Neoen Renewables Ireland Limited

Glenlara Power Reserve

NATURA IMPACT STATEMENT

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SUMMARY

This Natura Impact Statement (NIS) assesses the likely significant effects of a proposed energy storage system (ESS) and associated infrastructure at Curraduff, Glenlara, Newmarket, Co. Cork, on the Blackwater River (Cork/Waterford) Special Area of Conservation (SAC). A preliminary screening identified a hydrological pathway that could potentially convey pollutants from the development site to the SAC, located 590 meters north and 1.2 kilometres downstream via a small, unregistered watercourse. Given the SAC's designation for several water quality-dependent species, including the sensitive Freshwater Pearl Mussel (*Margaritifera margaritifera*), the potential impacts required consideration in this NIS. Although the pathway is weak, the precautionary principle warranted a thorough assessment.

The proposed development includes a 10-year planning permission and a 35-year operational phase for an ESS, featuring energy storage containers, electrical components, an upgraded entrance, an access track, security fencing and gates, pole-mounted security cameras, and associated landscaping and site development works. The connection to the national electricity network is excluded from this application but considered for potential future assessment.

A desktop study identified the conservation interests of Natura 2000 sites within the study area, focusing on species and habitats relevant to these sites. The review included scientific reports and data from the Environmental Protection Agency (EPA) and National Parks and Wildlife Service (NPWS). A site visit in May 2023 assessed habitat suitability for regional Natura 2000 species and potential pathways for effects on these sites. The assessment followed DoEHLG (2010) guidelines.

The impact assessment at the NIS stage evaluates the project's effects on the SAC's integrity. Potential impacts during construction, operation, and decommissioning are considered, with mitigation measures proposed to protect the SAC's conservation objectives.

Potential impacts identified include sediment runoff, accidental pollution events, contaminated runoff associated with construction activities, firefighting water management, and the introduction of invasive species. Since the preparation of the original NIS, a revised Drainage Strategy and Firefighting Water Containment Strategy has been prepared in response to a Request for Further Information issued by An Coimisiún Pleanála. The revised strategy includes detailed Sustainable Drainage Systems (SuDS), lined attenuation infrastructure, impermeable geomembrane liners beneath the ESS platform and attenuation basin, hydrobrake flow controls, emergency pollution shut-off valves, oil interceptors, dedicated firefighting water storage tanks, and integrated firefighting water containment measures designed to prevent uncontrolled releases of contaminated runoff or firefighting water to downstream surface water or groundwater pathways. Contaminated water arising during an emergency event can be isolated within the drainage system and removed off-site by tanker to a licensed disposal facility. Additional mitigation measures include a Construction Environmental Management Plan (CEMP), best practice site management procedures, protection of the on-site drainage network, and biosecurity measures to prevent the introduction and spread of invasive species.

The assessment found no significant cumulative impacts from the proposed development in combination with other projects or plans. The revised drainage and firefighting water containment strategy substantially reduces uncertainty in relation to accidental pollution pathways and significantly strengthens the environmental protection measures associated with the development. The hydrological connection to the Blackwater River (Cork/Waterford) SAC remains indirect and weak, and the proposed drainage infrastructure has been specifically designed to prevent contaminated runoff or firefighting water from entering downstream receiving waters.

With the implementation of the proposed mitigation measures, residual impacts are considered imperceptible in scale. The proposed development will not adversely affect the integrity of the Blackwater River (Cork/Waterford) SAC, or any other Natura 2000 site, either alone or in combination with other plans or projects. The project has been designed in accordance with the precautionary principle and complies with the requirements of Article 6(3) of the Habitats Directive.

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1. INTRODUCTION

The current document is a Natura Impact Statement (NIS) and assesses the likely significant effects effects on the Blackwater River (Cork / Waterford) SAC of a proposed energy storage system (ESS) and associated infrastructure on lands at Curraduff, Glenlara, Newmarket, Co. Cork. The location of the proposed development site is provided in Figure 1.

A Screening for Appropriate Assessment has been prepared and is included in Appendix 1. This report concluded that a hydrological pathway potentially capable of conveying pollutants downstream exists between the proposed development site and the Blackwater River (Cork Waterford) Special Area of Conservation (SAC). This Natura 2000 site is located 590m north of the proposed development, and 1.2rkm downstream via a small, unregistered watercourse. Given that this SAC is designated for several water quality-dependent Qualifying Interests, including the highly sensitive *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029], it was determined that the implications of this pathway require consideration in a Natura Impact Statement (NIS), and that mitigation measures to protect water quality are necessary. It is noted that the identified pathway is considered to be very weak; therefore, this NIS has been prepared with an abundance of caution, following the precautionary principle.

The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle Special protection Area (SPA) is located c. 2.7km west of the proposed development site. This Natura 2000 site is designated for Hen Harrier (*Circus cyaneus*) [A082]. This site was screened out due to distance and the absence of any suitable Hen Harrier habitat on the site or in the general area. This was established during a site visit and survey in May 2023. The Lower River Shannon SAC is located c.9.6km northwest of the proposed development site but was screened out due to distance and the absence of any pathways for effects.

The connection of the proposed development to the national electricity network does not form part of the development proposed within the subject planning application. This will be subjected to a separate planning application, Screening for Appropriate Assessment, and Natura Impact Statement if required. A general assessment and mitigation measures for this connection are also included int the current NIS.

Since the preparation of the original NIS, a revised Drainage Strategy and Firefighting Water Containment Strategy has been prepared by McCloy Consulting Ltd (2026a) in response to a Request for Further Information issued by An Coimisiún Pleanála. This updated strategy supersedes aspects of the previously submitted drainage proposals insofar as they relate to permanent drainage infrastructure, pollution control, firefighting water supply, firefighting water containment and emergency drainage isolation measures. The revised strategy includes detailed Sustainable Drainage Systems (SuDS), lined attenuation infrastructure, impermeable containment measures beneath the ESS platform, emergency pollution shut-off valves, firefighting water storage infrastructure and enhanced water quality protection measures. These updated measures have been incorporated into the current Appropriate Assessment.

The preparation of this NIS for Assessment is as required under the Habitats Directive (92/43/EEC) in instances where a plan or project may give rise to significant effects upon a Natura 2000 site. Natura 2000 sites are of European Importance and have been designated in accordance with the requirements of the EC Habitats Directive (1992) and EC Birds Directive (2009/147/EC); transposed into Irish legislation as the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011). The Habitats Directive, in combination with the Birds Directive (2009), establishes a network of internationally important sites designated for their ecological status; identified as Special Areas of Conservation (SACs) designated under the Habitats Directive for the protection of flora, fauna and habitats and as Special Protection Areas (SPAs) designated under the Birds Directive to protect rare,

vulnerable and migratory birds. These sites together form a Europe-wide 'Natura 2000' network of designated sites, referred to in this report as Natura 2000 sites.

This Natura Impact Statement follows the Habitats Directive 92/43/EEC, Article 6(3) and the guidance published by the National Parks and Wildlife Service (DoEHLG, 2010) '*Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*'. It assesses the impact of the proposed development at construction, operation, and decommissioning stages in relation to direct, indirect and cumulative effects on the integrity of the Natura 2000 network.

1.1 Consultation

The following statutory bodies provided information via publicly available sources for this report:

- National Parks and Wildlife Service (NPWS).
- Environmental Protection Agency (EPA); and
- National Biodiversity Data Centre (NBDC).

1.2 Legislative context

The current assessment takes account of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora - '*The Habitats Directive'* which was transposed into Irish law by the '*European Community (Natural Habitats) Regulations 1997*' (S.I. No. 94/1997). The most recent transposition of this legislation in Ireland is the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). The Birds Directive (2009/147/EC), which is now included in the former Regulations, seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs) whereas the Habitats Directive does the same for habitats and other species groups within Special Areas of Conservation (SACs), which are designated or proposed as candidate Special Areas of Conservation (cSACs). It is the responsibility of each member state to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected areas throughout the European Community. Article 6, paragraphs 3 and 4 of the EC 'Habitats' Directive (1992) state that:

> *6(3) 'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'*
>
> *6(4) 'If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to 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 addition, the European Court of Justice in Case C-127/02 (the "Waddenzee Ruling") has made a relevant ruling in relation to Appropriate Assessment and this is reflected in the current assessment:

> *'Any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects" and that the plan or project may only be authorised "where no reasonable scientific doubt remains as to the absence of such effects.'*

Figure 1 Location of proposed Glenlara Power Reserve, near Glenlara, Co. Cork

2. METHODOLOGY

2.1 Desktop Review

A desktop study was undertaken to identify the extent and scope of the potentially affected Natura 2000 sites within the current study area. The desktop study identified the conservation interests of the designated sites with respect to the qualifying interests (species and habitats) relevant to the designated sites within the area.

A review of published literature was undertaken in order to collate data on the receiving environment; a range of additional sources of information including scientific reports produced by, and information on the websites of the Environmental Protection Agency (EPA) and the National Parks and Wildlife Service (NPWS) were also reviewed. Information sources reviewed included the NPWS site synopses, as well as protected species data held on the NPWS online database. The National Biodiversity Data Centre website was accessed for previous records of protected species in the area. The Office of Public Works, Geological Survey of Ireland and Ordnance Survey of Ireland online maps were consulted in relation to flooding. A full bibliography of information sources reviewed is given in the reference section.

Additional technical information submitted in response to a Request for Further Information issued by An Coimisiún Pleanála was also reviewed, including the revised Drainage Strategy, firefighting water containment calculations, groundwater abstraction feasibility assessment and revised drainage layout drawings prepared by McCloy Consulting Ltd (2026).

2.2 Site Survey

The site was visited during May 2023 to consider the likelihood of the site to provide habitat for any species associated with the regional Natura 2000 sites, and also to consider any likely pathways for effects to regional Natura 2000 sites.

2.3 Appropriate Assessment Methodology

The preparation of this NIS for Appropriate Assessment follows the guidance published by DoEHLG (2010) '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities'*. According to these guidelines, assessing the impacts of a project or plan on a Natura 2000 site is a four staged approach, as described below:

- ***Stage One: Screening / Test of Significance*** - The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.
- ***Stage Two: Appropriate Assessment*** - The consideration of the impact of the project or plan on the integrity of the Natura 2000 site, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.
- ***Stage Three: Assessment of Alternative Solutions*** - The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site; and
- ***Stage Four: Assessment Where Adverse Impacts Remain*** - An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

The safeguards set out in Article 6(3) and (4) of the Habitats Directive are triggered not by certainty but by the possibility of significant effects. Thus, in line with the precautionary principle, it is unacceptable to fail to undertake an appropriate assessment on the basis that it is not certain that there are significant effects.

2.3.1 Natura Impact Assessment

A Natura Impact Statement (NIS) considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The current report is set out in the format of a NIS and comprises a scientific examination of the plan / project and the relevant Natura 2000 sites; to identify and characterise any possible implications for the site in view of the site's conservation objectives, structure and function, taking account of in combination effects. The requirements for Appropriate Assessment derive directly from Article 6(3) of the EU Habitats Directive (1992).

Direct and indirect impacts in isolation or in combination with other plans and projects on the identified Natura 2000 sites in view of the sites' conservation objectives have been examined. Case law of the European Court of Justice (ECJ) has established that Appropriate Assessment must be based on the best scientific knowledge in the field. These are the qualifying interests i.e., Annex I habitats, Annex I bird species (EU Birds Directive, incorporated into the EU Habitats Directive) and Annex II species hosted by a site and for which that site has been selected. The conservation objectives for Natura sites (SACs and SPAs) are determined under Article 4 of the Habitats Directive and are intended to ensure that the relevant qualifying interests i.e., Annex I habitats, Annex I bird species and Annex II species present within the designated sites are maintained in a favourable condition. The current assessment of the proposed development provides a description of the project and the receiving environment. The conservation objectives of the Natura 2000 site potentially affected by the proposal are listed and potential impacts outlined with respect to the integrity of the Natura 2000 site. Mitigation measures have been proposed for the protection of the conservation interests and the avoidance of impacts to Natura 2000 Sites occurring within the study area.

3. DESCRIPTION OF THE PROJECT

The proposed development comprises a 10-year planning permission, with a 35-year operational phase, for an ESS comprising the following components:-

- Energy storage containers installed on concrete plinths;
- Associated electrical inverters and transformers;
- Electrical and communications cabling;
- Upgrade of an existing agricultural entrance accessed via a shared access point from the L5039;
- Access track;
- Boundary security fencing and gates;
- Pole-mounted security cameras; and,
- All associated site development, landscaping and reinstatement works.

The connection of the proposed development to the national electricity network does not form part of the development proposed within the subject planning application.

The location of the proposed development site is shown in Figure 1. Full details of the proposed development are given in the Planning & Environmental Report (Galetech Energy Services, 2024).

A revised Hydrological/Hydrogeological Review and Drainage Impact Assessment has been prepared for the proposed development by Hydro Environmental Services (2026).

Natura 2000 sites within 15km of proposed Glenlara Power Reserve are indicated in Figure 1. The current NIS concerns the Blackwater River (Cork / Waterford) SAC.

A revised Drainage Strategy and Firefighting Water Containment Strategy has subsequently been prepared by McCloy Consulting Ltd (2026). This updated strategy includes lined attenuation basins, filter drains, swales, pollution control infrastructure, emergency shut-off valves, impermeable geomembrane liners beneath the ESS platform and attenuation basin, dedicated firefighting water storage tanks and integrated containment measures designed to prevent contaminated runoff or firefighting water entering surface water or groundwater pathways.

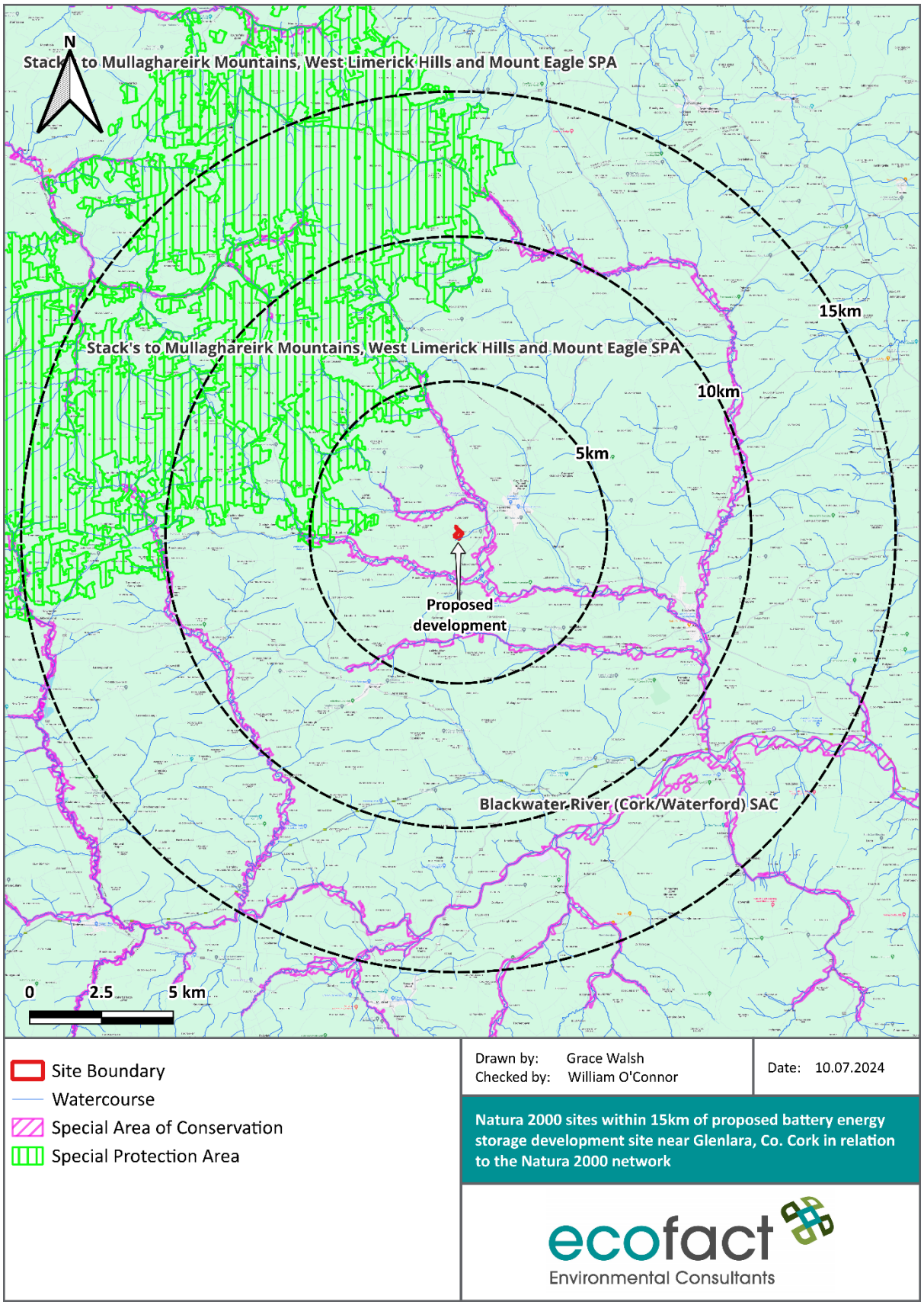

Figure 2 Natura 2000 sites within 15km of proposed battery energy storage development site near Glenlara, Co. Cork

4. RECEIVING ENVIRONMENT

4.1 Blackwater River (Cork / Waterford) SAC

The Blackwater River (Cork / Waterford) SAC is long, linear site that covers several watercourses including the River Blackwater, River Dalua, River Owenkeal, River Glenlara and River Allow. It is predominantly peat in the upper reaches. The SAC stretches from Ballydesmond to the estuary in Youghal.

The SAC is designated for the protection of the Annex 1 habitats Estuaries, Mudflats and sandflats not covered by seawater at low tide, Perennial vegetation of stony banks, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), Mediterranean salt meadows (*Juncetalia maritimi*), 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, and Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

The SAC is furthermore designated for the protection of the Annex II species Freshwater Pearl Mussel *Margaritifera margaritifera*, White-clawed Crayfish *Austropotamobius pallipes*, Sea Lamprey *Petromyzon marinus*, Brook Lamprey *Lampetra planeri*, River Lamprey *Lampetra fluviatilis,* Twaite Shad *Alosa fallax fallax,* Salmon *Salmo salar*, Otter *Lutra lutra* and Killarney Fern *Trichomanes speciosum*. The Qualifying Interests (QIs) of this site are listed in Table 1.

Table 1 The Qualifying Interests of the Blackwater River (Cork / Waterford) SAC and screening conclusions.

	Natura Code	Qualifying Interest	Screening conclusion
Annex I Habitats	1130	Estuaries	Screened out due to distance
	1140	Mudflats and sandflats not covered by seawater at low tide	Screened out due to distance
	1220	Perennial vegetation of stony banks	Screened out due to distance
	1310	Salicornia and other annuals colonising mud and sand	Screened out due to distance
	1330	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	Screened out due to distance
	1410	Mediterranean salt meadows (*Juncetalia maritimi*)	Screened out due to distance
	3260	**Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation**	**Screened in as this is a freshwater habitat that depends on good water quality.**
	91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	Screened out as this is a terrestrial habitat (no pathway)
	91E0	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)	Screened out as this is a terrestrial habitat (no pathway)
Annex II Species	**1029**	***Margaritifera margaritifera* (Freshwater Pearl Mussel)**	**Screened in as this is a freshwater species that requires on good water quality.**
	1092	***Austropotamobius pallipes* (White-clawed Crayfish)**	**Screened in as this is a very sensitive freshwater species that requires high water quality.**
	1095	***Petromyzon marinus* (Sea Lamprey)**	**Screened in as this is a freshwater species that**

	Natura Code	Qualifying Interest	Screening conclusion
			requires on good water quality.
	1096	***Lampetra planeri* (Brook Lamprey)**	**Screened in as this is a freshwater species that requires on good water quality.**
	1099	***Lampetra fluviatilis* (River Lamprey)**	**Screened in as this is a freshwater species that requires on good water quality.**
	1103	***Alosa fallax fallax* (Twaite Shad)**	**Screened in as this is a freshwater species that requires on good water quality.**
	1106	***Salmo salar* (Salmon)**	**Screened in as this is a freshwater species that requires on good water quality.**
	1355	***Lutra lutra* (Otter)**	**Semi aquatic species, unlikely to be affected, but screened in.**
	1421	*Trichomanes speciosum* (Killarney Fern)	Terrestrial species screened out (no pathways).

4.3 Water Quality and drainage

The subject site is located in the Blackwater (Munster) Water Framework Directive (WFD) Catchment and the Dalua_SC_010 sub-catchment. Locally, the Proposed Project site is located in the Dalua_020 WFD river sub-basin. There are no watercourses mapped by the EPA in the immediate vicinity of the Proposed Project site. The Dalua River (EPA Code: 18D01), the closest EPA mapped watercourse, is located approximately 1km southeast of the Proposed Project site, where it flows in a southerly direction.

The proposed development site is located c. 980m from the River Dalua (EPA code: 18D01) which is designated in the Blackwater River (Cork / Waterford) SAC. The Dalua River confluences with the River Allow approximately 12km downstream of the site, before flowing into the River Blackwater a further 5km downstream.

The Environmental Protection Agency carried out biological water quality monitoring in this area (Station code: 0200). In 2020 it was rated Q4, equivalent to Water Framework Directive (WFD) status “Good”. Downstream from here water quality improves and another station (Station code: 0300) is rated Q4-5 equivalent to WFD status “High”. However, this stretch (DALUA_030) is considered “At Risk” of not meeting its objectives under the WFD by 2027. Anthropogenic pressures are associated with this risk. Forestry and land drainage are also issues in this catchment. It is also failing to achieve good chemical water quality status.

A revised Hydrological/Hydrogeological Review and Drainage Impact Assessment has been prepared for the proposed development by Hydro Environmental Services (2026).

A revised Drainage Strategy, prepared by McCloy Consulting Ltd (2026), confirms that the site is underlain by predominantly low permeability subsoils with shallow groundwater influences and poorly

drained conditions. Infiltration-based drainage measures are therefore not proposed at the site. Instead, the drainage strategy is based on attenuation, controlled discharge and lined containment infrastructure.

The revised drainage strategy identifies an existing field drain along the eastern boundary of the proposed ESS compound which conveys runoff southeast toward an unnamed watercourse located along the southern boundary of the site. This unnamed watercourse ultimately drains to the River Dalua and therefore provides an indirect hydrological pathway to the Blackwater River (Cork/Waterford) SAC. The revised strategy includes a lined attenuation basin, filter drains, swales, controlled discharge infrastructure and emergency shut-off pollution control valves. An impermeable geomembrane liner is proposed beneath the ESS platform subbase and beneath the attenuation basin to prevent vertical migration of contaminated water to groundwater. Runoff and firefighting water arising during an emergency event will therefore be retained within a closed and controlled drainage system.

The overall emergency containment system provides approximately 1,273m³ of total containment storage, including lined attenuation storage and temporary storage within the lined ESS platform subbase and lined attenuation basin. The system has been designed to prevent uncontrolled releases of contaminated runoff or firefighting water to surface water or groundwater pathways.

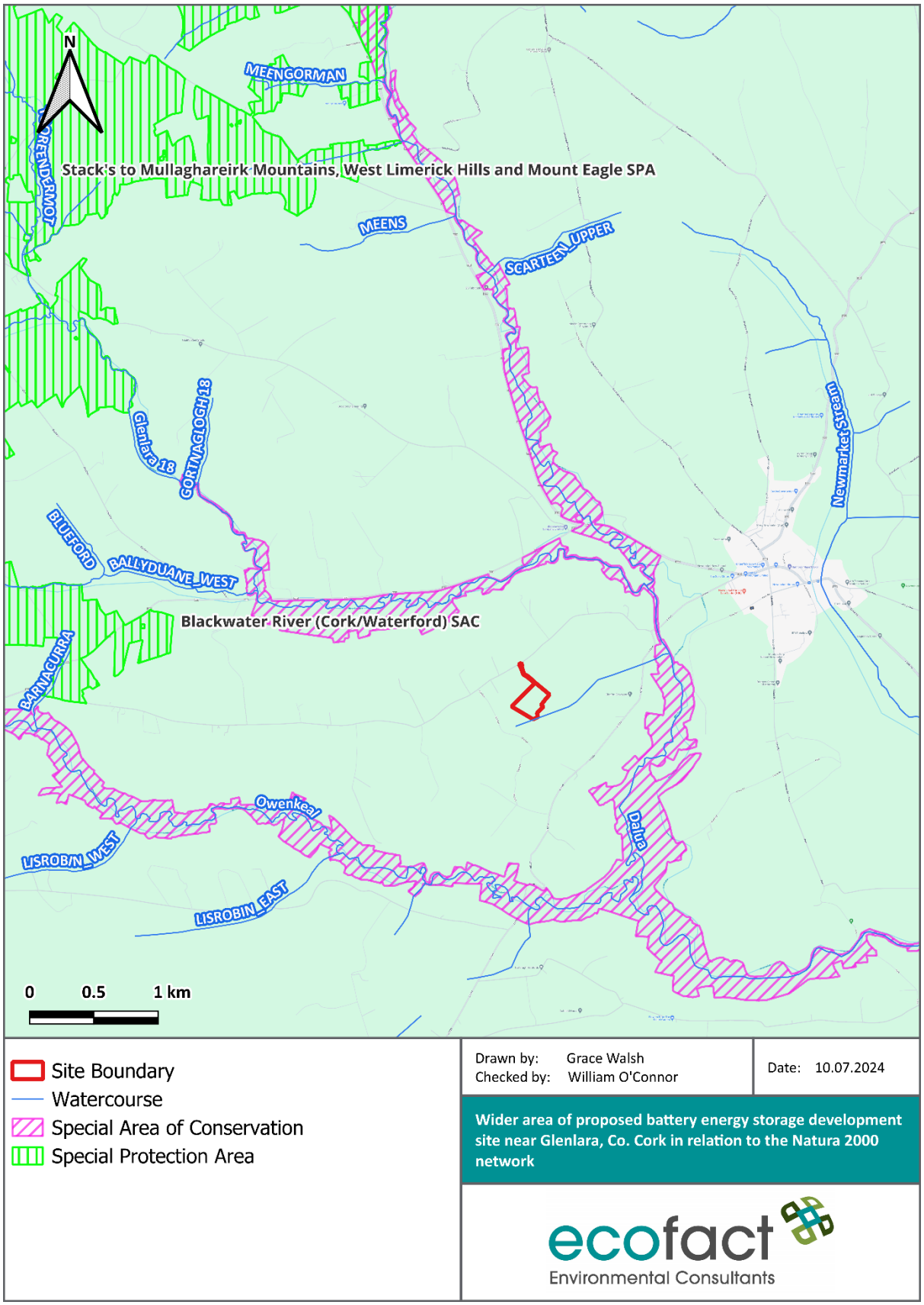

Figure 3 Location of proposed Glenlara Power Reserve in relation to the Natura 2000 network. Hydrological connectivity via the unregistered stream is also indicated.

5. IMPACT ASSESSMENT

5.1 Introduction

At Stage 2 Appropriate Assessment (i.e. NIS stage), the impact of the proposed project / plan on the integrity of a Natura 2000 site is considered with respect to the Conservation Objectives. Integrity is defined as: '*the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified*'. Therefore, the integrity of a site is principally related to the structure and function of the site with regard to its Annex I habitats and Annex II species listed as Qualifying Interests. The conservation status of these qualifying interests comprises the primary conservation objectives for all designated Natura 2000 sites. Mitigation to offset potential negative impacts can also be provided at this stage.

The Blackwater River (Cork / Waterford) SAC has been 'screened in' for Appropriate Assessment. Mitigation will be required to protect the Qualifying Interests of this Natura 2000 site. The key potential impact on this site is water quality. Due mainly to proximity, and the presence of an unregistered watercourse to the south of the site providing hydrological connectivity to the SAC, it was considered that there is the potential for impacts on this site. This is an unregistered watercourse that flows into the SAC c. 1.2rkm downstream of the proposed development site. The potential impact identified is contaminated runoff entering the unregistered stream and being conveyed downstream to the SAC during the construction and (to a lesser degree) operational phase. Non-native invasive species could also potentially be introduced to the site and dispersed downstream via the same pathway.

This Natura Impact Statement presents the data and information on the project and provides an analysis of the potential adverse effects on the aforementioned EU designated sites. Potential adverse effects are assessed in view of best scientific knowledge, on the basis of objective information in relation to the Proposed Development. Avoidance, reduction and preventive measures are then provided. This NIS provides a review of the site-specific pressures and threats as well as the potential impacts pathways for each of the affected EU Designated Sites. Mitigation measures for the avoidance of impact are then provided in Section 7, followed by an assessment of potential effect, post implementation of the mitigation measures in Section 8.

5.2 Blackwater River (Cork / Waterford) SAC

The affected qualifying interests of the Blackwater River (Cork / Waterford) SAC are presented in Table 2 below with the potential impacts of the proposed works on each. The qualifying interests are discussed below in terms of the potential impacts that could arise from the proposed development.

In assessing the potential impacts on the Qualifying Interests of the Blackwater River (Cork / Waterford) SAC, the focus has been specifically on issues related to water quality and invasive species, rather than separately addressing each species and habitat. This approach was adopted to streamline the discussion and avoid redundancy. The rationale behind this decision stems from the observation that both the species and habitats 'screened in' for this Natura 2000 site are dependent on maintaining satisfactory water quality. Consequently, any contamination, such as polluted runoff from the site potentially being conveyed downstream in the SAC, would undermine the conservation objectives set for these Qualifying Interests. A detailed examination of water quality-related impacts is provided in Sections 5.2.1 and 5.2.2 of the report. Similarly, the risk of introducing and spreading non-native invasive species through construction activities on the site poses a significant threat. These species can detrimentally impact the designated habitats and the species reliant on these ecosystems' integrity.

Hence, the implications of biosecurity concerns are also thoroughly discussed in Sections 5.2.1 and 5.2.2, reflecting the consolidated approach to addressing these intertwined environmental risks.

Table 2 The Qualifying Interests of the Blackwater River (Cork / Waterford) SAC and proposed mitigation measures.

	Natura Code	Qualifying Interest	Potential impacts
Annex I Habitats	3260	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	Water Quality; Invasive Species
Annex II Species	1029	*Margaritifera margaritifera* (Freshwater Pearl Mussel)	Water Quality; Invasive Species
	1092	*Austropotamobius pallipes* (White-clawed Crayfish)	Water Quality; Invasive Species
	1095	*Petromyzon marinus* (Sea Lamprey)	Water Quality; Invasive Species
	1096	*Lampetra planeri* (Brook Lamprey)	Water Quality; Invasive Species
	1099	*Lampetra fluviatilis* (River Lamprey)	Water Quality; Invasive Species
	1103	*Alosa fallax fallax* (Twaite Shad)	Water Quality; Invasive Species
	1106	*Salmo salar* (Salmon)	Water Quality; Invasive Species
	1355	*Lutra lutra* (Otter)	Water Quality; Invasive Species

5.2.1 Construction Phase impacts

The proposed development is not located within the boundary of any Natura 2000 site, and none of the habitats or species that are designated within the Blackwater River (Cork / Waterford) SAC occur within the development site. There is therefore no potential pathway for direct impacts.

The proposed development site is located c. 1.2rkm upstream of the Blackwater River (Cork / Waterford) SAC. There is unregistered watercourse to the south of the site providing hydrological connectivity to the SAC. An unregistered watercourse means that it is not shown in the EPA hydrometric maps and does not have a watercourse code or name. This is considered to be a weak hydrological connection and the stream itself will not be affected by the proposed development.

However, there is at least some potential for water quality impacts to arise via this stream that could be conveyed to the downstream in the SAC. There is potential for, particularly during the construction phase, for pollutants such as sediment contaminated run-off to enter the stream and be conveyed downstream. Taking the precautionary principle, mitigation measures will be provided to ensure no negative impacts arise which could affect the habitats and species located in the downstream SAC.

With the presence of machinery and personnel on site during the construction phase, there is also the potential for invasive species to be brought on to site and could be spread via the unnamed stream. If invasive species are brought to the site, the seeds could enter the watercourse and be transported downstream to the SAC. There are currently no non-native invasive species on the site. Nonetheless, there is some potential for the introduction and dispersal of these species during the construction phase in particular. Biosecurity mitigation to prevent the introduction and dispersion of invasive species will be provided.

Since the preparation of the original NIS, a revised drainage and firefighting water containment strategy has been prepared which substantially strengthens the pollution control measures proposed for the development. The revised strategy incorporates lined attenuation infrastructure, impermeable geomembrane liners beneath the ESS platform and attenuation basin, filter drains, swales, controlled discharge infrastructure, hydrobrake flow controls, oil interceptors associated with the transformer compound, and emergency shut-off pollution control valves.

These measures are specifically designed to prevent contaminated runoff, pollutants or firefighting water from entering downstream surface water pathways during the operational phase; however, the infrastructure will also serve to control any silt/sediment laden runoff during the construction phase.

The revised strategy also includes impermeable liners beneath the ESS platform and attenuation basin which prevent infiltration of any contaminated water to ground during construction. As such, the potential for vertical migration of contaminants to groundwater is considered negligible.

The containment system has been designed in accordance with Guidance for Pollution Prevention 18 (GPP18) and National Fire Chiefs Council Guidance for Grid-Scale Battery Energy Storage Systems (2026 Update), with a total emergency containment capacity of approximately 1,273m³.

The revised drainage strategy therefore substantially reduces the risk of contaminated runoff entering the unnamed stream or being conveyed downstream to the Blackwater River (Cork/Waterford) SAC during the construction phase.

5.2.2 Operational Phase impacts

During the operational phase, the revised drainage and containment infrastructure will significantly reduce the potential for impacts on surface water quality or groundwater quality. The ESS platform and attenuation basin will be underlain by impermeable geomembrane liners to prevent infiltration of potentially contaminated water to ground. Emergency pollution control valves are also proposed to isolate the drainage system in the event of a pollution incident or firefighting event. Contaminated water can then be retained within the lined drainage infrastructure and removed off-site by tanker for disposal at an appropriately licensed facility.

Firefighting water demand and containment requirements have been specifically assessed as part of the revised drainage strategy. The site incorporates dedicated firefighting water storage and a containment system designed to prevent uncontrolled releases of firefighting water to downstream watercourses or groundwater pathways.

With these measures in place, the potential for impacts on water quality-dependent Qualifying Interests of the Blackwater River (Cork/Waterford) SAC during the operational phase is considered negligible

5.2.3 Decommissioning Phase

Likely effects during the decommissioning phase are assessed as similar to those predicted for during the construction phase.

6. POTENTIAL FOR IN-COMBINATION EFFECTS

As the proposed development is set back 590rm from the Blackwater River (Cork / Waterford) SAC and 1.2rkm upstream and includes water quality protection measures during both the construction and

operational phases, this strategy significantly aids in mitigating and avoiding potential negative impacts on the Blackwater River (Cork / Waterford) SAC.

The revised drainage strategy and firefighting water containment infrastructure substantially reduce the potential for cumulative water quality impacts arising from the proposed development. The inclusion of lined containment infrastructure, emergency shut-off valves, controlled discharge systems and tanker removal procedures for contaminated firefighting water significantly reduces the likelihood of pollutants entering downstream receiving waters. The revised strategy therefore reduces the potential for the proposed development to contribute to cumulative impacts on the Blackwater River (Cork/Waterford) SAC in combination with other plans or projects.

The site itself holds no ecological significance, harboring no habitats or species associated with the SAC and SPA. The hydrological connection from the site to the Blackwater River (Cork / Waterford) SAC is deemed very weak. It is noted that if significant direct and indirect effects are avoided, the possibility of significant cumulative effects is negated.

According to NPWS the main threats to the Blackwater River (Cork / Waterford) SAC include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, dredging of the upper reaches of the Awbeg, over-grazing within the woodland areas, and invasion by non-native species, for example Rhododendron and Cherry Laurel. A search for planning applications in the online National Planning Applications Database (NPAD) revealed a number of applications in the general area, including one off houses and agricultural development as would be typical of a rural area. None have been identified that would act in combination with the current development to increase impacts on the Blackwater River (Cork / Waterford) SAC.

This Planning and Environmental Report includes a full and detailed cumulative assessment of all relevant existing, permitted and proposed developments proximate to the subject proposed development which may be likely to result in in-combination environmental impacts.

The cumulative assessment has had particular regard to developments identified on the Cork County Council Online Planning Portal, and those in the general proximity of the proposed development. Table 3, below, provides a list of developments which have been considered in the cumulative assessment.

Table 3 Local developments which have been considered in the cumulative impact assessment.

Development	Planning Register Reference
Residential Developments	Various
Agricultural Developments	Various
Glenlara Electricity Substation	01/4567, 05/2023, 08/9874 and 15/5620
Solar Energy Development	16/7215 (An Bord Pleanála Reference PL04.249377)
Overhead Electricity Line	06/7114
Overhead Electricity Line	03/2838

As set out above, the infrastructure necessary to connect the proposed development to the national electricity network does not form part of the development proposed within the subject planning application. However, for the purposes of facilitating a complete and comprehensive assessment of the overall project, the likely cumulative effects of the grid connection infrastructure have been assessed in the Planning and Environmental Report (Galetech Energy Services, 2024). Subject to planning permission being granted for the subject proposed development, the Applicant will engage with EirGrid or the ESB to determine the most likely point of connection to the electricity network. On the basis of

analyses undertaken to date, it is likely that the proposed development will connect to the existing Glenlara 110kV electricity substation located immediately to the east of the proposed development site.

The infrastructure associated with this connection method will generally comprise a transformer compound, enclosed with palisade security fencing, containing an electrical apparatus and an electrical control building. The electrical control building will contain electrical equipment including switchgear and other electrical apparatus, storage and welfare facilities.

External (to the control building) electrical apparatus will include an electrical transformer and auxiliary electrical equipment. When the ESS is exporting electricity to the national grid, the transformer will increase the voltage of the electricity generated by the proposed development before being transmitted to the national grid. When the ESS is importing electricity from the national grid, the transformer will decrease the voltage of electricity. From the transformer, electricity cables will carry electricity to/from the Glenlara 110kV substation.

The indicative footprint and extent of the transformer compound is illustrated in the attached. Surface water controls for the grid connection infrastructure will be identical to those being implemented for the ESS during both the construction and operational phases; with interceptor drains, silt traps, buffered outfalls etc. being installed. The mitigation measures are outlined in Section 7. This connection will also be subjected to a separate planning application, Screening for Appropriate Assessment, and Natura Impact Statement if required.

7. MITIGATION

7.1 Summary

The potential impacts and mitigation for the proposed Glenlara Power Reserve development are provided in Table 4 below.

Table 4 Mitigation for the proposed Glenlara Power Reserve development on Qualifying Interests of the Blackwater River (Cork / Waterford) SAC and screening conclusions.

	Natura Code	Qualifying Interest	Mitigation
Annex I Habitats	3260	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	Construction and Environmental Management Plan Best practice site management Protect stream on the site. Biosecurity Implement SuDS drainage system. Lined attenuation basin; Impermeable geomembrane liner beneath ESS platform; Emergency pollution shut-off valve; Firefighting water containment infrastructure; Tankering and off-site disposal of contaminated firefighting water; Hydrobrake flow controls; Oil interceptor associated with transformer compound; Swales and filter drains; Controlled discharge at greenfield runoff rates.
Annex II Species	1029	*Margaritifera margaritifera* (Freshwater Pearl Mussel)	
	1092	*Austropotamobius pallipes* (White-clawed Crayfish)	
	1095	*Petromyzon marinus* (Sea Lamprey)	
	1096	*Lampetra planeri* (Brook Lamprey)	
	1099	*Lampetra fluviatilis* (River Lamprey)	
	1103	*Alosa fallax fallax* (Twaite Shad)	
	1106	*Salmo salar* (Salmon)	
	1355	*Lutra lutra* (Otter)	

A revised Hydrological/Hydrogeological Review and Drainage Impact Assessment has been prepared for the proposed development by Hydro Environmental Services (2026). All the mitigation measures outlined in this document will be adhered to during the construction, operation, and decommissioning of the proposed development.

7.2 Construction Environmental Management Plan (CEMP)

In advance of works, a detailed Construction Environmental Management Plan (CEMP) will be prepared by the appointed contractor detailing construction methodologies and appropriate mitigation measures to be implemented across the entire extent of the construction phase. All mitigation measures outlined within this document, and within the project description provided by the client, will be incorporated into the CEMP.

Guidelines to be adhered to in the preparation of the CEMP and method statements include the following:

- *'Guidelines on protection of fisheries during construction works in and adjacent to waters'* (IFI, 2016)
- *'Guidelines for the protection and preservation of trees, hedgerows and scrub prior to, during and post construction of National Road Schemes'* (NRA, 2006a)

- '*Guidelines for the treatment of bats during the construction of national road schemes'* (NRA, 2006b)
- *'Guidelines for the treatment of Otters prior to the Construction of National Road Schemes' (NRA, 2006c)*
- *'Guidelines for the crossing of watercourses during the construction of national road schemes' (NRA, 2008)*
- *'Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads'* (NRA, 2010)

7.3 Water Quality Mitigation

A revised Drainage Strategy and Firefighting Water Containment Strategy has been prepared by McCloy Consulting Ltd (2026) in response to the Further Information request issued by An Coimisiún Pleanála. The revised drainage strategy incorporates a range of enhanced mitigation measures for the protection of surface water and groundwater quality.

Surface water runoff from the ESS compound will be conveyed via filter drains to a lined attenuation basin, while runoff from the access track will be conveyed via swales and discharged at controlled greenfield runoff rates. Runoff from the transformer compound will discharge via filter drains, attenuation infrastructure and an oil interceptor designed to mitigate potential hydrocarbon pollution risks associated with transformer infrastructure.

The drainage system incorporates hydrobrake flow controls, attenuation infrastructure and SuDS treatment measures designed in accordance with CIRIA SuDS guidance. The ESS platform subbase and attenuation basin will be underlain by impermeable geomembrane liners to prevent infiltration of potentially contaminated water to groundwater.

Emergency pollution shut-off valves are also proposed within the drainage system. In the event of a pollution incident or firefighting event, the drainage system can be isolated to prevent contaminated runoff or firefighting water discharging to downstream watercourses. Retained water can then be removed off-site by tanker to a licensed disposal facility.

The overall emergency containment system provides approximately 1,273m³ of storage and has been specifically designed to prevent uncontrolled releases of firefighting water to surface water or groundwater pathways.

7.4 Biosecurity mitigation

To minimise the risk of importation of non-native invasive species to the proposed development site or adjacent areas, there will be appropriate screening of any plant, machinery or material brought to any part of the site. Mitigation measures, including the off-site cleaning / washing of machinery, and checking of machinery and tools for biological matter before use on site (such as plant seeds or material) will also reduce the potential for the importation of invasive species. In general, it is recommended that the document '*Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads'* (NRA, 2010) be followed by the contractor appointed to carry out the proposed works. A non-native Invasive Species Management Plan (ISMP) will be drawn up by the contractor. Contractors are expected to have cognisance of invasive species during the work. Unrecognised species should be identified to confirm they are non-invasive. If any invasive species are found at the site, they will be fenced off and the necessary guidelines and procedures relating to the particular species will then be followed to manage and eradicate the species appropriately.

8. RESIDUAL IMPACTS

8.1 Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. Favourable conservation status is defined for Annex I habitats and Annex II species in the Habitat Directive (1992):

Article 1 (e)

> Conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2.
>
> The conservative status of a natural habitat will be taken as 'favourable' when: its natural range and areas it covers within that range are stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

Article 1 (i)

> Conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2.
>
> The conservation status will be taken as 'favourable' when: population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

The Conservation Objectives of the Blackwater River (Cork / Waterford) SAC are detailed in NPWS (2012). The current assessment utilizes the site-specific conservation objectives and the national 'Status of EU Protected Habitats and Species in Ireland' Report (NPWS, 2019a; NPWS, 2019b).

The revised drainage and firefighting water containment strategy substantially reduces uncertainty in relation to accidental pollution events, contaminated runoff and firefighting water management. The incorporation of lined containment systems, impermeable geomembrane liners, emergency isolation valves and controlled tanker removal procedures ensures that there is no realistic pathway for significant quantities of contaminated water to enter downstream receiving waters or groundwater

pathways. Residual effects on the Qualifying Interests of the Blackwater River (Cork/Waterford) SAC are therefore considered imperceptible.

With the implementation of the provided mitigation measures is considered to be sufficient to minimise any risk of impacts to the SAC to imperceptible in scale. There are no impacts arising from the proposed development which could affected the conservation status of the Annex I habitats or Annex II species listed as qualifying interests of the SAC. The proposed development will comply with the required mitigation to ensure that there will be no significant residual impacts.

9. CONCLUSION STATEMENT

The provisions of Article 6 of the 'Habitats' Directive 92/43/EC (2000) defines 'integrity' as the: 'coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or population of species for which the site is or will be classified'.

Mitigation measures proposed ensure that there are no residual impacts on the Blackwater River (Cork / Waterford) SAC. The potential impacts identified, including water quality and invasive species, will be successfully reduced to imperceptible in scale following the implementation of the mitigation measures in this NIS.

It has therefore been concluded that following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the proposed works, and with the implementation of the mitigation measures proposed, that the proposed works do not pose a risk adversely affecting the integrity of any Natura 2000 site, either alone or in-combination with other plans or projects.

PLATES

Plate 1 Proposed site for the energy storage system at Curraduff, Glenlara, Newmarket, Co. Cork. The site is not of any ecological importance and consists mainly of Improved Agricultural Grassland (GA1) with intensively managed Hedgerow (WL1).

Plate 2 Proposed development site consists of intensively managed agricultural lands.

REFERENCES

Bowers Marriott, B., (1997) Practical Guide to Environmental Impact Assessment: A Practical Guide. Published by McGraw-Hill Professional, 1997, 320 pp.

CIRIA, (2001) Control of Water Pollution from Construction sites- Guidance for Consultants and Contractors (C532). 6 Storey's Gate, Westminster, London.
http://www.orkneywind.co.uk/advice/SEPA%20Pollution%20Advice/ciria%20c532.pdf

CIRIA, (2002) Control of Water Pollution on Construction Sites- Guide to Good Practice (SP156). 6 Storey's Gate, Westminster, London.

CIRIA, (2005) Environmental Good Practice – Site Guide (C650). 6 Storey's Gate, Westminster, London.

CIRIA, (2006) Control of Water Pollution from Linear Construction Projects- Site Guide (C649). 6 Storey's Gate, Westminster, London.

CIRIA, (2006) Control of Water Pollution from Linear Construction Projects -Technical Guidance (C648). 6 Storey's Gate, Westminster, London.
http://bailey.persona-pi.com/Public-Inquiries/M4%20-%20Revised/12.2.20.pdf

DoEHLG, (2010) '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities'.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982.

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979.

EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992. http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/104

European Commission, (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. European Commission Environment, Brussels.

European Commission, (2007) *Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interests, compensatory measures, overall coherence and opinion of the Commission.* European Commission, Brussels.

Hydro Environmental Services (2026) Glenlara Power Reserve. Hydrological/Hydrogeological Review and Drainage Impact Assessment.

IFI (2016) Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland, 3044 Lake Drive, Citywest Business Campus Co. Dublin. IFI/2016/1-4298.
https://www.fisheriesireland.ie/documents/624-guidelines-on-protection-of-fisheries-during-construction-works-in-and-adjacent-to-waters/file.html

McCloy Consulting Ltd. (2026a) *Drainage Strategy – Glenlara Power Reserve*. Report Ref. M02206-08_DG01, prepared for Neoen Renewables Ireland Ltd, May 2026.

McCloy Consulting Ltd. (2026b) *Calculation Methodology – Firefighting Containment*. Appendix to the Glenlara Power Reserve Drainage Strategy, prepared for Neoen Renewables Ireland Ltd.

McCloy Consulting Ltd. (2025) *Groundwater Abstraction Feasibility Scoping Assessment – Glenlara ESS, Co. Cork*. Technical Note prepared for Neoen Renewables Ireland Ltd, December 2025

Galetech Energy Services (2024) Planning & Environmental Report. Glenlara Power Reserve.

National Biodiversity Data Centre (2021). All-Ireland Pollinator Plan 2021-2025. https://pollinators.ie/wp-content/uploads/2021/03/All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf

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 (2019a) *The Status of EU Protected Habitats and Species in Ireland*. Species Assessments Volume 3. Version 1.0. Unpublished Report, National Parks & Wildlife Service. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol3_Species_Article17.pdf

NPWS (2019b) *The Status of EU Protected Habitats and Species in Ireland*. Habitat Assessments Volume 2. Version 1.1. Unpublished Report, National Parks & Wildlife Service. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol2_Habitats_Article17.pdf

NRA, (2008a) Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes. National Roads Authority, St Martin's House, Waterloo Roads, Dublin 4. http://www.tii.ie/tii-library/environment/construction-guidelines/Guidelines-for-the-Crossing-of-Watercourses-during-the-Construction-of-National-Road-Schemes.pdf

NRA, (2010) Guidelines on the Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads. National Roads Authority, St Martin's House, Waterloo Roads, Dublin 4. http://www.tii.ie/technical-services/environment/construction/Management-of-Noxious-Weeds-and-Non-Native-Invasive-Plant-Species-on-National-Road-Schemes.pdf

OPR (2021) Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. Office of the Planning Regulator. https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf

APPENDIX 1 SCREENING FOR APPROPRIATE ASSESSMENT

The following screening matrix complies with the DoEHLG (2010) and OPR (2021) guidelines.

Table A1.1 Description of the project/proposal and local site characteristics.

STEP 1. Description of the project/proposal and local site characteristics:	
(a) File Reference No:	n/a
(b) Brief description of the project or plan:	The proposed development encompasses a 10-year planning permission followed by a 35-year operational phase for an Energy Storage System (ESS) that includes various components. These components consist of energy storage containers installed on concrete plinths, associated electrical inverters and transformers, electrical and communications cabling, an upgrade of an existing agricultural entrance accessed via a shared access point from the L5039, an access track, boundary security fencing and gates, pole-mounted security cameras, and all associated site development, landscaping, and reinstatement works. It is important to note that the connection of the proposed development to the national electricity network is not included in this planning application.
(c) Brief description of site characteristics:	The proposed development site consists of intensively managed agricultural lands.
(e) List of bodies consulted:	National Parks and Wildlife Service (NPWS). Environmental Protection Agency (EPA); and National Biodiversity Data Centre (NBDC).
(g) Is the project directly connected to or necessary for the management of a designated site	The proposed project is not directly connected to or necessary for the management of a designated site

Table A1.2 Identification of relevant Natura 2000 sites using Source-Pathway- Receptor model and compilation of information Qualifying Interests and conservation objectives.

STEP 2. Identification of relevant Natura 2000 sites using Source-Pathway- Receptor model and compilation of information Qualifying Interests and conservation objectives.				
European Site (code)	List of Qualifying Interest/Special Conservation Interest	Distance from proposed development (km)	Connections (Source, Pathway Receptor)	Considered further in screening Y/N
Blackwater River (Cork Waterford) SAC (002170)	Estuaries	590rm north and 1.2rkm east downstream (there is a watercourse here according to client maps but this is not an EPA registered watercourse).	Yes	Y
	Mudflats and sandflats not covered by seawater at low tide			
	Perennial vegetation of stony banks			
	Salicornia and other annuals colonising mud and sand			
	Atlantic salt meadows (Glauco-*Puccinellietalia maritimae*)			
	Mediterranean salt meadows (*Juncetalia maritimi*)			
	Water courses of plain to montane levels with the			

STEP 2. Identification of relevant Natura 2000 sites using Source-Pathway- Receptor model and compilation of information Qualifying Interests and conservation objectives.				
European Site (code)	List of Qualifying Interest/Special Conservation Interest	Distance from proposed development (km)	Connections (Source, Pathway Receptor)	Considered further in screening Y/N
	***Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation**			
	Old sessile oak woods with Ilex and Blechnum in the British Isles			
	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)			
	***Margaritifera margaritifera* (Freshwater Pearl Mussel)**			
	***Austropotamobius pallipes* (White-clawed Crayfish)**			
	***Petromyzon marinus* (Sea Lamprey)**			
	***Lampetra planeri* (Brook Lamprey)**			
	Lampetra fluviatilis (River Lamprey)			
	***Alosa fallax fallax* (Twaite Shad)**			
	***Salmo salar* (Salmon)**			
	***Lutra lutra* (Otter)**			
	Trichomanes speciosum (Killarney Fern)			
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161)	Hen Harrier (*Circus cyaneus*)	c. 2.7km west	No – no suitable habitats for hen harrier on the site.	N
Lower River Shannon SAC (2165)	Sandbanks which are slightly covered by seawater all the time	c.9.6km northwest	No – no pathway for effects. This SAC is located in a different catchment.	N
	Estuaries			
	Mudflats and sandflats not covered by seawater at low tide			
	Coastal Lagoons			
	Large Shallow Inlets and Bays			
	Reefs			
	Perennial Vegetation of Stony Banks			
	Vegetated sea cliffs of the Atlantic and Baltic Coasts			
	Salicornia and other annuals colonizing mud and sand			
	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)			

STEP 2. Identification of relevant Natura 2000 sites using Source-Pathway- Receptor model and compilation of information Qualifying Interests and conservation objectives.				
European Site (code)	List of Qualifying Interest/Special Conservation Interest	Distance from proposed development (km)	Connections (Source, Pathway Receptor)	Considered further in screening Y/N
	Mediterranean Salt Meadows (*Juncetalia maritimi*)			
	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation			
	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)			
	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*)			
	Freshwater Pearl Mussel *Margaritifera margaritifera*			
	Sea lamprey *Petromyzon marinus*			
	Brook lamprey *Lampetra planeri*			
	River lamprey *Lampetra fluviatilis*			
	Salmon *Salmo salar*			
	Common Bottlenose Dolphin *Tursiops truncates*			
	Otter *Lutra lutra*			

Table A1.3 Consideration of the potential for Significant Effects.

	STEP 3. Consideration of the potential for Significant Effects	
	(a) Identify all potential impacts that may result in significant effects on the conservation objectives of a European site, taking into account the size and scale of the project under the following headings:	
Impacts:		Potential for Impacts:
Construction phase	Yes	Water Quality; Invasive Species
Operational phase	Yes	Water Quality; Invasive Species
In-combination/Other	Yes	Water Quality; Invasive Species

Table A1.4 Screening Determination Statement.

Step 4. Screening Determination Statement:		
The assessment of significance of effects: Describe how the proposed development (alone or in-combination) is/is not likely to have significant effects on European site(s) in view of its conservation objectives.		
The proposed development site is not located within any Special Area of Conservation (SAC) or Special Protection Area (SPA) A Hydrological/Hydrogeological review and drainage impact assessment has been prepared for the proposed development by Hydro Environmental Services (2024). A hydrological pathway potentially capable of conveying pollutants downstream exists between the proposed development site and the Blackwater River (Cork Waterford) Special Area of Conservation (SAC). This Natura 2000 site is located 590rm north of the proposed development, and 1.2rkm downstream via a small unregistered watercourse. Given that this SAC is designated for several water quality-dependent Qualifying Interests, including the highly sensitive *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029], it is determined that the implications of this pathway require consideration in a Natura Impact Statement (NIS), and that mitigation measures to protect water quality are necessary. It is noted that the identified pathway is considered to be very weak; therefore, this conclusion is reached following the precautionary principle. The screening evaluated various habitats and species for potential impacts. Several habitats, including estuaries, mudflats, and Mediterranean salt meadows, were screened out due to distance. Freshwater habitats, such as water courses with specific vegetation, were screened in due to their dependence on good water quality. Terrestrial habitats like old sessile oak woods and alluvial forests were screened out due to lack of pathways. Freshwater species, including the freshwater pearl mussel, white-clawed crayfish, various lamprey species, Twaite shad, salmon, and otter, were screened in due to their requirement for high water quality. The semi-aquatic otter was screened in despite being unlikely to be affected. The terrestrial Killarney fern was screened out due to no pathways. The connection of the proposed development to the national electricity network does not form part of the development proposed within the subject planning application. This will be subjected to a separate planning application, Screening for Appropriate Assessment, and Natura Impact Statement if required. A general assessment and mitigation measures for this connection are required.		
Conclusion:		
	Yes/No	Recommendation:
Project is directly connected to or necessary for the management of a designated site	No	
No possibility for significant effects		
Potential for significant effects identified, or potential for impacts is uncertain	Yes	Natura Impact Statement is required.
Person who completed the screening.	Dr. Will O'Connor	
Date that screening was completed.	23/7/24	