



An  
Bord  
Pleanála

## Inspector's Report ABP-310167-21

### Development

The subdivision and conversion of an existing single and two storey agricultural outbuilding to provide 5 no. holiday cottages (3 no. one-bedroomed and 2 no. two-bedroomed) to include modifications to existing elevations and provision of rooflights, relocate the existing entrance, replace the wastewater treatment system with an integrated constructed wetland system to treat wastewater generated from the existing dwelling and the holiday cottages and all associated site works and landscaping.

### Location

Knockieran Cottage, Knockieran Lower, Blessington, Co. Wicklow.

### Planning Authority

Wicklow County Council

### Planning Authority Reg. Ref.

20914

### Applicant(s)

Alan & Sharon Cowley

### Type of Application

Permission

### Planning Authority Decision

Grant subject to conditions

<b>Type of Appeal</b>	Third Party v. Decision
<b>Appellant(s)</b>	Dublin City Council Irish Water
<b>Observer(s)</b>	None.
<b>Date of Site Inspection</b>	8 <sup>th</sup> July, 2021
<b>Inspector</b>	Robert Speer

## 1.0 Site Location and Description

- 1.1. The proposed development site is located at Knockieran Cottage in the rural townland of Knockieran Lower, Co. Wicklow, approximately 600m southeast of Blessington, where it occupies a secluded hillside position opposite the town along the scenic Lake Drive overlooking the Blessington Lakes / Poulaphouca Reservoir to the west. It has a stated site area of 0.74 hectares, is irregularly shaped, and comprises a sensitively refurbished single storey period property with associated outbuildings set within mature landscaped grounds c. 110m from the lakeshore. On travelling further west beyond the site and through intervening agricultural grassland, the broader topography slopes gently downhill towards the lake where a belt of coniferous tree planting intended to ensure the stability of the lake edge provides considerable screening. Access to the site is obtained from a minor local roadway (Lake Drive) via a long gravel avenue with the site entrance opening onto a bend in the carriageway where the sightlines to the south are obstructed in part by existing roadside planting.
- 1.2. The existing outbuilding proposed for conversion is located to the rear of Knockieran Cottage where it occupies a raised position relative to the main house to form an enclosed courtyard-type feature. It is set into the hillside with the lands behind rising over the structure.
- 1.3. The location of the proposed integrated constructed wetland comprises a sloped grassed / lawn area bounded by a combination of mature trees, hedging and fencing with the public road to the immediate east.

## 2.0 Proposed Development

- 2.1. The proposed development consists of the following:
  - The subdivision and conversion of an existing outbuilding to provide for 5 No. self-contained holiday cottages (comprising 3 No. one-bedroom & 2 No. two-bedroom units) with associated works including the alteration / modification of the existing elevations, the installation of rooflights, the insertion of partition walls, and various other internal upgrading / improvement works.

- The decommissioning and replacement of the existing BAF wastewater treatment system with an integrated constructed wetland system to treat wastewater generated from the existing dwelling and the proposed holiday cottages. Wastewater is to be collected in an appropriately sized septic tank before being pumped to an initial ICW cell located 100m away. The waters to be treated will then flow by gravity sequentially through the ICW with sufficient area within the cells to ensure the good water quality of any discharge which may occur. The proposed ICW will strive for zero-discharge through most of the year with any discharge expected to be low / infrequent and draining to a vegetated soakaway.
- The closure of the existing site access and the opening of a new entrance arrangement approximately 35m further south along the roadway. Associated works will include the removal of approximately 115m of roadside boundary planting and the provision of a new embankment planted with native hedgerow in a recessed position set back from the edge of the carriageway.
- Ancillary site development works, including landscaping.

### **3.0 Planning Authority Decision**

#### **3.1. Decision**

- 3.1.1. Following the receipt of a response to a request for further information, on 9<sup>th</sup> April, 2021 the Planning Authority issued a notification of a decision to grant permission for the proposed development, subject to 9 No. conditions. These conditions are generally of a standardised format and relate to issues including water services, surface water drainage, signage, and development contributions, however, the following conditions are of note:

Condition No. 3 – Requires the applicant to enter into a legal agreement regarding the use of the proposed holiday accommodation and states that the entire development (including the existing dwelling) is to be retained in single ownership.

Condition No. 4 – Refers to the installation and commissioning of the integrated constructed wetland system.

Condition No. 7 – Specifies the necessary works with respect to the proposed entrance arrangement and the roadside boundary treatment.

Condition No. 9 – Refers to the implementation of the mitigation measures identified in the Bat Report received by the Planning Authority on 17<sup>th</sup> September, 2020.

## **3.2. Planning Authority Reports**

### *3.2.1. Planning Reports*

An initial report states that while the application site is in an Area of Outstanding Natural Beauty, the proposed conversion of a disused outbuilding into holiday accommodation is acceptable in principle having regard to the applicable tourism objectives.

With respect to the wastewater treatment arrangements, it is stated that further details of the Integrated Constructed Wetland are required, with particular reference to the feasibility of achieving 'zero-discharge', the treatment of any discharge via the soakaway, and the risk of pollution entering groundwater and the reservoir. By extension, due to the hydraulic link between the site and the reservoir via groundwater, it is not considered possible to screen out the requirement for Stage 2 Appropriate Assessment until the concerns regarding the ICW have been addressed.

In relation to bat activity on site, including the presence of a relatively large maternity roost within the existing building, reference is made to the projected roost loss and the disturbance from lighting consequent on the development, however, it is accepted that the short to medium term loss of roosts from within the grounds of Knockieran Cottage will be countered over a period of four years through the provision of bat boxes, the control of lighting, and adherence to the mitigation measures recommended.

This initial report subsequently concludes by recommending that further information be sought in relation to the wastewater drainage arrangements and the entrance design.

Following the receipt of a response to a request for further information, a final report was prepared which noted that the proposed ICW was detailed as having a lower

impact than the existing septic tank while the Environment Section had indicated that its concerns had been satisfactorily addressed. The report subsequently recommended a grant of permission, subject to conditions.

### 3.2.2. *Other Technical Reports*

*Area Engineer Baltinglass:* An initial report states that the sightlines can only be achieved through the removal of a number of mature trees and by setting back the boundary as indicated on the site layout plan. Furthermore, given the steep gradient of the proposed driveway, it will be necessary to provide an area with a reduced gradient at its junction with the public road.

Following the receipt of a response to a request for further information, a subsequent report stated that while the steep gradient at the site entrance had been addressed, it was still necessary to ensure that the roadside boundary would be set back as per the site plan in order to achieve sightlines as per TII design standards.

*Senior Executive Chemist, Environmental Services:* An initial report stated that there were reservations as regards the proposal for a number of reasons including the proximity to the reservoir, the proximity of settled sewerage to the public road, the lack of a dual pump / sump or rising main, the likelihood of 'zero-discharge', the wetland operational volume based on an influent volume of 201.6m<sup>3</sup>/year as opposed to a hydraulic load of 817m<sup>3</sup>/year, and the lack of a supported design for the emergency vegetated soakaway.

Following the receipt of a response to a request for further information, a subsequent report indicated that the design explanation provided had addressed the issues of concern and thus the proposal was acceptable, subject to conditions.

*Roads:* Requires sightlines of 120m in both directions and the provision of covered bicycle parking at a rate of 1 No. space per bedroom.

*Environmental Health Officer:* States that the proposal to construct an integrated constructed wetland is beyond the remit of the Environmental Health Service and should be referred to the Council's Environment Dept. and / or the Environmental Protection Agency for assessment.

### 3.3. **Prescribed Bodies**

3.3.1. *Irish Water:* No objection, subject to conditions.

3.3.2. *Dublin City Council*: States that Dublin City Council is opposed to the proposed development due to:

1. The proximity of the septic tank, wastewater treatment system and wetland area to the Poulphouca Reservoir from which Dublin City Council abstracts water for drinking purposes.
2. The scale of pumping from the septic tank to the treatment system.

It is further stated that surveys of the reservoir have indicated that it is tending to become eutrophic due to a rise in nutrient levels, part of which is attributable to treatment systems and septic tanks. This has been confirmed by An Foras Forbatha and the City Council's own chemical analysis of the reservoir's drinking water quality over a number of years and could lead to difficulties in treating the water for drinking purposes. In addition, there is a health risk to water supplies associated with septic tanks and treatment systems sited near streams and reservoirs. Consequently, it has been recommended to the City Council that septic tanks should be curtailed in areas proximate to the reservoir and its feeder streams.

#### 3.4. **Third Party Observations**

None.

### 4.0 **Planning History**

#### 4.1. **On Site:**

4.1.1. PA Ref. No. 1726. Was refused on 20<sup>th</sup> September, 2017 refusing Alan & Sharon Cowley permission for the subdivision and conversion of an existing single and two storey agricultural outbuilding to provide 5 no. holiday home / self catering to include modifications to existing elevations, the provision of rooflights, a wastewater treatment system and all associated site works.

- The site of the proposed development is located within the Liffey catchment area and adjoins an important feeder stream to the Poulaphouca Reservoir, which is a major source of public water supply. The proliferation of on-site effluent disposal systems will increase the likelihood of contaminants reaching this water source, through malfunction, lack of maintenance or otherwise, and

would, therefore, be prejudicial to public health and contrary to the proper planning and development of the area.

- Having regard to the location of the site within close proximity to the Poulaphouca Reservoir SPA and the location of feeder streams within and surrounding the site, which may be at risk of contamination as a result of the proposed development, it is considered that the proposed development has the potential to affect the conservation objectives of this designated area and as such an Appropriate Assessment to meet the requirements of Article 6 of the Habitats Directive would be required. In this regard it is considered that insufficient information has been submitted to enable the Planning Authority to screen for and/or carry out an appropriate assessment.

4.1.2. PA Ref. No. 141070. Was granted on 30<sup>th</sup> March, 2015 permitting Community Children Centres Ltd. permission for the retention of the demolition of a single storey extension at the rear of the existing dwelling and its replacement with a new single storey extension giving a new combined total floor area of 246.5m<sup>2</sup> at the dwelling.

4.1.3. PA Ref. No. 015134. Was refused on 14<sup>th</sup> March, 2002 refusing Aidan Gilheany permission for the retention of the change of use of a portion of the existing dwelling to commercial use as offices.

## 5.0 Policy and Context

### 5.1. National Guidance:

5.1.1. '*Code of Practice, Domestic Waste Water Treatment Systems, (Population Equivalent ≤ 10)*', Environmental Protection Agency, March, 2021.

5.1.2. '*Wastewater Treatment Manual, Treatment Systems for Small Communities, Business, Leisure Centres and Hotels*', Environmental Protection Agency, 1999.

5.1.3. '*Integrated Constructed Wetlands, Guidance Document for Farmyard Soiled Water and Domestic Wastewater Applications*', Department of the Environment, Heritage and Local Government, 2010.

### 5.2. Development Plan

5.2.1. ***Wicklow County Development Plan, 2016-2022:***

*Chapter 7: Tourism and Recreation:*



### Section 7.3: *Strategy for Tourism and Recreation*

#### Section 7.4: *Tourism and Recreation Objectives:*

- T1:* To promote, encourage and facilitate the development of the tourism and recreation sectors in a sustainable manner.
- T2:* To ensure that all tourism and recreation developments are designed to the highest quality and standards.
- T3:* To generally require tourism and recreation related developments to locate within existing towns and villages, except where the nature of the activity proposed renders this unfeasible or undesirable. Within existing towns and villages, the Planning Authority will promote and facilitate the development of tourist related uses at appropriate sites. In all cases, the applicant must submit a robust assessment setting out the sustainability of any proposal with respect to economic, environmental and social sustainability, as defined herein.
- T4:* To only permit the development of a tourism or recreational facility in a rural area in cases where the product or activity is dependent on its location in a rural situation and where it can be demonstrated that the proposed development does not adversely affect the character, environmental quality and amenity of the rural area or the vitality of any settlement and the provision of infrastructure therein. The natural resource / tourist product / tourist attraction that is essential to the activity shall be located at the site or in close proximity to the site, of the proposed development. The need to locate in a particular area must be balanced against the environmental impact of the development and benefits to the local community.
- T6:* To ensure that tourism and recreation related developments are appropriately located in the County. Subject to the following exceptions, all tourist and recreation related developments are 'open for consideration' in all landscape areas:
- The following tourist uses will not be permitted within the Area of Outstanding Natural Beauty (both the Mountain Uplands Area and the Coastal Area): Static caravans and mobile homes;

- Holiday homes will not be permitted in any landscape category other than urban zones except where they comply with objectives T13, T14 and T15.

*T7:* To favourably consider proposals for tourism and recreation related development, which involve the reinstatement, conservation and/or replacement of existing disused buildings and to adopt a positive interpretation to plan policies to encourage such developments. This shall be subject to all other objectives being complied with, and subject to the proper planning and sustainable development of the area. In all areas, preference will be given to the conversion and adaptation of existing buildings rather than the provision of new development on greenfield sites.

*T10:* To facilitate the development of a variety of quality accommodation types, at various locations, throughout the County.

*T12:* To positively consider the (part) conversion of existing dwellings to Bed & Breakfasts (B&Bs) and Guesthouses, to be operated by the owner-occupier of the dwelling. Applications for new build B&Bs / guesthouses will in the first instance be evaluated as private dwellings and the objectives and standards applicable in that area type (e.g. large town, rural town, rural area etc) will be applied.

*T13:* To require new holiday home / self-catering developments to locate within either established settlements or at established tourism / recreation facilities, other than those developments involving the renovation / conversion of existing buildings.

*T14:* To require the developers / owners of new holiday homes / self catering developments to enter strict legal agreement (under Section 47 of the Planning & Development Act) with the Planning Authority specifying that:

- the units may only be used for tourism purposes and shall not be allowed to be used as a permanent residences;
- in the case of small-scale developments, the entire development, including all buildings, land and any on-site tourist facility, shall be held in single ownership and shall not be subdivided. All units shall be

available for short term letting only of a maximum duration of 4 weeks;  
and

- in the case of larger scale developments,
- all lands, including any on-site tourist facility shall be held under the management of a single Estate Company (including all lands included in the site boundary and land which adjoins, abuts or is adjacent to the land to be developed and which is under the control of the applicant or the person who owns the land which is the subject of the application) and
- in the event that any unit is sold or leased, the owner/lessee shall enter a legal agreement with the Estate Company stipulating that the purchaser, lessee and any successors in title be, and remain, members of the Estate Company, and stipulating that the unit may only be used by the owner/lessee for holiday use for a maximum of 3 months in any year and shall at all other times be used/leased/marketed by the Estate Company for short term (maximum 4 weeks) tourism use.

*T15:* Holiday home / self-catering developments on a farm holding shall be provided by farmhouse extension or by the utilisation of other existing dwellings / structures on the property. Only where it has been demonstrated that these are not viable options, will permission be considered for new build development. Any new build development shall be in close proximity to the existing farmhouse.

#### *Chapter 9: Infrastructure:*

##### *Section 9.2: Water Infrastructure and Flooding*

*W12:* To protect existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.

##### *Section 9.2.3: Wastewater*

#### *Chapter 10: Heritage:*

##### *Section 10.2.3: Architectural Heritage: Vernacular Heritage:*

*BH15:* To seek (through the development management process), the retention, conservation, appropriate repair and reuse of vernacular buildings and features such as milestones, stonewalls, traditional & historic shopfronts and pub fronts, thatched roofs and other historic elements. The demolition of vernacular buildings will be discouraged.

*BH16:* Development proposals affecting vernacular buildings and structures will be required to submit a detailed, true measured survey, photographic records and written analysis as part of the planning application process.

*BH17:* Where an item or a structure (or any feature of a structure) is considered to be of heritage merit (where not identified in the RPS2), the Planning Authority reserves the right to refuse permission to remove or alter that structure / item, in the interests of the protection of the County's architectural heritage.

Section 10.3: *Natural Heritage and Landscape:*

Section 10.3.2: *Biodiversity*

Section 10.3.4: *Water Systems*

*NH22:* To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent disposal systems in the vicinity of water bodies that provide drinking water or development that would exacerbate existing underlying water contamination.

Section 10.3.9: *Wicklow's Landscape:*

*1. The Mountain and Lakeshore Area of Outstanding Natural Beauty:*

*1(b) - The Poulaphuca Reservoir:*

This category generally relates to the area around Blessington known locally as the 'Blessington Lakes' and extends into Sorrell Hill. The lakes area is dominated by the lake, views onto and from the lake. To the east and south, land is more mountainous with attractive views and vegetation.

*NH49:* All development proposals shall have regard to the County landscape classification hierarchy in particular the key landscape features and characteristics identified in the Wicklow Landscape Assessment (set in Volume 3 of this plan) and the 'Key Development Considerations' set out for

each landscape area set out in Section 5 of the Wicklow Landscape Assessment.

*NH50:* Any application for permission in the AONB which may have the potential to significantly adversely impact the landscape area shall be accompanied by a Landscape / Visual Impact Assessment, which shall include, inter alia, an evaluation of visibility and prominence of the proposed development in its immediate environs and in the wider landscape, a series of photos or photomontages of the site / development from clearly identified vantage points, an evaluation of impacts on any listed views / prospects and an assessment of vegetation / land cover type in the area (with particular regard to commercial forestry plantations which may be felled thus altering character / visibility). The Assessment shall demonstrate that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape and the nature of the designation.

*Appendix 1: Development and Design Standards:*

*Section 4: Tourism and Recreation*

*Section 8: Water Services: Wastewater Disposal: (b) On site wastewater systems:*

On-site effluent disposal systems for single houses will be required to comply with Wicklow County Councils "Policy for wastewater treatment and disposal systems for single houses (PE ≤ 10)" which is available on the County Council's website.

This policy document is based primarily on the EPA standards for onsite systems but also contains additional requirements. For all other on-site systems, the provisions of the relevant EPA Manuals shall be applied.

*Section 11: Heritage:*

*Appendix 5: Landscape Assessment:*

*Section 4.5: Wicklow's Landscape Areas:*

*Section 4.5.1: The Mountain and Lakeshore Area of Outstanding Natural Beauty:*

*1(b) - The Poulaphouca Reservoir:*

This category generally relates to the area around Blessington known locally as the 'Blessington Lakes' and extends into Sorrell Hill. The lakes area is dominated by the

reservoir, views onto and from the reservoir. To the east and south, land is more mountainous with attractive views and vegetation.

Section 5: *Policy Provision:*

Section 5.3.1: *General Development Considerations (GDC)*

Section 5.3.3: *The Poulaphuca Reservoir KDC:*

1. To protect listed views / prospects and to resist development proposals that would negatively impact on the skyline and other key vantage points in the area, in particular views from the Lake Drive down to and across the reservoir and to the west towards the mountains.
2. Development proposals within this area should aim to locate within existing clusters of structures / tree stands and avoid locating new development in open fields.
3. Development proposals surrounding the reservoir should respect the more traditional and vernacular building patterns and materials of the area. A particular emphasis on the more traditional built and vernacular form will be applied within the Ballyknockan and Lackan area where developments should be of a design which assimilates easily into the existing landscape.
4. To support and facilitate the provision of amenity routes around the Poulaphuca reservoir in a manner which does not detract from the scenic nature of the area and ensure that new development is sited in such a manner that would not interfere with existing or potential amenity routes.
5. To maintain the favourable conservation status of existing natural habitats within or surrounding the Poulaphuca Reservoir.

The proposed development site is located within the '*Poulaphuca AONB*' landscape category as detailed in Figure 4.11: '*The Landscape Category Map*' and Map 10.13(b) of the Landscape Assessment.

**5.2.2. *Wicklow County Council's Policy for Domestic Wastewater Treatment Systems for PE ≤ 10, June, 2021:***

Planning applications for single houses with on-site wastewater treatment and disposal systems shall be assessed in accordance with the 'Code of Practice

Domestic Wastewater Treatment Systems (Population Equivalent  $\leq 10$ ) EPA, 2021' and the additional requirements as follows:

7.

- a) The minimum separation distance of septic tanks, secondary treatment plants, percolation areas & polishing filters from the Vartry and Blessington Reservoirs (or any other reservoir designated by the Council) shall be 200m.
- b) The minimum separation distance of septic tanks, secondary treatment plants, percolation areas & polishing filters from streams / watercourses leading to the Vartry and Blessington Reservoirs (or any other reservoir designated by the Council) shall be 100m.

8. No wastewater treatment system shall be allowed within the exclusion zone of a public water supply.

*Note:*

Where the population equivalent is  $> 10$  the Planning Authority will generally require on site wastewater treatment and disposal systems to be assessed and designed in accordance with the Code of Practice 'Wastewater Treatment Manual: Treatment Systems for Small Communities, Business, Leisure Centres & Hotels EPA, 1999'. References in this code to the 'Code of Practice EPA 2021' shall be taken as a reference to the 'Code of Practice Domestic Wastewater Treatment Systems (P.E.  $\leq 10$  EPA, 2021'. The Planning Authority will require additional testing in addition to that required in these codes where considered necessary.

### 5.3. Natural Heritage Designations

5.3.1. The following natural heritage designations are located in the general vicinity of the proposed development site:

- The Poulaphouca Reservoir Proposed Natural Heritage Area (Site Code: 000731), approximately 60m northwest of the site.
- The Poulaphouca Reservoir Special Protection Area (Site Code: 004063), approximately 80m northwest of the site.

- The Wicklow Mountains Special Area of Conservation (Site Code: 002122), approximately 2.3km southeast of the site.
- The Wicklow Mountains Special Protection Area (Site Code: 004040), approximately 5.4km southeast of the site.

## 5.4. EIA Screening

5.4.1. Having regard to the nature and scale of the development proposed (which consists of the subdivision and conversion of an existing outbuilding to holiday accommodation, the relocation of an entrance, the replacement of an existing wastewater treatment system with an integrated constructed wetland system, and associated site works & landscaping), the site location outside of any protected site, the nature of the receiving environment, the limited ecological value of the lands in question, and the separation distance from the nearest sensitive location, there is no real likelihood of significant effects on the environment arising from the proposed development. The need for environmental impact assessment can, therefore, be excluded at preliminary examination and a screening determination is not required.

## 6.0 The Appeal

### 6.1. Grounds of Appeal

#### 6.1.1. *Dublin City Council:*

- The proposed development is located immediately alongside the Poulaphouca Reservoir which is a critical drinking water supply for the Greater Dublin Area and the appellant's original objection was not given the consideration it deserves.
- Water from Poulaphouca Reservoir is treated by Dublin City Council at Ballymore Eustace and this amounts to 50% of the drinking water supply for the Greater Dublin Area which includes Wicklow, Kildare, Dún Laoghaire Rathdown, Dublin City Council, South Dublin County Council and Fingal County Council. Therefore, the safety and quality of this treated water is of huge importance to the public health of every person living and working in the region.



- The proposed wastewater treatment arrangements have the potential to cause pollution of the water source due to eutrophication. This nutrient enrichment can occur by percolation, infiltration, overflow or failures from the proposed treatment system. Pollution of this water source will cause habitat degradation as well as huge interruption to the safe drinking water supply for the population of the Greater Dublin Area and the surrounds.
- Any wastewater treatment system should be at least 200m from the reservoir (the proposed system is marginally 100m away).
- The conditions attached to the grant of permission fall short of responsibly mitigating potential adverse effects on a critical drinking water source. They also fall short of the recommendations made by the Senior Chemist with Wicklow County Council with regard to the need to have a maintenance contract put in place for the wastewater treatment system.
- In addition to siting the wastewater treatment system a minimum of 200m away from the reservoir, the appellant would recommend further conditions and mitigation controls including the following:
  - A HDPE liner installed underneath the 500mm of subsurface liner to ensure zero exfiltration from the constructed wetland.
  - Increasing the septic tank size to 10m<sup>3</sup> operational volume, minimum dual chamber.
  - That a maintenance contract be put in place to ensure the effective operation of the wetland which covers the following items:
    - Water level management and flow maintenance
    - Influent flow monitoring
    - Surface water quality monitoring of the influent and effluent
    - Vegetation monitoring & maintenance within cells and around the site
    - Maintenance of access
    - Maintenance of inlet and outlet pipes

- Maintenance of embankments – to provide for easy and safe access for monitoring
- Sediment sludge management, septic tank emptied yearly and constructed wetland de-sludged every 8 No. years (Cell 1)
- Twice yearly inspection and sampling (Cell 2 discharge) of wetland and soakaway by the Environment Section of the Local Authority:
  - Discharge standards from the wetland of 15mg/l TSS, 10mg/l BOD, 1 mg/l NH<sub>3</sub>, 1 mg/l P (Cell 2 discharge – presoak away)
- On the basis of the foregoing, the appellant is not satisfied that the proposed development should be allowed to proceed given the sensitivities of the location. It is considered that the proposal and others like it would present an unacceptable risk to the water quality of the largest drinking water source in Ireland. It is critical that any and all surface / ground water source(s) are protected from any possible pollution arising from development and it is an environmental objective of the Water Framework Directive to protect drinking water sources and to ensure that no additional treatment is required.

#### 6.1.2. *Irish Water:*

- The proposed development site is in a sensitive location in close proximity to the Poulaphouca Reservoir which is a critical drinking water source for the Greater Dublin Area. Water from Poulaphouca Reservoir is treated by Dublin City Council at Ballymore Eustace Water Treatment Plant and is supplied to the Greater Dublin Area which includes Wicklow, Kildare, Dún Laoghaire Rathdown, Dublin City, South Dublin and Fingal. Given that the water supply is a mixed resource zone in this region, any water quality issue at this source has the potential to impact on a population of 1.6 million people.
- Subsequent to the grant of permission, the appellant has assessed the consent and associated conditions and is not satisfied that these afford the correct level of protection to the water source.
- There are serious concerns regarding the proximity of the proposed integrated constructed wetland wastewater treatment system, which is situated within c. 100m of the Poulaphouca Reservoir from which Dublin City Council / Irish

water abstracts water for drinking purposes. When considering the source-pathway-receptor model, the proposed development has the clear potential to cause surface water pollution via hydrological pathways, percolation and overflows from the treatment system which in turn could result in the risk of contamination of the drinking water supply, or a requirement to install new treatment to address such risks.

- The conditions imposed on the grant of permission do not reflect the protections afforded to drinking water sources under article 7 of the Water Framework Directive including the provision that additional treatment processes for public water supplies necessitated by new activities in the catchment should be avoided. The conditions do not adequately mitigate the potential adverse effects on a critical drinking water source both in the early stages and long-term operation of the development. No operational maintenance or monitoring plan has been conditioned even though this was recommended by the Senior Chemist with the Local Authority.
- Additional conditions, including mitigation measures, are necessary to ensure that the risks posed by the proposed development are adequately understood and mitigated on an ongoing basis over the lifecycle of the development such as:
  - A HDPE liner installed underneath the 500mm of subsurface liner to ensure zero exfiltration from the constructed wetland.
  - Increasing the septic tank size to 10m<sup>3</sup> operational volume, minimum dual chamber.
  - That a maintenance contract be put in place to ensure the effective operation of the wetland which covers the following items:
    - Water level management and flow maintenance
    - Influent flow monitoring
    - Surface water quality monitoring of the influent and effluent
    - Vegetation monitoring & maintenance within cells and around the site
    - Maintenance of access

- Maintenance of inlet and outlet pipes
- Maintenance of embankments – to provide for easy and safe access for monitoring
- Sediment sludge management, septic tank emptied yearly and constructed wetland de-sludged every 8 No. years (Cell 1)
- Twice yearly inspection and sampling (Cell 2 discharge) of wetland and soakaway by the Environment Section of the Local Authority:
  - Discharge standards from the wetland of 15mg/l TSS, 10mg/l BOD, 1 mg/l NH<sub>3</sub>, 1 mg/l P (Cell 2 discharge – presoak away)
- The appellant is not satisfied that the grant of permission has given appropriate consideration to the requirement to protect drinking water sources and the level / impact of the risks posed by the development to the largest public water supply in Ireland. It is considered that the development, as permitted, presents an unacceptable risk to the water quality of the reservoir.

## 6.2. Applicant's Response

- The concerns raised by Irish Water and Dublin City Council can be resolved by the inclusion of the detailed conditions set out by the third party appellants.
- Prior to the submission of the application, and following a review of the site and the existing septic tank serving Knockieran Cottage, the consultants employed by the applicant (IE Consulting Engineers) recommended the use of an Integrated Constructed Wetland System (ICW) to serve the existing dwelling and to treat wastewater from the proposed holiday cottages. A detailed risk assessment of the groundwater was carried out and a robust solution provided to the issue of on-site effluent disposal and groundwater contamination (as detailed in the submitted particulars).
- VESI Environmental Ltd. were commissioned to design a replacement system for the existing wastewater treatment arrangements serving the cottage and to treat water from the proposed holiday accommodation. They are experts in the design and commissioning of Integrated Constructed Wetland Systems and provide ongoing maintenance for such systems.

- While it is acknowledged that the distance between the site and the lake / reservoir is less than the 200m recommended for any wastewater treatment system, when compared to the existing treatment system on site, which is less than 110m from the lake, the proposed ICW will provide a greater level of treatment, release less nutrients in its discharge and will produce no discharge for large parts of the year. The design and scaling of the ICW is such that it can accommodate c. 150% of the site's requirements meaning that any potential discharge will be limited to extremely heavy rainfall events (>50mm). During lesser rainfall events, it is most likely that no discharge from the ICW will be generated at the soakaway. Accordingly, the proposal will safeguard the lake and will not pose a risk to the drinking water source.
- All of the issues raised in the third party appeals are addressed in the accompanying submissions (with supporting drawings) prepared by IE Consulting, VESI Environmental Ltd., and the applicants, which set out how the safeguards sought can be adequately dealt with by way of condition as follows:

1. A HDPE liner installed underneath the subsurface liner to ensure zero discharge from the ICW:

The inclusion of a HDPE liner, installed 500mm below the clay subsoil of the ICW, will provide additional safety for the protection of the reservoir. The liner will be installed in accordance with the supplier's requirements and will be anchored in place by means of compacted stone anchors underneath the surrounding embankments (please refer to Drg. No. 19323\_3\_05).

The liner will be installed at each treatment cell and not for the site in its entirety, taking into account the new access road that is being constructed between the cells (as is the method used on other vulnerable sites e.g. Kilkenny Nutrition).

The use of an artificial liner is agreed upon in this instance for the purposes of reassurance due to the proximity of the ICW to the reservoir and the <200m setback. However, it should be noted that the design of the ICW did not include such a liner as this would not typically be required in

order to provide the necessary treatment and protection given that the on-site ground conditions are suitable. Furthermore, artificial liners are not considered necessary for ICW systems nationally. It should be understood that the geophysical interactions of the soils and their environs within any ICW systems are an integral part of their performance capacity.

2. Increasing the septic tank size to 10m<sup>3</sup> operational volume, minimum dual chamber:

The increased septic tank size will be installed on site. The backup septic tank will be installed alongside the primary tank with 48 hours storage capacity (5m<sup>3</sup>) based on the expected 2,240L/day loading for the development. The total storage capacity will be >6 days.

3. Maintenance contract to be put in place to ensure effective operation of the wetland:

An operation and maintenance plan is prepared and implemented for all ICW systems. A bespoke 'Operations and Maintenance' manual will be created for the optimal management and operation of the subject system which will include the following at a minimum:

- Water level management and flow maintenance
- Influent flow monitoring
- Surface water quality monitoring of the influent and effluent
- Vegetation monitoring & maintenance within cells and around the site
- Maintenance of access across the site
- Maintenance on inlet and outlet pipes
- Maintenance of the embankments – to provide easy and safe access for all
- Sediment sludge management, septic tank emptied yearly and ICW de-sludged every 8 years (Cell 1)

- Installation of equipment for monitoring and maintaining the site, such as water depth gauges and a dedicated sampling pot for Cell 2 discharge.

This manual will cover any and all operations relating to the wastewater treatment system and its infrastructure. Upon completion of the system and prior to commencement of its use, the client will be given hands-on guidance from VESI Environmental Ltd. on each item covered therein. On-going maintenance and support will be provided with a service agreement to be signed by both parties.

4. Twice yearly inspection and sampling:

The twice-yearly inspection sought by the Local Authority is accepted and monitoring of the discharge from Cell 2 and the soakaway, when present, will be carried out.

Supplemental monitoring will be carried out on a quarterly basis which will monitor influent to Cell 1 and discharge from Cell 2 & the soakaway. This will allow for the gathering of representative performance data to show the percentile nutrient reductions that the ICW is able to achieve within the context of its application, and to grow confidence in the ICW application.

The following monitoring parameters are proposed:

- Ammonia-N
- Orthophosphate
- BOD<sub>5</sub>
- COD
- Suspended solids
- pH
- Enterococci
- E. coli

All samples will be submitted to an accredited lab for analysis and the results shared with Irish Water, Dublin City Council & the Local Authority.

Utilising the data collected by Wicklow County Council Environmental Section & the applicant, and local weather data, a comprehensive water balance, mass loading and treatment efficiency dataset can be compiled to demonstrate the integrity and efficacy of the ICW.

- The proposed ICW is based on the principles laid out in in the DoEHLG's '*Integrated Constructed Wetlands Guidance Document for Farmyard Soiled Water and Domestic Wastewater Applications, 2010*' and the multi-cellular design incorporates various safety measures for the protection of surface waters and the surrounding environment.
- While it is not possible to achieve a distance >200m from the reservoir, the design principles of the ICW are such that they retain, effectively process, and return water to the local environment in an environmental and low-energy manner.

Part of the ICW design is the inclusion of embankments (c. 1m in height) around each cell which will provide substantial attenuation capacity for both incoming waters and intercepted rainfall. The risk of any overflows from the initial cells in the wetland is essentially non-existent as the storage capacity within Cell 1A and 1B is c. 280m<sup>3</sup>, which is approximately 125 days maximum operational loading from the proposed development. The embankment height allows for the retention of water if ever needed as well as the accumulation of sediments, necromass and biomass within the ICW cells as the system matures. The accumulation of these materials in no way inhibits performance of the ICW and water depths are maintained at their optimal levels (~150mm) by means of 90° elbows on the outlet pipes of the cells. These elbows are also the control mechanism if waters are required to be held back.

Surface waters in the immediate area will be addressed by the proposed soakaway and interception channels which will prevent overland flow from entering the ICW and potentially having adverse effects on the hydraulic residence time within the ICW. Additionally, the compaction of the underlying subsoil and clays will achieve at least the required containment with rates of permeability <1x10<sup>-8</sup> m/s.



- It is expected that the ICW will enhance the local habitat and biodiversity through its habitat creation for waterfowl. The successful creation of habitats for aquatic and semi-aquatic wildlife through the introduction of ICW systems is well documented in Ireland.
- The applicants have expressed an interest in recycling treated water from the ICW for use in watering decorative plants around the property thus lowering the extraction of waters in the area. Active measures like this, along with the capacity of the ICW to accept, hold and treat wastewaters, while simultaneously enhancing local biodiversity and ecology, means that the implementation of the ICW will actively contribute towards the objectives of the Water Framework Directive and help to improve water quality in the area.
- The applicants live on site and therefore have a long-term vested interest in ensuring compliance with any measures / conditions deemed necessary.

### 6.3. Planning Authority Response

- The reasons and considerations for granting permission are set out in the reports forwarded to the Board and, therefore, the Planning Authority has no further comments on the principle of the proposed development.
- Both the appellants have suggested the imposition of a condition requiring twice yearly inspection and sampling of the wetland and soakaway by the Environment Section of Wicklow County Council. This would appear to be for the purposes of mitigating the long term operation of the development. In this regard, the Planning Authority would note that the long term operation of any on-site effluent disposal system is subject to the Water Pollution Act and it is a matter for the applicant / developer to ensure that any system is constructed to an acceptable design (as covered by Condition No. 4) and is operated in accordance with such legislation. The attachment of the suggested condition would result in the unnecessary duplication of legislative requirements with the consequence that any pollution issues that may arise in the future would be subject to action under the Water Pollution Act and enforcement action (non-compliance) under Part VIII of the Planning and Development Act, 2000, as amended. The latter would be a cumbersome legislative process to deal

with a long term matter such as pollution control that could arise throughout the operation of the facility.

- If the Board considers that additional requirements are needed given the sensitive location of the development adjacent to an important water body, the Planning Authority would not object to the inclusion of the following conditions:
  - a) Maintenance contracts for the pumps, alarm, sump, septic tank / standby septic tank, wetlands and soakaway shall be entered into with a competent person / firm with professional indemnity insurance. Annual operation and maintenance reports shall be retained and, where requested, submitted to the Planning Authority.
  - b) On a twice yearly basis for the first 3 years of the operation of the proposed effluent disposal system and on an annual basis thereafter, the applicant or operator of the proposed development shall test samples from the wetlands to assess compliance with the proposed discharge standards. Records of the tests shall be retained and, where requested, submitted to the Planning Authority.

Reason: In the interest of public health.

#### 6.4. **Observations**

None.

#### 6.5. **Further Responses**

##### 6.5.1. *Response of Dublin City Council to the circulation of the submission received from the Planning Authority:*

- While Dublin City Council accepts the proposed changes to the conditions as outlined in the submission made by Wicklow County Council, it remains opposed to any grant of permission on the basis that the wetland system is sited too close to the drinking water reservoir.

##### 6.5.2. *Response of Irish Water to the circulation of the submission received from the Planning Authority:*

None.

6.5.3. *Response of the Planning Authority to the circulation of the submission received from the Applicant:*

None.

6.5.4. *Response of Dublin City Council to the circulation of the submission received from the Applicant:*

- While welcoming the addition of a HDPE linear, the increased tank size, and the proposed monitoring, maintenance and reporting agreement, Dublin City Council nevertheless remains opposed to the development.
- The subject environment forms an extremely important part of the public health infrastructure serving the Greater Dublin Area. In the hierarchy of risk management, sources of risk (hazards) should be removed in the first instance where possible instead of placing a reliance on long-term risk management strategies.
- Notwithstanding that the proposed wastewater treatment system may represent an improvement over the existing system, any such improvement should not be dependent on the authorisation of further development.
- The appeal site is too close to the reservoir for Dublin City Council not to maintain its objection to the granting of permission.
- Any grant of permission for the subject proposal would set a precedent for the further development of wastewater treatment facilities at locations too close to the reservoir and its feeder streams. Any dependence on maintenance, monitoring and reporting agreements on a large scale will not provide the necessary long-term protection required for this vital piece of public health infrastructure.

6.5.5. *Response of Irish Water to the circulation of the submission received from the Applicant:*

None.

## 7.0 Assessment

7.1. From my reading of the file, inspection of the site and assessment of the relevant policy provisions, I conclude that the key issues relevant to the appeal are:

- The principle of the development
- Wastewater treatment & disposal
- Appropriate assessment

These are assessed as follows:

### 7.2. The Principle of the Development:

7.2.1. In assessing the principle of the proposed development and, more specifically, the provision of overnight / short-term holiday accommodation at the location proposed, at the outset I would draw the Board's attention to Objective T3 of the County Development Plan which states that tourism and recreation related developments will generally be required to locate in existing towns and villages, except where the nature of the activity proposed renders this unfeasible or undesirable, while in all circumstances there will be a requirement to provide a robust assessment setting out the sustainability of the proposal with respect to economic, environmental and social sustainability considerations as defined in Section 7.3 of the Plan. In this regard, while I would acknowledge the proximity of the site to the urban centre of Blessington, it is not located within the confines of the town nor is it presently accessible by means other than the private car given the absence of any footpath, cycleway or street lighting between the site and Blessington Bridge (although it is proximate to the planned route of the looped extension of the Blessington Greenway / 'E'-Greenway which will ultimately pass along the lakeshore to the west). The stated exception from the requirement to locate within existing towns and villages is where the nature of the activity proposed would render this unfeasible or undesirable, however, while I would accept that the conversion of existing structures clearly negates against the consideration of alternative sites, in my opinion, it does not remove the need to establish why the development proposed must locate at this site in the first instance. The desire of the applicants to develop short-term holiday accommodation at the appeal site does not in itself translate to a justification as to why this is a suitable location for such a use in the context of Objective T3,

particularly as the siting of any such use would seem to be equally, if not more, feasible / desirable within an existing town or village. Furthermore, other than for a reference in the initial application documentation to the proposed 'agri-tourism' accommodation project having the support of the County Wicklow Partnership and the LEADER fund, in addition to the applicants' response to the grounds of appeal wherein they have stated that they have a background in the tourism industry, no further details have been provided setting out the sustainability of the proposal with respect to the economic, environmental and social sustainability considerations of the Plan e.g. in terms of 'economic sustainability' it is stated that for projects to be economically sustainable they should meet the needs of the permanent and also visitor population alike, so the preparation of robust business plans for all such developments will ensure proposals are viable and sustainable.

7.2.2. Following on from the aforementioned requirement that tourism and recreation related development should generally be located within existing towns and villages, Objective T4 states that any such development will only be permitted in a rural area *'where the product or activity is dependent on its location in a rural situation and where it can be demonstrated that the proposed development does not adversely affect the character, environmental quality and amenity of the rural area or the vitality of any settlement and the provision of infrastructure therein'*. This additional provision places a further onus on the applicants to demonstrate the natural resource / tourist product / tourist attraction essential to the siting of the subject proposal so as to allow for any subsequent planning assessment to balance the need to locate in this particular area against the environmental impact of the development and the benefits to the local community. In the absence of any more detailed rationale or business plan for the development proposed, I would suggest that difficulties arise as regards establishing compliance with Objectives T3 & T4 of the Development Plan.

7.2.3. At this point, I would refer the Board to Objective T7 of the Plan which states that favourable consideration will be given to proposals for tourism and recreation related development which involve the reinstatement, conservation and/or replacement of existing disused buildings and that a positive interpretation of plan policies will be adopted to encourage such developments. Given that the subject proposal involves the subdivision and conversion of an existing vernacular structure for use as short-term holiday accommodation, the proposed development finds support by reference

to this policy provision, however, compliance with this objective is contingent on adherence *'to all other objectives being complied with, and subject to the proper planning and sustainable development of the area'*. In this regard, I would revert to my earlier assessment of the proposal in light of the requirements of Objectives T3 & T4 of the Development Plan.

7.2.4. In specific reference to the nature of the holiday accommodation proposed, Objective T13 requires new holiday home / self-catering developments to locate within either established settlements or at established tourism / recreation facilities, other than those developments involving the renovation / conversion of existing buildings. On the basis that the proposed development involves the renovation and conversion of an existing structure it would be permissible under the aforementioned objective, however, it is unclear whether this provision is intended to be taken in isolation or if the proposal would nevertheless be required to adhere to Objectives T3 & T4. In this regard, I would suggest that if Objective T13 were to be interpreted as a 'standalone' provision it could perhaps give rise to unintended consequences such as the development of holiday accommodation (through the conversion of existing buildings) in unsuitable locations remote from any tourist destination / attraction etc. Support is lent to the need for Objectives T3, T4 & T13 to be considered concurrently by reference to the Board's determination of ABP Ref. No. ABP-307703-20 (an application for the retention of a converted farm store/barn for on-farm self-catering accommodation at Ballyross, Glencree, Enniskerry, Co. Wicklow) wherein permission was refused on the basis that the proposal would be contrary to the objectives of the Wicklow County Development Plan, 2016-2020 which seek to promote, encourage and facilitate the development of tourism and recreational activities in a sustainable manner and as the applicants had not demonstrated compliance in terms of meeting the requirements of Objectives T3, T13 and T15 of the Plan.

7.2.5. Although there may be merit to the proposed development in terms of its proximity to Blessington town, the planned extension of the Blessington Greenway / 'E'-Greenway, and the established tourism offering in the wider area, and while the reuse of an existing building for use as holiday accommodation would also find support by reference to Objective T13 of the Development Plan, in my opinion, the foregoing factors do not negate the need to demonstrate compliance with Objectives

T3 & T4 in terms of providing a robust assessment setting out the sustainability of the proposal with respect to the economic, environmental and social sustainability considerations defined in Section 7.3 of the Plan. Therefore, I would consider that insufficient information and justification has been provided for the proposed development and as such the proposal has not demonstrated compliance with the requirements of the Wicklow County Development, Plan 2016-2022.

7.2.6. The Board is advised that this would amount to a new issue in the consideration of the subject appeal.

### **7.3. Wastewater Treatment & Disposal:**

7.3.1. The proposed development includes for the decommissioning of the existing Biological Aerated Filter (BAF) wastewater treatment system serving Knockieran Cottage and its replacement with an Integrated Constructed Wetland (ICW) system to treat wastewater generated from both the existing dwelling house and the proposed holiday cottages. In this respect, it would appear that the proposal to utilise a single combined wastewater treatment system to serve both the existing dwelling and the proposed cottages has been included in an effort to address the broader reasons for the previous refusal of PA Ref. No. 1726. That earlier application sought permission for an identical scheme of holiday accommodation, however, it also proposed the installation of a second standalone wastewater treatment system within the confines of the site to serve the holiday cottages while retaining the existing BAF wastewater treatment system associated with the main residence and it was this aspect of the proposal which would appear to have given rise to difficulties. More specifically, the Planning Authority was of the opinion that due to the site location within the Liffey catchment area and the proximity of an important feeder stream to the Poulaphouca Reservoir, which is a major source of public water supply, it was considered that the proposed proliferation of on-site effluent treatment systems would increase the likelihood of contaminants reaching the water source through malfunction, lack of maintenance or otherwise, and would, therefore, be prejudicial to public health and contrary to the proper planning and development of the area (it was also considered that in light of the risk of contamination as a result of the proposed development to the Poulaphouca Reservoir Special Protection Area, insufficient information had been submitted to enable the Planning Authority to

screen for and/or carry out an appropriate assessment pursuant to Article 6 of the Habitats Directive).

7.3.2. The detailed particulars of the subject wastewater treatment arrangements differ in two key aspects from those previously refused permission under PA Ref. No. 1726. Firstly, the proposal to utilise a single combined system to treat effluent from both the existing dwelling and the holiday cottages aims to avoid any increase in the overall number of individual wastewater treatment plants on site thereby obviating any concerns as regards a greater proliferation of such systems. Secondly, the design and nature of the proposed Integrated Constructed Wetland (ICW) system is such that it will strive for 'zero-discharge' through most of the year (with any discharge expected to be low / infrequent and draining to a vegetated soakaway) whereas the arrangements previously proposed had been to discharge treated effluent to ground by way of a percolation area and a soil polishing filter. In addition, it is envisaged that the ICW will provide for a greater level of effluent treatment with less nutrients released in its discharge (and no discharge produced for large parts of the year) thereby safeguarding the lake and posing no risk to the drinking water source while further mitigation, maintenance & monitoring measures have been proffered in response to the concerns raised in the grounds of appeal.

7.3.3. By way of summation, the proposed ICW is based on the principles laid out in the DoEHLG's '*Integrated Constructed Wetlands Guidance Document for Farmyard Soiled Water and Domestic Wastewater Applications, 2010*' and comprises a multi-cellular design which incorporates various safety measures for the protection of surface waters and the surrounding environment. Wastewater from the existing dwelling and the proposed holiday cottages will be drained to an appropriately sized (5m<sup>3</sup> minimum), two-chamber septic tank before being pumped via a rising main to an initial ICW cell (in response to the grounds of appeal a backup septic tank is to be installed alongside the primary tank with 48 hours storage capacity (5m<sup>2</sup>) based on the expected 2,240L/day loading for the development thereby providing a total storage capacity in excess of 6 No. days). The waters to be treated will then flow by gravity sequentially through the ICW (Cells 1A, 1B & 2) with sufficient area within the vegetated cells to ensure the good water quality of any discharge which may occur although the system will strive for zero-discharge through most of the year with any discharge expected to be low / infrequent and draining to a vegetated soakaway.



The detailed design parameters for the ICW are set out in the 'Planning Report' prepared by VESI Environmental Ltd. (as supplemented by the Groundwater Risk Assessment compiled by IE Consulting) and the particulars provided in response to the request for further information while it has also been suggested that additional refinements to the system design and various mitigation, maintenance & monitoring measures (as set out in response to the grounds of appeal) could be imposed by way of condition in the event of a grant of permission.

7.3.4. For the purposes of comparison, it has been submitted that the existing wastewater treatment system on site receives 1,280L/day and is presently operating at its maximum loading (it cannot be upgraded to provide additional treatment capacity). The expected loading from the existing dwelling house and the proposed holiday homes is 2,240L/day (i.e. 14 PE) and, therefore, a minimum treatment area of 420m<sup>2</sup> is required for the site (30m<sup>2</sup>/PE) based on the 2010 Guidance Manual. However, the subject proposal has been designed to have a treatment area of 620m<sup>2</sup> so as to ensure minimal discharge during the year, optimise treatment, and to provide potential capacity for additional flow in the future.

7.3.5. Perhaps the most pertinent issue is that while the existing treatment system on site discharges c. 1.2m<sup>3</sup>/day to ground, the proposed ICW will strive for zero discharge for most of the year and greatly minimised flows during winter / wetter months. The mechanism by which this rate of zero discharge will be achieved is set out in the submitted details, however, the intention is that the subsoil underlying the individual ICW cells will have a permeability of less than  $1 \times 10^{-8}$ m/s thereby preventing soakage to ground (the applicant has also indicated in response to the grounds of appeal that it is amenable to the installation of an HDPE liner underneath the subsurface of each treatment cell to ensure zero discharge and to provide further reassurance as regards the protection of water quality within the reservoir). Treated waters will pass through the cells of the ICW and the absorption and evapotranspiration rates of the emergent helophyte vegetation is expected to ensure no discharge from the system, unless there is a prolonged and extreme heavy rainfall event. The operational water depth within the treatment cells will be between 150mm and 200mm, however, these will be enclosed by suitably constructed embankments to a minimum height of 1m (to account for the accumulation of suspended solids and biomass etc.) thereby creating long-term freeboard and

substantial attenuation capacity for both incoming waters and intercepted rainfall within the ICW, although the use of deflectors / deflecting drains will intercept and divert external surface water runoff away from the wetlands during high rainfall events to minimise or eliminate any additional hydraulic loadings on the system. In the event of prolonged rainfall conditions, it has been stated that any discharge from the ICW will predominantly comprise rainwater rather than contaminated material which will be drained to the proposed soakaway and slowly released to ground from there. The risk of any overflows from the initial cells in the wetland is considered to be essentially non-existent as the storage capacity within Cell 1A and 1B is approximately 280m<sup>3</sup>, which is approximately 125 days maximum operational loading from the proposed development, while the overall storage capacity of the ICW and soakaway is c. 630m<sup>3</sup> although this is only for extreme conditions.

- 7.3.6. On the basis of the available information, while the mitigation and monitoring measures set out in response to the third party appeals have been specifically proposed in order to satisfy the recommendations / conditions sought by the appellants, it is clear that both appellants object to the proposed wastewater treatment arrangements from first principles by reference to the proximity of the system to the lake and the introduction of additional development with its associated increased effluent loadings within the exclusion zone of a public water supply. By extension, concerns arise as regards the potential for the subject proposal to set an undesirable precedent for further such development and in this respect I would refer the Board in particular to the reference in the application documentation to the proposed system having the capacity to accommodate further loadings from future development on site. Moreover, it is apparent from the third party appeal of Dublin City Council (unlike that of Irish Water wherein it is not expressly stated) that any acceptance of the additional measures proposed by the applicant in response to the third party appeals as a means of safeguarding water quality within the Poulaphouca Reservoir will be contingent on the siting of the wastewater treatment system at least 200m from the reservoir.
- 7.3.7. The proposed septic tanks and the ICW will be situated approximately 100-110m from the lake shoreline, a separation distance comparable to that of the existing wastewater treatment system serving Knockieran Cottage, and thus are significantly within the 200m exclusion zone referenced by Dublin City Council. In this regard, I

would draw the Board's attention to the contents of the original submission lodged by Dublin City Council wherein it is stated that surveys by its own consulting engineers (Messrs. Binnie & Partners) have indicated that the reservoir is tending to become eutrophic due to a rise in nutrient levels, part of which is attributable to treatment systems and septic tanks. This has seemingly been confirmed by An Foras Forbatha and the City Council's own chemical analysis of the reservoir's drinking water quality over a number of years with concerns arising that it could lead to difficulties in treating the water for drinking purposes (the submission has also referenced the health risk to water supplies associated with septic tanks and treatment systems sited near streams and reservoirs). Consequently, the City Council's consulting engineers have recommended that septic tanks be curtailed in areas proximate to the reservoir and its feeder streams.

7.3.8. (It is my understanding that the Water Quality Management Plan for the Liffey catchment which was prepared by An Foras Forbartha and the ERU for the constituent local authorities at that time recommended the following:

1. All necessary measures are taken to ensure that Poulaphouca Reservoir which at present provides some 50% of the water supply in the Dublin region and may provide a greater percentage in the future, remain unpolluted.
2. Development around the perimeter of the reservoir must be controlled and ordered to prevent pollution.
3. No septic tank or percolation area should be located within 200 metres of the shoreline of highest reservoir water level or within 100 metres of any drain or stream leading directly to the reservoir).

7.3.9. At this point, I would refer the Board to Objective WI2 of the Wicklow County Development Plan, 2016-2022 which seeks '*to protect existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies*' as well as the wider plan objectives pertaining to wastewater considerations. In this context, Section 8: '*Water Services: Wastewater Disposal: (b) On site wastewater systems*' of Appendix 1: '*Development and Design Standards*' of the Development Plan requires all on-site effluent disposal systems for single houses to comply with Wicklow County Council's '*Policy for*

*wastewater treatment and disposal systems for single houses (PE ≤ 10)*” while all other on-site systems are to accord with the provisions of the relevant EPA Manuals.

- 7.3.10. Within the Council’s most up to date ‘*Policy for Domestic Wastewater Treatment Systems for PE ≤ 10, June, 2021*’ it is explicitly stated that the minimum separation distance between any septic tank, secondary treatment plant, percolation area or polishing filter from the Blessington / Poulaphouca Reservoir shall be 200m. In addition, the minimum separation distance for any such system from a stream / watercourse leading to the reservoir is 100m. It is further stated that no wastewater treatment system will be allowed within the exclusion zone of a public water supply. Therefore, it is this policy document which appears to form the basis of the 200m exclusion zone referenced by Dublin City Council.
- 7.3.11. Although the aforementioned policy provisions relate to domestic wastewater treatment systems with a PE of ≤10, and while the subject proposal involves the development of holiday accommodation with the loadings directed to the new shared ICW system from the existing dwelling and the proposed cottages expected to be 2,240L/day i.e. 14 PE (noting that the ICW has a design capacity capable of catering for increased loadings in the event of further development on site), in my opinion, it would be reasonable to conclude that with the increased effluent loadings associated with a greater level of development on site that the minimum separation distances applicable in respect of one-off houses should also be applied with respect to the development presently proposed. In this regard, I note that the ‘*Policy for Domestic Wastewater Treatment Systems*’ states that where the population equivalent is >10 then the Planning Authority will require on site wastewater treatment and disposal systems to be assessed and designed in accordance with the EPA’s ‘*Wastewater Treatment Manual, Treatment Systems for Small Communities, Business, Leisure Centres and Hotels, 1999*’ and that testing in addition to that set out in the code may be required.
- 7.3.12. All elements of the proposed wastewater treatment system, including the septic tank(s) and the ICW, will be within 200m of the reservoir and 100m of an open channel which passes approximately midway through the site to drain occasional runoff from the public road and higher ground to the east towards the lake. Accordingly, no element of the system satisfies the minimum separation distances required by the Council’s ‘*Policy for Domestic Wastewater Treatment Systems for*

*PE ≤ 10, June, 2021*'. Furthermore, given the increased loadings generated by the proposed development (notwithstanding the aim for 'zero-discharge') when compared to a single domestic residence, it is only reasonable to apply the minimum separation distances required by the aforementioned provision and thus the proposal would be contrary to the wider objectives (incl. Objective WI2) of the Development Plan which seek to protect the existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.

- 7.3.13. Given the strategic importance of the Poulaphouca Reservoir as a critical drinking water source for the Greater Dublin Area (with treated waters from the reservoir amounting to 50% of the GDA's drinking water supply) and the submission by Irish Water that any water quality issue at this source would have the potential to impact on a population of 1.6 million people, it is clear that the safety and quality of this water body is of particular importance to the State and the public health of every person living and working in the region.
- 7.3.14. While I would acknowledge that the applicant has asserted that the installation of the proposed ICW represents an improvement over the existing wastewater treatment regime on site, with a particular emphasis being placed on the potential for near zero-discharge to ground, I am cognisant that this improvement is tied to a notable increase in the level of development (with its associated effluent loadings) on site while reference is also made in the application to the design capacity of the system possibly accommodating further development at a future date. In seeking to balance the merits of the proposed development with the need to protect a critical water source, it is my opinion that the additional volume of effluent necessitating treatment on site as a direct result of an increased level of development poses a heightened risk to water quality in the reservoir (when compared to the existing scenario on site) having regard to the source-pathway-receptor model of risk assessment due to the hydrological connections between the site and the lake by way of ground & surface water pathways and overland flow. Although the risk itself may be minimised by way of various mitigation and / or monitoring measures, in my opinion, given the strategic importance of the reservoir as a drinking water source, the appropriate avenue should be the avoidance of any such risk in the first instance and in this regard I

would suggest that the exclusion zone sought by the Development Plan is intended to act as the primary means of source protection. The siting of the proposed wastewater treatment system fails to comply with the minimum separation distances required and I am unconvinced that the historical location of an existing treatment system serving a single dwelling house can be used to justify the siting of a larger system intended to serve an increased scale of development in this instance. The consequences of any system failure attributable to malfunction or a lack of maintenance etc., notwithstanding the minimisation of the risk of any such event occurring, could potentially be greater than those posed by the current scenario on site and, therefore, I would suggest that it would be prudent to apply the precautionary approach in this instance.

- 7.3.15. In addition to the foregoing, I would have concerns that any grant of permission for the subject proposal would set an undesirable precedent for further development within the exclusion zone and that the cumulative impact arising would pose an unnecessary risk to water quality in the reservoir. This would apply to the possibility of additional development both within the confines of the application site and on lands elsewhere.
- 7.3.16. In my opinion, the overriding factor in this case is the strategic importance of the public water supply and the protection of that supply and, therefore, having considered the nature and scale of the development proposed with its increased population equivalent and consequent effluent loadings, the proximity of the wastewater treatment system to the Poulaphouca Reservoir (a strategically important drinking water source for the Greater Dublin Area), and the failure to achieve the minimum separation distances required by the Development Plan from the reservoir and its feeder streams / watercourses, I am of the view that the proposal would be contrary to the provisions of the Development Plan which seek to protect the existing and potential water resources of the County (e.g. Objective WI2) and that it would constitute a hazard to public health having regard to the risk it would pose in relation to water quality in the reservoir.

#### **7.4. Appropriate Assessment:**

- 7.4.1. From a review of the available mapping, including the data maps from the website of the National Parks and Wildlife Service, it is apparent that while the proposed

development site is not located within any Natura 2000 designation, there are a number of Natura 2000 sites in the surrounding area, with the Poulaphouca Reservoir Special Protection Area (Site Code: 004063) situated approximately 100m west of the site. In a wider context, the Wicklow Mountains Special Area of Conservation (Site Code: 002122) and the Wicklow Mountains Special Protection Area (Site Code: 004040) are located c. 2.2km and 3km to the southeast respectively while the Red Bog Special Conservation Area (Site Code: 000397) is c. 3.3km north-northwest of the application site.

7.4.2. In this respect it is of relevance to note that it is the policy of the planning authority, as set out in Chapter 10 of the Wicklow County Development Plan, 2016, to avoid negative impacts upon the natural environment and to promote the appropriate enhancement of the natural environment as an integral part of any development. Furthermore, Objective NH2 of the Plan states that no projects which would give rise to any significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects will be permitted on the basis of the plan (either individually or in combination with other plans or projects). By way of further clarity, Objective NH4 also states that all projects and plans arising from the Development Plan (including any associated improvement works or associated infrastructure) will be screened for the need to undertake Appropriate Assessment pursuant to Article 6 of the Habitats Directive whilst any such plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment, where necessary, that:

- 1) The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or
- 2) The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type and / or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be

a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

- 3) The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

7.4.3. In effect, a proposed development may only be authorised after it has been established that the development will not have a negative impact on the fauna, flora or habitat being protected through an Appropriate Assessment pursuant to Article 6 of the Habitats Directive. Accordingly, it is necessary to screen the subject proposal for the purposes of 'appropriate assessment'.

7.4.4. *Stage 1: Screening:*

The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.

7.4.5. In screening the proposal for the purposes of appropriate assessment, I would refer the Board at the outset to the '*Screening Report for Appropriate Assessment*' (OPENFIELD Ecological Services: September, 2020) submitted with the application which provides a brief description of the proposed development and the subject site before identifying the Poulaphouca Reservoir Special Protection Area as the only Natura 2000 site falling within the zone of influence of the development. It refers to the accompanying '*Groundwater Risk Assessment*' prepared by IE Consulting wherein it is stated that the wastewater treatment system proposed as part of the overall development will incorporate an Integrated Constructed Wetland that will result in zero-discharge for most of the year due to the evapotranspiration of the



hydraulic load by a carefully selected range of wetland plants. In this regard, further reference is made to the *'Planning Report'* compiled by VESI Environmental Ltd. which details the site suitability assessment undertaken as part of the proposal along with the design, construction & landscaping of the ICW in addition to certain 'mitigation measures' to be employed during the construction and landscaping works so as to limit the impact on adjacent surface water and ground water environments as well as the arrangement for subsequent aftercare, management and monitoring. The screening exercise proceeds to note that the proposed ICW is stated as having been designed to achieve zero discharge to the effect that it will result in a net reduction in overall loads from the site. The screening report thus concludes that the project *'has been screened for AA under the appropriate methodology'* and that *'significant effects are not likely to arise, either alone or in combination with other plans or projects on any Natura 2000 area'* while *'no mitigation measures have been taken into account when arriving at this conclusion'*.

- 7.4.6. The proposed development was further screened by the Planning Authority (please refer to the *'Habitats Directive Project Screening Assessment'* included at Appendix 1 of the initial report prepared by the case planner) which determined that as the development involved the renovation of an existing building located c. 110m from the boundary with the Poulaphouca Reservoir SPA, and as the proposed installation of the Integrated Constructed Wetland would serve to reduce the daily discharge from the site and the risk of contamination reaching the lakeshore, it could be concluded that the qualifying features of Natura 2000 sites would not be at risk of experiencing likely significant effects and thus a Stage 2 Appropriate Assessment would not be required. However, this determination was subsequently overridden by the Senior Engineer with a note appended to the planner's report stating that as there was a direct hydraulic link via groundwater between the proposed development and the SPA, it would not be possible to screen out any requirement for appropriate assessment until such time as concerns regarding the wastewater treatment arrangements had been addressed. This culminated in the submission of additional details in response to a request for additional information as regards the design and operation of the ICW, however, no further screening of the proposal for the purposes of appropriate assessment appears to have been completed by the Planning Authority.

- 7.4.7. The project under consideration is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s). Accordingly, the proposed development requires to be examined in relation to any possible interaction with European Sites designated Special Areas of Conservation (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.
- 7.4.8. The development proposal involves the subdivision and conversion of an existing outbuilding to provide for 5 No. self-contained holiday cottages with associated site development works including the closure of an existing site access and the opening of a new entrance onto the public road. It will also entail the decommissioning of an existing BAF wastewater treatment system on site and its replacement with an Integrated Constructed Wetland system to treat wastewater generated from the existing dwelling house (Knockieran Cottage) and the proposed holiday cottages. Wastewater will be collected in an appropriately sized septic tank before being pumped to an initial ICW cell whereupon the waters to be treated will flow by gravity sequentially through the ICW. The system has been designed to strive for zero-discharge through most of the year with any discharge expected to be low / infrequent and draining to a vegetated soakaway.
- 7.4.9. A description of the development site is set out in Pages 6 -7 of the '*Screening Report for Appropriate Assessment*' wherein it is stated that the site comprises a cluster of existing buildings (encompassing 'Knockieran Cottage' and the outbuilding proposed for conversion) surrounded by open grassland. These are subsequently categorised as '*Buildings and Artificial Surfaces – BL3*' and '*Dry Meadow - GS2*'. The southern site boundary is defined by a treeline (WL2) comprising non-native cypress while predominantly native hedgerow bounds the property to the east with occasional mature trees (Ash & Beech) located throughout the property (it has been indicated that no mature trees will be negatively affected by the development although a section of roadside hedgerow will be removed to accommodate the new site entrance and sightlines). The proposed ICW will be in the dry meadow to the north of the development site.

7.4.10. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- Construction related - uncontrolled surface water / silt / construction related pollution
- Habitat loss / fragmentation
- Habitat disturbance / species disturbance (construction and or operational)

7.4.11. In assessing the zone of influence of the proposed development on Natura 2000 sites, the identification of European sites within a 15km radius of the project has become commonplace in screening for the purposes of appropriate assessment, however, this is not founded on scientific evidence and derives from a misapplication of the recommendation for 'Plans' contained in the '*Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities*' published by the Department of Environment, Heritage and Local Government (which in turn derives from UK guidance). Nevertheless, for the purposes of completeness, there are 5 No. European Sites within a 15km radius of the proposed works which can be summarised as follows:

- *European Site: The Poulaphouca Reservoir Special Protection Area (Site Code: 004063):*

*Distance & Direction:* c. 110m west

*Qualifying Interests:* Greylag Goose (*Anser anser*) [A043]

Lesser Black-backed Gull (*Larus fuscus*) [A183]

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

- *European Site: The Wicklow Mountains Special Area of Conservation (Site Code: 002122):*

*Distance & Direction:* c. 2.3km southeast

*Qualifying Interests:* Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]

Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]

Natural dystrophic lakes and ponds [3160]

Northern Atlantic wet heaths with Erica tetralix [4010]

European dry heaths [4030]

Alpine and Boreal heaths [4060]

Calaminarian grasslands of the Violetalia calaminariae [6130]

Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]

Blanket bogs (\* if active bog) [7130]

Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]

Calcareous rocky slopes with chasmophytic vegetation [8210]

Siliceous rocky slopes with chasmophytic vegetation [8220]

Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]

Lutra lutra (Otter) [1355]

*Conservation Objectives:* 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.

- European Site: The Wicklow Mountains Special Protection Area (Site Code: 004040):
  - Distance & Direction:* c. 5.4km southeast
  - Qualifying Interests:* Merlin (*Falco columbarius*) [A098]  
Peregrine (*Falco peregrinus*) [A103]
  - Conservation Objectives:* To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.
  
- European Site: The Red Bog Special Area of Conservation (Site Code: 000397):
  - Distance & Direction:* c. 3.3km north-northwest
  - Qualifying Interests:* Transition mires and quaking bogs [7140]
  - Conservation Objectives:* To maintain the favourable conservation condition of Transition mires and quaking bogs in Red Bog, Kildare SAC (as defined by the relevant list of attributes and targets).
  
- European Site: The Glenasmole Valley Special Area of Conservation (Site Code: 001209):
  - Distance & Direction:* c. 13.2km northeast
  - Qualifying Interests:* Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (\*important orchid sites) [6210]  
  
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]  
  
Petrifying springs with tufa formation (Cratoneurion) [7220]
  - Conservation Objectives:* 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.

- 7.4.12. With respect to the Wicklow Mountains Special Area of Conservation, the Wicklow Mountains Special Protection Area, the Red Bog Special Area of Conservation, and the Glenasmole Valley Special Area of Conservation, having regard to the limited nature and scale of the proposed development, the separation distances involved, the location of the subject works either within a different surface water catchment or downgradient / downstream of those protected sites, and as no potential pathways for any significant impacts can be established, it can be reasonably concluded that there is no potential for those Natura 2000 sites to be impacted by the subject development.
- 7.4.13. In relation to the Poulaphouca Reservoir SPA, given the location of the proposed works, with particular reference to the Integrated Constructed Wetland, upgradient of the lake, the possibility of a hydrological connection via surface and ground water pathways between the wastewater treatment system and the European Site cannot be discounted and, therefore, I would concur with the '*Screening Report for Appropriate Assessment*' that this is the only Natura 2000 site which could be considered to fall within the zone of influence of the proposed development.
- 7.4.14. The '*Screening Report for Appropriate Assessment*' outlines that there is presently no attenuation of stormwater on site which is likely to run off hard surfaces to be absorbed in nearby grassland and soil (it has been further submitted that while there are no watercourses in the immediate vicinity, surface and ground water pathways lead to the reservoir). In this regard, surface water runoff from roofs and paved areas associated with the proposed development are to continue to discharge to groundwater (as a standard measure not included to avoid or reduce an effect on a Natura 2000 site).
- 7.4.15. In reference to the Integrated Constructed Wetland system, it has been emphasised that this design solution will operate in a zero-discharge capacity for most of the year with the hydraulic load being evapo-transpired by a range of wetland plants resulting in a net reduction in overall loads from the site and reducing the risk of contamination reaching the lake (when compared to the existing situation and noting that the BAF effluent treatment system on site is at capacity and discharging 1.2m<sup>3</sup>/day to

ground). In further support of the proposal, it has been submitted that given the available space and ground conditions on site, the proposed system will operate satisfactorily thereby addressing the concerns of Irish Water and other parties as regards the proximity of the reservoir.

7.4.16. The applicant's screening exercise subsequently states that there are no habitats within the confines of the site associated with those species listed as Special Conservation Interests for the Poulaphouca Reservoir SPA while there is no evidence that water quality is implicated in changes to bird numbers at the reservoir (with water quality seemingly unpolluted at present).

7.4.17. In identifying and assessing the likelihood of significant effects, the findings of the 'Screening Report for Appropriate Assessment' can be summarised as follows:

- *Habitat loss:*

Given the 110m separation distance between the development site and the SPA, there is no pathway for any loss or disturbance of habitats associated with the qualifying interests of the reservoir.

- *Habitat disturbance:*

The habitats present on site are not suitable for regularly occurring populations of the wetland birds for which the SPA has been designated. The margin of the reservoir is defined by a tall, deep line of coniferous trees and thus the development site is effectively screened from the lake. Accordingly, there can be no disturbance to birds on the lake from activities occurring on site.

- *Hydrological pathways:*

It is acknowledged there are pathways between the development site and the reservoir via surface and groundwater flows with respect to the proposed wastewater treatment plant and surface water runoff.

The ICW system will treat effluent to a high standard with no significant impact on groundwater quality and no negative effects on those bird species for which the SPA has been designated.

The integration of SUDS into the project design will ensure that no changes occur to the quantity or quality of surface water runoff. These are standard

measures which are included in all development projects and are not included to avoid or reduce an effect to any Natura 2000 site (as such, SUDS are not considered to be mitigation in the context of Appropriate Assessment).

Given the temporary nature of the construction phase, and as sediment is not a significant pollutant in lakes (unlike rivers where it can foul fish spawning beds), no effects with respect to the conservation objectives of the SPA are envisaged.

- *Abstraction:*

There is no evidence that abstraction from the reservoir is resulting in negative effects to the population of the qualifying bird species. Negative effects from this source will not occur to the SPA.

- *Other projects or plans that together with the project being assessed could affect the site:*

The eventual implementation of the Water Framework Directive will result in continued improvements to water quality throughout the Liffey catchment. Environmental water quality can be impacted by the effects of surface water runoff from areas of hardstanding. These impacts are particularly pronounced in urban areas and can include pollution from particulate matter and hydrocarbon residues, and downstream erosion from accelerated flows during flood events.

Development in Blessington is planned for through the Wicklow County Development Plan, 2016-2022. This will see new residential estates constructed to the north of the town. That Plan was subject to screening for Appropriate Assessment which concluded that significant effects to Natura 2000 sites would not occur through its implementation.

There are no projects which can act in combination with the proposed development that would give rise to significant effects on Natura 2000 sites within the zone of influence.

7.4.18. On the basis of the foregoing, the applicant's screening report has concluded that significant effects are not likely to arise, either alone or in combination with other



plans or projects to any Natura 2000 sites. It is further stated that no mitigation measures were taken into account when arriving at this conclusion.

7.4.19. Having reviewed the available information, and by employing the source / pathway / receptor model of risk assessment, in my opinion, there is a potential hydrological link via ground and surface waters between the development and the Poulaphouca Reservoir SPA (noting that all elements of the proposed wastewater treatment system will be within 200m of the reservoir and 100m of an open channel which passes approximately midway through the site to drain occasional runoff from the public road and higher ground to the east towards the lake). In this regard, the potential arises for negative impacts on down-gradient water quality through the release of polluted / contaminated / untreated waters during the operational stage of the development which could have an adverse effect on the conservation objectives of the Poulaphouca Reservoir SPA. For example, although the proposed ICW will strive for zero-discharge through most of the year, there may be instances during the winter / wetter months (or periods of prolonged heavy rainfall) when low / infrequent volumes of waters (expected to predominantly comprise rainwater rather than contaminated material) will drain to a vegetated soakaway for discharge to ground. While the design and operation of the proposed wastewater treatment system has been inherently designed to avoid any adverse impact on ground & surface waters, a series of additional 'mitigation' measures, such as the installation of an HDPE liner below the clay subsoil of the ICW and various other maintenance, inspection & monitoring arrangements, have been proposed in response to the grounds of appeal with a view to providing additional safety as regards the protection of water quality in the reservoir. Accordingly, it is my opinion that in the absence of these additional water protection and / or pollution control measures, a level of uncertainty arises as to the likelihood of the proposed development significantly impacting on the SPA.

7.4.20. By applying the precautionary principle in this instance, I would suggest that any adherence to the additional water protection / pollution control measures detailed in response to the grounds of appeal could be construed as serving to mitigate against any indirect impact on protected bird species within the SPA caused by a deterioration in water quality attributable to the operation of the proposed development, such as by way of the release of pollutants from the ICW. In this regard, I would submit that to take account of any such measures in screening the

proposal for the purposes of appropriate assessment would be contrary to the judgement of the European Court of Justice in the case of *“People over Wind”* (C-323/17- CJEU) wherein it was determined that it was not appropriate, in screening for Appropriate Assessment, to take account of mitigation measures or *“measures intended to avoid or reduce the harmful effects of a plan or project on a European site”* as to do so would be liable to undermine the protection afforded by the Habitats Directive and would run the risk of circumventing the requirements for Stage 2 Appropriate Assessment when a comprehensive analysis of such measures would be carried out and a determination reached as to their effectiveness (this legal position has been reiterated in more recent case law, including in the judgment of *Sweetman (IGP) -v- An Bord Pleanala & Ors* [2020] IEHC 39).

7.4.21. Therefore, on the basis that no account can be taken of the additional water protection measures set out in response to the grounds of appeal, and by applying the ‘precautionary principle’, I would submit that the Board cannot be satisfied that the proposed development individually, or in combination with other plans or projects, would not be likely to have a significant effect on European Site No. 004063, in view of the site’s Conservation Objectives and Appropriate Assessment (and submission of a NIS) is therefore required.

(This would amount to a new issue in the consideration of the subject appeal).

## 8.0 Recommendation

8.1. Having regard to the foregoing, I recommend that the decision of the Planning Authority be overturned in this instance and that permission be refused for the proposed development for the reasons and considerations set out below:

## 9.0 Reasons and Considerations

1. Having regard to the nature and scale of the proposed development, to the proposed method of wastewater treatment and, in particular, to the location of the wastewater treatment system relative to the main water body of a major source of public water supply, Poulaphouca Reservoir, it is considered that the proposed development would constitute a hazard to public health having regard to the risk it would pose in relation to the water quality in the adjoining

reservoir. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area and its water body.

2. On the basis of the information provided with the application and appeal, the Board cannot be satisfied, beyond reasonable scientific doubt, that the proposed development, in the absence of mitigation measures, would not have significant effects in the light of the conservation objectives and qualifying interests of the European site. Therefore, in the absence of a Natura Impact Statement, the Board cannot be satisfied that the proposed development individually, or in combination with other plans or projects would not be likely to have a significant effect on European Site No. 004063, in view of the site's Conservation Objectives. In such circumstances the Board is precluded from granting permission.

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Robert Speer  
Planning Inspector

28<sup>th</sup> September, 2021