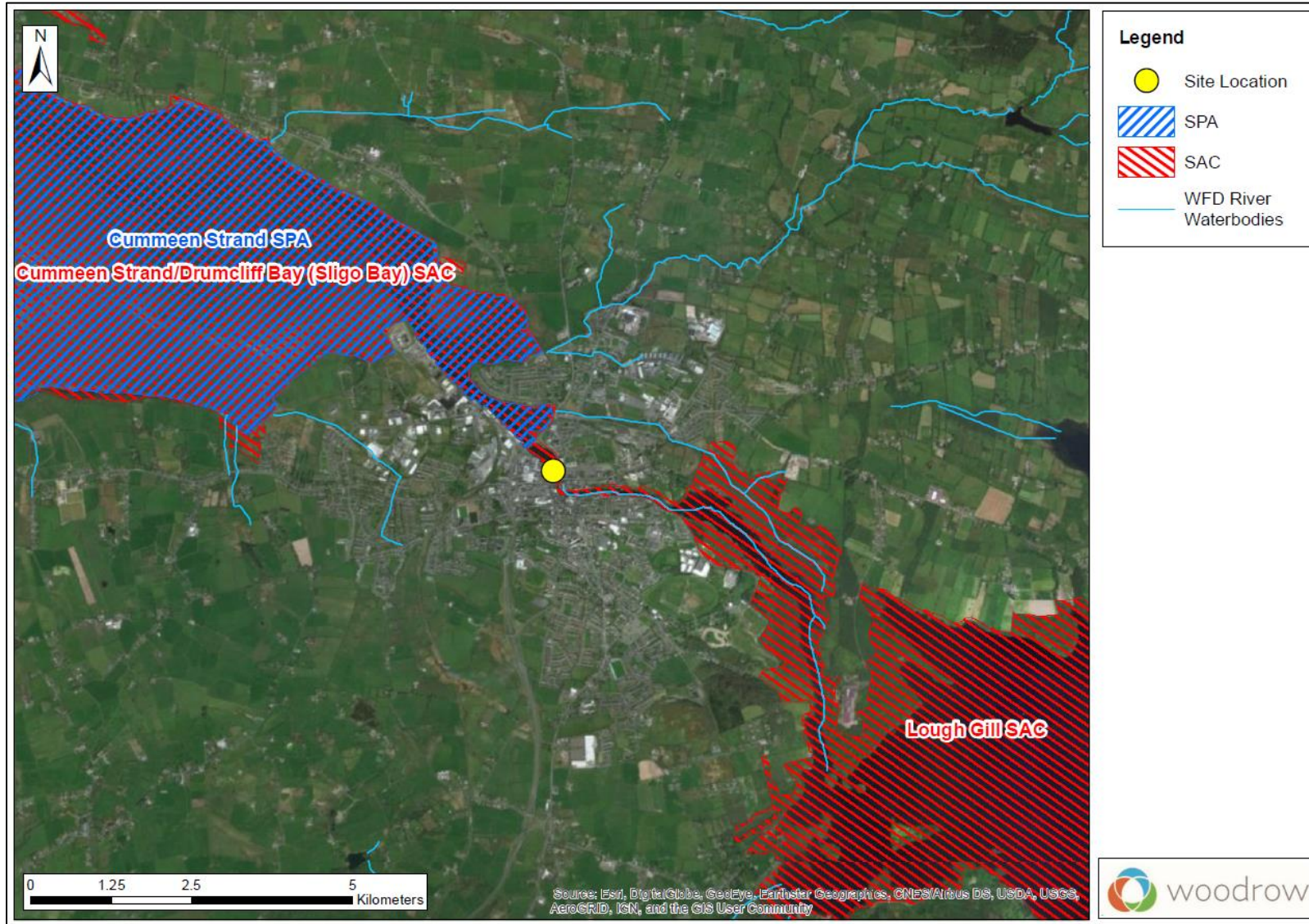


Table 1: Screening Matrix of all Natura 2000 Sites in the vicinity of the Proposed Development.

Sites highlighted in grey, and QIs in **bold**, have the potential to be impacted by the Proposed Development.

Explanation of terms used in Significance of Impact Matrix:

Likely Significant Effect - Where a plan or project is likely to undermine any of the site's conservation objectives; **Possible Significant Effect** - Where a plan or project has an indicated potential to undermine any of the site's conservation objectives, but where doubt exists about the risk of a significant effect in the current context. Nevertheless, where doubt exists about the risk of a significant effect, use of the precautionary principle requires this effect to be considered appropriately within the Article 6 assessment process.

European Site Name and Code	Qualifying Interests (QI's) * = Priority Habitats	Approximate Distance	Within the Zone of Influence?	Potential Impacts and Effects?²⁶	Conservation Objectives
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627]	<ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • 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] • <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] • Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] • <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] 	c. 0m	Yes. Source-Pathway-Receptor exists.	This proposal is considered possible to have a significant effect on this Natura 2000 Site due to instream works within the SAC which may result in water quality impacts and effect aquatic habitat and aquatic species including lamprey and seal, of the site. This site, and the QIs highlighted in bold, have been screened in due to the need for mitigation to avoid pollution of the local water quality to protect QI habitats and species of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.	NPWS (2013a)

²⁶ EPA Maps - <https://gis.epa.ie/EPAMaps/> - information from this website has been used to assist this screening exercise.

European Site Name and Code	Qualifying Interests (QI's) * = Priority Habitats	Approximate Distance	Within the Zone of Influence?	Potential Impacts and Effects? ²⁶	Conservation Objectives
	<ul style="list-style-type: none"> • <i>Petromyzon marinus</i> (Sea Lamprey) [1095] • <i>Lampetra fluviatilis</i> (River Lamprey) [1099] • <i>Phoca vitulina</i> (Harbour Seal) [1365] 				
Lough Gill SAC [001976]	<ul style="list-style-type: none"> • Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> – type vegetation [3150] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092] • <i>Petromyzon marinus</i> (Sea Lamprey) [1095] • <i>Lampetra planeri</i> (Brook Lamprey) [1096] • <i>Lampetra fluviatilis</i> (River Lamprey) [1099] • <i>Salmo salar</i> (Salmon) [1106] • <i>Lutra lutra</i> (Otter) [1355] 	c. 150m	Yes. Source-Pathway-Receptor exists.	This proposal is considered possible to have a significant effect on this Natura 2000 Site due to instream works which have the potential to result in water quality impacts on aquatic QI species of Lough Gill SAC. This site has been screened in due to the need for mitigation to avoid water pollution of local water and lighting impacts on otter.	NPWS (2018a)

European Site Name and Code	Qualifying Interests (QI's) * = Priority Habitats	Approximate Distance	Within the Zone of Influence?	Potential Impacts and Effects?²⁶	Conservation Objectives
Cummeen Strand SPA [004035]	<ul style="list-style-type: none"> • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Redshank (<i>Tringa totanus</i>) [A162] • Wetland and Waterbirds [A999] 	c. 480m	Yes. Source-Pathway-Receptor exists.	This proposal is considered possible to have a significant effect on this Natura 2000 Site due to instream works upstream of this SPA. This site has been screened in due to the need for mitigation to avoid pollution of local water quality to protect QI bird species of the Cummeen Strand SPA.	NPWS (2013b)
Drumcliff Bay SPA [004013]	<ul style="list-style-type: none"> • Sanderling (<i>Calidris alba</i>) [A144] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Wetland and Waterbirds [A999] 	c.8.8km to the NW	No	None – Drumcliff Bay SPA lies in a separate bay entirely from Sligo Bay, where the Proposed Development is located. Sligo Bay receives its waters from the Garavogue whereas Drumcliffe Bay receives its waters from Glencar Lough. As such it has very limited or potentially no downstream surface water connectivity to the site. Due to the distance and short-term nature of the works, there will be no significant disturbance impact, if any, on the QI species of this site.	NPWS (2013g)
Sligo/Leitrim Uplands SPA [004187]	<ul style="list-style-type: none"> • Peregrine (<i>Falco peregrinus</i>) [A103] • Chough (<i>Pyrhocorax pyrrhocorax</i>) [A346] 	c.9.5km to the NE	No	None – Sligo/Leitrim Uplands SPA lies upstream of Sligo Bay, where the Proposed Development is located. As such it has no downstream surface water connectivity to the site. Due to the distance and short-term nature of the works, there will be no significant disturbance impact, if any, on the QI species of this site.	NPWS (2018b)
Ballysadare Bay SAC [000622]	<ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Embryonic shifting dunes [2110] 	c.10km to the SW	No	None – Ballysadare Bay SAC lies in a different bay to Sligo Bay and as such it has very limited downstream surface water connectivity to the site. Due to the distance and short-term nature of the works, there will be no significant disturbance impact, if any, on the QI species of this site.	NPWS (2013d)

European Site Name and Code	Qualifying Interests (QI's) * = Priority Habitats	Approximate Distance	Within the Zone of Influence?	Potential Impacts and Effects? ²⁶	Conservation Objectives
	<ul style="list-style-type: none"> • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Humid dune slacks [2190] • <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] • <i>Phoca vitulina</i> (Harbour Seal) [1365] 				
Ballysadare Bay SPA [004129]	<ul style="list-style-type: none"> • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Dunlin (<i>Calidris alpina</i>) [A149] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Redshank (<i>Tringa totanus</i>) [A162] • Wetland and Waterbirds [A999] 	c.10km to the SW	No	None – Ballysadare Bay SPA lies in a different bay to Sligo Bay and as such it has very limited downstream surface water connectivity to the site. Due to the distance and short-term nature of the works, there will be no significant disturbance impact, if any, on the QI species of this site.	NPWS (2013e)
Union Wood SAC [000638]	<ul style="list-style-type: none"> • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] 	c.11.5km to the S	No	None – This QI habitat is not a water dependent habitat and is not connected to the works which are located >10km to the north. As such, this SAC will not be impacted by the proposed works.	NPWS (2018c)
Unshin River SAC [001898]	<ul style="list-style-type: none"> • Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] 	c.12.3km to the S	No	None – This site is located within a different river catchment than that of the Proposed Development and is not hydrologically connected to the proposed works. Due to the distance and short-term nature of the works,	NPWS (2018d)

European Site Name and Code	Qualifying Interests (QI's) * = Priority Habitats	Approximate Distance	Within the Zone of Influence?	Potential Impacts and Effects?²⁶	Conservation Objectives
	<ul style="list-style-type: none"> • Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Salmo salar</i> (Salmon) [1106] • <i>Lutra lutra</i> (Otter) [1355] 			<p>there will be no significant disturbance impact, if any, on the QI species of this site.</p>	

Table 2 Significance of Impact Matrix of all relevant Natura 2000 Sites/Qualifying Interests within the Zone of Influence of the Proposed Development.

Explanation of terms used in Significance of Impact Matrix:

Likely Significant Effect - Where a plan or project is likely to undermine any of the site's Conservation Objectives; **Possible Significant Effect** - Where a plan or project has an indicated potential to undermine any of the site's conservation objectives, but where doubt exists about the risk of a significant effect in the current context. Nevertheless, where doubt exists about the risk of a significant effect, use of the precautionary principle requires this effect to be considered appropriately within the Article 6 assessment process.

Natura 2000 Site	Qualifying Interests (QI's)	Distance - closest direct distance or closest via a pathway	Within the Zone of Influence?	Potential Impacts and Effects	Conservation Objectives
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Estuaries [1130]	c.0m	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013a)
	Mudflats and sandflats not covered by seawater at low tide [1140]	c.120m NE	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013a)
	Embryonic shifting dunes [2110]	c. 12.5km W on the southern part of Coney Island	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]	13.2km W on the southern part of Coney Island	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	c. 13km W	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	<i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130]	c. 11km NW	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-</i>	NA – no data is provided in the Conservation Objectives	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)

Natura 2000 Site	Qualifying Interests (QI's)	Distance - closest direct distance or closest via a pathway	Within the Zone of Influence?	Potential Impacts and Effects	Conservation Objectives
	<i>Brometalia</i> (* important orchid sites) [6210]	for this QI habitat			
	Petrifying springs with tufa formation (Cratoneurion) [7220]	c.6km	No – this QI is not water dependent.	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	<i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014]	c.14km W	No – this QI species is terrestrial	No significant effect as there is no Source-Pathway-Receptor.	NPWS (2013a)
	<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013a)
	<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013a)
	<i>Phoca vitulina</i> (Harbour Seal) [1365]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality and disturbance impacts cannot be ruled out at this stage.	NPWS (2013a)
Cummeen Strand SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	NA	Possible - Source-Pathway-Receptor exists	Possible significant effect via water quality and disturbance impacts cannot be ruled out at this stage.	NPWS (2013b)
	Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	NA	Possible - Source-Pathway-Receptor exists	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013b)

Natura 2000 Site	Qualifying Interests (QI's)	Distance - closest direct distance or closest via a pathway	Within the Zone of Influence?	Potential Impacts and Effects	Conservation Objectives
	Redshank (<i>Tringa totanus</i>) [A162]	NA	Possible - Source-Pathway-Receptor exists	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013b)
	Wetland and Waterbirds [A999]	NA	Possible - Source-Pathway-Receptor exists	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2013b)
Lough Gill SAC	<i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]	NA	No	This QI species is found in freshwater upstream of the works and therefore, won't be affected.	NPWS (2018a)
	<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2018a)
	<i>Lampetra planeri</i> (Brook Lamprey) [1096]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2018a)
	<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2018a)
	<i>Salmo salar</i> (Salmon) [1106]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality impacts cannot be ruled out at this stage.	NPWS (2018a)
	<i>Lutra lutra</i> (Otter) [1355]	NA	Yes - Source-Pathway-Receptor exists.	Possible significant effect via water quality and disturbance	NPWS (2018a)

Natura 2000 Site	Qualifying Interests (QI's)	Distance - closest direct distance or closest via a pathway	Within the Zone of Influence?	Potential Impacts and Effects	Conservation Objectives
				impacts cannot be ruled out at this stage.	

Conclusions of Screening Assessment

The Proposed Development involves the change of use of the currently vacant Swan Point building from residential, retail and restaurant space into hotel and office space. There are 54 new hotel bedrooms proposed for the Swan Point building along with 2,946m² of office space. Two link bridges are proposed to be constructed between the Glasshouse Hotel and the Swan Point building from the ground floors and first floors of the buildings. The change of use of the Swan Point will require 95 parking places which are currently provided for within the basement carpark over three levels. An additional 5 surface parking places are proposed as part of this application. Outside lighting is also proposed for the Swan Point building on the river side. There is also remedial works proposed to sections of Martins Quay wall which have fell into disrepair.

The Proposed Development has the potential to result in the following Impacts:

- Construction related water quality impacts during the remedial works on Martins Quay wall, construction of the link bridge between the Glasshouse Hotel and Swan Point buildings and infilling of the Swan Point arch.
- Operational related water quality impacts due to the increased load on the Sligo WWTP.
- Temporary construction related disturbance to QI species sensitive to disturbance such as otter, seal and waterbird species.
- Long-term, operational lighting disturbance on aquatic QI species such as otter.

On the basis of the screening assessment and when applying the 'precautionary principle', it has been shown that the potential for a significant effect upon three Natura 2000 Sites cannot be ruled out at this stage. The potential for impacts listed above on the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Lough Gill SAC will be considered further within the NIS.

This will ascertain if there is potential for adverse effects upon the integrity of the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and/or Lough Gill SAC as a result of the proposed works, either alone or in combination with other plans or projects.

Due to the nature of the works, mitigation measures will be required in order to protect the local aquatic ecology and aquatic QI habitats and species of the Natura 2000 Sites. Considering this, and the hydrological connectivity between the local aquatic environment and the Natura 2000 Sites is deemed in this instance to 'screen in' and require an Appropriate Assessment. Prevention of adverse water quality impacts has been considered within the recommended mitigation within the Natura Impact Statement (NIS).


Sections 5 to 8 provide the Natura Impact Statement (NIS).









APPENDIX II – Proposed Lighting (Source: VHA, 23.08.2019) (Section 7.3 to be reviewed to ensure this lighting meets the specifications).

EN

AVENIDA LED

Group In catalogue: INFRASTRUCTURAL LIGHTING



Park luminaire in modern form for LED light sources.

TECHNICAL DATA

Mounting: on pillar ø48/60/76mm, with mounting bracket (included)

Body: high pressure die-cast aluminum

Lateral Surface Wind Exposed: 0,088 m²

Colour: gray, graphite

Diffuser: polycarbonate

ELECTRICAL DATA

Power supply efficiency: >89%

Power: 220-240V 50/60Hz

Includes light source: yes

Type of equipment: ED, DALI

Electrical connection: luminaire equipped with 2x1,5 mm² wire with a length of 6 m (II class), luminaire equipped with 4x1,5 mm² wire with a length of 6 m (II class)

OPTICAL DATA

Light distribution: omnidirectional

Way of lighting: direct

Type of optic: 017 - for pedestrian zones

GENERAL DATA


Lifetime (L80B10): 75 000 h

Available on request: DALI, LL0C, twilight sensor, 10kV surge protection, NTC

Other remarks: the pole is not part of the luminaire

Warranty: 5 years

Application: avenues, sidewalks, parks, residential, public spaces, playgrounds, promenade, residential area roads



Code	Luminaire power [W]	Lumen luminaire [lm]	Efficacy [lm/W]	Colour temperature [K]	CRI/Ra	Operating temperature range [°C]
13026X.XL012.011	23	2350	102	3000	>80	-40 ... +55
13026X.XL022.011	23	2500	109	4000	>80	-40 ... +55
13026X.XL042.011	32	3350	105	3000	>80	-40 ... +55
13026X.XL052.011	32	3500	109	4000	>80	-40 ... +55
13026X.XL072.011	40	4250	106	3000	>80	-40 ... +50
13026X.XL082.011	40	4400	110	4000	>80	-40 ... +50

13026 - L012.011

Type of equipment

5 ED

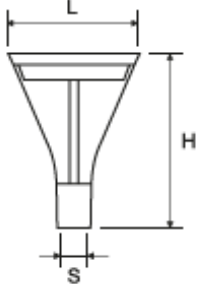
3 DALI

Colour

2 gray

5 graphite

Code	Dimensions [mm] LH	Mounting dimensions [mm] ØS	Pallet quantity	Quantity in package	Net weight [kg]
13026X.XL012.011	360 482	76	18	1	4,4
13026X.XL022.011	360 482	76	18	1	4,4
13026X.XL042.011	360 482	76	18	1	4,4
13026X.XL052.011	360 482	76	18	1	4,4
13026X.XL072.011	360 482	76	18	1	4,4
13026X.XL082.011	360 482	76	18	1	4,4





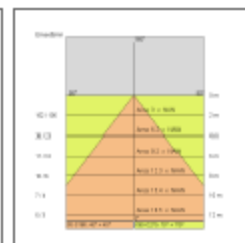
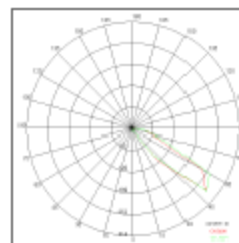
OUTSIDE
Border - Bollard
POLE

POLE LED
COD: E5726-LBN

Use:
Outside, led
Installation:
Free standing
Body/structure:
Die-cast aluminium body
Coating:
Polyester powder coating with special treatment for outdoor use (sandblasting, pickling, n.3 washings, epoxy powder coating and surface finish in polyester powder).
Colour:
Black
Optic/reflector:
99,8% pure aluminium reflector
Equipment:
Silicon rubber gaskets
Glass/diffuser:
Polycarbonate diffuser
Gland:
Silicon rubber cable gland PG11
Control gear:
Integrated LED diodes ballast, stabilized output current 500mA dc

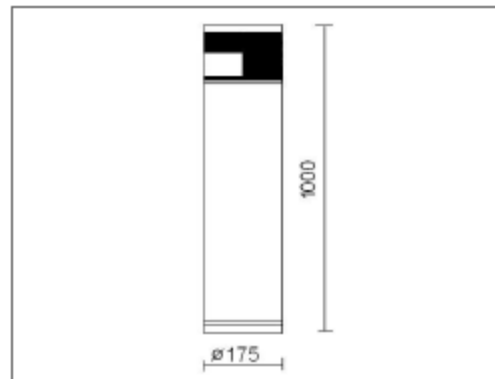
Voltage: 220-240V 50/60Hz
Beam: Symmetric, mono directional
Power factor correction: Yes
Insulation class: Insulation class 1
Weight: 7 kg
IP rating: 65
Glow wire: 850 °C
Lamp included: YES
LED Type: Power LED
Luminaire wattage: 20.5 W
Luminaire luminous flux: 505.5 lm
LED rated life: 50000 hours L80 B20
Colour temperature: 4000
CRI: 80
Chromacy constancy: 3 SDCM

Review board: 2018-07-06

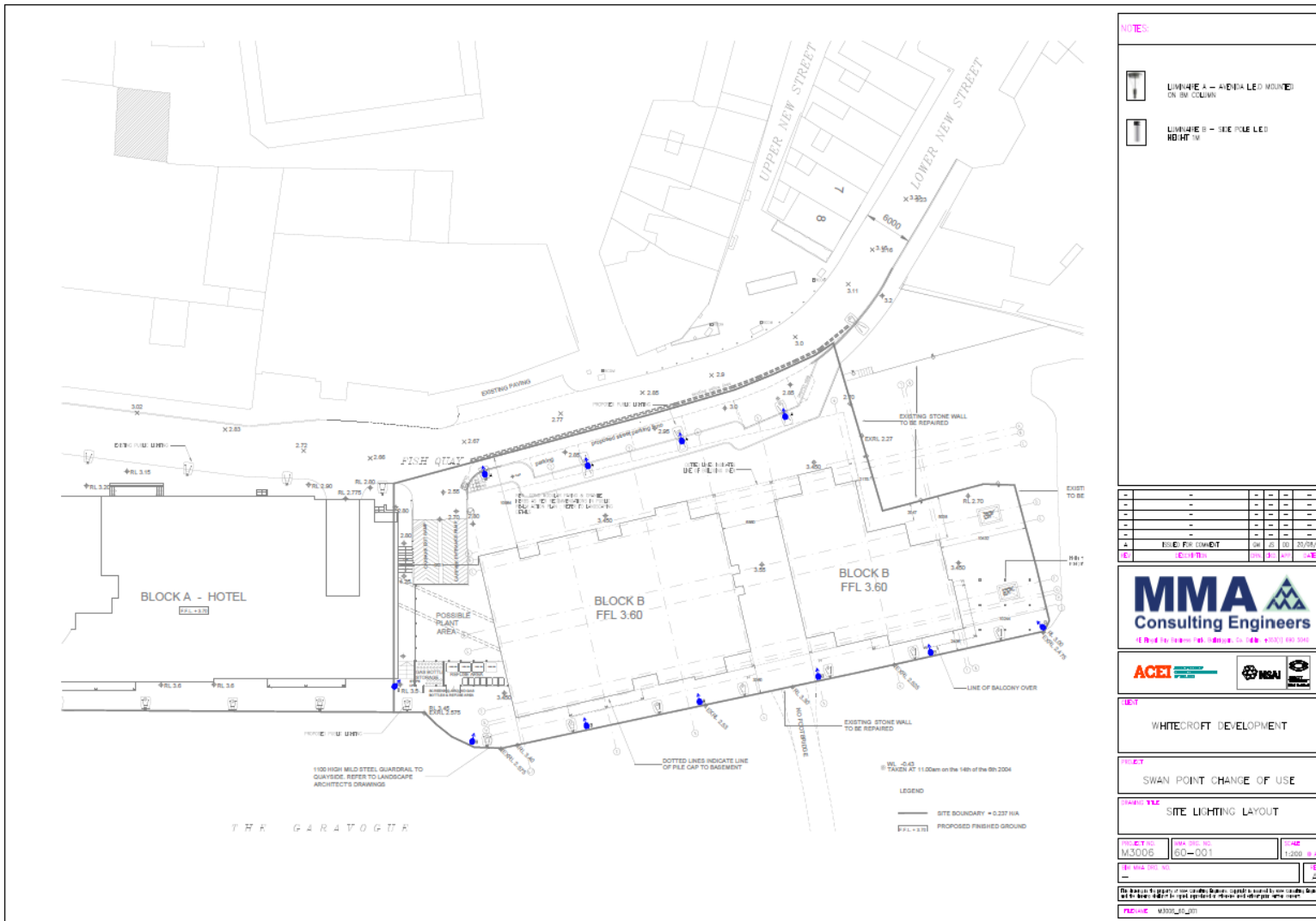


LAMP: 1 x LED 17.5 W 2140 lm

IK 7 IP 65 A+ RG0



APPENDIX III – Proposed External Lighting Layout (Source: VHA, 05.09.2019) (Section 7.3 to be reviewed to ensure this lighting meets the specifications).



APPENDIX IV – Roost Location Map (Source: NPWS, 2013c)

