

# Report to Inform Screening for Appropriate Assessment

Pedestrian and Cycle Bridge, Celbridge, Co. Kildare

Prepared for National Transport Authority

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## Celbridge Pedestrian and Cycle Bridge

### Revision Control Table

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## 1 Introduction

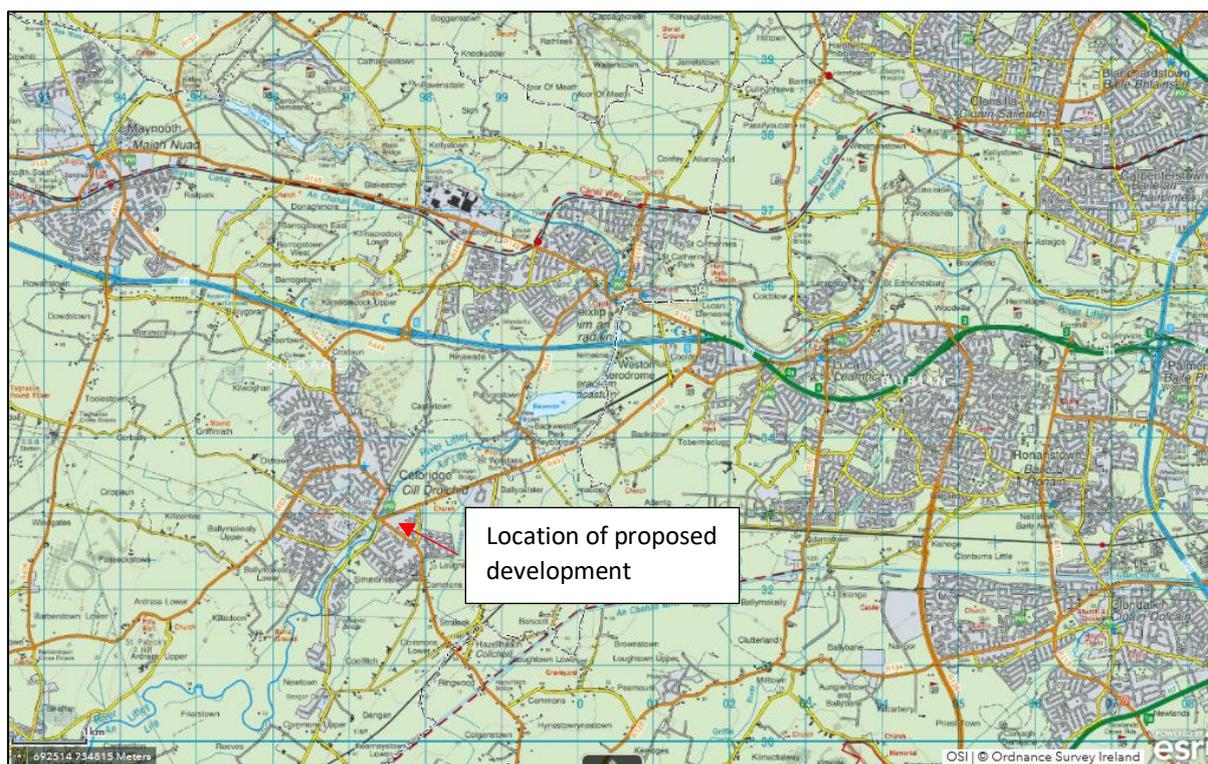
This report has been prepared by Greenleaf Ecology on behalf of the National Transport Authority (NTA). The purpose of this report is to inform Screening for Appropriate Assessment (AA) for a proposed pedestrian and cycle bridge and associated works to an existing road bridge over the River Liffey in Celbridge, Co. Kildare (hereinafter referred to as ‘the proposed development’).

This report supports a Part 8 application by Kildare County Council (the Developer).

This report comprises information to support the screening for Appropriate Assessment (AA) to be undertaken by the competent authority in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora; the Planning and Development Act 2000-2020, and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) as amended.

The proposed pedestrian and cycle bridge will be located in the townlands of Celbridge and Donaghcumper, directly adjacent to and downstream of the existing River Liffey Road Bridge. The location of the proposed development can be seen in **Figure 1-1** below.

*Figure 1-1: Location of proposed development in Celbridge, Co. Kildare.*



### 1.1 Legislative Context for Appropriate Assessment

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as “The Habitats Directive”, provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000.

The Habitats Directive has been transposed into Irish law by Part XAB of the Planning and Development Act, 2000 - 2020 and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) as amended.

Article 6(3) of the Habitats Directive sets out the decision-making tests for plans and projects likely to adversely affect the integrity of European sites (Annex 1.1). Article 6(3) establishes the requirement for AA:

*Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*

Natura 2000 sites are defined under the Habitats Directive (Article 3) as a coherent European ecological network of special areas of conservation, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. In Ireland, these sites are designated as European sites and include Special Protection Areas (SPAs), established under the EU Birds Directive (79/409/EEC, as codified by 2009/147/EC) for birds and Special Areas of Conservation (SACs), established under the Habitats Directive 92/43/EEC for habitats and species.

The competent authority is obliged to consider, in view of best scientific knowledge, whether the proposed development is likely to have a significant effect either individually or in combination with other plans and projects. If screening determines that there is likely to be significant effects on a European site, then AA must be carried out for the proposed development at Celbridge, including the compilation of a Natura Impact Statement (NIS) to inform the decision making.

## 1.2 Statement of Competence

This screening for Appropriate Assessment has been prepared by Karen Banks. Karen is an Ecologist with 15 years' experience in the field of ecological assessment. She holds a BSc (Hons) in Environment and Development from Durham University, and is a full member of the Chartered Institute of Ecology and Environmental Management. Karen has extensive experience in the production of AAs and Natura Impact Statements including those for transport infrastructure, small to large scale housing and mixed-use developments, flood alleviation schemes and wind farms.

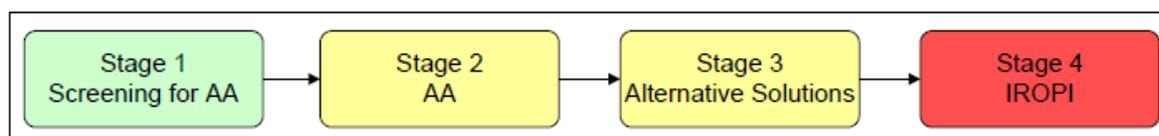
## 2 Methodology

### 2.1 Stages of Appropriate Assessment

The Department of the Environment, Heritage and Local Government guidelines (DELHG, 2009, rev. 2010) outlines the European Commission's methodological guidance (EC, 2002) promoting a four-stage process to complete the AA and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages are summarised diagrammatically in **Figure 2-1**. Stages 1-2 deal with the main requirements for assessment under Article 6(3), and Regulation 42 of the Birds and Habitats Regulations. Stage 3 may be part of the Article 6(3) Assessment or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Figure 2-1: Four Stages of Appropriate Assessment



Stage 1 - Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- i. whether a plan or project (in this instance the proposed project) is directly connected to or necessary for the management of the European sites, and
- ii. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on the European sites in view of their conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). This report fulfils the information necessary to enable the competent authority to screen the proposal for the requirement to prepare an AA.

This report forms Stage 1 of the AA process and sets out the following information:

- Description of the proposed works;
- Characteristics of the proximal European sites; and
- Assessment of significance of the proposed works on the European sites in question.

The methodology followed in relation to this assessment has had regard to the following guidance and legislation:

- European Union Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 92/43/EEC;
- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (DOEHLG 2009, rev 2010);
- The Planning and Development Act 2000-2020;
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC, 2018);

- European Commission Notice Brussels C(2021) 6913 final ‘Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC’ (EC, 2021);
- 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, Office for Official Publications of the European Communities, Luxembourg (EC, 2002);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission 2013;
- The European Union (Environmental Impact Assessment and Habitats) Regulations 2011; and
- The European Communities (Birds and Natural Habitats) Regulations, S.I. No. 477 of 2011 (as amended).

## 2.2 Information consulted for this report

This report has had regard to the following sources of data and information:

- Information on the location, nature and design of the proposed development;
- Department of Housing, Local Government and Heritage – online land use mapping [www.myplan.ie/en/index.html](http://www.myplan.ie/en/index.html)
- Department of Housing, Local Government and Heritage- EIA Portal <https://www.housing.gov.ie/planning/environmental-assessment/environmental-impactassessment-eia/eia-portal>
- Environmental Protection Agency (EPA) – Water Quality [www.epa.ie](http://www.epa.ie), <http://gis.epa.ie/Envision>;
- Geological Survey of Ireland – Geology, soils and Hydrogeology [www.gsi.ie](http://www.gsi.ie);
- Water Framework Directive website – [www.catchments.ie](http://www.catchments.ie);
- Inland Fisheries Ireland website and [www.wfdfish.ie](http://www.wfdfish.ie);
- National Parks and Wildlife Service – online European site network information, including site conservation objectives [www.npws.ie](http://www.npws.ie);
- National Parks and Wildlife Service – Information on the status of EU protected habitats in Ireland (NPWS 2019a, 2019b);
- National Biodiversity Data Centre – [www.biodiversityireland.ie](http://www.biodiversityireland.ie);
- Ordnance Survey of Ireland – Mapping and Aerial photography [www.osi.ie](http://www.osi.ie);
- Site walkover surveys undertaken by Ms Karen Banks in 2019 and 2021 (see Section 3.3).

## 2.3 Screening Protocol

The sequence of events when completing the AA Screening process is provided below:

- Ascertain whether the plan or project is necessary for the management of the European site (see Section 5.1);
- Description of the plan or project (see Section 3);
- Definition of the likely zone of influence for the proposed development (including construction phase works) (see Section 2.3.2, Section 2.3.3 and Section 4.2);
- Identification of the European sites that are situated (in their entirety or partially or downstream) within the likely zone of influence of the proposed development (see Section 4.2);
- Identification of the most up-to-date Qualifying Interests (QIs) and Special Conservation Interests (SCIs) for each European site within the zone of influence (see Section 4.2);
- Identification of the environmental conditions that maintain the QIs/SCIs at the desired target of Favourable Conservation Status (see Section 4.2.2);

- Identification of the threats/impacts – actual or potential that could negatively impact the environmental conditions of the QIs/SCIs within the European sites (see Section 4.2.3);
- Highlighting the construction and operational activities of the proposed development that could give rise to significant negative impacts (see Section 5.2); and
- Identification of other plans or projects, for which in-combination impacts would likely have significant effects (see Section 5.3).

### 2.3.1 Screening Determination

In accordance with Regulation 42(7) of the Birds and Natural Habitats Regulations 2011 (S.I. No. 477/2011) as amended, the competent authority shall:

*“determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site”.*

Further, under Regulation 42(8) (a):

*“Where, in relation to a plan or project for which an application for consent has been received, a public authority makes a determination that an Appropriate Assessment is required, the public authority shall give notice of the determination, including reasons for the determination of the public authority, to the following—*

*the applicant, if appropriate, any person who made submissions or observations in relation to the application to the public authority, or if appropriate, any party to an appeal or referral.*

*(b) Where a public authority has determined that an Appropriate Assessment is required in respect of a proposed development it may direct in the notice issued under subparagraph (a) that a Natura Impact Statement is required”.*

### 2.3.2 Zone of Influence

In accordance with EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, identification of the European sites that may be affected should be done by taking into consideration all aspects of the plan or project that could have potential effects on any European sites located within the zone of influence of the plan or project. This should take into account all of the designating features (species, habitat types) that are significantly present on the sites and their conservation objectives.

In particular, it should identify:

- Any European sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;
- Any European sites within the likely zone of influence of the plan or project. Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;
- European sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);

- European sites whose connectivity or ecological continuity can be affected by the plan or project.
- The range of European sites to be assessed, i.e. the zone in which impacts from the plan or project may arise, will depend on the nature of the plan or project and the distance at which effects may occur.

### 2.3.3 Likely Significant Effects

The threshold for a likely significant effect is treated in the screening exercise as being above a de minimis level<sup>1</sup>. The opinion of the Advocate General in CJEU case C-258/11 outlines:

*“the requirement that the effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”*

In this report, therefore, ‘relevant’ European sites are those within the potential zone of influence of the construction and / or operation of the proposed development, and to which likely significant effect pathways were identified through the source-pathway-receptor model.

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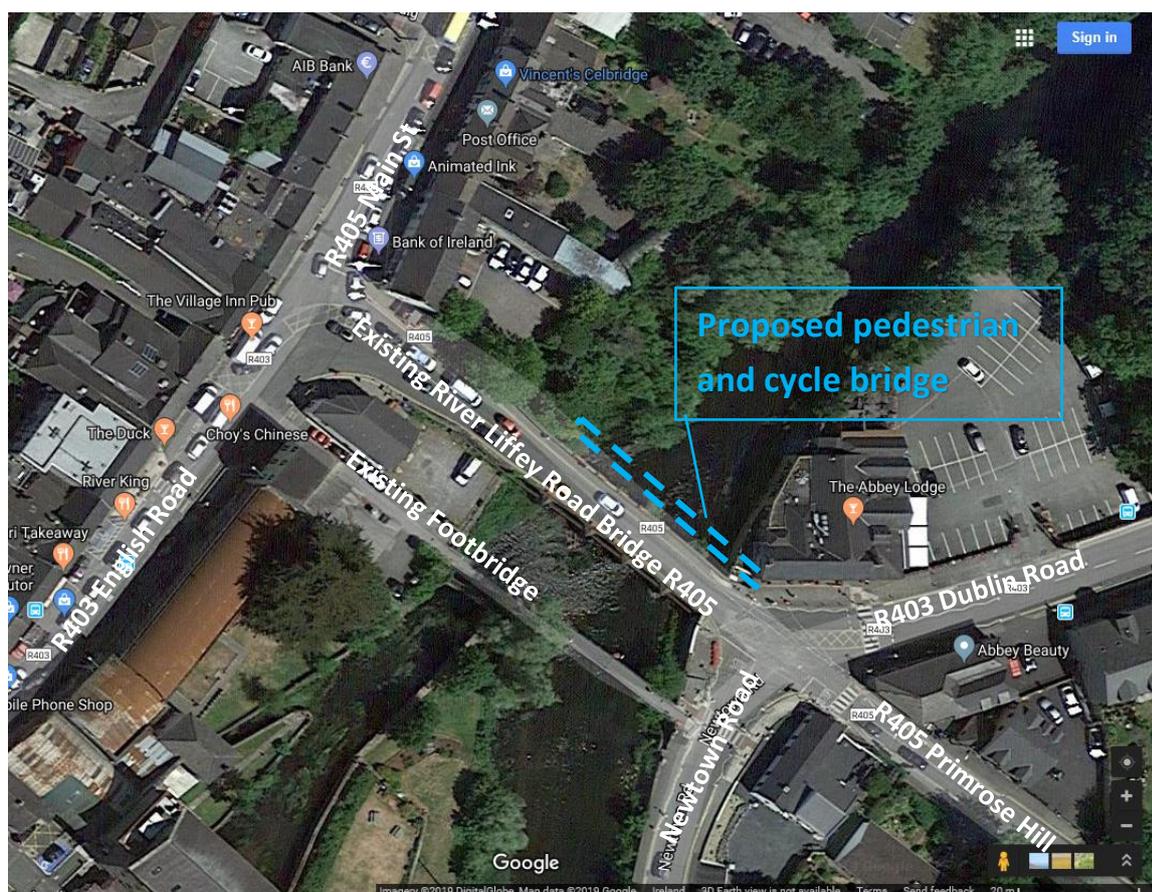
<sup>1</sup> Sweetman v. An Bord Pleanála (Court of Justice of the EU, case C-285/11). A de minimis effect is a level of risk that is too small to be concerned with when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. If low level effects on habitats or individuals of species are judged to be in this order of magnitude and that judgment has been made in the absence of reasonable scientific doubt, then those effects are not considered to be likely significant effects.

### 3 Project Description

#### 3.1 Location of Proposed Development

The location of the proposed development is within the centre of the town of Celbridge as depicted in the aerial photograph in **Figure 3-1**. There is an existing River Liffey Bridge which forms part of the R405 regional road and allows vehicles to cross the River Liffey in a northwest/southeast direction as seen in **Figure 3-1**. There is also an existing pedestrian bridge to the south west of the existing road bridge. The proposed cycle and pedestrian bridge will be located directly adjacent to and downstream of the existing river Liffey road bridge.

Figure 3-1: Aerial Photograph of Proposed Development showing Existing Bridges in Celbridge.



#### 3.2 Project Background

In order to increase the capacity of the street space within Celbridge it is crucial that the use of sustainable transportation modes is promoted and in order to do this improved provisions for pedestrians, cyclists and public transport services must be made.

There is an existing River Liffey road bridge which forms part of the R405 regional road and facilitates vehicles to cross the River Liffey in a northwest/southeast direction. The River Liffey road bridge provides a vehicular crossing point via the R405 Dublin Road over the River Liffey within Celbridge town. This is a six-arch rubble stone road bridge over the river dating from the 1800s as seen in **Figure 3-2**. The proposed pedestrian and cycle bridge is to be constructed to the north east (downstream) of the existing road bridge. This location was selected as the preferred location for a pedestrian and cycle crossing in the 2018, Clifton Scannell Emerson Associates Consulting Engineers (CSEA) Options Report.

The proposed location of the pedestrian and cycle bridge stretches from bank to bank of the River Liffey and includes landing areas for the bridge in the Bank of Ireland car park (north side) and adjacent to the Abbey Lodge public house (south side).

*Figure 3-2: Elevation of South Western Side of Existing River Liffey Road Bridge.*



The existing River Liffey road bridge has two narrow traffic lanes and a footpath of limited width on one side only (north eastern side). There is a second pedestrian bridge (which is also used by cyclists) to the south west of the vehicular bridge, see **Figure 3-3** below. It is noted from the Celbridge Liffey Crossing - Pedestrian and Cycle Improvements - Options Report (CSEA, 2019) that these limited crossing points are a significant constraint to the efficient movement of private, public and commercial road users within the town. The Celbridge Local Area (LAP) 2017-2023 notes that the bridge remains a major cause of congestion to traffic flow in the town. The Celbridge Liffey Crossing - Pedestrian and Cycle Improvements - Options Report (CSEA, 2019) also notes the town suffers from significant traffic congestion, particularly during peak travel periods, associated, to a significant degree, to the fact that the town has only this single road bridge.

*Figure 3-3: Footpath and Existing Pedestrian Bridge (Looking north on the River Liffey Road Bridge)*



Problems also arise for other road users where the narrow width of the footpath, in close proximity to narrow traffic lanes with high traffic flows, creates safety issues for pedestrians using the road bridge. There is an existing pedestrian bridge to the south west of the existing road bridge as seen in the left of **Figure 3-3**. This pedestrian route provides passage from Main Street (north of the River Liffey) to the predominantly residential area to the south of the river, however it is not direct and is

of insufficient width at places. For cyclists, no facilities exist on the crossing and cyclists are required to share the traffic lanes or to use the existing pedestrian bridge.

RPS was commissioned by the NTA to conduct a constraints and environmental options selection report for Celbridge Liffey Crossing. The purpose of the Environmental Constraints and Options Selection Study was to identify the key environmental constraints within the Study Area and to examine the options from an environmental perspective. The constraints and environmental options was based on the feasible options as identified in *Celbridge Liffey Crossing – Pedestrian and Cycle Bridge - Options Report* (CSEA, 2019). The options were assessed in a systematic manner in order to identify the preferred option from an environmental perspective. The outcome of Environmental Constraints and Options Selection Study fed into an overall multi criteria analysis under the headings; Economy, Safety, Accessibility and Social Inclusion, Integration and Physical Activity which has formed the basis for further consultation and design development. The result is the NTA proposing the new pedestrian and cycle bridge, which is the subject of this AA Screening Report as the preferred option.

### 3.3 Project Elements

The proposed development will comprise of the elements described below within the site boundary shown on **Figure 3-5**. The main contract works are expected to take four months and the advance contract works to take 6 weeks therefore the total expected construction period is approx. 6 months.

#### 3.3.1 Proposed Pedestrian and Cycle Bridge

The proposed development comprises a pedestrian and cycle bridge from the footpath adjacent to the Bank of Ireland car park in Celbridge to the footpath outside the Abbey Lodge public house. The bridge will span over the River Liffey for approximately 50m. It will be constructed directly adjacent to the existing road bridge as shown in **Figure 3-4**.

The design and construction comprise a single-span, inclined, open-web truss bridge structure with a modular deck and glass guarding, for pedestrian and cycle crossings only as seen in **Figure 3-4**. The deck will be a minimum of 3.5m in width and will also function as a viewing platform and public space. The structure will bear on landings on each bank and will have no structural incidence on the existing road bridge (i.e. there is no requirement for structures or construction works in the River Liffey (see **Figure 3-6**). The supports at the ends of the proposed pedestrian and cycle bridge, located at Bank of Ireland (north bank of River Liffey) and Abbey Lodge (south bank of River Liffey), will require piled abutments (again, these structures are not located in the River Liffey).

*Figure 3-4: View of Proposed Pedestrian and Cycle Bridge from Abbey Lodge Car Park*



Celbridge Pedestrian and Cycle Bridge: Screening for Appropriate Assessment

Figure 3-5: Site boundary of Proposed Development (shown in red). (Source: dhb Architects)

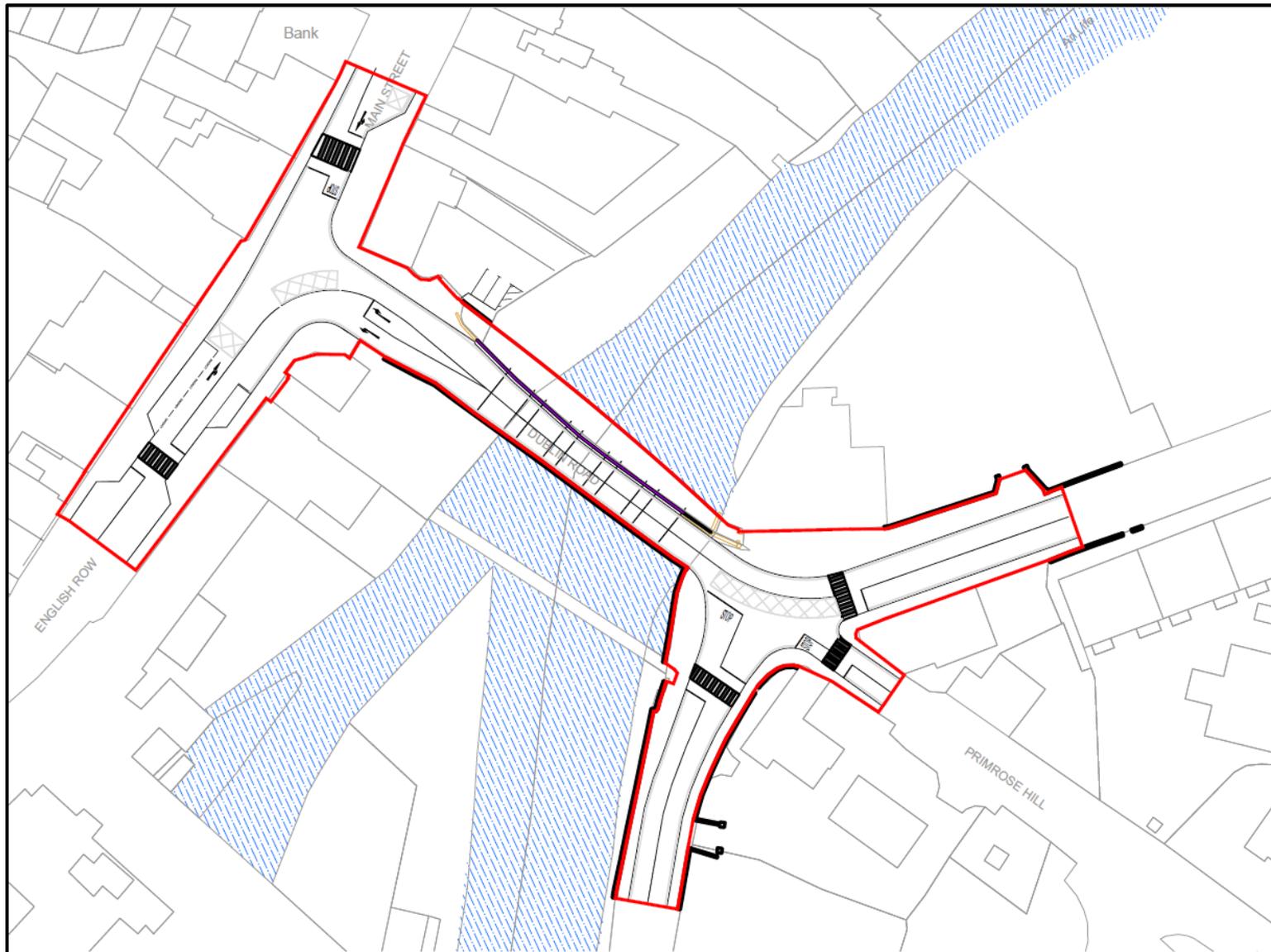


Figure 3-6: Elevation of Proposed Pedestrian and Cycle Bridge

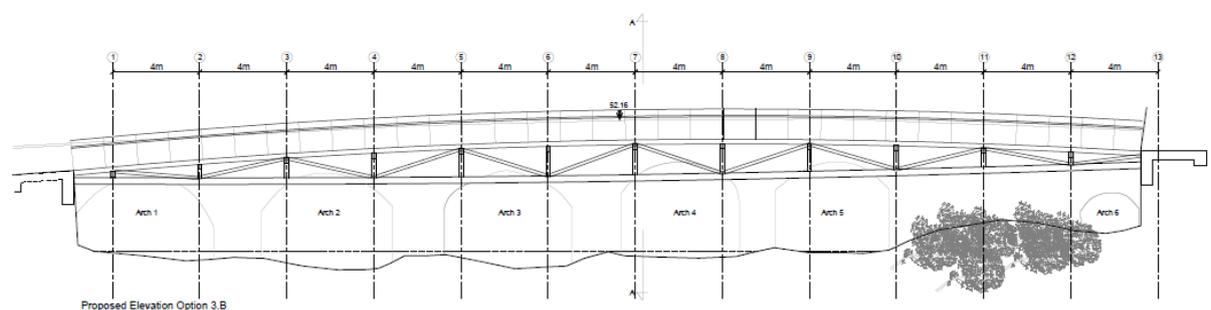
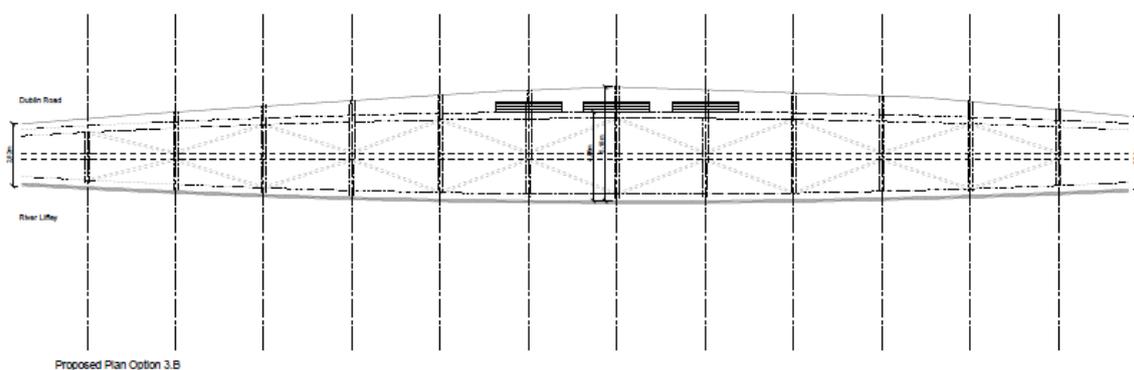


Figure 3-7: Plan of Proposed Pedestrian and Cycle Bridge



The bridge structure (see **Figure 3-7**) will consist of hollow-section steel inclined open-web trusses supporting purlins and a modular deck structure. The deck will consist of prefabricated planks in a non-slip, low-maintenance material.

The guarding on the river side will consist of inclined panels of security glass 1.4m high with a handrail. On the existing bridge side, the stone parapet will provide the guarding. A 75mm gap between the edge of the deck and the existing bridge will be maintained.

Benches will be provided for public amenity at the widest point of the new structure.

Lighting will consist of LED strip lighting incorporated into the new handrail and illuminating the deck. This system will meet the design requirements for respecting wildlife, especially bat habitats and will be energy efficient.

The depth of the structure (from top chord to bottom cord) will be as shallow as possible, with the depth of structure below the deck level being approximately 1.65m, to avoid obstructing the arches of the stone bridge in the event of a flood.

The river bed will not be impacted by the foundations. The works to the riverbank will be the modification of the top of the retaining walls to tie both ends of the bridge in and the construction of the abutments.

There is no proposed landscaping due to site constraints in this confined urban setting.

No excavation within the riverbed or instream works are required as the bridge will be a clear span structure over the river channel.

Approximately 20m<sup>2</sup> of permanent land take is required from the Bank of Ireland car park on the north western bank of the River Liffey – including removal of the stub wall and railing, an existing large London Plane tree and an area of planting. There are a number of willow trees on the left bank over which the pedestrian and cycle bridge will span that will need to be trimmed to a reduced height to allow for the installation of the bridge. Car parking spaces may need to be reconfigured, however, the current number of spaces can be maintained. The existing car park is approximately 350m<sup>2</sup>. The 20m<sup>2</sup> required for these works is made up of approximately 17m<sup>2</sup> of flowerbed and 3m<sup>2</sup> from car parking spaces. The car park can continue to operate during the works. It is likely that a larger area of the car park would be used temporarily in order to facilitate construction of the bridge. Since October 2021 the Bank of Ireland premises is no longer operational as a bank and its future use is unknown.

Approximately 19m<sup>2</sup> of permanent land take will be required from Abbey Lodge on the south eastern bank of the River Liffey, 3.5m<sup>2</sup> of building and 15.5m<sup>2</sup> of yard – including 2.5m<sup>2</sup> of stone wall, gate, gate piers, foul manholes, an outfall from the building and gas connections to the building. These works will require the foul and gas connections to the building to be reconfigured prior to the proposed development works to disable the existing connections. The grease trap for the building will also need to be relocated in advance of the bridge works. This will both facilitate the Abbey Lodge operationally and is also likely to be required in order to install the bridge foundations. These works will take in the order of six weeks to complete.

The 3.5m<sup>2</sup> required from the building forms part of a 24m<sup>2</sup> extension to the original building. This extension currently houses customer toilets for the Abbey Lodge. However, there are alternative better quality facilities within the building and the toilets are not required for the operation of this business. In January 2020, the owners of the Abbey Lodge received planning permission from Kildare County Council (KCC) to provide a new customer entrance into the premises from this location. The existing toilets in the extension would become an entrance hallway into the building. The amendments required in order to facilitate the bridge structure would result in the front wall and new entrance doors being rebuilt along a setback line to those shown on their planning drawings.

Once constructed, the bridge deck will drain directly to the river using a crossfall across the bridge deck. All other surface water drainage will drain to the existing road drainage network.

### 3.3.2 Works to Existing Road Bridge

The proposed development will also require the removal of the narrow footpath on the existing road bridge, the rerouting of telecoms services and the addition of a rubbing strip kerb in lieu of the footpath at the base of the existing rubble-stone parapet wall. The existing road bridge is a protected structure.

There will be the removal of approx. 6m length x 1.1 – 1.5m high of bridge parapet wall and 2.2m return in rubble stonework (outside the Abbey Lodge) in order to allow access to the proposed pedestrian and cycle bridge on the southern side. Additionally, the 4.2m wide front wall and a 1m return of a side extension to the Abbey Lodge will be removed to facilitate access to the bridge.

On the downstream façade of the existing bridge, a Protected Structure, localised maintenance works will consist of the removal of vegetation, repointing of stonework where vegetation has been removed, and repointing of the parapet wall as required by the introduction of two new openings in the parapet wall.

No instream works or land take from within the river is required.

### 3.3.3 Road and Footpath Upgrades

There will be a requirement to pave and widen existing pathways along the R405 in the site boundary shown on **Figure 3-5**. These widened paths will be surfaced in silver granite flags.

Associated minor road works will include the realignment of kerbs at the bridge ends and the installation of a zebra crossing with belisha beacons and flashing amber signals to Main Street (outside the former Bank of Ireland building).

### 3.3.4 Other Associated Works

#### 3.3.4.1 Site Investigations

As part of an advance contract, site investigations will be undertaken at the proposed locations of the two foundations for the proposed pedestrian and cycle bridge either side of the River Liffey. This will involve drilling two boreholes to inform the structural design.

#### 3.3.4.2 Bridge Maintenance

As part of an advance contract, the existing road bridge will require localised advance maintenance works. These works will include the clearance of growth from the bridge piers and arches on the downstream façade and repointing of the stonework where required by the removal of vegetation.

Such works will be carried out from a floating pontoon. Scaffolding may be required on the floating pontoon and there may be a requirement for scaffolding poles to extend to the river bed.

#### 3.3.4.3 Demolition

There is a 24m<sup>2</sup> single storey extension to the Abbey Lodge with a flat roof and a door to the side yard. A section of wall (approximately 4.2m wide front wall and approximately 1m of the side wall return) of the Abbey Lodge will need to be demolished and rebuilt in a new location 1m set back from the current wall line. Due to the confined space and proximity to the adjoining building and parapet wall the demolition will be undertaken using hand operated power tools. The demolition will result in the production of masonry rubble, broken glass, waste timber and debris from the flat roof, none of which will be hazardous. The resulting demolition waste will be disposed of offsite at an appropriate licensed facility.

In addition to the modification works to the Abbey Lodge building, there will be a requirement to remove 11m of wall along the road edge (comprising 5m of bridge parapet wall and 6m of wall within the Abbey Lodge yard) and 2.2m of return from the wall on the road edge to the building line. The wall to Abbey Lodge side yard is 1.43m high and 0.51m deep and the main pier is 1.47m high and 0.63 x 0.62m. There are also two smaller piers and a pedestrian gate which will be demolished. The demolition will result in the production of masonry rubble which will not be hazardous. The resulting demolition waste will be disposed of offsite at an appropriate licensed facility.

#### 3.3.4.4 Accommodation Works to Abbey Lodge

Accommodation works to Abbey Lodge will be required to have taken place in advance of the main construction works. These would take in the order of six weeks to complete. A new grease trap, gas and foul connection would be completed prior to the existing ones being removed so the disruption to the business operations would be minimal and final accommodation works to the former Bank of Ireland car park will be required upon completion of the main bridge works.

#### 3.3.4.5 Operational Phase

Once the proposed development is constructed, there will be no further activities required for the operation of the proposed development. The pedestrian and cycle bridge and upgraded footpaths will form part of the transport network in Celbridge. There will be a requirement for ongoing maintenance such as cleaning or repairs and replacement of lighting associated with the new pedestrian and cycle bridge and the belisha beacons and flashing amber signals of the zebra crossing.

Bridge maintenance: The majority of maintenance to the structure will be from the water side. Repainting will be carried out from the water at time periods of greater than 20 years. The bridge decking, balustrade and handrail will be removable and replaceable from the bridge structure.

### 3.4 Construction Methodology and Programme

#### 3.4.1 Advance Contract Works

As referred to in Section 3.3.4, advance contract works will include site investigations, some localised bridge maintenance works and accommodation works to Abbey Lodge.

#### 3.4.2 Main Contract Works

It is expected that the main construction works to the proposed pedestrian and cycle bridge structure will be carried out in one construction phase over an expected four month construction period commencing in 2022.

The proposed pedestrian and cycle bridge will require piled foundations for the abutments at either end, requiring excavation of approximately 2.0m x 3.0m wide and 1.5m deep on each side of the river. These will be vertical piles and will be installed from road level with no disturbance to the existing bank except for low levels of vibration. Reinforced concrete abutments will then be constructed on top of the piles prior to the installation of the bridge.

The primary truss structure will be assembled remote from the river (e.g. in the Abbey Lodge car park) and be lifted into place in one piece. The individual sections will arrive to the car park on articulated trucks in lengths of approximately 16.0m (approximately eight loads). The pieces will be assembled into the full span in the eastern side of the car park using a large mobile crane and temporary supports (approximately 10 people would be required on site to complete the assembly). On completion of the assembly of the individual segments a large mobile crane will be set up in the north of the car park. The structure will be slewed out in a counter clockwise direction over the river and positioned into its final location adjacent to the existing road bridge. As the crane will generate large point loads, it is likely that 4 sections of the existing asphalt surface will need to be removed and backfilled to an approximate depth of 1.0m with stone. This will be reinstated on completion of the works.

The piling and concrete works for the abutments of the pedestrian and cycle bridge will likely take place over the course of approximately four-six weeks. The assembly of the bridge remote from the river will likely take approximately two weeks. The lifting in of the bridge will require one day with at least one day in advance for setting up the crane. The road will likely be subject to a full closure for health and safety reasons during the crane lift due to the scale of the lift which could take up to 6 hours.

The total construction time accounting for site clearance, demolition, piling, concreting, bridge assemble, bridge installation and finishing and tying in will take in the order of four months not including the fabrication of the individual segments of the bridge itself which will be done off site.

Prior to commencement of works, the compounds will be set up and traffic management measures will be put in place.

The main phases applicable to the main construction phase of this project will include:

- Establishment of site office and compounds at the former Bank of Ireland car park and the Abbey Lodge car park;
- Mobilisation of construction plant;
- Implementation of bio security measures;
- Site clearance and preparation;
- Establishment of appropriate traffic control measures to provide adequate separation and protection of work areas from live traffic on the R405;
- Excavation to formation level for foundations and footpath tie-ins;
- Establishment of the crane on site, lifting in of the bridge structure, securing of the bridge structure in place;
- Placing of secondary steel, decking and other surface features of the bridge;
- Construction of footpaths to tie-in to the bridge structure; and
- Hard landscaping works following the completion of principal bridge related works.

### 3.4.3 Temporary Construction Compound

Two temporary construction compounds will be located within the former Bank of Ireland car park and the Abbey Lodge car park.

Materials and plant required for the works are anticipated to be stored in the compounds at a minimum setback distance of 10m from the river bank. All storage areas will be appropriately bunded where required. Fuelling of plant is anticipated to be in a designated fuelling area within the compound. The compound will provide for the following:

- Welfare/office facilities for site staff;
- Plant/machinery parking/storage area;
- Fuel storage/refuelling area;
- Segregated waste area; and
- Construction staff parking.

### 3.4.4 Surface Water Management

During construction, where surface water drainage arises, it will be contained and managed to ensure no run-off from works enters either the river or the existing road network. Once constructed, the surface water drainage will drain to the existing road drainage network.

### 3.4.5 Environmental Management Measures

The Contractor will be required to prepare a Construction Environmental Management Plan (CEMP) and will be required to implement industry best practice pollution prevention measures in accordance with guidance documents (for example CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites) during construction in order to control the risk of pollution to surface waters. Whilst the implementation of such measures will assist in minimising impacts on the local environment, the implementation of these measures has not been taken into consideration in this screening report when reaching a conclusion as to the likely impact of the development on European sites.

## 4 Existing Environment

Terrestrial ecology walkovers were undertaken by ecologist Ms Karen Banks on 10th September 2019 and 13th June 2021 and an aquatic ecology site visit was undertaken by RPS on 22nd October 2019. The results of these surveys are outlined in the following sections.

### 4.1 Site Description

The proposed development is located within Celbridge. As such, the habitats surrounding the proposed site predominantly comprise buildings and artificial surfaces (Fossitt Code BL3), as can be seen in the aerial photograph in **Figure 3-1**. The banks of the River Liffey (FW2) are lined by Grey Willow (*Salix cinerea*), Alder (*Ulnus glutinosa*), Sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior*) and Weeping Willow (*Salix x sepulcralis*). Herbs present on the river banks include Nettle (*Urtica dioica*), Yellow Iris (*Iris pseudacorus*), Creeping Buttercup (*Ranunculus repens*), Water Mint (*Mentha aquatica*), Willowherb (*Epilobium* spp) and locally abundant Bramble (*Rubus fruticosus* agg.).

#### 4.1.1 Water Bodies

The River Liffey rises in the Wicklow Mountains c.92km upstream of the proposed development. The main land use as it flows from the mountains towards the proposed development is coniferous plantations, improved grassland, tillage and urban towns. From its source between Kippure and Tonduff mountains the Liffey flows through Pollaphuca Reservoir which was established in the 1930's. It flows out of the reservoir through the Pollaphuca generating station and into the lower reservoir and generating station at Golden Falls, upstream of Ballymore Eustace. It then flows through an agricultural landscape passing through a number of towns (Kilcullen, Newbridge, Sallins and Clane) before reaching Celbridge. A short distance downstream of Celbridge it flows through Leixlip Reservoir and is joined by the Ryewater river. It then continues through the heart of Dublin city where it is considerably constrained by quay walls. The Liffey is then joined by the outflow from the Royal and Grand Canals, the River Dodder from the south and the River Tolka to the north. The Liffey flows past Dublin Port and through the north and south Bull Walls flowing out to sea in Dublin Bay.c.30km downstream of the proposed development. The Grand Canal lies 2.5 km east of the proposed development.

The proposed pedestrian and cycle bridge overlies the Dublin groundwater body which is moderately productive only in local zones. Groundwater is generally unconfined with flow towards the coast and also towards the river Liffey and Dublin city (GSI 2004).

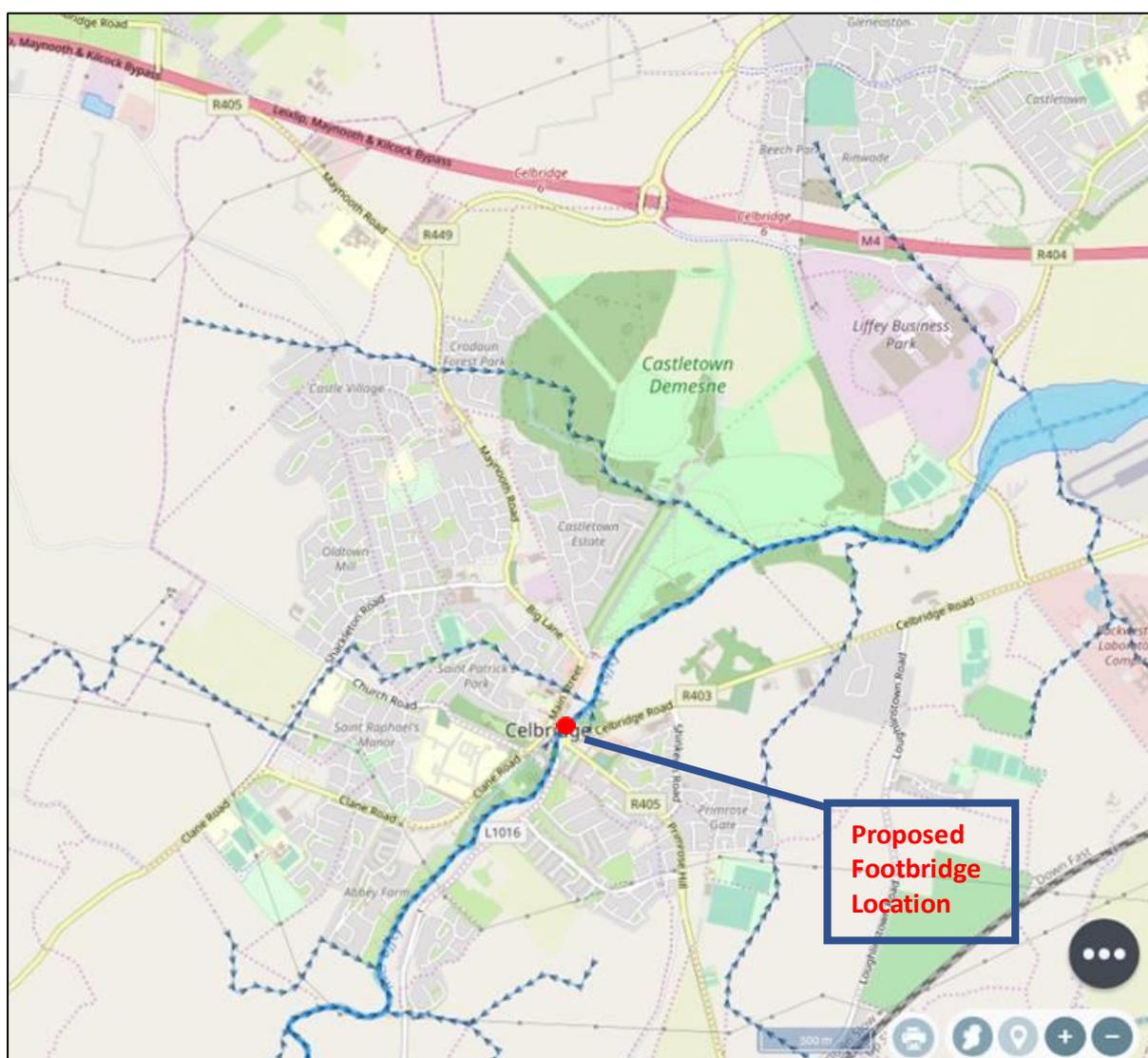
EPA codes for these waterbodies are shown below in **Table 4-1**.

**Figure 4-1** shows the proximal watercourses in relation to the proposed works.

Table 4-1: EPA codes for water bodies with connectivity to the proposed site.

| EPA water body name | Water body type | EPA Code | EPA water body code | Approximate Distance downstream from the proposed site |
|---------------------|-----------------|----------|---------------------|--|
| Liffey_150          | River           | 09L01    | IE_EA_09L011900     | 0km  |
| Leixlip Reservoir   | Lake            | 09_69    | IE_EA_09_69         | 2.5km  |
| Liffey_160          | River           | 09L01    | IE_EA_09L012040     | 4.8km  |
| Liffey_170          | River           | 09L01    | IE_EA_09L012100     | 7.7km  |
| Liffey_180          | River           | 09L01    | IE_EA_09L012350     | 8.5km  |
| Liffey_190          | River           | 09L01    | IE_EA_09L012360     | 17.5   |
| Dublin              | Groundwater     | -        | IE_EA_G_008         | 0  |

Figure 4-1: Watercourses in Proximity to the Proposed Site



#### 4.1.2 Water Quality

Macroinvertebrate sampling for Q-value determination has been conducted within the Liffey as part of EPA’s Water Framework Directive monitoring. EPA sample locations cover most of the River Liffey from Sally’s Gap in the Wicklow mountains to Island Bridge in Dublin city centre and includes a sampling site at Celbridge (EPA code RS09L011700). **Table 4-2** displays the results from the last three monitoring cycles at Celbridge including up and downstream of the town. In summary, the EPA station at Celbridge bridge and upstream remained a Q4 (Good) from 2010-2019. The station downstream of the proposed pedestrian and cycle bridge was Q3 (Moderate) in 2010 and 2013 but improved to a Q4 (Good) in 2016.

*Table 4-2: Summary of EPA Q-values within the River Liffey from 2010-2016. The closest station to the proposed development is highlighted in bold.*

| River  | Station Code       | Station Name   | Easting       | Northing      | 2010     | 2013     | 2016     |
|--------|--------------------|--|---------------|---------------|----------|----------|----------|
| Liffey | RS09L011600        | Straffan Turnings Lr (RHS & Mid)                                   | 292451        | 229184        | 4        | 4        | 4        |
|        | <b>RS09L011700</b> | <b>Br in Celbridge (approx. 60m upstream proposed development)</b> | <b>297359</b> | <b>232864</b> | <b>4</b> | <b>4</b> | <b>4</b> |
|        | RS09L011900        | Leixlip Br (RHS) (approx. 4.8km downstream proposed development)   | 300825        | 235806        | 3        | 3        | 4        |

The River Liffey is split into many water bodies. The proposed development is located within Liffey\_150 but is just near the border of Liffey\_140. The overall WFD status for the Liffey\_150 and 140 for 2013-2018 is ‘Good’ status. A summary of the WFD status for the Liffey is shown below in **Table 4-3**.

The risk status for Liffey\_150 is currently under review within the Liffey Catchment Assessment 2010-2015 (EPA 2018). The Risk status for the upstream water body (Liffey\_140) is “Not at Risk”.

*Table 4-3: Summary of WFD status for Liffey water bodies. The water body the proposed development is within is highlighted in bold.*

| EPA Waterbody Name | Code            | Risk        | WFD Status 2010-2012 | WFD Status 2010-2015 | WFD Status 2013-2018 |
|--------------------|-----------------|-------------|----------------------|----------------------|----------------------|
| <b>Liffey_140</b>  | IE_EA_09L011700 | Not at Risk | Good                 | Good                 | Good                 |
| <b>Liffey_150</b>  | IE_EA_09L011900 | Review      | Poor                 | Poor                 | Good                 |

#### 4.1.3 Aquatic Habitats

The fisheries potential of the River Liffey is well documented and this, coupled with recent EPA monitoring data, indicates ‘Very Good’ salmonid spawning and juvenile habitat. ‘Very Good’ lamprey spawning habitat was also assigned. There are no records of lamprey upstream of the Leixlip dam, which is located c.4.5km downstream of the proposed development. There is a fish pass present at Leixlip dam, which does allow salmonid passage but this may not be suitable for migratory lampreys

(river or sea) (ESB 2013). Lamprey records on the main Liffey channel are downstream of this dam and therefore downstream of the proposed pedestrian and cycle bridge. Records for lamprey (river or brook) can be found along the Rye river 15km upstream of its confluence with the Liffey (which is directly downstream of the Leixlip Dam), possibly confirming that the dam is a barrier to lamprey migration. Isolated populations of the non-migratory brook lamprey may however be present within the River Liffey at Celbridge.

White clawed crayfish are known to occur within the Liffey at Celbridge as well as up and downstream of the town. Although population size may be sparse (recorded as few by EPA), the Liffey none the less represents an important habitat for white clawed crayfish which is under pressure from the crayfish plague in other catchments.

#### 4.1.4 Flooding

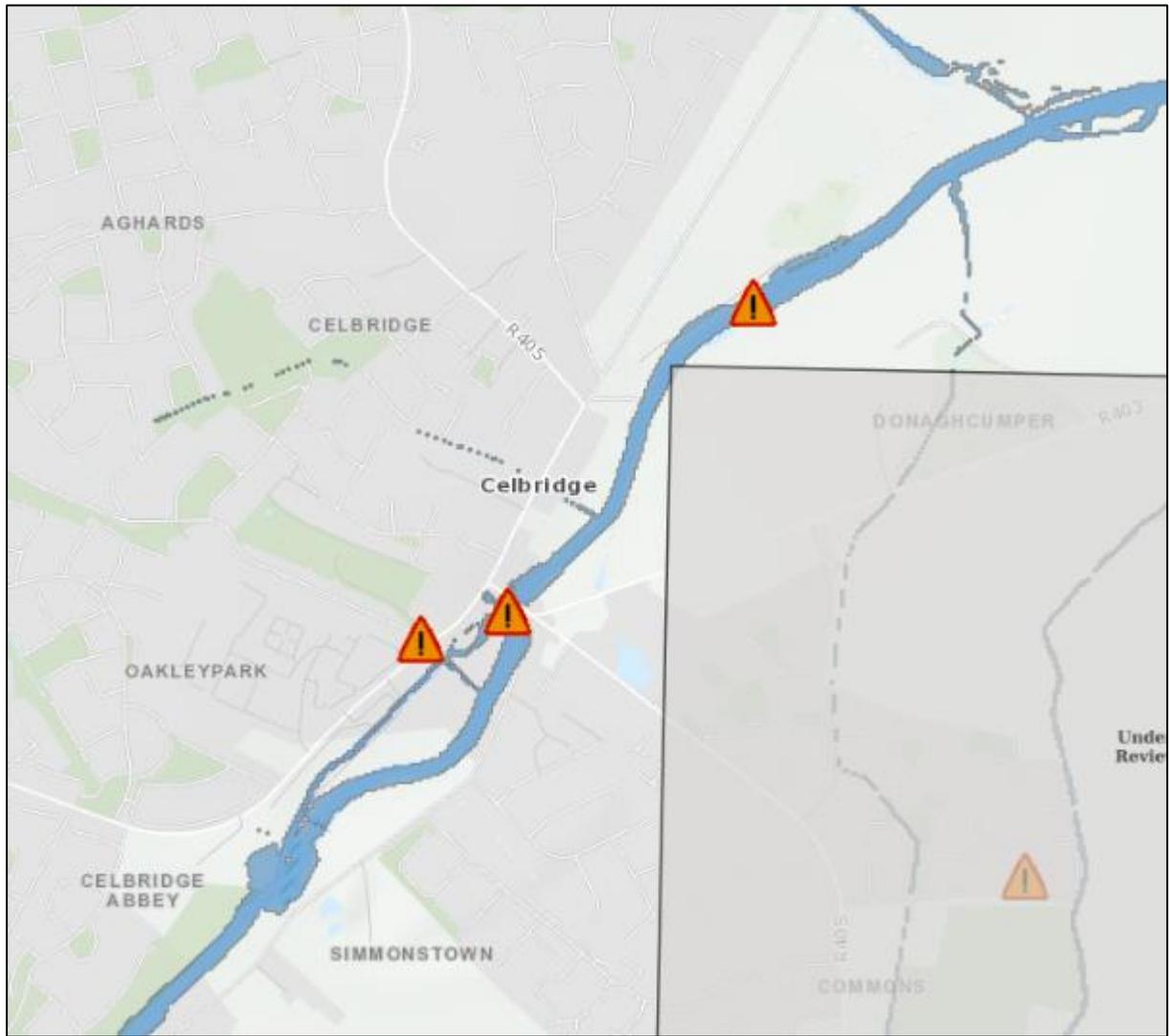
The Flood Info (Flood Maps - Floodinfo.ie) is a record of historic flood events maintained by the OPW. This is not a complete record, but it is useful in identifying areas that may be at risk of flooding. RPS reviewed the data published by the OPW on this website and found that there are historic flood events upstream and downstream of Celbridge as seen in **Figure 4-2**.

The CFRAM (Catchment Flood Risk Assessment and Management) programme is a national programme which produced a series of Preliminary Flood Risk Assessment (PFRA) which cover the entire country and is available on Flood Maps - Floodinfo.ie. The mapping published for the Celbridge area was reviewed to identify areas that may be at risk of flooding. **Figure 4-2** is an extract from the flood extent map for Celbridge, illustrating the indicative 10% AEP (i.e. 1-in-a-10 chance of occurring).

The proposed north-western landing area suffers from ponding following heavy rainfall.

**Figure 4-2** is an extract generated from the Flood Maps website.

Figure 4-2: Flood Events in the Vicinity of the Proposed Works



#### 4.1.5 Soil, Geology and Hydrogeology

The Geological Survey of Ireland (GSI) online database ([www.gsi.ie](http://www.gsi.ie)) was consulted for available edaphic, geological and hydrological information of the site and its environs. The site is overlaid by Made ground, with Alluvial (mineral) soils downstream of the site (to the north of the existing bridge). In terms of bedrock geology, the Lucan formation, composed of dark limestone and shale underlies the site.

The bedrock units which underlie the site are mapped by the GSI as part of the same Locally Important Aquifer. Groundwater vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated. The proposed site is of 'High' groundwater vulnerability. There is one karst feature located in the vicinity of the proposed works, namely St. Columb's Well, a spring located in the townland of Newtown, c.5.3km north-east of the proposed site.

#### 4.1.6 Invasive Species in Proximity to the Proposed Works

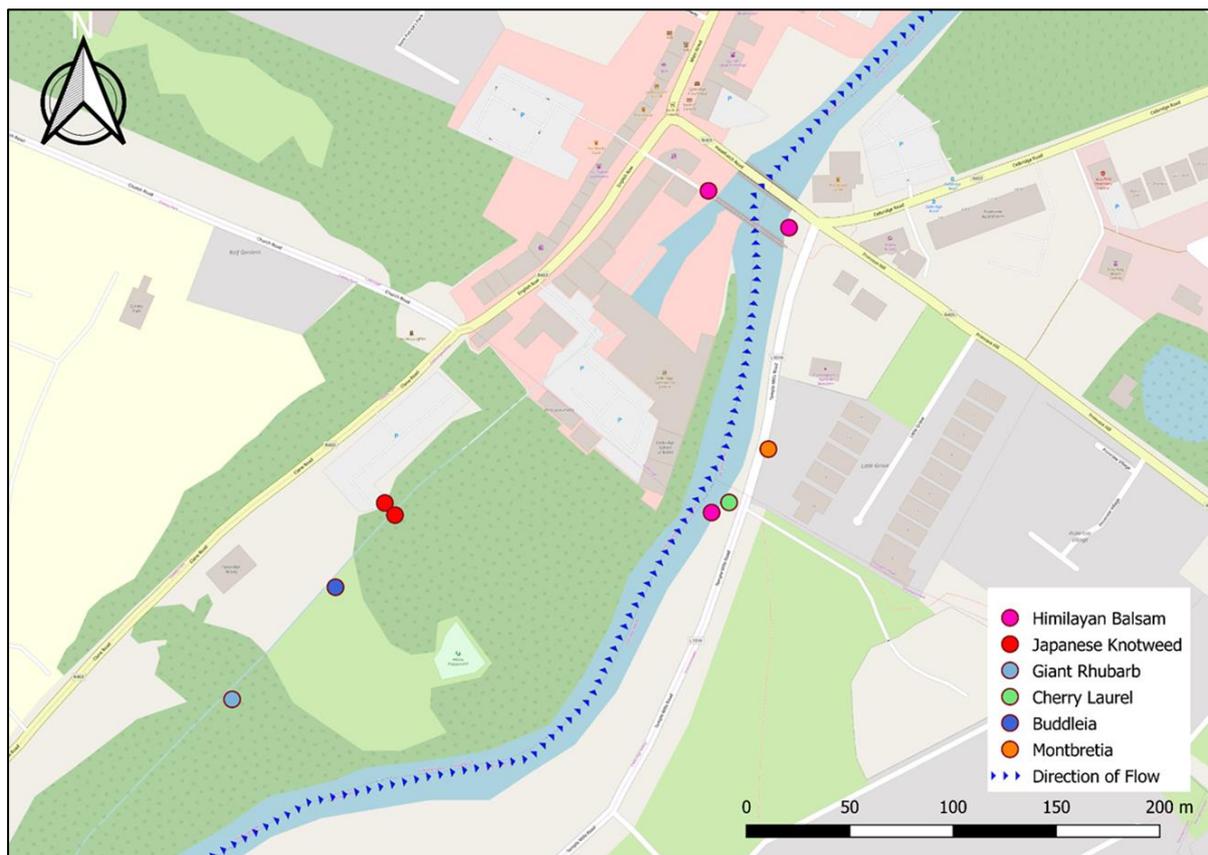
The NBDC database holds records of three invasive species included in the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) within the vicinity of the proposed site, namely Canadian Waterweed (*Elodea canadensis*), Japanese Knotweed (*Fallopia japonica*) and Indian/ Himalayan Balsam (*Impatiens glandulifera*). Cherry Laurel (*Prunus laurocerasus*), which is considered to be a 'High Impact' species by Invasive Species Ireland, but is not listed in the Third Schedule, has also been recorded in the vicinity of the proposed site.

An invasive species survey was undertaken during the terrestrial ecology site walkovers on 10th September 2019 and 13th June 2021 and during the aquatic survey undertaken on 22nd October 2019. During the surveys several plant species, both invasive Third Schedule and non-Third Schedule were noted.

Himalayan balsam, Cherry Laurel and Monbretia were recorded upstream of the proposed development. Two large stands of Japanese knotweed were found on both banks along the mill race c.235m upstream of the proposed pedestrian and cycle bridge. Butterfly bush (*Buddleia davidii*) was recorded along the millrace c.285m upstream of the proposed pedestrian and cycle bridge on the right bank; and Giant rhubarb was also recorded along the right bank of the mill race c.365m upstream of the proposed pedestrian and cycle bridge.

A map detailing the location of all IAPS is included below (**Figure 4-3**).

Figure 4-3: Location of IAPS at the Proposed Site and its Environs



## 4.2 Description of European Sites

This stage of the screening for AA process describes European sites within the likely zone of influence of the works. The methodology for establishing the likely zone of influence is described in Section 2.3.2.

Connectivity between the proposed works and European sites has been reviewed. Connectivity is identified via the potential source-pathway-receptor model which identifies the potential impact pathways such as land, air, hydrological, hydrogeological pathways etc. which may support direct or indirect connectivity of the proposed works to European sites and/or their qualifying features.

In view of the location of the proposed development in relation to European sites (see **Figure 4-4**) and the characteristics of the proposed development (i.e. single span pedestrian and cycle bridge design with no requirement for instream works, see Section 3) and the source, pathway and receptors of potential impacts, a 15km radius is considered an appropriate zone of influence to screen all likely significant effects that might impact upon the European sites. While there are European sites located within Dublin Bay further downstream of the proposed site, taking in consideration the characteristics of the proposed development, these sites are beyond the zone of influence of the proposed Celbridge Pedestrian and Cycle Bridge. The establishment of the likely zone of influence is in line with EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*.

The integrity of a European site (referred to in Article 6.3 of the EU Habitats Directive) is determined based on the conservation status of the Qualifying Interests (QIs) of the SAC or Special Conservation Interests (SCIs) of the SPA. The QIs/SCIs for each site have been obtained through a review of the Conservation Objectives available from the NPWS website [www.npws.ie](http://www.npws.ie).

The European sites located within 15km of the proposed works are outlined in **Table 4-4** and **Figure 4-4**. There are 2 European sites located within 15km of the proposed works:

- Rye Water Valley/ Carton SAC (Site Code: 001398); and
- Glenasmole Valley SAC (Site Code: 001209).

Connectivity between the sites and the proposed development has been reviewed. Connectivity is identified via the potential source-pathway-receptor model which identifies the potential impact pathways such as land, air, hydrological, hydrogeological pathways etc. which may support direct or indirect connectivity of the proposed works to European sites and/or their qualifying features.

Source – pathway – receptor dynamics were assessed for Glenasmole Valley SAC and it was determined that there is no connectivity (via surface water, groundwater, air or other environmental vectors) between the proposed development and this site (see **Table 4-4** for further details on connectivity).

Rye Water Valley SAC is located on the Rye Water River and its adjacent lands; the Rye Water River flows into the River Liffey c.4.8km downstream of the proposed site. The proposed site and Rye Water Valley/ Carton SAC are both located within the Dublin Groundwater Body. Likely significant effects on Rye Water Valley SAC will be considered further in the screening assessment (Section 5.).

Figure 4-4: European Sites within 15km of the Proposed Development

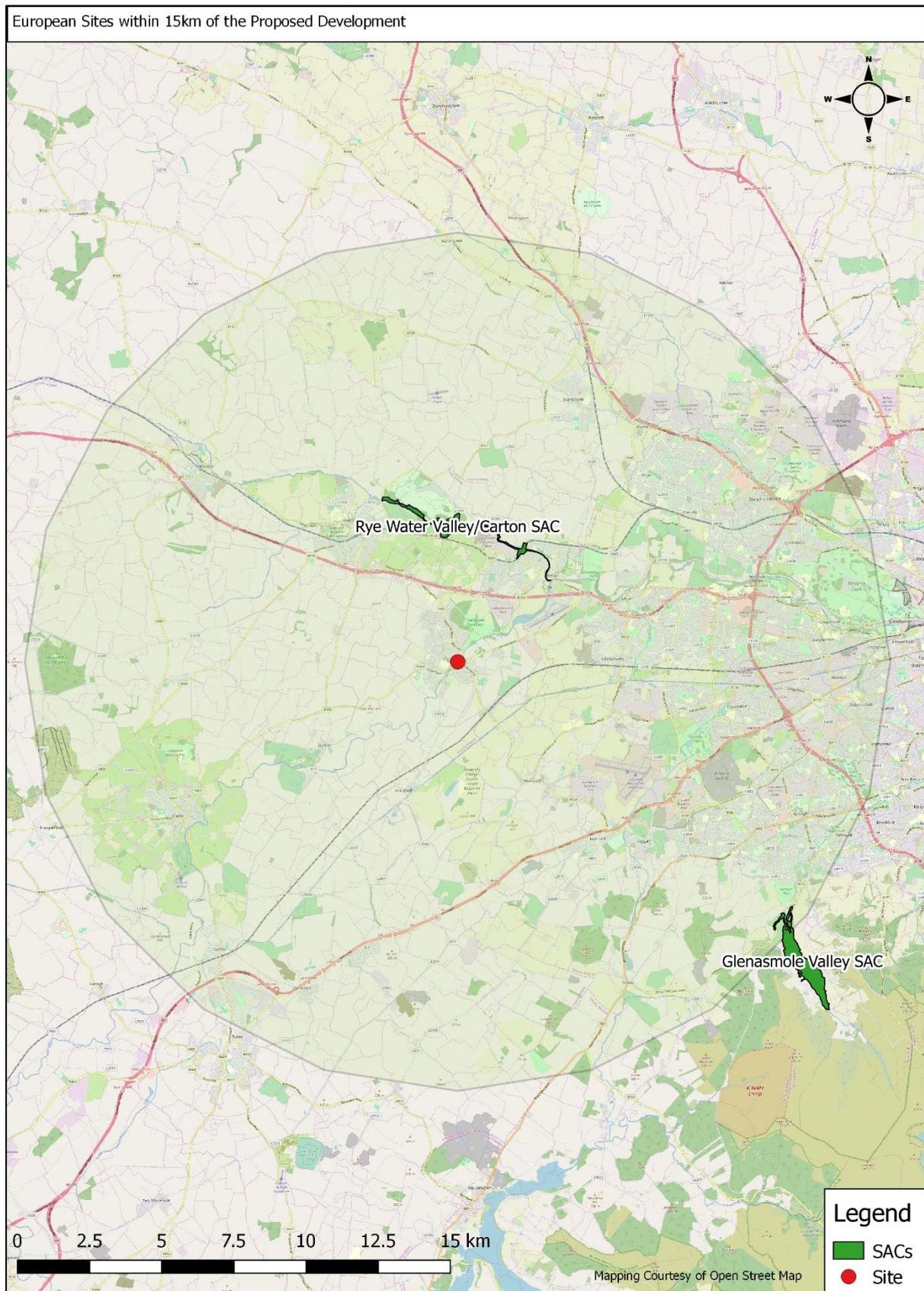


Table 4-4: European Sites within 15km of the Proposed Development and their connectivity.

| Site Name and Code                          | Qualifying Features (Annex I Habitats/ Annex II Species)  | Distance from proposed works | Connectivity   | Potential LSE identified |
|---|---|------------------------------|--|--------------------------|
| <b>Rye Water Valley/Carton SAC (001398)</b> | Petrifying springs with tufa formation (Cratoneurion)* [7220]<br>Narrow-mouthed Whorl Snail ( <i>Vertigo angustio</i> ) [1014]<br>Desmoulin's Whorl Snail ( <i>Vertigo moulinsiana</i> ) [1016]   | 4.07km                       | This SAC is located on the Rye Water River, which flows into the River Liffey c.4.8km downstream of the proposed site. Both the proposed site and this SAC are within the Dublin Ground Waterbody; there is potential remote hydrogeological connectivity. | Yes                      |
| <b>Glenasmole Valley SAC (001209)</b>       | Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]<br>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]<br>Petrifying springs with tufa formation (Cratoneurion) [7220] | 14.3km                       | There is no connectivity via surface water, groundwater or any other pathway.  | No                       |

#### 4.2.1 Site Description

##### 4.2.1.1 Rye Water Valley/Carton SAC

According to the Standard Data Form for the Rye Water Valley/Carton SAC,<sup>2</sup> this is a river valley site which includes at its western end a large area of estate woodland and an artificial lake. The eastern section of the site includes a section of railway, canal and aqueduct; it continues as far as Leixlip town. The site is underlain by carboniferous limestone over which has been laid a layer of glacial drift.

The importance of the site lies in the presence of a number of rare plant and animal species and a rare habitat, i.e. thermal, mineral, petrifying spring. The spring gives rise to a calcareous marsh, the habitat for *Vertigo angustior* and *Vertigo moulinsiana*. This marsh is species-rich and holds a number of plant and insect species which are rare or locally uncommon in Ireland. Four Red Data Book plant species have been recorded from the site, two of which, *Hypericum hirsutum* and *Viola hirta* are legally protected. The woods at the eastern end of the site have some ornithological interest.

<sup>2</sup> <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF001398.pdf>

Qualifying habitats and qualifying species for Rye Water Valley/Cartron SAC are presented in **Table 4-5** and **Table 4-6** below.

Table 4-5: Rye Water Valley/Cartron SAC Annex I (Qualifying) Habitats

| Habitat Name and Code (SAC Qualifying Feature)                   | Cover (ha) | Representivity <sup>3</sup> |
|--|------------|-----------------------------|
| Petrifying springs with tufa formation (Cratoneurion)*<br>[7220] | 0.72       | B                           |

Table 4-6: Rye Water Valley/Cartron SAC Annex II (Qualifying) Species

| Species Name and Code                                   | Population Significance <sup>4</sup> |
|---|--------------------------------------|
| Narrow-mouthed Whorl Snail (Vertigo angustio)<br>[1014] | B                                    |
| Desmoulin's Whorl Snail (Vertigo moulinsiana)<br>[1016] | B                                    |

#### 4.2.2 Conservation Objectives

The integrity of a European site (referred to in Article 6.3 of the EU Habitats Directive) involves its ecological functions. The decision as to whether it is adversely affected therefore focuses on and is limited to conservation objectives set for a particular site (EC, 2018).

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status areas designated as SAC and SPA. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

<sup>3</sup> The degree of representativity of the natural habitat type on the site: A : excellent representativity, B : good representativity, C : significant representativity and D: non-significant presence

<sup>4</sup> Size and density of the population of the species present on the site in relation to the populations present within national territory. A: 100% >= p > 15% B: 15% >= p > 2% C: 2% >= p > 0% D: non-significant population

Generic conservation objectives are available for River Liffey and the Rye Water Valley/Carton SAC. The conservation objectives for the site are provided in the Conservation Objectives document available on the NPWS website, as follows:

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO001398.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001398.pdf)

#### 4.2.3 Potential Pressures and Threats to European Sites

**Table 4-7** presents the most important impacts and activities with high effects quoted on the Natura 2000 Data Form for Rye Water Valley/Carton SAC.

*Table 4-7: Threats, Pressures and Impact Activities to Rye Water Valley/Carton SAC*

| European Site               | Threat Code <sup>5</sup> | Threat Type                                  | Rank <sup>6</sup> | i (inside) / o (outside)/ b (both) <sup>7</sup> |
|-----------------------------|--------------------------|--|-------------------|---|
| Rye Water Valley/Carton SAC | E01.03                   | Dispersed habitation                         | L                 | o   |
|                             | E01.01                   | Continuous urbanisation                      | M                 | o   |
|                             | A08                      | Fertilisation                                | L                 | o   |
|                             | J02.05.02                | Modifying structures of inland water courses | M                 | i   |
|                             | A04                      | Grazing                                      | L                 | o   |
|                             | D01.02                   | Roads, motorways                             | L                 | o   |
|                             | A04                      | Grazing                                      | L                 | i   |
|                             | A10.01                   | Removal of hedges and copses or scrub        | L                 | i   |
|                             | B                        | Sylviculture, forestry                       | M                 | i   |
| A08                         | Fertilisation            | L  | i                 |   |

<sup>5</sup> Threat code follows reference list provided on threats, pressures and activities for European sites

<sup>6</sup> Threat, pressure and impact ranking H – High, M – Medium, L - Low

<sup>7</sup> Inside (i),outside (o) or both (b) of European site

## 5 Screening Assessment Criteria

### 5.1 Management of European Sites

AA Screening is not required where the proposed development is connected with, or necessary to the management of any European site. In this case, the proposed development is not directly connected with or necessary to the management of any European site(s).

### 5.2 Elements of the Project Likely to Give Rise to Significant Effects on European Sites

**Table 4-4** lists the European sites within 15km of the proposed pedestrian and cycle bridge project. There are two sites within a 15km radius of the proposed site: Rye Water Valley/Carton SAC and Glenasmole Valley SAC. The proposed works are not situated within any European site, therefore no direct impacts will occur through land take or fragmentation of habitats.

There are no connecting pathways between the proposed works and Glenasmole Valley SAC. As such, there will be no significant effects on this SAC as a result of the proposed development.

The habitats at the proposed site comprise buildings and artificial surfaces, lowland depositing rivers and associated riparian woodland. The proposed site does not provide support to habitats or species of the European site within the zone of influence: Rye Water Valley/Carton SAC.

The Rye Water Valley/Carton SAC is a river valley site which includes at its western end a large area of estate woodland and an artificial lake. The eastern section of the site includes a section of railway, canal and aqueduct; it continues as far as Leixlip town. The site is underlain by carboniferous limestone over which has been laid a layer of glacial drift. The importance of the site lies in the presence of a number of rare plant and animal species and a rare habitat, i.e. thermal, mineral, petrifying spring. The spring gives rise to a calcareous marsh, the habitat for *Vertigo angustior* and *Vertigo moulinsiana*. Both the proposed site and this SAC are within the Dublin Ground Waterbody, therefore there is potential remote hydrogeological connectivity. Construction activities, such as earthworks, can result in a reduction in groundwater quality and interfere with groundwater quality, yields or flow paths, potentially affecting the water quality of habitats dependent on groundwater supply (such as petrifying springs). The potential zone of influence of effects from earthworks to ground water quality, flow or/or yield will depend on factors including the depth and intrusion of excavations, and time of year (related to water levels). As a precautionary measure, a reasonable worst-case spatial zone of influence is considered to be 500m from the point of excavation; which is a precautionary doubling of the 250m stated as the potential Zone of Influence from intrusive excavations to sensitive upland peatland sites (SEPA, 2014). The Rye Water Valley/Carton SAC is located 4.07km to the north of the proposed development and, as such, is outside of the zone of influence of the proposed works on groundwater. Further, as noted in Section 3.3, no excavation is required from within the riverbed as the bridge will be a clear span structure over the river channel. The works to the riverbank will be the modification of the top of the retaining walls to tie both ends of the bridge in and the construction of the abutments. In view of the factors described above, the proposed works will not affect groundwater flow or quality within Rye Water Valley/Carton SAC.

The proposed pedestrian development is located over the River Liffey. Rye Water Valley/Carton SAC is located on the Rye Water River and adjacent lands. The Rye Water River is a tributary of the River Liffey, the confluence of which is located c.4.8km downstream of the proposed site. As such, the Rye Water Valley/Carton SAC is located upstream of the River Liffey and there is no potential for transport of deleterious substances in surface water from the proposed site to this SAC. There is no potential for adverse effects on surface water quality within Rye Water Valley/Carton SAC as a result of the proposed development during the construction or operational phase.

No significant effects on Rye Water Valley/Cartron SAC are expected to occur as a result of the proposed development.

### 5.3 Cumulative Impacts with Other Plans and Projects in the Area

As part of the screening for an AA, in addition to the proposed works, other relevant projects and plans in the region must also be considered at this stage and assessed in the context of potential for in-combination effects. These plans and projects are outlined and assessed in **Table 5-1** below. Projects included in **Table 5-1** are planning applications submitted to Kildare County Council<sup>8</sup> over the past 24 months that are within the vicinity of the proposed development. The search excluded retention applications (i.e. typically local-scale residential or commercial developments where an impact has already occurred), incomplete, withdrawn, and refused applications. Furthermore, a search of An Bord Pleanála’s website was completed to identify any relevant applications, including Strategic Infrastructure Development (SID) and Strategic Housing Development (SHD) in the past three years or in close proximity to the proposed development.

It is concluded that there will be no negative in-combination effects between the proposed works and plans or project in the area.

Table 5-1: Other Projects and Plans that could result in potential cumulative impacts

| Plan / Programme/Policy  | Key Objectives/Policies/Proposals  | Potential for In-combination Effects and Mitigation  |
|--|--|--|
| <b>River Basin Management Plan 2018-2021</b>   | The project should comply with the environmental objectives of the Irish RBMP, which are to be achieved generally by 2021.<br>Ensure full compliance with relevant EU legislation;<br>Prevent deterioration;<br>Meet the objectives for designated protected areas;<br>Protect high-status waters; and<br>Implement targeted actions and pilot schemes in focused sub-catchments aimed at (1) targeting water bodies close to meeting their objective and (2) addressing more complex issues that will build knowledge for the third cycle.  | The implementation and compliance with key environmental policies, issues and objectives of this management plan will result in positive in-combination effects to European sites. The implementation of this plan will have a positive impact for biodiversity. It will not contribute to in-combination or cumulative impacts with the proposed development.                             |
| <b>Inland Fisheries Ireland Corporate Plan 2021 -2025</b><br><br><b>The Inland Fisheries Act 2010.</b> | To place the inland fisheries resource in the best sustainable position possible for the benefit of future generations. To protect, manage and conserve Ireland’s inland fisheries and sea angling resources and to maximise their sustainability and natural biodiversity. <ul style="list-style-type: none"> <li>• To sustainably develop and improve fish habitats.</li> <li>• To protect, maintain and enhance Ireland’s wild fish populations.</li> <li>• To actively engage with stakeholders in the continued stewardship of our shared resource.</li> <li>• To play a leadership role in achieving our climate action and biodiversity goals.</li> <li>• To value our people and support their development and performance.</li> </ul> | The implementation and compliance with key environmental issues and objectives of this corporate plan will result in positive in-combination effects to European sites. The implementation of this corporate plan will have a positive impact for biodiversity of inland fisheries and ecosystems. It will not contribute to in-combination or cumulative impacts with the proposed works. |

<sup>8</sup> Kildare County Council (kildarecoco.ie) accessed 10/12/2021.

| Plan / Programme/Policy  | Key Objectives/Policies/Proposals  | Potential for In-combination Effects and Mitigation   |
|--|--|---|
|  | <ul style="list-style-type: none"> <li>To foster a culture of value for money and evaluation of performance in a measurable, transparent and accountable manner.</li> </ul> <p>Harness the power of innovation to continue to deliver a modern fisheries service.</p>  |   |
| <p><b>Celbridge Local Area Plan 2017-2023</b></p>  | <p>The LAP notes congestion is a significant problem in the town centre and one of the key priorities of this Plan is the provision for enhanced crossings of the River Liffey.</p> <p>There are a number of objectives which promote the footbridge as follows:</p> <p>TCEO1.3: To ensure that town centre expansion sites are supported by direct walking and cycle links to the Main Street.</p> <p>MTO1.6: To facilitate a new pedestrian/cycling bridge across the Liffey linking to Celbridge Town Centre, in conjunction with any new development at Donaghcumper and new residential areas to the south.</p> <p>MTO1.9: To upgrade existing pedestrian and cycle facilities across the River Liffey.</p> <p>MTO3.12: To facilitate the construction of a new vehicular river crossing between the Clane Road and Newtown Road within either of the two protected corridors, as indicated on Map 8.1, subject to environmental assessment.</p> <p>MTO3.13: To protect from development a route for a potential new road (including a new bridge over the River Liffey) between Clane Road (near the Celbridge North Kildare Educate Together School) and Hazelhatch Park.</p> | <p>All developments within the Celbridge Local Plan area are required to comply with the following Objective of the Celbridge Local Area Plan 2017-2023:</p> <p>NHO1.1: To ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects and to ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest. Adherence with this Objective will ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p> |
| <p><b>Planning Ref: 211314 Abbey Lodge: Adjacent to the proposed works on the south eastern landing point.</b></p> | <p>For the change of use of the existing ground floor beer garden area to a coffee shop (c.59.9m<sup>2</sup>) with the removal of the existing rails and the enclosing of the area with glazing on the west, north and east elevations and the creation of an outside seating area ancillary to the proposed coffee shop, the removal of a portion of the existing low stone wall and railing along the western boundary along with all other necessary ancillary site development works. This is a protected structure. Grant Date: 04/11/2020.</p>   | <p>Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p>   |

| Plan / Programme/Policy  | Key Objectives/Policies/Proposals  | Potential for In-combination Effects and Mitigation   |
|--|--|---|
| <p><b>Planning Ref: 2066</b><br/> <b>Abbey Lodge:</b><br/> <b>Adjacent to the proposed works on the south eastern landing point.</b></p> | <p>Extension of public bar on ground floor into existing toilets and store area, provision of unisex accessible toilet, provision of beer garden area with access on to it from extended bar area, provision of new entrance on the south west corner of the building, adjacent to the bridge, alterations to windows on north west elevation and all associated site works and services. This is a protected structure. Grant Date: 19/06/2020.</p>   | <p>Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p>   |
| <p><b>Planning Ref: 20232</b><br/> <b>c. 530m east of the proposed works</b></p>   | <p>A new two storey, part single storey, 4 bed dwelling with connection to existing site services and all associated site works.</p>   | <p>Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p>   |
| <p><b>Planning Ref: 20306504</b><br/> <b>c. 1.9km north of the proposed works</b></p>  | <p>Ardstone Homes Ltd: STRATEGIC HOUSING DEVELOPMENT (ABP Decision) The demolition of an existing agricultural structure on site and the provision of a new vehicular access onto the R405 Regional Road (Celbridge-Maynooth) to serve the proposed residential development that consists of 372 no. new residential units. A childcare facility is proposed at ground floor level of Apartment Block B (approx. 191sqm GFA) A total of 633 no. car parking spaces and 340 no. bicycle parking spaces are proposed. The proposed development also includes the provision of 2 no. ESB sub-stations, site and infrastructural works including foul and surface water drainage, attenuation areas, open space, boundary walls and fences, landscaping, lighting, internal roads, cycle paths, footpaths, and cycle and pedestrian connections to the R405 and the R449 Regional Roads. Grant Date: 03/09/2020.</p> | <p>The AA Screening for the proposal concludes that the site is not within or adjacent to any SAC or SPA and that significant effects are not likely to arise, either alone or in combination with other plans or projects to the Natura 2000 network. Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p> |
| <p><b>Planning Ref: 20307100</b><br/> <b>c. 1.8km north of the proposed works</b></p>  | <p>Crodaun Development: STRATEGIC HOUSING DEVELOPMENT (ABP Decision 467 Residential Units. 199 No. Houses, 216 No. Apartments, 52 No. Duplexes, Childcare Facility, gym, café and retail unit and associated site works. Grant Date: 08/09/2020</p>  | <p>The AA Screening for the proposal concludes that there is no material risk to any Natura 2000 habitat and therefore no requirement for a Stage II Appropriate Assessment. Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning</p>   |

| Plan / Programme/Policy  | Key Objectives/Policies/Proposals  | Potential for In-combination Effects and Mitigation   |
|--|--|---|
|  |  | <p>applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p>  |
| <p><b>Planning Ref: 211256</b><br/><b>1.8km to the north west.</b></p> | <p>Power Capital Renewable Energy Limited: Application for a 10 year permission for development on lands in the townland of Griffinrath, Celbridge. The development will consist of the construction of a solar PV farm with an operational life of 35 years comprising approximately 75,984 No. photovoltaic panels on ground mounted frames within a site area of 44.21 hectares and associated ancillary development including 10 No. transformer stations, approximately 124 No. string-inverters, 1 No. onsite 38kV substation building, 1 No. 40ft storage container building, 7 No. CCTV security cameras mounted on 4 metre high poles and perimeter security fencing (2 metres high), the construction of an internal hardcore access road between the solar panels and the site access, localised improvements to an existing agricultural access from the adjoining L5065 road to facilitate construction and operational phase access and, the installation of a 38kV underground electricity cable from the onsite 38kV substation to the 110kV Griffinrath substation ca. 0.75km to the southeast. A Natura Impact Statement has been prepared in respect of the proposed development.<br/>Currently at further information stage.</p> | <p>The Ecological Assessment for the proposal concludes that the site is currently of low ecological value and that the proposed development will not have any direct or indirect adverse impacts on the conservation objectives of any Natura 2000 sites or any notable/protected flora and fauna.</p> <p>Adherence to the overarching policies and objectives of the Kildare County Development Plan 2017 - 2023 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in combination effects on European Sites.</p> |

## 6 Conclusion

This AA screening report has been prepared to assess whether the proposed development, individually or in-combination with other plans or projects, and in view of best scientific knowledge, is likely to have a significant effect on any European site(s).

The screening exercise was completed in compliance with the relevant European Commission guidance, national guidance and case law. The potential impacts of the proposed development have been considered in the context of the European sites potentially affected, their qualifying interests or special conservation interests, and their conservation objectives.

Through an assessment of the source-pathway-receptor model, which considered the Zol of effects from the proposed development and the potential in-combination effects with other plans or projects, the following findings were reported:

- The proposed Pedestrian and Cycle Bridge, Celbridge, Co. Kildare either alone or in-combination with other plans and/or projects, does not have the potential to significantly affect any European Site, in light of their conservation objectives. Therefore, a Stage 2 Appropriate Assessment is deemed not to be required.

## 7 References

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