NATURA IMPACT STATEMENT FOR A PROPOSED RESIDENTIAL DEVELOPMENT AT COOLCARRON, FERMOY, CO. CORK.

In support of the Appropriate Assessment Process

Prepared for:

McCutcheon Halley

On behalf of Cumnor Construction Ltd.

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Executive Summary

This report presents the results of a Natura Impact Statement (NIS), which is Stage 2 of the appropriate assessment process, in relation to a proposed residential development at Coolcarron, Fermoy, Co. Cork.

It is objectively concluded that with the application of mitigation measures where relevant, no significant adverse effects arising from the proposed development are likely to occur in relation to the Natura 2000 sites; Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA.

1 Introduction

Kelleher Ecology Services Ltd. and Croft Ecology were commissioned by McCutcheon Halley, on behalf of Cumnor Construction Ltd., to undertake a Natura Impact Statement (NIS) in support of the Appropriate Assessment process in relation to a proposed residential development at Coolcarron, Fermoy, Co. Cork. This assessment was undertaken as part of a planning application for the proposed residential development.

1.1 Statement of Competence

1.1.1 Dr Daphne Roycroft

Daphne has over 10 years of experience in the field of Ecological Consultancy and holds a BSc and PhD in Ecology from the National University of Ireland, Cork. She is a self-employed Ecological consultant, trading as Croft Ecology. Daphne is experienced in the preparation of Ecological Impact Assessment Reports and Appropriate Assessment screening appraisals as well as Natura Impact Statements for a variety of projects including wind farms, solar farms, roads, pipelines, residential developments, ports and landfill sites. She has published research papers in several peer-reviewed scientific journals and has lectured on several degree and certificate courses in The National University of Ireland, Cork.

1.1.2 Dr Katherine Kelleher

Katherine Kelleher is a graduate of University College Cork with a BSc in Zoology and PhD in Ecology, and established Kelleher Ecology Services in 2011. She has over 15 years of experience in ecological consultancy, acting as project manager on a range of ecological assessments & projects including solar/wind farm, road, gas pipeline, landfill, grid connection, industrial development, retail and housing. Katherine has significant experience of research, evaluative and analytical work in relation to planning applications, EIAR, appropriate assessment, planning compliance, commitments, licensing, baseline assessments, scoping studies *etc*.

1.2 Background: Appropriate Assessment

An Appropriate Assessment is undertaken to establish if any proposed plan or project is likely to have a significant effect or impact on any site that has been designated under: the E.U. Habitats Directive (92/43/EEC) *i.e.* SAC; or the E.U. Birds Directive (79/409/EEC as amended 2009/147/EC) *i.e.* SPA. Collectively, SAC's and SPA's are known as Natura 2000 sites. The E.U. Habitats Directive has been transposed into Irish law under Part X AB of the Planning and Development Act 2000-2021 and the European Communities (Birds and Natural Habitats) Regulations 2011-2015. Appropriate Assessment has been a legal requirement in Ireland since the 26th of February 1997 when the European Communities (Natural Habitats) Regulations 1997 (S.I. No. 94/1997) were signed into law by the then Minister for Arts, Culture and the Gaeltacht, Michael D. Higgins.

A NIS is part of an appropriate assessment process that consists of up to four stages, where each stage follows on from the preceding one. The need to undertake one or more stages of this process has arisen from Articles 6(3) and 6(4) of the aforementioned Habitats Directive; where the former Article is primarily concerned with the protection of sites from likely significant effects and the latter allows derogation from such protection in very specific circumstances involving imperative reasons of overriding public interest.

In Stage 1, a screening process is undertaken to identify whether significant[1] impacts on a Natura 2000 site are likely to arise from the project or plan in question. If significant impacts are likely to occur or if it is unclear whether significant impacts are likely to occur, then the process moves on to Stage 2 where an AA considers potential mitigation measures for adverse impacts. If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in Stage 3. This is then followed by Stage 4 in the event that adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered. The outcome of a Stage 2 and higher assessment is presented in a report known as a Natura Impact Statement (NIS).

While an AA NIS is provided by the advocate of the plan or project in question, the AA NIS itself is undertaken by the competent authority (*i.e.* the planning authority, An Bord Pleanála). In this case, An Bord Pleanála is the competent authority in relation to AA regarding the project described herein; although informed by this NIS and any other necessary information.

1.3 Methodology

The conservation objectives of Natura 2000 sites have been compiled by the National Parks & Wildlife Service (NPWS) in relation to the habitats and species (*i.e.* qualifying interests) for which the sites are selected. These conservation objectives are referred to when carrying out appropriate assessments for plans and projects that might impact on these sites.

Documents associated with the proposed project and relevant ecology databases were consulted as part of this assessment (as referenced in this report) with field assessments also undertaken at various dates in 2019, 2020 and 2021 to inform an ecological impact assessment as part of an Environmental Impact Assessment Report (EIAR; see Cumnor Construction Ltd. 2022) as well as this NIS. Cognisance was also taken of guidelines (OPR 2021, European Commission 2018, EPA 2013, DEHLG 2009, European Commission 2021), as well as case law.

[1]A European Court of Justice ruling in 2013 (Case C-258/11) has stated the following regarding significant effect: "Where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light of, in particular, the characteristics and specific environmental conditions of the site concerned by such a plan or project (see, to this effect, Waddenvereniging and Vogelbeschermingsvereniging, paragraph 49)"

Brief Description of the Site & Project

1.4 Study Site: Location

The study site is situated in the townland of Coolcarron on the southern outskirts of Fermoy town in Co. Cork (see Figure 2.1, Figure 2.2). The application site encompasses approximately 11.56ha and has a relatively flat topography, located approximately 50-60m ASL. Currently, the site comprises of a greenfield area that is dominated by wet grassland, improved grassland and areas of scrub, with stone wall and hedgerow field boundaries. The site is bounded to the north by a sport campus, to the east by a drainage channel and conifer plantation, and to the west by an industrial estate, private dwellings and layby. The southern boundary of the site lies adjacent to agricultural land, which is the dominant habitat in the wider area. Access will be from the R639 public road to the west of the site.

The study site is located within the Blackwater Munster River Catchment, Hydrometric Area 18 in the South-Western River Basin District and the Blackwater Water Management Unit[2]. Water-features within the study site consist of a large wide drainage channel running approximately south-north along the eastern boundary of the site, into which five land drains flow within the site (see Figure 2.2). This main drainage channel is not shown as a water-feature on EPA or on OSI mapping and no water quality data or Water Framework Directive (WFD) risk assessment are available for this open drain[2]. The main drain flows northerly and is piped under the adjoining sports campus and Fermoy urban fabric before discharging via the public network and associated outfalls into the Blackwater River, which is part of the Blackwater River (Cork/Waterford) SAC here with the Blackwater Callows SPA further downstream (see Figure 2.1). The section of the Blackwater River that is upstream and downstream of the relevant stormwater outfalls of the public network that the main site drain is directed through has been assigned as *good status* and *at risk* under the current WFD status/risk assessments respecitvely[2], with river water quality considered to be of Q4 *good status* both upstream (EPA station code RS18B022000 in 2020) and downstream (EPA station codes RS18B022210 in 2020 and RS18B022450 in 2018) of the relevant stormwater outfalls[2].

1.5 Study Site: Walkover

Walkovers were undertaken at the study site at various dates in 2019, 2020 and 2021 as part of EIAR field assessments (see Cumnor Construction Ltd. 2022). The walkovers gained an overview of the study site as well as noting ecological points of interest such as the presence of invasive plant species and habitats/species that are part of the qualifying interests of the Natura 2000 sites relevant here (as outlined in Section 3 below).

The development site comprises of a mixture of wet grassland and improved agricultural grassland fields with areas of scrub encroachment and a small area of wet alder woodland (see Plate 1). Field boundaries include stonewall and hedgerows, with a network of field drains also present that drain into a larger open drain that flows along the eastern boundary of the site (see Plate 1). The main drain flows northerly and is piped under the adjoining sports campus and Fermoy urban fabric before discharging via the public network and associated outfalls into the Blackwater River, which is part of the Blackwater River (Cork/Waterford)

[2] After https://gis.epa.ie/EPAMaps/ accessed 18th January 2022

SAC here with the Blackwater Callows SPA further downstream. The open drain features at site lack conditions to support a viable fish/lamprey population.

Plate 1: Overview of improved and wet grassland (top); main drain along eastern boundary – section at middle/south of site (bottom left) and section at northern end of site (bottom right) showing dense mat of in-stream vegetation which is a barrier to fish passage.

The proposed development site does not currently support habitats/species that are qualifying interests of the Natura 2000 sites under consideration here or of ex-situ ecological value for such qualifying interests (see Section 3 below).

Non-native invasive plant species noted at the study site included Cherry Laurel *Prunus laurocerasus* and Winter Heliotrope *Petasites pyrenaicus*, neither of which are listed on the Third Schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations (*i.e.* species of which it is an offense to disperse, spread or otherwise cause to grow in any place). These were located near the existing field entrance at the western boundary from the R639 and the northern east-west part of the stormwater drain connection route (and not within the fields of the study site).

2 Project Details

2.1 Proposed Development

The proposed development will comprise of the following;

- The construction of 336 no. residential units comprising 242 dwellings houses (comprising a mix of 5, 4, 3 and 2 bed detached, semi-detached and townhouse/terraced units) and 94 no. duplex/simplex units (comprising a mix of 1 and 2 bed units);
- A 587m^2 creche/childcare facility;
- The provision of landscaping and amenity areas to include 4 no. flexible open space areas with natural play features, a linear green route with a 3m wide shared surface path running along the western boundary and a number of informal grassed areas;
- Public Realm upgrades along the R639, including a shared footpath and cycleway, a 4m toucan crossing with tactile paving;
- The proposed alteration to the Barrymore-Coolcarron 38kv line. The proposed alteration will involve the undergrounding of a section of the above mentioned overhead 38kV line to facilitate the housing development and the realignment of approximately 13.6 metres of 38kv overhead line. The proposed alterations will comprise of one 12 metre Type "F" lattice steel end terminate mast structure and one 38kV cable sealing ends. The proposed retirement of 282 metres of overhead conductors and one type "F" Lattice steel mast structure , one Type "C" light angle strain structure and one Type "B" portal suspension structure; and
- All associated ancillary development including vehicular access on to the R639 road, 2 no. access gates to the existing weighbridge and associated ancillary development, lighting, drainage, boundary treatments, bicycle & car parking and bin storage.

The site is not identified in the Fermoy Local Area Plan, OPW online database or in the CFRAMS mapping as an area susceptible to flooding and there is no history of flooding at the site (see Walsh Design Group 2022a). The proposed lighting scheme will focus lighting on areas where it is needed (roads, streets, footpaths) and minimise spillage onto the immediate surrounding environment (Walsh Design Group 2022c). The proposed development will be constructed on a phased basis, where it is anticipated that the construction period of the proposed residential development will take *c.* 12 months per each of the proposed five phases.

2.2 Environmental Inputs

The proposed site development works will be carried out in accordance with best practice regarding standard environmental protection (*e.g.* CIRIA 2015 and 2001). Environmental inputs associated with the proposed development will include surface-water run-off, waste-water and other wastes; however, these inputs will be controlled and managed as follows.

2.2.1.1 Surface-Water Run-Off: Construction Phase

Standard environmental controls will be implemented (*e.g.* CIRIA 2015 and 2001) as part of the project to ensure the appropriate management and control of surface-water run-off potentially arising from development activities at the site especially in relation to the existing open drains on the site. As construction progresses, part of the proposed surface-water drainage network may also become active where it will be collected into a new drainage network, including attenuation tanks and hydrocarbon bypass interceptors that will discharge into two open drains on the site at six locations (see Walsh Design Group

2022a). The open drains are hydrologically linked to the Blackwater River (Cork/Waterford) SAC via public stormwater infrastructure and associated outfalls into the Blackwater River that are each located *c*. 1km downstream of the study site, where the Blackwater Callows SPA is located *c.* 1.4 to 2.1km downstream of the public network outfalls[3] at the Blackwater River (see Figures 2.1 & 2.2).

Construction stage surface-water run-off controls will be specific to the site, proposed works, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA as follows (after Construction and Environmental Management Plan (CEMP) by Walsh Design Group 2022b);

- To ensure that there will be no contamination of surface water, any excess excavated material will be immediately removed (i.e. either used within the development for landscaping or removed to a licenced fill facility);
- The short term storage and removal/disposal of excavated material will be planned and managed such that the risk of pollution from these activities is minimised;
- Silt fencing will be erected and maintained in place during the construction phase and until such time as the integrity of the re-instated ground/material has been fully established;
- The silt fencing will be checked twice daily during construction and once per day thereafter to ensure that it is working satisfactorily until such time as the re-instated ground/material has been fully established;
- Sediment traps (such as earthen berms and/or settlement ponds) and/or silt fences will be provided to prevent run-off from the site;
- Drainage channels beside construction roads will flow into settlement ponds or swales in series to allow primary and secondary settlement of sediment. Each swale series will have an outfall manhole directly downstream in which final settlement can take place and the outfall can be monitored. Outfall manholes will be regularly emptied of sediment during periods of heavy rainfall. These measures will prevent run-off from the site and total suspended solid levels in all discharge shall be in compliance with the Quality of Salmonid Water Regulations (SI 293:1988);
- Through all stages of the construction phase the contractor will ensure that good housekeeping is maintained at all times and that all site personnel are made aware of the importance of the freshwater environments and the requirement to avoid pollution of all types;
- The storage of oils, hydraulic fluids etc. will be in a bunded facility with filling and take off points within the bunded area in accordance with current best practice;
- The pouring of concrete, sealing of joints, application of water proofing paint etc. will be completed in the dry to avoid pollution of the freshwater environment. As grout /cementitious materials are highly toxic to aquatic life all such works must be contained in complete isolation of all waters and storm water systems.

2.2.1.2 Surface-Water Run-Off: Operational Phase

Operational stage surface-water run-off arising from the proposed development will be collected by a series of six new surface-water sewer networks at site (see Walsh Design Group 2022a). These networks will direct attenuated flows of surface-water run-off to two existing open drainage channels at site and

[3] There are a number of stormwater outfalls into the Blackwater River associated with Fermoy town including the drainage route here such that more than one are of relevance here, thence the distance range for the SPA.

ultimately into the existing public stormwater network of Fermoy and associated outfalls that discharges to the Blackwater River and associated SAC (see Walsh Design Group 2022a) *c*. 1km downstream of the study site, where the Blackwater Callows SPA is located *c.* 1.4 to 2.1km downstream of the public network outfalls at the Blackwater River (see Figures 2.1 & 2.2).

The proposed new surface-water drainage network will require a partial diversion of the main open drain which flows in a northerly direction along the eastern boundary of the site and is currently piped under a playing pitch that is off-site to the north (see Walsh Design Group 2022a). It is proposed to partially divert the flow in the drainage channel into a new 750mm diameter pipe flowing westward across the northern end of the adjoining St. Coleman's sports ground to Devlin Street where it will connect to an existing manhole and 900mm diameter surface-water sewer downstream (Walsh Design Group 2022a; see Figure 2.2).

Operational surface-water run-off management will be specific to the site, operations, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA as follows. The proposed surface-water management system at site will be designed where feasible in accordance with the principles of Sustainable Drainage Systems (SuDS) as embodied in the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS) (see Walsh Design Group 2022a). Both interception and attenuation storage will be provided to fully control surface-water run-off from the development with release of stormwater at the existing greenfield run-off rate (Walsh Design Group 2022a). This will be achieved by a combination of source control interception (*i.e.* permeable paving, tree pits & filer drains, infiltration areas, water butts) along with hydrocarbon interceptors and attenuation storage (see Walsh Design Group 2022a). The following measures will also be put in place to ensure the protection of surface waters from contamination (after Walsh Design Group 2022b);

- The storm drainage calculations shall ensure that the proposed storm drainage networks are appropriately sized to serve the new development as proposed;
- A cleaning and maintenance schedule will be implemented for the proposed storm drainage system during the operation phase. Each gully will be fitted with silt traps to be emptied as part of the silt management and maintenance schedule;
- The proposed storm network will be inspected following construction to ensure that no cross connection between the proposed foul and storm network exists;
- The storm drainage system will be cleaned appropriately and inspected prior to being fully commissioned i.e. before being allowed to discharge to receiving waters.
- Water sampling of the receiving waters upstream and downstream of the proposed outfall will be undertaken before construction commences and for a period of 6 months following the completion of the development to ensure that the proposed water quality controls (both for the construction and operational phases) are appropriate and operating satisfactorily;
- There will be bunding of any domestic heating oil tanks to prevent possible spillage runoff.
- Hydrocarbon interceptors shall be installed upstream of the attenuation tank in each of the 6 surface water networks to further protect the quality of the surface water discharged.

2.2.1.3 Waste-Water/Foul Effluent

Construction stage waste-water/foul effluent will be managed and controlled at the temporary site compound through the use of portaloos and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator.

During the **operational stage**, it is proposed to direct waste-water from the developed residential site into the public waste-water network located along the R639 via a proposed new pumping station for ultimate treatment at Fermoy Wastewater Treatment Plant (WWTP), which discharges treated foul effluent into the Blackwater River where the Blackwater River (Cork/Waterford) SAC is present at the primary discharge point and the Blackwater Callows SPA is located *c.* 0.4km downstream of the primary discharge point (see Walsh Design Group 2022a and Figure 2.1).

2.2.1.4 Other Wastes

Other wastes associated with the study site will be collected and removed from site by licensed operators during construction (see Walsh Design Group 2022d) and operational stages where appropriate and required. This will allow for the appropriate control and management of other wastes at site, with no uncontrolled releases of same into the environment, including any Natura 2000 site.

Figure 2.1: Study Site & Natura 2000 Sites

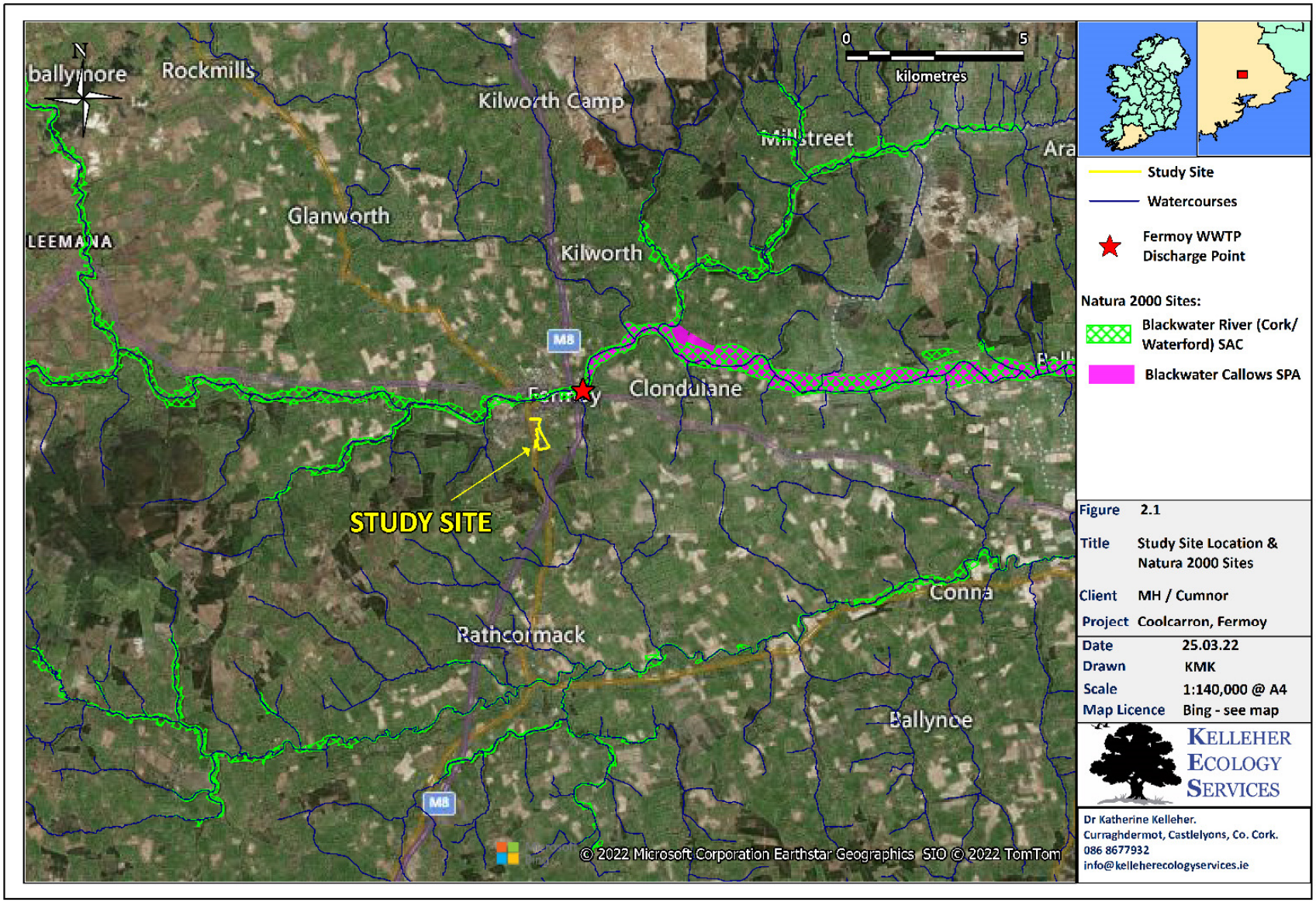
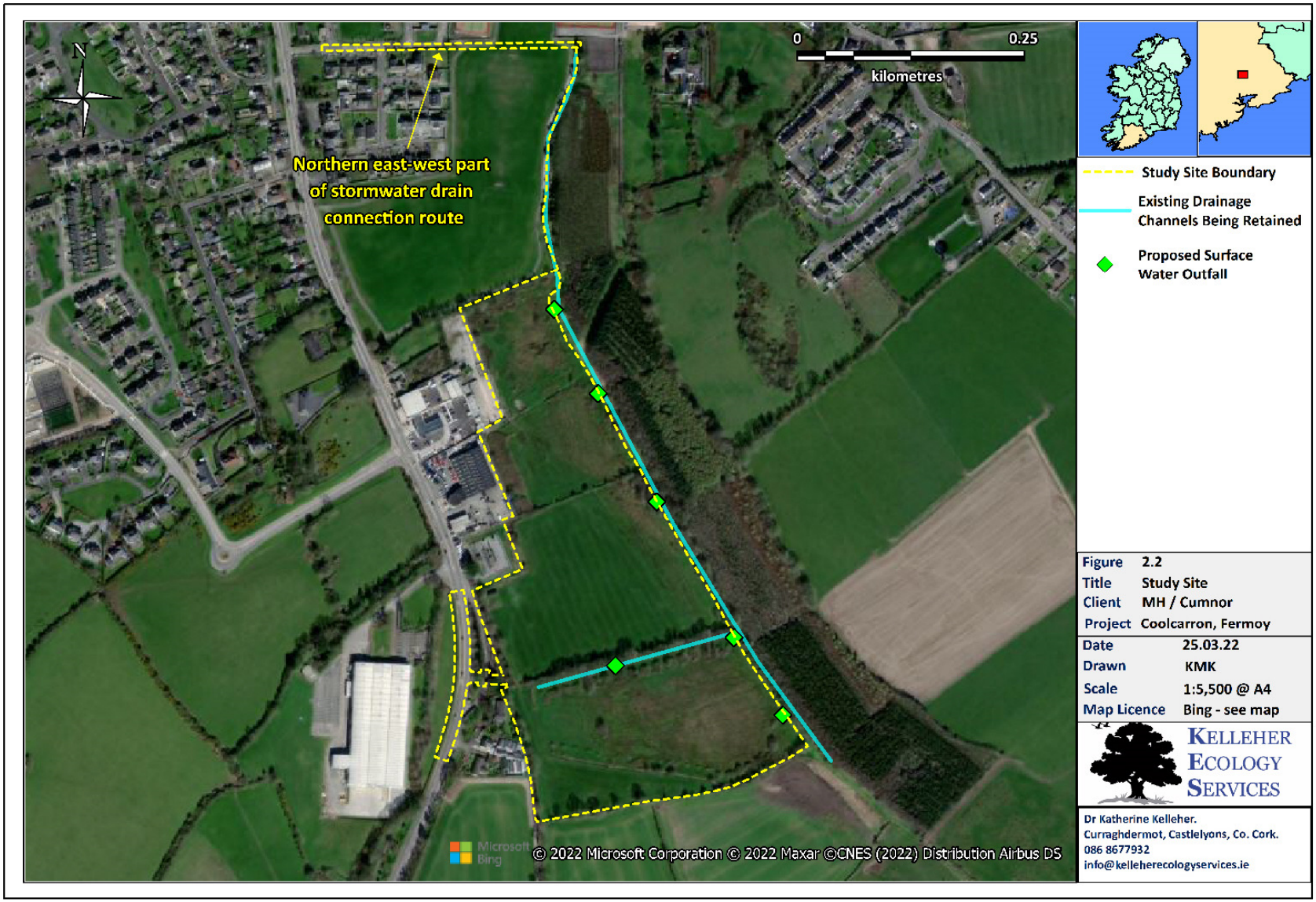


Figure 2.2: Study Site



3 Brief Description of the Natura 2000 Sites

Natura 2000 sites were identified through a desktop mapping review (using MapInfo Pro, a geographic information system software programme), where focus was given to sites where a potential impact-receptor pathway or zone of influence with the study site may be relevant. In other words, Natura 2000 sites that may potentially have a link to the study site were focused on as part of this assessment (*e.g.* through hydrological link, overlapping, proximity, ex-situ usage).

In this case, two Natura 2000 sites are considered to have a potential impact-receptor pathway relevant to the study site; Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA (see Figures 2.1 & 2.2).

3.1 Potential Impact-receptor Pathways: Overview

3.1.1 Surface-Water Run-Off

There is a potential impact-receptor pathway via surface-water links between the study site and Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA. Surface-water run-off associated with the site will discharge into the Blackwater River and associated Natura 2000 sites via existing drains, the public stormwater network and outfalls that are *c*. 1km downstream of the study site to the SAC and range *c.* 2.4 to 3.1km downstream of the study site to the SPA (see Figures 2.1 and 2.2). Therefore, the potential for indirect hydrological (water quality) impacts on the SAC and SPA via surface-water run-off arising from the development site are further considered in Section 4.1 of this report.

There is one additional aquatic related Natura 2000 site that is downstream and thereby potentially hydrologically linked to the study site as well; Blackwater Estuary SPA. However, no significant adverse effects related to surface-water run-off associated with the development are considered likely for this site due to the large downstream distance involved (>25km) combined with the location of the Blackwater Estuary SPA within Youghal estuary/harbour area that has significant water throughput associated with the tidal regime from the Celtic Sea.

3.1.2 Waste-Water/Foul Effluent

Construction stage waste-water/foul effluent will be managed and controlled at the temporary site compound through the use of portaloos and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator. In this instance, there will be no impact-receptor pathway between construction stage waste-water and any Natura 2000 site.

It is proposed to direct waste-water from the developed residential site into the public waste-water network for ultimate treatment at Fermoy Wastewater Treatment Plant (WWTP) during the operational stage. Treated waste-water from Fermoy WWTP discharges into the Blackwater River, where the Blackwater River (Cork/Waterford) SAC is present at the primary discharge point and the Blackwater Callows SPA is located 0.4km downstream of the discharge point (see Figure 2.1 and Table 3.1). A potential impact-receptor pathway therefore exists between the study site and Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA via waste-water discharge during the operational phase of the proposed development that is further considered in Section 4.1 of this report.

3.1.3 Disturbance/Displacement

Consideration needs to be given to the potential for disturbance/displacement impacts of fauna that are listed as qualifying interests of a Natura 2000 site through noise and/or visual cues arising from the proposed development. This also includes ex-situ disturbance/displacement impacts on highly mobile species that are qualifying interests of the relevant Natura 2000 sites; ex-situ impacts occur when highly mobile species occur outside of the boundaries of their designated sites (*e.g.* to forage or commute).

The conservation objectives of Blackwater Callows SPA relate to qualifying interests that include mobile wintering waterbird fauna (see Table 3.1). While such fauna could suffer disturbance/displacement impacts as a result of the construction/operation of a development such as described here, the proposed development site in this case does not overlook the SPA due to distance combined with screening from existing buildings/vegetation. While wet grassland is present at the proposed development site, the extent of it is relatively small and it is not within a relatively open setting to be particularly attractive to SPA wintering waterbird interest species. Furthermore, no such SPA wintering waterbird interest species were noted during winter bird site surveys (undertaken at the study site as part of EIAR field assessments, see Cumnor Construction Ltd. 2022) where the study site is not of known importance for wintering waterbirds (see Crowe 2005 and IWeBS online mapping[4]).

The conservation objectives of Blackwater River (Cork/Waterford) SAC relate to aquatic based habitats/fauna (see Table 2.1). Similar to the SPA, the site does not overlook the SAC due to distance combined with screening from existing buildings/vegetation. While Otter *Lutra lutra* is a mobile semi-terrestrial qualifying interest species of the Blackwater River (Cork/Waterford) SAC (Table 3.1), there are no aquatic habitats of ecological value for this species within the study site, where the open drain features are not considered suitable for this species due to a lack of conditions to support a viable fish/lamprey population prey base combined with a lack of over-ground connectivity to the Blackwater River (as the drain is piped/culverted under Fermoy town to the north of the study site). The remaining qualifying interest species of the SAC are aquatic species that would not be subject to disturbance/displacement impacts from the proposed development, including on an ex-situ basis where the open drain features lack conditions to support a viable fish/lamprey population associated with the SAC.

Taking the above into consideration, there is no impact-receptor pathway regarding potential disturbance/displacement impacts (including ex-situ) on either of the Natura 2000 sites under consideration here.

3.1.4 Invasive Plants

Activities associated with development works can inadvertently result in the spread of invasive plants, where a water-feature such as open drains here can subsequently act as a potential impact-receptor

[4] https://bwi.maps.arcgis.com/apps/View/index.html?appid=1043ba01fcb74c78bc75e306eda48d3a

pathway regarding indirect habitat loss/damage to downstream locations in the wider area including any Natura 2000 sites that are present.

In this case, the invasive non-native plant species noted at the study site comprised of the terrestrial Cherry Laurel and Winter Heliotrope that were not located in close proximity to any water-features at the study site. Accordingly, there is no impact-receptor pathway regarding potential indirect habitat loss/damage impacts as a result of the spread of invasive species to either of the Natura 2000 sites under consideration here.

3.1.5 Flooding/Floodplain

The site is not identified in the Fermoy Local Area Plan or in the CFRAMS mapping as an area susceptible to flooding and there is no history of flooding at the site (see Walsh Design Group 2022a). Accordingly, there is no impact-receptor pathway regarding potential flooding/floodplain impacts on any Natura 2000 site.

3.2 Potential Impact-Receptor Pathways: Summary

In summary, there is a potential impact-receptor link between the study site and the Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA via (i) potential construction/operational surface-water run-off impacts and (ii) potential operational waste-water discharge impacts.

Table 3.1 Natura 2000 Site Summary

Natura 2000 Site & Code	Conservation Objectives	Minimum Distances
Blackwater River (Cork/Waterford) SAC 002170	Overall, the Blackwater River is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive respectively. Its conservation objectives relate to the following habitats and species (after NPWS 2012); • Freshwater Pearl Mussel *Margaritifera margaritifera* • Freshwater Crayfish *Austropotamobius pallipes* • Sea Lamprey *Petromyzon marinus* • Brook Lamprey *Lampetra planeri* • River Lamprey *Lampetra fluviatilis* • Twaite Shad *Alosa fallax* • Atlantic Salmon *Salmo salar* (only in fresh water) • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Perennial vegetation of stony banks • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • Otter *Lutra lutra* • Mediterranean salt meadows (*Juncetalia maritimi*) • Killarney Fern *Trichomanes speciosum* • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles • Alluvial forests with Common Alder *Alnus glutinosa* and Ash *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) • Yew *Taxus baccata* woods of the British Isle	<u>Study Site Boundary:</u> Over-land: 0.5km <u>Discharge Points:</u> Surface-water: *c.* 1km Waste-water: 0.0km
Blackwater Callows SPA 004094	The conservation objectives of the Blackwater Callows SPA relate to the following (after NPWS 2021); **(i) Maintenance or restoration of the favourable conservation condition of the following wintering bird species;** ▪ Whooper Swan *Cygnus cygnus* ▪ Wigeon *Anas penelope* ▪ Teal *Anas crecca* ▪ Black-tailed Godwit *Limosa limosa* **(ii) Maintenance or restoration of the favourable conservation condition** of the wetland habitat at Blackwater Callows SPA as a resource for the regularly occurring migratory waterbirds that utilise it.	<u>Site Boundary:</u> Over-land: 1.7km <u>Discharge Points:</u> Surface-water: *c.* 2.4 – 3.1km Waste-water: 0.4km

4 Assessment: Natura Impact Statement

Elements of the proposed development that may potentially impact on the qualifying interests of the conservation objectives of the Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA are further considered in Section 4.1 below.

4.1 Elements of the Project that may Potentially Impact on Qualifying Interests of the Natura 2000 Site

4.1.1 Indirect Habitat Loss or Deterioration

Indirect habitat loss or deterioration of Natura 2000 sites within the surrounding area can occur from the effects of run-off or discharge into the aquatic environment through water quality impacts such as increased siltation, nutrient release and/or contamination. This requires connectivity between the site and the Natura 2000 site in question through watercourses and/or drainage. In this case, there is a potential impact-receptor pathway between the development site and the Natura 2000 sites in question via (i) potential construction/operational surface-water run-off impacts and (ii) potential operational waste-water discharge impacts.

4.1.1.1 Surface-Water Run-Off: Construction Phase

The construction phase of the proposed development will involve various activities such as site clearance, vegetation removal, excavation/earthworks, the import of building materials, use of heavy machinery and refuelling. Such activities have the potential to release silt or other contamination into the open drains at site and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA through construction stage run-off via the public network and outfalls at the Blackwater River. As construction progresses, part of the proposed surface-water drainage network may also become active that will also ultimately discharge into the Blackwater River and associated Natura 2000 sites via the existing open drains on the site and the public stormwater network and outfalls (see Figure 2.2).

Standard environmental controls will be implemented as part of the project to ensure the appropriate management and control of construction stage surface-water run-off potentially arising from development activities at the site (as outlined in Section 2.2.1.1). Such construction stage surface-water run-off controls will be specific to the site, proposed works, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA. Construction phase surface-water environmental controls are thereby listed as part of mitigation measures under Section 4.2.1 of this report.

4.1.1.2 Surface-Water Run-Off: Operational Phase

Operational stage surface-water run-off arising from the proposed development will be collected by a series of new surface-water drainage networks (as outlined in Section 2.2.1.2 above), which will discharge at six locations into two open drains on the site and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC/Blackwater Callows SPA via the public stormwater network and outfalls at the Blackwater River (see Figures 2.1 and 2.2). The surface-water drainage

strategy includes SuDS measures (such as permeable paving, tree pits & filter drains, infiltration areas, water butts) along with attenuation storage and hydrocarbon interception.

The surface-water drainage system will manage and control run-off associated with new hardstanding elements of the development during the operational stage that will be specific to the site, operations, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA. Operational surface-water management proposals are thereby listed as part of mitigation measures under Section 4.2.2 of this report.

4.1.1.3 Waste-Water/Foul Effluent: Operational Phase

Operational phase waste-water from the developed residential site will be directed into the public waste-water network for ultimate treatment at Fermoy WWTP, which outfalls into the Blackwater River and associated Blackwater River (Cork/Waterford) SAC, with Blackwater Callows SPA located 0.4km downstream.

<u>Fermoy WWTP Status & Water Quality</u>

While Fermoy WWTP was non-compliant in regard to its 2020 emissions, this is due to the technical inclusion of a secondary discharge of process wastewater and cooling water that is not treated by the WWTP but is discharged through the stormwater network via SW004 (see Section 2.1.3 of Irish Water 2021 and Section 2.1 of EPA 2021). In fact, treated waste-water/foul effluent discharge from the WWTP was compliant in 2020 (see Section 2.1.2 of Irish Water 2021), which is of relevance to the waste-water/foul effluent arising from the proposed development here that will be treated by the WWTP. Furthermore, there is remaining capacity currently available at Fermoy WWTP regarding organic loading (*i.e*. 2,337 PE; see Irish Water 2021) such that the additional foul effluent here (*i.e*. 908 PE) can be facilitated as confirmed by Irish Water where the following is important to note. At the time of the original confirmation of feasibility, a higher number of dwelling units (374) was being considered and Irish Water noted that the capacity of Fermoy WWTP would require upgrading to accommodate the proposed development (see letter dated 18th January 2021 in Appendix B). Subsequent consultation between Walsh Design Group and Irish Water established that capacity at Fermoy WWTP was in fact available after all and that required upgrades to the WWTP would now be modest (see memo dated 3rd March 2022 in Appendix B) such that Irish Water has since accepted the proposed design for the wastewater infrastructure layout and details (see letter dated 18th February 2022 in Appendix B).

Ambient monitoring associated with the WWTP is stated as indicating negative water quality and Water Framework Directive (WFD) status impacts on the receiving waters of the Blackwater River/SAC in 2020 (see Section 2.1.4 of Irish Water 2021). However, it is considered that where such negative impacts exist, these are more likely due to the influence from the secondary discharge of process wastewater and cooling water into the Blackwater River/SAC (that is not treated by the WWTP) given its non-compliance status in 2020 as mentioned above combined with '*good*' contemporary water quality/WFD status upstream and downstream of the WWTP discharge point summarised as follows:

- Current WFD status (2013-2018) of the Blackwater River is *good* both upstream and downstream of the WWTP discharge point[5].
- Current Blackwater River/SAC WFD risk is *not at risk* (*i.e.* is currently meeting its Water Framework Directive objectives) *c.* 815m downstream of the WWTP discharge point, whereas Blackwater River/SAC risk status upstream of/at the WWTP discharge point is *at risk*[4].
- Current Blackwater River water quality is *Q4 good status c*. 6.9km downstream of the WWTP discharge point[6], where Blackwater River/SAC river water quality upstream of the WWTP discharge point is also *Q4 good status*.

Blackwater River SAC Objectives & Water Quality

A review of the attributes and targets for qualifying interests set out in the relevant Conservation Objectives Series for the Blackwater River SAC (NPWS 2012) finds that water quality is a specific attribute/target for the following qualifying interests; Freshwater Pearl Mussel *Margaritifera margaritifera*, White-clawed Crayfish *Austropotamobius pallipes*, Twaite Shad *Alosa fallax*, Atlantic Salmon *Salmo salar* and Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (all of which are qualifying interests of the SAC). Of these, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation occur within the main SAC river channel downstream of Fermoy WWTP discharge point. Water quality targets for the latter three qualifying interests include river water quality of *Q4 good status* and WFD *good status* overall, both of which are currently being achieved downstream of the WWTP discharge point as outlined above.

Water quality targets for Freshwater Pearl Mussel (FWPM) include *high* status, which is not currently being achieved upstream or downstream of the WWTP discharge point as outlined above. It is thought that a scattered FWPM population is likely to exist along the Blackwater River main channel from upstream of Mallow to Lismore (see NS2 2010), which includes the section of the Blackwater River relevant to the WWTP discharge point here. It appears that the Munster Blackwater FWPM population comprises of aged adults, with no evidence of recruitment for at least 20 years such that it is of unfavourable conservation status and functionally extinct (see NS2 2010). The negative effects of several pressures have been identified as contributing to the unfavourable condition of the Munster Blackwater FWPM habitat, including a number of WWTPs within the Munster Blackwater catchment that are considered to have a significant adverse effect on FWPM or its habitat (see NS2 2010). However, Fermoy WWTP was not identified as one of these WWTPs (see NS2 2010).

Blackwater Callows SPA Objectives & Water Quality

The conservation objectives for the Blackwater Callows SPA does not currently specify any attributes/targets (including for water quality). The qualifying interests for this SPA relate to wintering waterbirds and supporting wetland habitats of the Blackwater River (NPWS 2021; see Table 3.1); in this case, the waterbird interest species in question also feed in adjoining seasonally flooded fields

[5] See https://gis.epa.ie/EPAMaps/; important to note that this is incorrectly cited as moderate in Section 2.1.4 of Irish Water 2021.

[6] See https://gis.epa.ie/EPAMaps/; downstream water quality point at WFDWISECODE IEMRRS18B022450 sampled in 2018 & upstream water quality point at WFDWISECODE IEMRRS18B022210 sampled in 2020.

associated with the floodplain as well as nearby open farmland fields (both part of and ex-situ of the SPA). Therefore, water quality is not of the same significance for qualifying interest waterbird species of the SPA in comparison to the more aquatic dependent qualifying interest species of the Blackwater River SAC considered above.

Conclusion

As described above, the WFD status of the Blackwater River is *good* both upstream and downstream of the WWTP discharge point (as affirmed by Q-value sampling by the EPA) and the watercourse is 'not at risk' downstream of the WWTP discharge point. Treated discharge from Fermoy WWTP is compliant (see Section 2.1.2 of Irish Water 2021) with '*good*' contemporary water quality/WFD status upstream and downstream of the WWTP discharge point at the Blackwater River and associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA. Furthermore, Fermoy WWTP has remaining design capacity in relation to additional organic loading arising from the proposed development here (where 13% or 1,429 PE spare capacity at the WWTP will remain after acceptance of the additional organic loading of 908 PE from the proposed development, which is based on remaining organic capacity of 2,337 PE cited in Irish Water 2021). Therefore, water quality in the Blackwater River and associated Blackwater River SAC/Blackwater Callows SPA should not be diminished by the proposed increase in loading from the wastewater flows produced by the residential development via WWTP discharges. Even if the relevant section of the Blackwater River & associated SAC was of *high status*, as required for Freshwater Pearl Mussel, it would be expected that Fermoy WWTP would not contribute negatively to such a status as per the existing situation regarding good status downstream.

Taking the above into consideration, significant adverse effects on the qualifying interests of the Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA related to operational phase waste-water discharge are considered unlikely in this case. Therefore, no mitigation measures are required in relation to potential waste-water related impacts here.

4.1.2 Cumulative or In-combination Effects

Potential cumulative or in-combination effects include surface-water and operational related foul effluent inputs, where qualifying interests associated with Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA could be subject to cumulative impact through hydrological or water quality impacts such as increased siltation, nutrient release, contaminated run-off arising from other developments. Other proposed and permitted developments are present in the wider area, including; (i) proposed 11 no. residential housing units at Uplands, Fermoy (Part 8 Housing Scheme, Cork County Council), (ii) proposed extension at St. Colmans College, Monumental Hill, Fermoy (Planning Ref: 21/4049), (iii) permitted change of use (through intensification of use) of part of an existing light industrial building (Planning Ref: 20/6246), iv) proposed 28 no. residential units and all ancillary site development works at Cork Road, Coolcarron, Fermoy (Planning Reference: 21/7241) and v) permitted construction of valeting buildings, car wash, including demolition of buildings/structures (Planning Reference: 19/6221).

The currently adopted Cork County Development Plan outlines a county-based objective in relation to the management of surface water by new developments through the incorporation of SuDS and

provision of adequate storm-water infrastructure (Section 11.5 & Objective WS 5-1; CCC 2014). The current Fermoy Municipal District Local Area Plan also makes reference to an objective for new development to adequately provide for storm-water infrastructure and to plan surface-water management in an integrated way that considers land use, water quality, amenity and habitat enhancements as appropriate (Objective FY-GO-11; CCC 2017). The surface-water design strategy incorporated into the development here compliments both the Cork County Development Plan and Fermoy Municipal District Local Area Plan objectives relating to surface-water management through the inclusion of operational SuDS related aspects such as permeable paving, tree pits & filter drains, infiltration areas and water butts.

Treated discharge from Fermoy WWTP is compliant (see Section 2.1.2 of Irish Water 2021) with '*good*' contemporary water quality/WFD status upstream and downstream of the WWTP discharge point at the Blackwater River and associated Natura 2000 sites (as outlined in Section 4.1.1.3 above). Furthermore, there is remaining capacity currently available at Fermoy WWTP to cater for the additional proposed foul effluent here that has been confirmed by Irish Water (as previously outlined in Section 4.1.1.3 Fermoy WWTP Status & Water Quality).

Assuming that all other Fermoy related developments closely adhere to standard environmental practice regarding soil and water management, as per the development under consideration here (as outlined in Sections 2.3.2 & 4.2.1), then significant negative cumulative effects are considered unlikely in relation to water-features and associated designated nature conservation sites.

Taking the above into consideration, along with the proposed environmental management and controls integrated into the project design here (as outlined in Section 4.2.1 below), significant adverse cumulative/in-combination effects are not considered likely in this case.

4.2 Mitigation Measures Relevant to the Protection of the Natura 2000 Site

The following mitigation measures will be integrated as part of the proposed development regarding environmental protection specific to the site, works/operations, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA in relation to potential construction/operational phase surface-water run-off drainage effects.

4.2.1 Surface-Water Run-Off: Construction Phase

The following construction related run-off controls are proposed as part of the development in question (after Construction and Environmental Management Plan (CEMP) by Walsh Design Group 2022b);

- To ensure that there will be no contamination of surface water, any excess excavated material will be immediately removed (i.e. either used within the development for landscaping or removed to a licenced fill facility);
- The short term storage and removal/disposal of excavated material will be planned and managed such that the risk of pollution from these activities is minimised;
- Silt fencing will be erected and maintained in place during the construction phase and until such time as the integrity of the re-instated ground/material has been fully established;

- The silt fencing will be checked twice daily during construction and once per day thereafter to ensure that it is working satisfactorily until such time as the re-instated ground/material has been fully established;
- Sediment traps (such as earthen berms and/or settlement ponds) and/or silt fences will be provided to prevent run-off from the site;
- Drainage channels beside construction roads will flow into settlement ponds or swales in series to allow primary and secondary settlement of sediment. Each swale series will have an outfall manhole directly downstream in which final settlement can take place and the outfall can be monitored. Outfall manholes will be regularly emptied of sediment during periods of heavy rainfall. These measures will prevent run-off from the site and total suspended solid levels in all discharge shall be in compliance with the Quality of Salmonid Water Regulations (SI 293:1988);
- Through all stages of the construction phase the contractor will ensure that good housekeeping is maintained at all times and that all site personnel are made aware of the importance of the freshwater environments and the requirement to avoid pollution of all types;
- The storage of oils, hydraulic fluids etc. will be in a bunded facility with filling and take off points within the bunded area in accordance with current best practice;
- The pouring of concrete, sealing of joints, application of water proofing paint etc. will be completed in the dry to avoid pollution of the freshwater environment. As grout /cementitious materials are highly toxic to aquatic life all such works must be contained in complete isolation of all waters and storm water systems.

4.2.2 Surface-Water Run-Off: Operational Phase

Operational stage run-off management proposals to be integrated into the development under consideration here are summarised as follows (see Walsh Design Group 2022a and 2022b):

- The proposed SuDS surface-water drainage design will release stormwater at the existing greenfield run-off rate through a combination of source control interception (*i.e.* permeable paving, tree pits & filer drains, infiltration areas, water butts) along with hydrocarbon interceptors and attenuation storage.
- The storm drainage calculations shall ensure that the proposed storm drainage networks are appropriately sized to serve the new development as proposed;
- A cleaning and maintenance schedule will be implemented for the proposed storm drainage system during the operation phase. Each gully will be fitted with silt traps to be emptied as part of the silt management and maintenance schedule;
- The proposed storm network will be inspected following construction to ensure that no cross connection between the proposed foul and storm network exists;
- The storm drainage system will be cleaned appropriately and inspected prior to being fully commissioned i.e. before being allowed to discharge to receiving waters.
- Water sampling of the receiving waters upstream and downstream of the proposed outfall will be undertaken before construction commences and for a period of 6 months following the completion of the development to ensure that the proposed water quality controls (both for the construction and operational phases) are appropriate and operating satisfactorily;
- There will be bunding of any domestic heating oil tanks to prevent possible spillage runoff.

- Hydrocarbon interceptors shall be installed upstream of the attenuation tank in each of the 6 surface water networks to further protect the quality of the surface water discharged.

4.3 Likely Success of the Mitigation Measures

The mitigation measures have been developed in accordance with current policy, regulations and guidelines as follows;

- Construction and Demolition Waste Management – a Handbook for Contractors and Site Managers published by FAS and the Construction Industry Federation 2002
- Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' Department of the Environment, Heritage and Local Government, 2006 (SPGWMP)
- Waste Classification. List of Waste & Determining if Waste is Hazardous or Non-hazardous. Environmental Protection Agency, 2018
- Pollution Prevention Guidelines: Working at Construction and Demolition Sites, PPG6, UK Environmental Alliance (PPG6)
- Environmental Good Practice on Site Guide, C741, CIRIA 2015 (Fourth Edition)
- Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors, C532, CIRIA 2001
- The SuDS Manual CIRIA C753
- Enterprise Ireland, Oil Storage Guidelines, Best Practice Guide BPGCS005
- Greater Dublin Strategic Drainage Study (GDSDS)
- Department of the Environment's Recommendations for Site Development Works for Housing Areas
- Department of the Environment's Building Regulations 'Technical Guidance Document Part H Drainage and Waste Water Disposal'
- BS EN 752: 2008 Drain and Sewer Systems Outside Buildings

4.4 Timescale for the Implementation of Mitigation Measures

- Construction related mitigation measures will be implemented prior to and/or in-tandem with the relevant works being carried out.
- Operational related mitigation measures will be implemented and maintained on an ongoing basis and will be integrated into the Health & Safety Plan for the site.

4.5 Contingency Plan for Mitigation Failure

- An Emergency Response Plan for the site will be compiled prior to the commencement of construction/enabling works.
- In the event of failure of the mitigation measure, the source of contamination will be removed as a matter of urgency by a suitably qualified contractor and the site closed until the relevant issue is addressed.
- In extreme cases, the Health & Safety Authority and the Fire Department and the Council will be notified.

4.6 Appropriate Assessment Report

Assessment of the Effects of the Project or Plan on the Integrity of the Natura 2000 Site	
Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment)	Elements of the proposed development that may result in potential effects on the Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA in the absence of potentially relevant environmental protection measures include (i) potential construction/operational surface-water run-off impacts. No significant adverse effects regarding indirect habitat loss or deterioration of the Blackwater River (Cork/Waterford) SAC or Blackwater Callows SPA arising from waste-water via WWTP discharge are deemed likely in this case such that no mitigation measures are required as outlined in Section 4.1.1.3.
Set out the Conservation objectives of the site	The conservation objectives and qualifying interests of the relevant Natura 2000 sites are outlined in Table 3.1 above.
Describe how the project or plan will affect key species and key habitats. Acknowledge uncertainties and any gaps in information.	With the implementation of the mitigation measures specified in Section 4.2, no significant adverse effects related to indirect habitat loss or deterioration of the Natura 2000 sites arising from silt-laden or contaminated surface-water run-off associated with the construction or operational phases of the proposed development are deemed likely in this case.
Describe how the integrity of the site (determined by structure and function and conservation objectives) are likely to be affected by the project and plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes and geological changes *etc.*). Acknowledge uncertainties and any gaps in information.	As above - with the implementation of the mitigation measures specified in Section 4.2, no significant adverse effects related to indirect habitat loss or deterioration of the Natura 2000 sites arising from silt-laden or contaminated surface-water run-off associated with the construction or operational phases of the proposed development are deemed likely in this case.
Describe what mitigation measures are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.	Mitigation measures will be integrated as part of the proposed development regarding environmental protection specific to the site, works/operations, site water-features (open drains) and downstream Blackwater River with associated Blackwater River (Cork/Waterford) SAC and Blackwater Callows SPA in relation to potential construction/operational phase surface-water run-off drainage effects. Construction/operational surface-water proposals are thereby listed as part of mitigation measures in Section 4.2 above.
Results of Consultation	
Name of agency or body consulted	**Summary of response**
Inland Fisheries Ireland (IFI, response received from Mr. M. McPartland by email on 17th August 2021; see Appendix C)	It appears it is proposed to dispose of septic effluent from the development to the public sewer. IFI would ask that Irish Water signifies there is sufficient capacity in existence so that it does not overload either hydraulically or organically existing treatment facilities or result in polluting matter entering waters. Should this

	not be the case then please forward proposals for alternative treatment and disposal options. IFI would ask that there be no interference with, bridging, draining, or culverting of any watercourse its banks or bankside vegetation to facilitate this development without the prior approval of IFI.
National Parks & Wildlife Service / Development Application Unit	No response received to date.

5 References

CCC (Cork County Council). 2014. Cork County Development Plan 2014. Volume One: Main Policy Material.

CCC (Cork County Council). 2017. Fermoy Municipal District Local Area Plan. Volume 1, Main Document.

CIRIA. 2015 (Fourth Edition). Environmental Good Practice on Site Guide. CIRIA C741. London, UK.

CIRIA. 2001. Control of water pollution from construction sites: guidance for consultants and contractors. CIRIA C532. London 2001.

Crowe, O. 2005. Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland, Rockingham, Co. Wicklow.

Cumnor Construction Ltd. 2022. Coolcarron, Fermoy SHD. Volume II EIAR. Document accompanying the planning application.

DEHLG (Department of Environment, Heritage & Local Government). 2009. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. DoEHLG, Dublin.

European Commission. 2021. Assessment of Plans and Projects in relation to Natura 2000 Sites – Methodical Guidance on the provisions of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC. European Commission, Brussels.

European Commission. 2018. Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Commission Notice. Brussels, 21.11.2018.

Environmental Protection Agency (EPA). 2013. Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner's Manual. EPA STRIVE Programme 2007–2013; Report Series No. 106. EPA, Wexford.

EPA. 2021. Site Visit Report. Name of Installation: Fermoy. Site Visit Reference No. SV21601.

Irish Water. 2021. Annual Environmental Report 2020. Fermoy D0058-01.

Walsh Design Group. 2022a. Civil Engineering Report. Proposed Residential Development, Coolcarron, Fermoy, Co. Cork. Document accompanying the planning application.

Walsh Design Group. 2022b. Preliminary Construction & Environmental Management Plan. Proposed Residential Development, Coolcarron, Fermoy, Co. Cork. Document accompanying the planning application.

Walsh Design Group. 2022c. Street Lighting Report. Proposed Residential Development, Coolcarron, Fermoy, Co. Cork. Document accompanying the planning application.

Walsh Design Group. 2022d. Preliminary Construction and Demolition Waste Management Plan. Proposed Residential Development, Coolcarron, Fermoy, Co. Cork. Document accompanying the planning application.

NPWS. 2012. Conservation Objectives: Blackwater River (Cork/Waterford) SAC 002170. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. 2021. Conservation Objectives for Blackwater Callows SPA [004094]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NRA (National Roads Authority). 2010. The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads. Revision 1. December 2010.

NS2 (North South 2 Project). 2010. Freshwater Pearl Mussel, Second Draft, Munster Blackwater Sub-Basin Management Plan.

OPR (Office of the Planning Regulator). 2021. Appropriate Assessment Screening for Development Management. Practice Note PN01.

APPENDIX A:
Proposed Development

LOCATION OF SITE NOTICE NO. 1
LOCATION OF SITE NOTICE NO. 2
LOCATION OF SITE NOTICE NO. 3
LOCATION OF SITE NOTICE NO. 4
LOCATION OF SITE NOTICE NO. 5
COLOUR KEY
LEGEND
SITE AREA
PUBLIC OPEN SPACE
PATH OF HOUSING
SITE LAYOUT PLAN
GERALDINE COUGHLAN
PL 01

APPENDIX B:

Irish Water Connection Information re Fermoy WWTP

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

Ian Reilly

The Mall
Maryborough Woods
Douglas
Cork
T12K8YT

18 January 2021

Re: CDS20000034 pre-connection enquiry - Subject to contract | Contract denied

Connection for Multi/Mixed Use Development of 375 unit(s) at Coolcarron, Fermoy, Co. Cork

Dear Sir/Madam,

Irish Water has reviewed your pre-connection enquiry in relation to a Water & Wastewater connection at Coolcarron, Fermoy, Co. Cork (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on our desk top analysis of the capacity currently available in the Irish Water network(s) as assessed by Irish Water, we wish to advise you that your proposed connection to the Irish Water network(s) can be facilitated at this moment in time.

SERVICE	**OUTCOME OF PRE-CONNECTION ENQUIRY** **THIS IS NOT A CONNECTION OFFER. YOU MUST APPLY FOR A CONNECTION(S) TO THE IRISH WATER NETWORK(S) IF YOU WISH TO PROCEED.**
Water Connection	Feasible without infrastructure upgrade by Irish Water
Wastewater Connection	Feasible subject to upgrades
SITE SPECIFIC COMMENTS	
Water Connection	Connection can be made to the 150mm watermain at the entrance to the site
Wastewater Connection	In order to accommodate the proposed connection at the Premises, upgrade works are required to increase the capacity of Fermoy wastewater treatment plant. Irish Water does not currently have any plans to carry out the works required to provide the necessary upgrade and capacity. Should you wish to have such upgrade works progressed, Irish Water will require you to provide a contribution of a relevant portion of the costs for the required upgrades, please contact Irish Water to discuss this further.

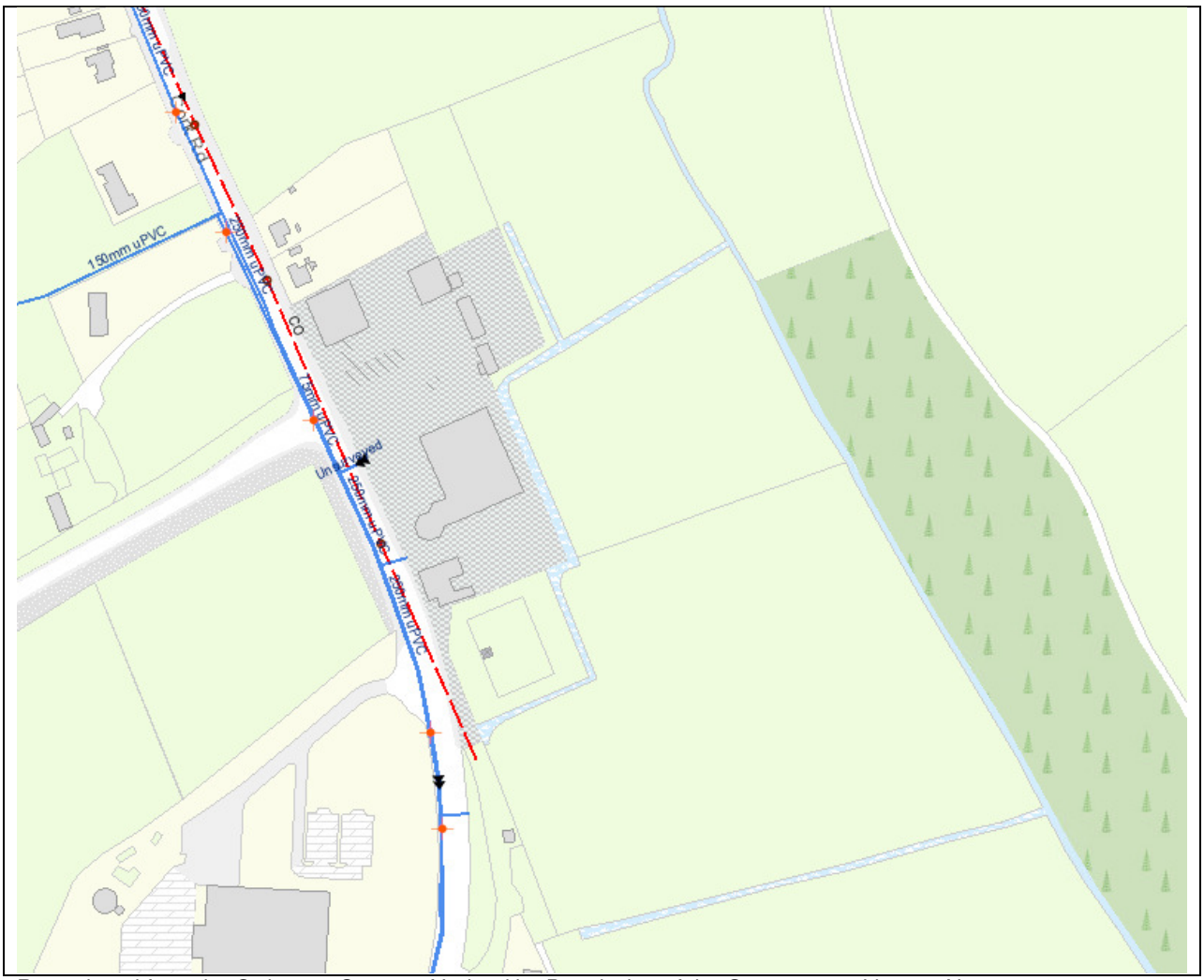
Stiúrthóirí / Directors: Cathal Marley (Chairman), Niall Gleeson, Eamon Gallen, Yvonne Harris, Brendan Murphy, Maria O'Dwyer
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin 1, D01 NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Irish Water is a designated activity company, limited by shares.
Uimhir Chláraithe in Éirinn / Registered in Ireland No.: 530363

IW-HP-BUS

REV012

The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this development shall comply with the Irish Water Connections and Developer Services Standard Details and Codes of Practice that are available on the Irish Water website. Irish Water reserves the right to supplement these requirements with Codes of Practice and these will be issued with the connection agreement.

The map included below outlines the current Irish Water infrastructure adjacent to your site:



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Whilst every care has been taken in its compilation Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland to Irish Water. Irish Water can assume no responsibility for and give no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided and does not accept any liability whatsoever arising from any errors or omissions. This information should not be relied upon in the event of excavations or any other works being carried out in the vicinity of the Irish Water underground network. The onus is on the parties carrying out excavations or any other works to ensure the exact location of the Irish Water underground network is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

Strategic Housing Development

Irish Water notes that the scale of this development dictates that it is subject to the Strategic Housing Development planning process. Therefore:

A. In advance of submitting your full application to An Bord Pleanala for assessment, you must have reviewed this development with Irish Water and received a Statement of Design Acceptance in relation to the layout of water and wastewater services. Please submit your design to CDSDesignQA@water.ie

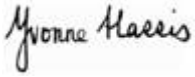
B. In advance of submitting this development to An Bord Pleanala for full assessment, the Developer is required to have entered into a Project Works Services Agreement to deliver infrastructure upgrades to facilitate the connection of the development to Irish Water infrastructure.

General Notes:

1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. **The availability of capacity may change at any date after this assessment.**
2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
3) The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at https://www.water.ie/connections/get-connected/
5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.
6) Irish Water Connection Policy/ Charges can be found at https://www.water.ie/connections/information/connection-charges/
7) Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
9) To access Irish Water Maps email datarequests@water.ie
10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

If you have any further questions, please contact Brian O'Mahony from the design team on 022 52205 or email bomahony@water.ie For further information, visit **www.water.ie/connections.**

Yours sincerely,



Yvonne Harris

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Memo

Date: 3rd March 2022

Project No: WDG 19074

Project Description: SHD Planning Application Coolcarron Fermoy Co. Cork

Throughout 2020 and 2021 I had been in regular contact with Brian O'Mahony and Tadhg Coffey to discuss the perceived capacity Issues with the WWTP at Fermoy. A Teams meeting was held to discuss the Capacity issues on 14th January 2021. Following this meeting Brian O' Mahony wrote to the writer explaining that the Fermoy WWTP was constructed with a capacity of 22,000PE but was currently operating with a design capacity of 11,000 PE. He advised that the existing plant had an available capacity of 975 PE which equated to circa 357 houses. However, he advised that there was another permitted development for 100 houses in Fermoy and accordingly there was only capacity for 257 houses from our development. It was suggested that in order to construct the full planned development it would be necessary for the developer to enter into a Public Works Service Agreement (PWSA) with Irish water for the expansion of the existing WWTP facilities at Fermoy. MW wrote to Tadhg Coffey and Brian O' Mahony on 12th October asking whether IW would be in apposition to issue Statement of Design Acceptance and subsequent Connection Agreement for circa 300 units if the developer proceeded with an application for this reduced number of units.

Following this query Tadgh Coffey of Irish Water phoned the writer in December 2021 and advised that IW had by then completed a revised study of available capacity and were now satisfied that they would be in a position to provide capacity for the full planned development of 336 units plus Creche. He advised that IW were satisfied at that time that the necessary capacity could be made available following modest upgrades which could be carried out by Irish Water from their own resources and that A PWSA would not now be required. It was agreed that it was appropriate for WDG to apply for a Statement of Design Acceptance for the full development. This application was lodged on 6th January 2022 and the statement of Design Acceptance for the full development was issued on 18th February 2022.

Michael Walsh BE CENG MIEI

On Behalf of Walsh Design Group

Reg. No: 476845. Walsh Design Group is a registered trading name of Browne Asset Solutions Ltd
Registered Office: The Mall, Maryborough Woods, Douglas, Co. Cork. T12 K8YT
Directors: Michael Walsh, Jamie Wallace, Patrick Beckett

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Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

Ian Reilly
Walsh Design Group, The Mall
Maryborough Woods
Douglas
Cork T12K8YT

18 February 2022

Re: Design Submission for Coolcarron, Fermoy, Co. Cork (the "Development") (the "Design Submission") / Connection Reference No: CDS20000034

Dear Ian Reilly,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU)(https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water's network(s) (the "**Self-Lay Works**"), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:
Name: Adrian Roberts
Email: adrian.roberts@water.ie

Yours sincerely,

Yvonne Harris

Yvonne Harris
Head of Customer Operations

Appendix A

Document Title & Revision

- **19074-P-002-1 REV: C**
- **19074-P-002-2 REV: C**
- **19074-P-002-3 REV: B**
- **19074-P-003-1 REV: D**
- **19074-P-003-2 REV: D**
- **19074-P-302-1 REV: C**
- **19074-P-302-2 REV: C**
- **19074-P-302-3 REV: C**
- **19074-P-302-4 REV: C**
- **19074-P-302-5 REV: B**
- **19074-P-501 REV: A**
- **19074-P-502 REV: A**
- **19074-P-503 REV: A**
- **19074-P-505 REV: A**
- **19074-P-900 REV: A**

For further information, visit ***www.water.ie/connections***

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Irish Water will not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

Stiúrthóirí / Directors: Cathal Marley (Chairman), Niall Gleeson, Eamon Gallen, Yvonne Harris, Brendan Murphy, Dawn O'Driscoll, Maria O'Dwyer
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin 1 D01 NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Irish Water is a designated activity company, limited by shares.
Uimhir Chláraithe in Éirinn / Registered in Ireland No.: 530363

APPENDIX C:
Inland Fisheries Ireland Response

From: Michael McPartland <Michael.McPartland@fisheriesireland.ie>
Sent: Tuesday 17 August 2021 13:47
To: Majella O'Callaghan <mocallaghan@mhplanning.ie>
Subject: FW: Consultation for Strategic Housing Development at Fermoy

NOTE: *This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.*

Majella

Thank you for your recent correspondence in relation to the above-mentioned.

It appears it is proposed to dispose of septic effluent from the development to the public sewer. IFI would ask that Irish Water signifies there is sufficient capacity in existence so that it does not overload either hydraulically or organically existing treatment facilities or result in polluting matter entering waters. Should this not be the case then please forward proposals for alternative treatment and disposal options.

IFI would ask that there be no interference with, bridging, draining, or culverting of any watercourse its banks or bankside vegetation to facilitate this development without the prior approval of IFI.

Michael Mc Partland

Senior Fisheries Environmental Officer.

Iascach Intíre Éireann

Inland Fisheries Ireland

Tel + 353 (0)26 412 21/2

Fax + 353 (0)26 412 23

Email michael.mcpartland@fisheriesireland.ie

Web www.fisheriesireland.ie

Sunnyside House, Macroom, Co. Cork, Ireland. P12 X602

Help Protect Ireland's Inland Fisheries