ALTEMAR
Marine & Environmental Consultancy

Remedial Appropriate Assessment Screening & Remedial Natura Impact Statement - Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA to accompany a Planning Application for Substitute Consent in respect to a Development at Lettergesh East, Renvyle, Co. Galway.

11th August 2025

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Seán Harrington.

Altemar Ltd., 50 Templecarrig Upper, Delgany, Co. Wicklow. 00-353-1-2010713. info@altemar.ie
Directors: Bryan Deegan and Sara Corcoran
Company No.427560 VAT No. 9649832U
www.altemar.ie

Document Control Sheet			
Project	Remedial Appropriate Assessment Screening & Remedial Natura Impact Statement - Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA to accompany a planning application for substitute consent in respect to a development at Lettergesh East, Renvyle, Co. Galway.		
Report	Remedial Appropriate Assessment Screening & remedial Natura Impact Statement		
Date	11th August 2025		
Version	Author	Reviewed	Date
01	Bryan Deegan	Jeff Boyle	15th January 2025
02	Bryan Deegan	Jeff Boyle	10th July 2025
03	Bryan Deegan	Jeff Boyle	06th August 2025
Planning	Bryan Deegan	Jeff Boyle	11th August 2025

Contents

Introduction

The following Remedial Appropriate Assessment (AA) (Screening Stage) and Remedial Natura Impact Statement has been prepared by **Altemar Ltd.** at the request of Seán Harrington to accompany a planning application for substitute consent in respect to works at a dwelling at Lettergesh East, Renvyle East, Co. Galway.

An Appropriate Assessment (AA) / remedial Appropriate Assessment (rAA) is an assessment of the potential effects of a proposed project or plan, on its own, or in combination with other plans or projects, on one or more Natura 2000 sites. Natura 2000 sites are those sites designated as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).

The AA Screening stage examines the likely significant effects of a plan or project, either on its own, or in combination with other plans and projects, upon a Natura 2000 site and considers whether, on the basis of objective scientific evidence, it can be concluded that there are not likely to be significant effects on any European site, in view of best scientific knowledge and the conservation objectives of the relevant European sites.

The Natura Impact Statement (NIS) / remedial Natura Impact Statement (rNIS) examines whether the plan or project, either alone, or in combination with other plans and projects, in the view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European sites.

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include: residential; infrastructural; renewable; oil & gas; private industry; Local Authorities; EC projects; and, State/semi-State Departments. Bryan Deegan, the managing director of Altemar, is an Environmental Scientist and Marine Biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. He is currently contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/1477/EC)) forms the cornerstone of Europe's nature conservation policy. The Habitats Directive protects over 1000 animals and plant species and over 200 "habitat types" which are of European importance. In the Habitats Directive, Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of conservation sites (NATURA, 2000). These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive, Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the [NATURA 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component 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."

As outlined in "Managing European sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" (European Commission, 21 November 2018) *"The purpose of the appropriate assessment is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in combination with other plans or projects. The conclusions should enable the competent authorities to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus of the appropriate*

assessment is therefore specifically on the species and/or the habitats for which the European site is designated."

As outlined in the EC guidance document on Article 6(4) (January 2007)[1]:

"Appropriate assessments of the implications of the plan or project for the site concerned must precede its approval and take into account the cumulative effects which result from the combination of that plan or project with other plans or projects in view of the site's conservation objectives. This implies that all aspects of the plan or project which can, either individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.

Assessment procedures of plans or projects likely to affect European sites should guarantee full consideration of all elements contributing to the site integrity and to the overall coherence of the network, both in the definition of the baseline conditions and in the stages leading to identification of potential impacts, mitigation measures and residual impacts. These determine what has to be compensated, both in quality and quantity. Regardless of whether the provisions of Article 6(3) are delivered following existing environmental impact assessment procedures or other specific methods, it must be ensured that:

- *Article 6(3) assessment results allow full traceability of the decisions eventually made, including the selection of alternatives and any imperative reasons of overriding public interest.*
- *The assessment should include all elements contributing to the site's integrity and to the overall coherence of the network as defined in the site's conservation objectives and Standard Data Form, and be based on best available scientific knowledge in the field. The information required should be updated and could include the following issues:*
    - *Structure and function, and the respective role of the site's ecological assets;*
    - *Area, representativity and conservation status of the priority and nonpriority habitats in the site;*
    - *Population size, degree of isolation, ecotype, genetic pool, age class structure, and conservation status of species under Annex II of the Habitats Directive or Annex I of the Birds Directive present in the site;*
    - *Role of the site within the biographical region and in the coherence of the European network; and,*
    - *Any other ecological assets and functions identified in the site.*
- *It should include a comprehensive identification of all the potential impacts of the plan or project likely to be significant on the site, taking into account cumulative impacts and other impacts likely to arise as a result of the combined action of the plan or project under assessment and other plans or projects.*
- *The assessment under Article 6(3) applies the best available techniques and methods, to estimate the extent of the effects of the plan or project on the biological integrity of the site(s) likely to be damaged.*
- *The assessment provides for the incorporation of the most effective mitigation measures into the plan or project concerned, in order to avoid, reduce or even cancel the negative impacts on the site.*
- *The characterisation of the biological integrity and the impact assessment should be based on the best possible indicators specific to the European assets which must also be useful to monitor the plan or project implementation."*

[1] 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 interest, compensatory measures, overall coherence, opinion of the commission;

Obligations in relation to Appropriate Assessment have been implemented into Irish legislation under Part XAB of the Planning and Development Act 2000 (as amended). In particular, the relevant provisions of Section 177U in relation to AA screening are outlined below:

'***177U.—*** *(1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.*

(2) …

(3) …

(4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

(5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.'

The obligations in relation to Substitute Consent have been implemented in Irish legislation under Part XA of the Planning and Development Act 2000 (as amended). In particular, the relevant Section 177G relating to remedial Natura Impact Statement are outlined below:

'***177G.*** *— (1) A remedial Natura impact statement shall contain the following:*

(a) a statement of the significant effects, if any, on the relevant European site which have occurred or which are occurring or which can reasonably be expected to occur because the development the subject of the application for substitute consent was carried out;

(b) details of —

(i) any appropriate remedial or mitigation measures undertaken or proposed to be undertaken by the applicant for substitute consent to remedy or mitigate any significant effects on the environment or on the European site;

(ii) the period of time within which any such proposed remedial or mitigation measures shall be carried out by or on behalf of the applicant;

(c) such information as may be prescribed under section 177N;

(d) and may have appended to it, where relevant, and where the applicant may wish to rely upon same:

(i) a statement of imperative reasons of overriding public interest;

(ii) any compensatory measures being proposed by the applicant.'

Stages of the Appropriate Assessment

This Appropriate Assessment screening and Natura Impact Statement was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process has been structured as follows:

1) Screening stage:
   - Description of plan or project, and local site or plan area characteristics;
   - Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
   - Identification and description of individual in combination effects likely to result from the proposed project;
   - Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,
     Conclusions
2) Appropriate Assessment (Natura Impact Statement):
   - Description of the European sites that will be considered further;
   - Identification and description of potential adverse impacts on the conservation objectives of these sites likely to occur from the project or plan; and,
   - Mitigation Measures that will be implemented to avoid, reduce or remedy any such potential adverse impacts
   - Assessment as to whether, following the implementation of the proposed mitigation measures, it can be concluded, beyond all reasonable scientific doubt, that there will be no adverse impact on the integrity of the relevant European Site in light of its conservation objectives"
   - Conclusions.

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a Natura 2000 site, then no further AA (Stage 2) will be required. It is important to note that there is a requirement to apply a precautionary approach to AA screening. Therefore, where effects are possible, certain or unknown at the screening stage, AA will be required.

In addition, it should be noted that Article 6(3) of the Habitats Directive must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an AA of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site.

Stage 1 Screening Assessment

Management of the Site

The plan or project is not directly connected with, or necessary to the management of European sites.

Site Location and Context

The subject site is located in the Townland of Lettergesh East on the Western shore of Lough Fee. A gravel access road runs north to south along the shoreline via a bridge over a stream that borders the site to the northeast. This road also serves another dwelling to the south of the subject site. The entrance to subject site is proximate to the aforementioned bridge. The access road is located along an area of shoreline designated as a Special Area of Conservation (SAC) - The Twelve Bens/Garraun Complex SAC. This SAC is also designated as a Proposed National Heritage Area (pNHA). The laneway from the shoreline access road to the subject site is directly adjacent to the SAC also (Figure 3). The entrance point had previously been upgraded to allow vehicular access as the laneway was constricted at the entrance gateway.

Project Description and Context

The 2.5-acre property was purchased in July 2020 and consisted of a 2 roomed dilapidated cottage, ruined former stone cottage, farm and extensive concrete sheep pens. Site access was via an existing gate from the existing lough side track. The former and historical access to the site was via a track over an adjacent field to the north, and across an old stone/concrete bridge. This track was not included in the sale and the bridge had been destroyed. This necessitated a new track over the land from the lough side, through the forementioned existing farm gate.

Planning permission was sought by the landowner and granted by Galway County Council in 2021 for an integrated constructed wetland treatment system to be installed in the front field. To facilitate access for these works, repair works were proposed for the lough side track within the SAC. Notifiable action permission was not deemed necessary for these works by NPWS and works were carried out on the lough side track, overseen by a local consulting engineer.

Between 2021 & 2022, the site owner undertook works. Namely, the modifications to the farmhouse building, the re-construction of historic agricultural buildings, and the creation of a new access road from the shoreline road to the dwelling, running through the front field (where the constructed wetland was approved), in addition to widening the turning entry into the site from the lough side track, and relocation of the existing farm gate approximately 5m into the site. Planning permission was not sought for these works as:

- the farm gate was existing and vehicles had been driving over the field to the house already as this was the only access point to the property
- Permission was granted by the NPWS to carry out the repair works to the lough side road, (all in the SAC), without any difficulty,
- Permission was granted by GCC to carry out works associated with the integrated constructed wetland treatment system and associated site works, which is immediately adjacent.

The access route to the property is over a small concrete bridge over a stream that is the northern boundary of the site. Over the years, the abutments had washed away due to extreme weather and a strongly flowing stream. Upon inspection by the appointed engineer, repairs to this bridge were deemed necessary upon health and safety grounds.

Permission for repairs to this bridge was sought and a consent letter was received from the NPWS. Once more, these works were overseen by the appointed engineer. Works proceeded and were completed without any discharge into the stream or lough (as reported by the landowner).

A Section 5 declaration was sought in an attempt to rely on exempted development provisions for the works carried out as outlined above. The works were considered to be suitable for exempted development in all except the access road which leads to the dwelling across the field.

The published An Bord Pleanala Inspectors Report (ABP-318223-23) details the following; '*The Planning Authority considered that given the nature and scale of the works, the information submitted in relation to the extent of demolition and construction activity which has taken place, and as part of the site is located within The Twelve Bens/Garraun Complex SAC, that an Appropriate Assessment would be required.*

The access track comprises hardcore/gravel and is situated in close proximity (c. 5 metres) to a watercourse which discharges to Lough Fee, which is within The Twelve Bens/Garraun Complex SAC. Noting the potential for polluted run-off, including sedimentation and hydrocarbons, to enter this watercourse during the construction of the access track, I conclude that significant effects on The Twelve Bens/Garraun Complex SAC arising from the construction of the access track cannot be excluded, and therefore Appropriate Assessment is required.'

I note the Appropriate Assessment Screening report which was submitted with the referral states that 'there may have impacts on the conserved areas' in relation to the entrance laneway. Given the identification of a potential for an impact on a European Site in the Appropriate Assessment Screening report submitted by the referrer, and notwithstanding statements in the Appropriate Assessment that there were no QI within the area concerned, minimal excavation involved in the construction of the access track, and that the construction of the access track was undertaken during dry weather, I consider that, noting the proximity of the watercourse to the track, and the potential surface water pathway to The Twelve Bens/Garraun Complex SAC, an Appropriate Assessment is required.'

Therefore, this remedial NIS seeks to apply directly to An Coimisiún Pleanála pursuant to the provisions of Section 177E of Part XA ('Substitute Consent') of the Planning and Development Act 2000 (as amended) for retention permission of development at Lettergesh East, Renvyle, Co. Galway consisting of: **"(a) Construction of a revised vehicular access and entrance to the property; (b) construction of 2 replacement agricultural shed structures; and (c) provision of new polycarbonate roof to a refurbished agricultural building; and (d) provision of all associated site development works and drainage."**

This remedial AA Screening and NIS seeks primarily to assess the potential impacts of the construction of the replacement vehicular access track on the adjacent SAC (Twelve Bens/Garraun Complex SAC). It also takes account of potential 'in-cumulative' impacts of other aspects of the development.

The forementioned permissions and correspondence with the NPWS are included in Appendix I.

Drainage

Given the remote nature of the site, there is no designated surface water drainage system and surface water onsite is naturally infiltrated into the ground. On site gravel roads are permeable and most water permeates through and soaks away. The remainder falls off to the soft verges and soaks away. The rainwater from the roofs to the metal of the metal two sheds falls onto loose gravel paths and soaks away.

Planning permission was granted by Galway County Council in 2021 (ref. 21312) for the construction of a new septic tank and an integrated constructed wetland treatment (ICW) system and associated site works to be constructed in the field to the front of the dwelling. Vesi Environmental were appointed to carry out these works, which have been completed. All wastewater from the site drains into the constructed wetland ponds.

Construction Environmental Management Plan

A CEMP was prepared by the applicant for the works that were carried out onsite. It outlined the following measures which were implemented for the duration of the works:

'Biodiversity

Objective(s); *To minimise any impact on nearby Natura sites and the surrounding Biodiversity.*

Management Strategy; *Confine flora and fauna disturbance to the minimum area possible. Retain features where possible. Retain excavated soil for reuse on the site.*

Control(s)/Mitigation; *Minimise the area to be disturbed. Retain an undisturbed margin along stream and the lough. Topsoil and subsoil will not be mixed together. Where at all possible, soil excavation will be completed during dry periods. Confine construction traffic to minimum area. No concrete washings are to be disposed on site. All vehicles and plant will be regularly inspected for fuel, oil and hydraulic fluid leaks. Suitable equipment to deal with spills will be maintained on site.*

Responsibility; Construction manager

Timing; First phase and ongoing.

Performance Indicator(s); *The above management practices will minimise the amount of disturbance.*

Responsibility; Construction manager

Timing; Ongoing.

Monitoring; *Ensure controls are in place.*

Responsibility; Construction manager

Timing; Ongoing.

Corrective Action; *Repair damage or breakdown to mitigation measures*

Responsibility; Construction manager

Timing; Ongoing.

Land and Soils

Objective(s); *To minimise the impact to land and soil and avoid erosion.*

Management Strategy*; Implement appropriate controls that avoid and minimise any potential risk to soils and land. Minimise soil disturbance, compaction, erosion and sealing.*

Control(s)/Mitigation; *Replace as much soil as possible. Reduce sealing. Minimise excavation and do so only in dry weather. A silt curtain should in position to protect against any accidental runoff in heavy rainfall periods. A spill kit with sand, earth or commercial products to deal with small spills should be at hand. An example of such is presented below. Staff will be trained on how to use spill kits correctly. No chemicals are to be stored on site. Mobile plant will be refuelled off site. Concrete washings are to be removed from the site.*

Responsibility; Construction manager

Timing; Ongoing.

Performance Indicator(s); *Mitigation measures in place.*

Responsibility; Construction manager

Timing; Ongoing.

Monitoring; *Daily*

Responsibility; Construction manager

Timing; Ongoing.

Reporting; *Issues to be report to the manager*

Responsibility; Construction manager

Timing; Ongoing.

Corrective Action(s); *Any breakdown of measures should be corrected. Replace as much soil as possible.*

Responsibility; Construction manager

Timing; Finally

Water/Hydrology

Objective(s); *To minimise risk to surface and ground water*

Management Strategy; *Implement appropriate controls that avoid and minimise any potential risk*

to surface water, stream water and Lough waters.

Control(s)/Mitigation; *Avoid excavation during rainfall periods. Concrete truck washings must not be disposed of on site and should be removed. No chemicals or fuel oil should be stored on site. No liquid waste should be disposed of on site. A geotextile silt curtain should be put in place to contain runoff during construction around all foundations works for the buildings and sheds. Surface water will be disposed to soakaways that form part of the integrated constructed wetland treatment system. Ground water will be protected with the installation of an integrated constructed wetland treatment system as specified. Refer to site layout map for position of the wastewater treatment system.*

Responsibility; Construction manager

Timing; Ongoing throughout.

Performance Indicator(s); *Implementation of the suggested measures will minimise the risk of pollution of water, storm water run-off or groundwater.*

Responsibility; Construction manager

Timing; Ongoing throughout.

Monitoring; *Daily inspection. Stop work in excessive precipitation.*

Responsibility; Construction manager

Timing; Ongoing throughout.

Reporting; *Report any failures.*

Responsibility; Construction manager

Timing; Ongoing throughout.

Corrective Action(s); *Repair and reinstate when necessary.*

Responsibility; Construction manager

Timing; Ongoing throughout.

Air

Objective(s); *To minimise any potential emission to air from the construction project.*

Management Strategy; *A dust minimisation plan is prepared and implemented by the building contractor during the construction phase of the project. Construction activities are likely to generate some dust emissions, particularly during the site clearance and excavation stages.*

Control(s)/Mitigation; *Vehicle speeds will be limited in the construction site. Surrounding roads used by trucks to access to and egress from the site will be cleaned when dirtied.*

Responsibility; Construction manager

Timing; Ongoing

Performance Indicator(s); *Dust reducing measures in place.*

Responsibility; Construction manager

Timing; Ongoing

Monitoring; *Regular inspection and clean-up if required.*

Responsibility; Construction manager

Timing; Ongoing

Corrective Action(s); *Put additional measures in place if required.*

Responsibility; Construction manager

Timing; When needed

Noise

Objective(s); *During the construction phase, minimise the potential noise and vibration impacts associated with site preparation works, foundation construction activities, construction activities and construction vehicle movements.*

Management Strategy; *Implement appropriate controls to reduce noise from Earthworks plant and equipment, Construction plant and equipment and Construction traffic.*

Control(s)/Mitigation; *Hours will be limited during which noisy site activities are permitted. Channels of communication will be established between the Contractor/Developer, and the nearby residents. Machines should be turned off when not in use. Noise should be dampened where possible.*

Responsibility; Construction manager

Timing; Ongoing

Performance Indicator(s); *No complaints. All personnel must be made aware that noisy construction activities resulting in significant noise levels must be minimised and made aware of the above control measures.*

Responsibility; Construction manager

Timing; Ongoing

Monitoring; *Daily.*

Responsibility; Construction manager

Timing; Ongoing

Reporting; *Any issue should be recorded.*

Responsibility; Construction manager

Timing; Ongoing

Corrective Action(s); *Defective equipment should be repaired.*

Responsibility; Construction manager

Timing; Ongoing

Climate

Objective(s); *Minimise potential damage to Climate.*

Management Strategy; *Aim to use materials that do not contribute to climate change.*

Control(s)/Mitigation; *This is a small scale development. Use materials unlikely to cause emissions that would contribute to climate change.*

Responsibility; Construction manager

Timing; Ongoing

Performance Indicator(s); *No pollutants released.*

Responsibility; Construction manager

Timing; Ongoing

Monitoring; *Regular inspection and servicing of equipment.*

Responsibility; Construction manager

Timing; Ongoing

Reporting; *Weekly*

Responsibility; Construction manager

Timing; Ongoing

Corrective Action(s); *Replace /repair anything likely to omit pollutants.*

Responsibility; Construction manager

Timing; Ongoing

Landscape

Objective(s); *To minimise change to the surrounding landscape.*

Management Strategy; *Implement appropriate plans and controls to minimise damage to the local Landscape. Minimise disturbance of the surrounding trees. Replace features and use local stone where possible on roadside walls.*

Control(s)/Mitigation; *Confine disturbance to a minimum. Retain landscape features (Stone walls) where possible. Landscape with native flora when construction is complete. Use existing soil only as it contains the seed to regenerate existing Biodiversity. Maintain a natural boundary along the River Bank as a Nature corridor.*

Responsibility; Construction manager

Timing; Ongoing

Performance; *Little disturbance of the landscape.*

Responsibility; Construction manager

Timing; Ongoing

Monitoring; *Follow planned guidelines.*

Responsibility; Construction manager

Timing; Ongoing

Reporting; *Report when there is an incident*

Responsibility; Construction manager

Timing; Ongoing

Corrective Action(s); *Replace grass and features where possible.*

Responsibility; Owner and Construction manager

Timing; Finally

Cultural Heritage

Objective(s); *To minimise the impact of the development, operation and maintenance of the project on the heritage values in the Project area.*

Management Strategy; *Ensure heritage impacts are minimised, and impacts outside of the approved disturbance are avoided.*

Control(s)/Mitigation; *Identify and document any heritage values.*

Responsibility; Construction manager

Timing; Ongoing

Performance Indicator(s); *No disturbance of heritage values outside of approved area.*

Responsibility; Construction manager

Timing; Ongoing

Monitoring; *Monitor at ground excavation phase.*

Responsibility; Construction manager

Timing; Ongoing

Reporting; *Incidents or findings should be reported to a heritage officer.*

Responsibility; Construction manager

Timing; Ongoing

Corrective Action(s); *Advice from heritage officer to be followed.*

Responsibility; Construction manager

Timing; Ongoing'

Ground Works Methodology Statement

A Ground Works Methodology Statement was prepared by ASK Solutions prior to the commencement of construction works (see Appendix II for full details). It outlined the following construction methodology and details:

'The works overseen;

(a) *Construction of improvements access road running along the north side of the site from the existing east gate to the existing old lakeside road. Road to be approximately 80 m long, 3 m wide and constructed in accordance with Drg GW-03.*

Specifically;

- *Scrape off top soil/turf/grass from field (approx 100mm) and store on site.*
- *Dig out soft boggy ground to a depth of 200mm at the top of the site, and 400mm at the bottom of the site and store on site.*
- *Lay SR 21/804 inside geotextile membrane, which will "contain" the gravel, preventing spread into field either side. Minimum size 20mm.*
- *Lay crushed stone base, filling any depressions and compress. (approx 150mm thick in total).*
- *Crushed stone graded from 40mm to dust. Lay in this several layers and compact each.*

No wet materials, e.g. concrete, cement or tarmac were used. Works were supervised and took place in dry weather.

Excavated topsoil and bog was temporarily stored (separately) on the adjacent field (in the ownership of the client) and then reused to form the raised banks and top surfaces of the integrated constructed wetland ponds.

Once excavations had concluded, the permeable geotextile membrane was laid, and delivery of crushed stone and gravel commenced. This was poured directly into the excavated depression, avoiding any large areas of on-site storage of stone and gravel.

All the works to the track took place in dry conditions and there was therefore no runoff of rainwater in any direction.

In its finished state, the track has been designed to be permeable to rainfall and ground water. There is little or no rainwater run off to the soft ground verges, instead rainfall seeps through the open gravel surface.

(b) *Relocation of the entrance gate at the east end of this modified access road and the construction of a parking area 15 m x 2.5 m by the entrance gate.*

Date of construction; 21.5.21 – 5.6.21.

Weather conditions at the time of works; Dry and fine

Measures to safeguard against fugitive surface water, or construction waters or construction materials including fuels from discharging the site either directly from the site into the lough or the surface water channel, were as per set out in the CEMP, attached, and the specification included for;

The Contractor shall allow for taking all reasonable precautions to ensure the efficient protection of all streams and waterways against pollution arising out of or by reason of the execution of the works.

I confirm there were no accidents effects occur during works that might have given rise to interaction with the lough.

Materials used;

- *SR 21/804 inside geotextile membrane,*
- *Top surface gravel, Minimum size 20mm.*
- *Crushed stone base, graded from 40mm to dust.*

All materials sourced from reputable suppliers, by contractor Mark Walsh Plant Hire from Glassilaun, Renvyle, Co Galway.

No wet materials, e.g. concrete, cement or tarmac were used.'

Figure 1. *Site outline (land ownership)*

Figure 2. *Site location*

Figure 3. *Site outline and proximity to SAC*

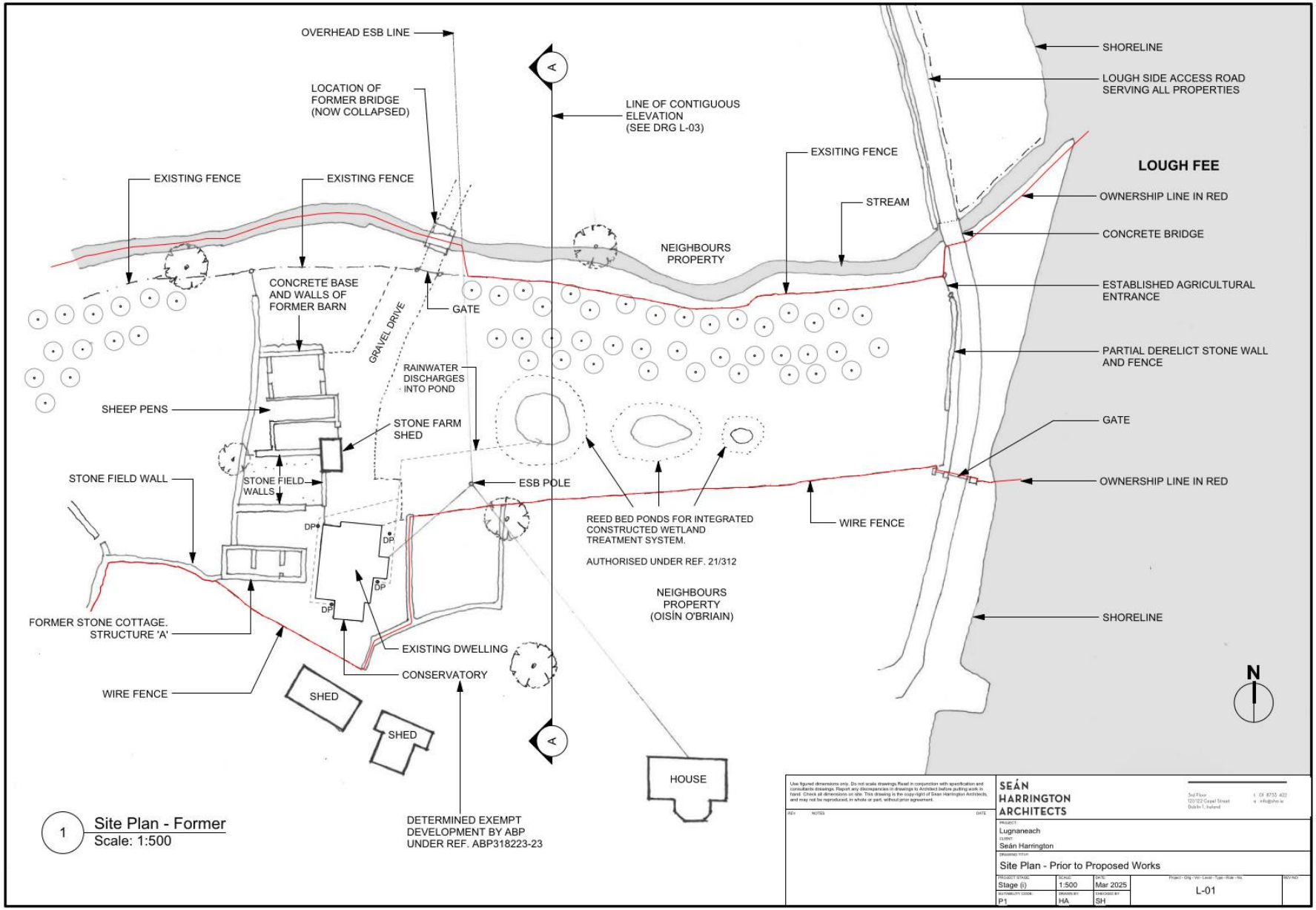


Figure 4. *Site plan prior to works undertaken*

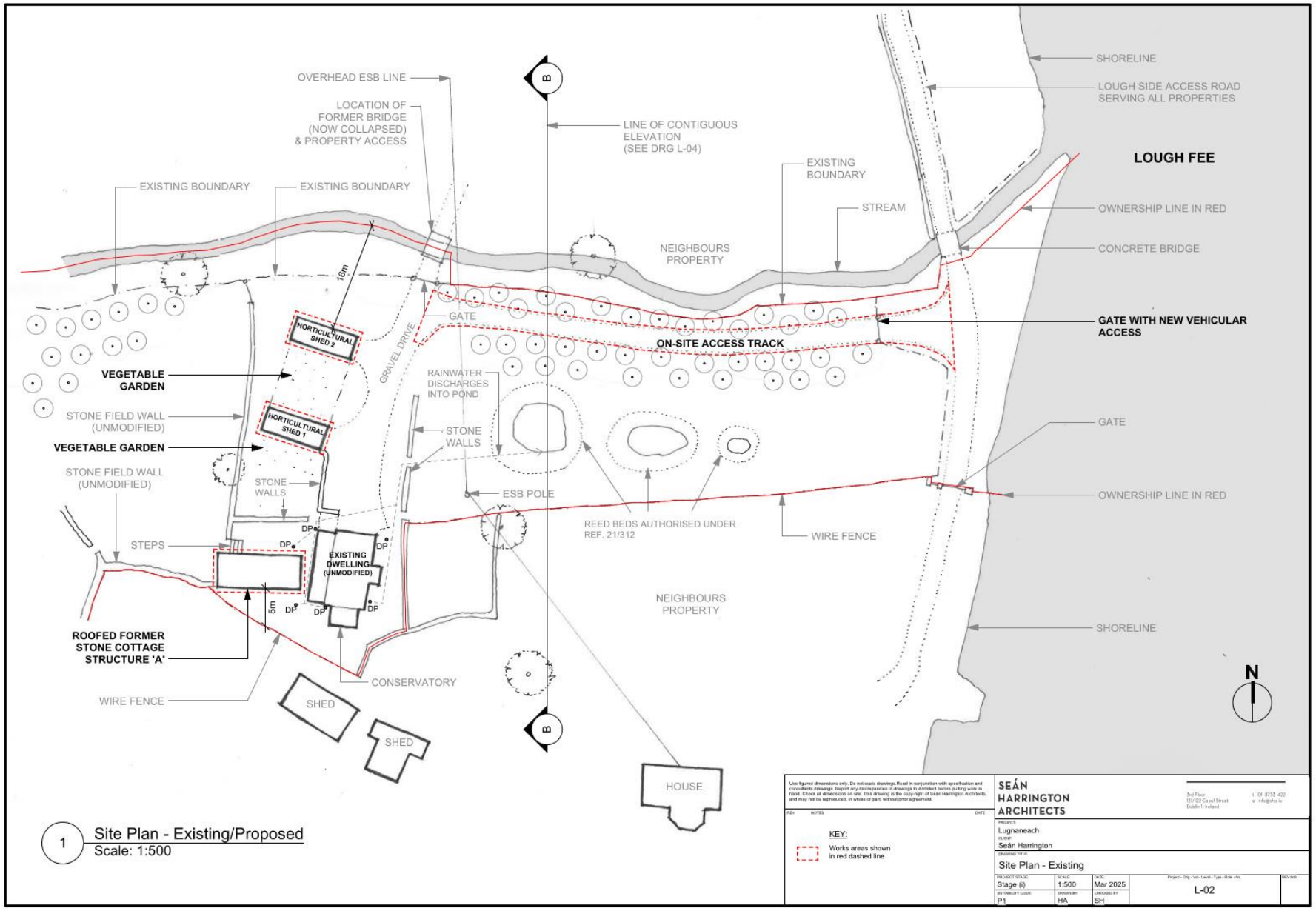


Figure 5. *Existing site plan*

Field Survey

A site visit was undertaken by Bryan Deegan of Altemar on the 14th of January 2025. The purpose of this visit was to meet with Alan Kay (local engineer who oversaw the works) and to examine the works area and surrounding habitat. All accessible areas were examined. Particular attention was paid to the repaired bridge and surrounding habitat, turning junction (which was widened) and surrounding habitat, and the watercourse at the northern boundary was examined for any signs of silt or petrochemical contamination.

The images below show before and after comparisons of the site:

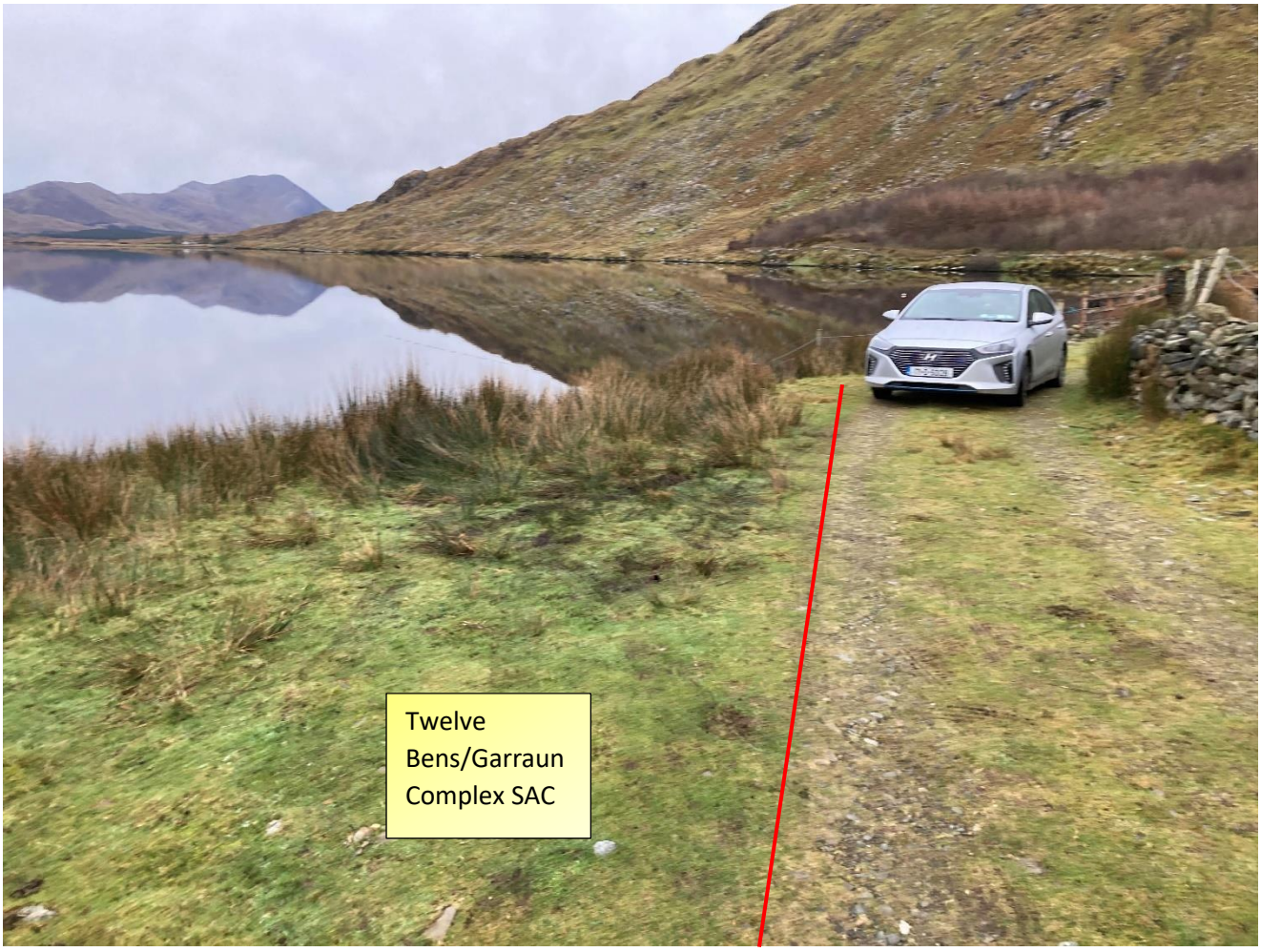


Figure 6. Area in front of the turning junction prior to works (facing south), SAC begins left of redline

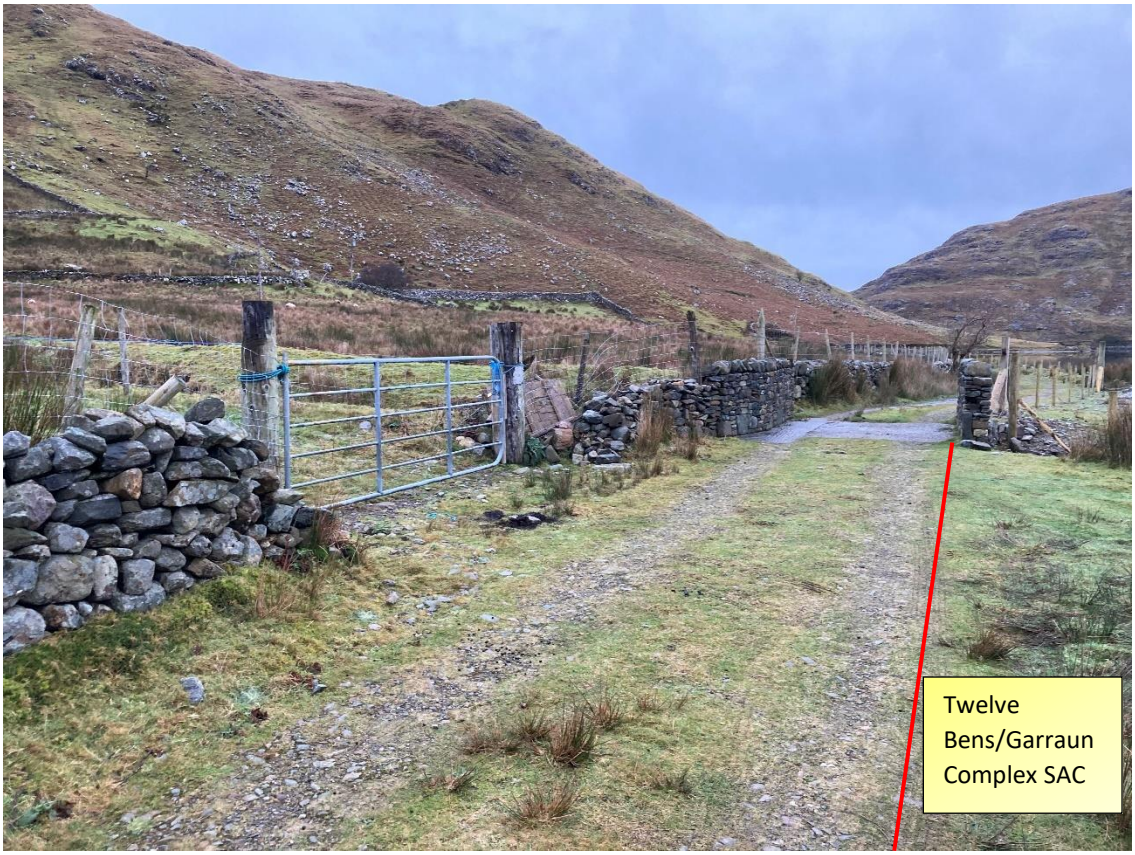


Figure 7. Turning junction and existing gate prior to works (facing north), SAC right of red line

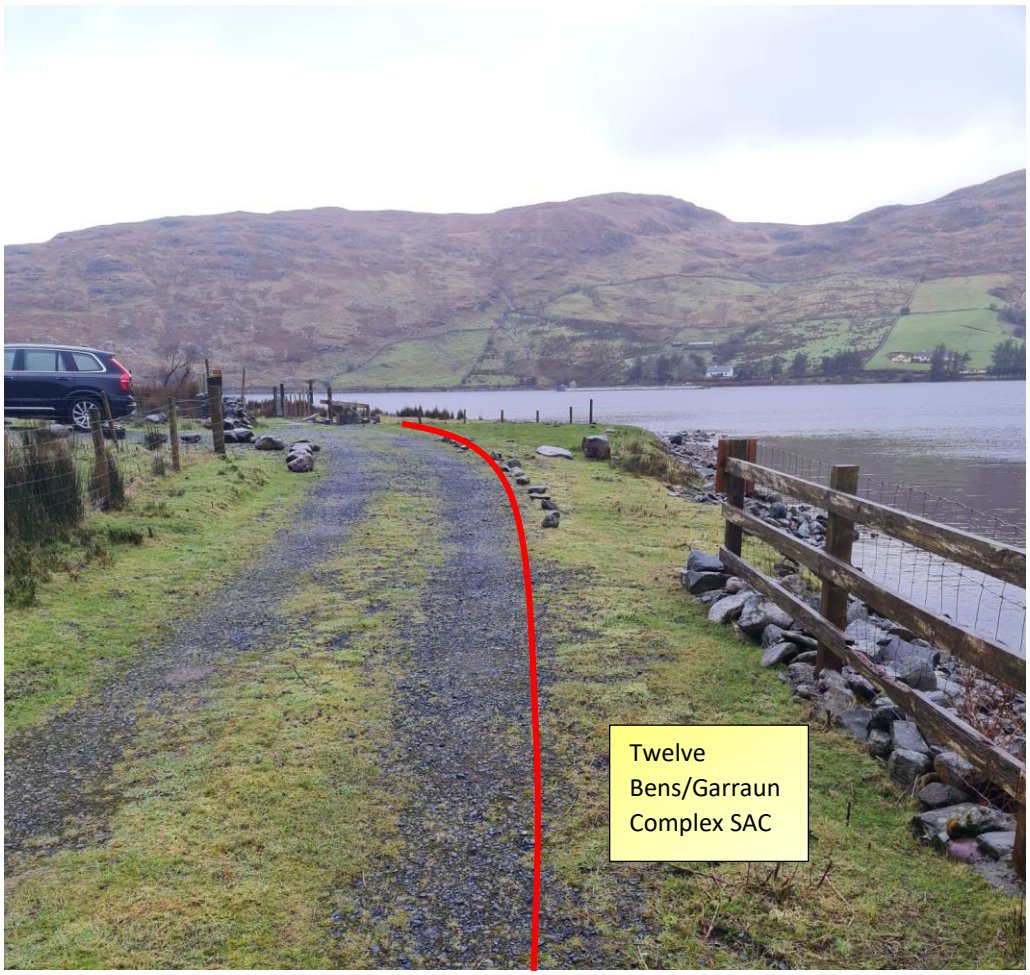


Figure 8. Turning junction post works (facing north), SAC right of red curve

Figure 9. Regeneration of scrub habitat post-works (facing north), SAC right of red curve

As demonstrated in the above images, there was no significant alteration to the existing habits within the SAC from the works undertaken to construct the access road. The SAC begins where the track ends and the vegetation begins on the lakeside (Figure 9). In addition, this area consisted of scrub vegetation which, although removed, is neither a qualifying interest of the SAC nor of ecological significance.

Figure 10. Replacement agricultural building 1

Figure 11. Replacement agricultural building 2

Behind the house (ie to the west) was a ruin of the old cottage. Condition shown here in 2021.

Figure 12. Old state of cottage prior to repairs

Photo of the cottage walls showing stonework being sensitively repaired in 2021/22.

Figure 13. Stonework repairs to cottage walls during repair works

Figure 14. Polycarbonate roof installed on cottage

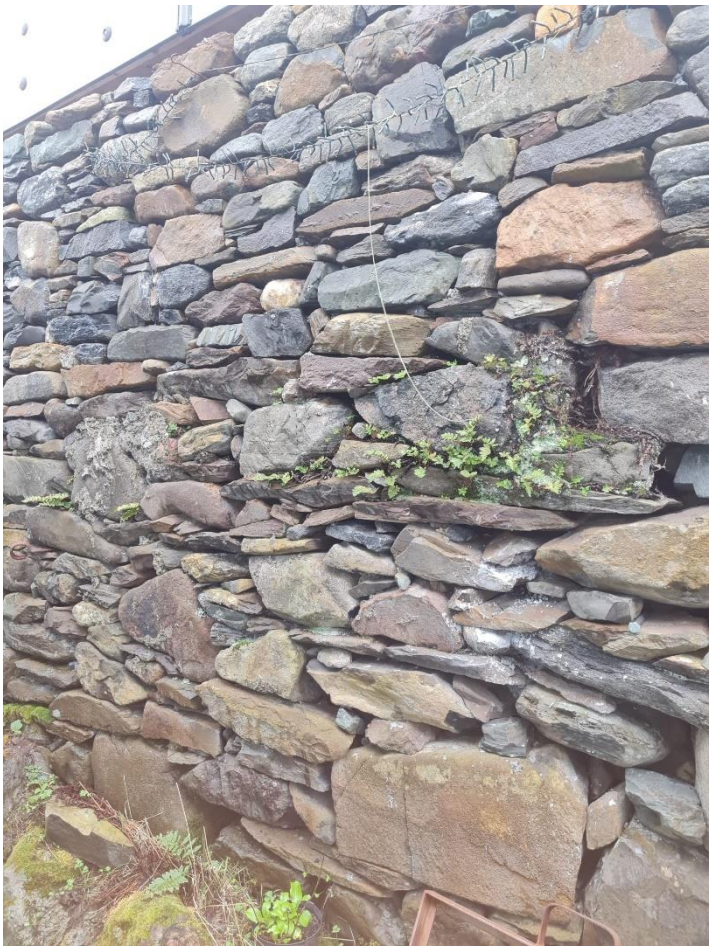


Figure 15. Stone walls repaired

Identification of Relevant European Sites

The proposed development site is not within a European site. As outlined in Office of the Planning Regulator (2021) "*The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source- Pathway-Receptor framework and not by arbitrary distances (such as 15 km)*."

A key factor in the consideration as to whether or not a particular European site is likely to be affected by the proposed development is its distance from the development location. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. In this case, the Twelve Bens/Garraun Complex SAC is directly adjacent to and, in parts along the lough side access track, within the subject site. It is therefore considered that there is a direct hydrological and biodiversity connection between the subject site and this SAC via surface water drainage. Additionally, based on an examination of information provided by ASK Solutions (site engineer), EPA watercourse data and fieldwork undertaken by Altemar, a drainage ditch/watercourse has been noted along the northern boundary of the site. This watercourse (Culfin_010 under the WFD) flows directly into Lough Fee which forms part of The Twelve Bens/Garraun Complex SAC.

In the interest of carrying out a thorough assessment in line with both the Habitats Directive and the precautionary principle, the area of assessment was expanded beyond the ZoI to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were considered. All Natura 2000 sites within 15km, and beyond 15km with the potential for a hydrological pathway are listed in Table 1. The qualifying interests, and the potential impact of the development on each European site and qualifying interest, are screened in/out in Tables 2 & 3. SAC's and SPA's within 15km are seen in Figures 16 & 17. Watercourses, SACs and SPAs proximate to the subject site are demonstrated in Figures 18 & 19. Given that there are no Natura 2000 sites with a direct or indirect pathway beyond 15km of the subject site, no impacts are foreseen on Natura 2000 sites beyond 15km.

***Table 1**. Proximity to Natura 2000 sites within 15km of the subject site*

European Site	Code	Distance	Direct Hydrological / Biodiversity Connection
Special Areas of Conservation			
The Twelve Bens/Garraun Complex SAC	IE002031	Within Site	Yes
Mweelrea/Sheeffry/Erriff Complex SAC	IE001932	3.4 km	No
Maumturk Mountains SAC	IE002008	4.6 km	No
West Connacht Coast SAC	IE002998	4.8 km	No
Tully Lough SAC	IE002130	8.5 km	No
Tully Mountain SAC	IE000330	9.8 km	No
Rusheenduff Lough SAC	IE001311	10.7 km	No
Connemara Bog Complex SAC	IE002034	13.2 km	No
Cross Lough (Killadoon) SAC	IE000484	13.2 km	No
Lough Cahasy, Lough Baun and Roonah Lough SAC	IE001529	14.7 km	No
Special Protection Areas			
Illaunnanoon SPA	IE004221	9.4 km	No
Connemara Bog Complex SPA	IE004181	13.1 km	No
Cross Lough (Killadoon) SPA	IE004212	13.7 km	No

Table 2. Initial screening of European sites within 15km and European sites beyond 15km with potential of hydrological connection to the proposed development – Screened IN (NIS Required).

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential for Significant Effects
Special Areas of Conservation (SAC)					
TheTwelve Bens/Garraun Complex SAC	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] Alpine and Boreal heaths [4060] Blanket bogs (* if active bog) [7130] Depressions on peat substrates of the *Rhynchosporion* [7150] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**0m** **There is a direct hydrological and biodiversity pathway from the subject site to this SAC**	**IN**	The subject site is located directly adjacent to and partially within (at the lough side access road) the Twelve Bens/Garraun Complex SAC. There is a watercourse located along the northern boundary of the site which outfalls to this SAC. As a result, there is/was a direct hydrological and biodiversity pathway between the subject site, the northern watercourse, and this SAC via surface water drainage. **<u>Impacts which have occurred</u>** The applicant undertook site works, including the construction of a new access road from the shoreline road to the dwelling, running through the front field (where the constructed wetland was approved), in addition to widening the turning entry into the site from the lough side track, and relocation of the existing farm gate approximately 5m into the site. As such, soil disturbance and ground fill to prepare for the laying of gravel would have occurred. The soil was dug approximately 12 inches deep and retained onsite, taram was laid and gravel piled on top to create the access track. The majority of the works were located directly adjacent to, but outside the Twelve Bens/Garraun Complex SAC. The area where the turn into the site was widened encroaches on the SAC (Figure 3). Given the small scale of these works on site and based upon the findings of the site visit by Altemar in 2025, it was determined that no habitats listed as qualifying interests of this SAC were disturbed by the widening of the turning junction and moving of the gate 5m further into the site. There was an existing track and gate both of which were slightly modified to allow for the construction of the integrated wetlands as approved by Galway County Council. The works to the main portion of the track (directly adjacent but outside

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential for Significant Effects
	Salmo salar (Salmon) [1106] *Lutra lutra* (Otter) [1355] *Najas flexilis* (Slender Naiad) [1833]				the SAC) were minor in nature and involved the movement of soil by machinery. Having regard to the limited scale of the works relating to the 2 replacement agricultural shed structures and provision of new polycarbonate roof to a refurbished agricultural building, and the weakness in connectivity between these elements and The Twelve Bens/Garraun Complex SAC, there was no likelihood of significant effects on this SAC resulting from works associate with the 2 replacement agricultural shed structures and provision of new polycarbonate roof to a refurbished agricultural building. However, given the proximity of the site to this SAC and the direct hydrological connection to this SAC via surface water drainage (by means of direct proximity to this SAC and the northern watercourse), and out of an abundance of caution, it is considered that there was the potential for downstream impacts on this SAC during construction works associated with the access road. In the absence of construction control measures, there was the potential for hydrocarbons, sedimentation, and pollution runoff to enter the northern watercourse and this SAC and cause downstream impacts. Likely significant effects on this SAC cannot be ruled out at Stage 1 AA. **Further information is required. Stage 2 AA is required in relation to downstream impacts which had the potential to occur during construction works.** **<u>Impacts which are occurring</u>** At present, works on the site are complete and no further construction works are occurring. The site is continuing to naturally regenerate to above baseline levels given the landowners rewilding programme (planting of 300 native trees) and the presence of the constructed wetland which facilitates the conservation of wetland-dependent wildlife. Following a site inspection, Altemar note that there is no evidence to suggest that silt or pollutants entered the

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential for Significant Effects
					SAC during the construction of the access track, either directly or via the stream which forms the northern border of the site. There was no alteration to QI species and habitats of the SAC during the works, which did not modify the SAC in any way. In the absence of remedial mitigation measures, no significant impacts on this SAC are presently occurring as a result of the existing arrangement onsite. **Impacts that can reasonably be expected to occur** Construction works are complete, and no additional works are proposed onsite. There is a direct hydrological and biodiversity connection between the subject site and the adjacent Twelve Bens/Garraun Complex SAC via surface and groundwater drainage. However, there is no potential for significant effects on this SAC given that there is no potential for surface water which may leave the subject site to become contaminated. No additional construction works are proposed, and there are no fuels or petrochemicals stored on site which could contaminate local surface and groundwater in the event of a flood or heavy rainfall. The site is continuing to naturally regenerate to above baseline levels given the landowners rewilding programme (planting of 300 native trees) and the presence of the constructed wetland which facilitates the conservation of wetland-dependent wildlife. There was no alteration to QI species and habitats of the SAC in any way, and no modification to the SAC will occur as a result of the existing form of the site. No significant impacts on this SAC can be reasonably expected to occur as a result of the current site arrangement. **Overall Assessment** It has been concluded that significant effects on the Twelve Bens/Garraun Complex SAC are not occurring and are unlikely to occur because of the existence of the site in its current form. However, out of an abundance of caution, an rNIS is required given

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential for Significant Effects
					there was the potential for significant effects on the SAC during the works, in the absence of control measures, due to the direct hydrological and biodiversity connection via proximity and the northern watercourse. **rNIS is required.**

TABLE 1. INITIAL SCREENING OF EUROPEAN SITES WITHIN 15KM AND EUROPEAN SITES BEYOND 15KM WITH POTENTIAL OF HYDROLOGICAL CONNECTION TO THE PROPOSED DEVELOPMENT – SCREENED OUT FOR STAGE 2 AA.

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
Special Areas of Conservation (SAC)					
Mweelrea/Sheeffry/Erriff Complex SAC	• Coastal lagoons [1150] • Annual vegetation of drift lines [1210] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150] • Dunes with *Salix repens ssp*. argentea (*Salicion arenariae*) [2170] • Humid dune slacks [2190] • Machairs (* in Ireland) [21A0] • Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae*	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**3.4 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 3.4km from the Mweelrea/Sheefry/Erriff Complex SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Mweelrea/Sheeffry/Erriff Complex SAC, occurring in any timeframe assessed in this report.**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	and/or *Isoeto-Nanojuncetea* [3130] • Natural dystrophic lakes and ponds [3160] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] • Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • Juniperus communis formations on heaths or calcareous grasslands [5130] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Blanket bogs (* if active bog) [7130] • Transition mires and quaking bogs [7140] • Depressions on peat substrates of the *Rhynchosporion* [7150] • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Alkaline fens [7230] • Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]				

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	• Calcareous rocky slopes with chasmophytic vegetation [8210] • Siliceous rocky slopes with chasmophytic vegetation [8220] • *Vertigo geyeri* (Geyer's Whorl Snail) [1013] • *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355] • *Petalophyllum ralfsii* (Petalwort) [1395] • *Najas flexilis* (Slender Naiad) [1833]				
Maumturk Mountains SAC	• Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae)* [3110] • Northern Atlantic wet heaths with Erica tetralix [4010] • Alpine and Boreal heaths [4060] • Blanket bogs (* if active bog) [7130] • Depressions on peat substrates of the *Rhynchosporion* [7150] • Siliceous rocky slopes with chasmophytic vegetation [8220] • *Salmo salar* (Salmon) [1106]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**4.6 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 4.6km from the Maumturk Mountains SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	• *Najas flexilis* (Slender Naiad) [1833]				this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **<u>Impacts that can reasonably be expected to occur</u>** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Maumturk Mountains SAC, occurring in any timeframe assessed in this report.**
West Connacht Coast SAC	• Tursiops truncatus (Common Bottlenose Dolphin) [1349] • *Phocoena phocoena* (Harbour Porpoise) [1351]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**4.8 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 4.8km from the West Connacht Coast SAC. There is no potential source-pathway-receptor linkage to this SAC. **<u>Impacts which have occurred</u>** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **<u>Impacts which are occurring</u>** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **<u>Impacts that can reasonably be expected to occur</u>**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
					There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of West Connacht Coast SAC, occurring in any timeframe assessed in this report.**
Tully Lough SAC	• Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] • *Najas flexilis* (Slender Naiad) [1833] •	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**8.5 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 8.5km from the Tully Lough SAC. There is no potential source-pathway-receptor linkage to this SAC. **<u>Impacts which have occurred</u>** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **<u>Impacts which are occurring</u>** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **<u>Impacts that can reasonably be expected to occur</u>** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite.

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
					In summary, there were/are/will be no significant effects on the qualifying interests of Tully Lough SAC, occurring in any timeframe assessed in this report.
Tully Mountain SAC	• European dry heaths [4030] • Alpine and Boreal heaths [4060]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**9.8 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 9.8km from the Tully Mountain SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Tully Mountain SAC, occurring in any timeframe assessed in this report.**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
Rusheenduff Lough SAC	• Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea* uniflorae and/or *Isoeto-Nanojuncetea* [3130] • *Najas flexilis* (Slender Naiad) [1833]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**10.7 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 10.7km from the Rusheenduff Lough SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Rusheenduff Lough SAC, occurring in any timeframe assessed in this report.**
Connemara Bog Complex SAC	• Coastal lagoons [1150] • Reefs [1170] • Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	To maintain or restore the favourable conservation condition of the	**13.2 km terrestrial distance.** **There is considered to**	**OUT**	The subject site is located 13.2km from the Connemara Bog Complex SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	• Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] • Natural dystrophic lakes and ponds [3160] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] • Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Blanket bogs (* if active bog) [7130] • Transition mires and quaking bogs [7140] • Depressions on peat substrates of the *Rhynchosporion* [7150] • Alkaline fens [7230] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] • *Euphydryas aurinia* (Marsh Fritillary) [1065] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355]	Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**be no potential source-pathway-receptor linkage to this SAC.**		Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **<u>Impacts which are occurring</u>** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **<u>Impacts that can reasonably be expected to occur</u>** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Connemara Bog Complex SAC, occurring in any timeframe assessed in this report.**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	• *Najas flexilis* (Slender Naiad) [1833]				
Cross Lough (Killadoon) SAC	• Perennial vegetation of stony banks [1220]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**13.2 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 13.2km from the Cross Lough (Killadoon) SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Cross Lough (Killadoon) SAC, occurring in any timeframe assessed in this report.**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
Lough Cahasy, Lough Baun and Roonah Lough SAC	• Coastal lagoons [1150] • Perennial vegetation of stony banks [1220] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Machairs (* in Ireland) [21A0]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	**14.7 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SAC.**	**OUT**	The subject site is located 14.7km from the Lough Cahasy, Lough Baun and Roonah Lough SAC. There is no potential source-pathway-receptor linkage to this SAC. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that no potential impacts on this SAC have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SAC have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SAC, it is considered that there are no current impacts on this SAC. In the absence of mitigation measures, no likely significant effects on this SAC are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SAC. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SAC as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Lough Cahasy, Lough Baun and Roonah Lough SAC, occurring in any timeframe assessed in this report.**

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
Special Protection Areas (SPA)					
Illaunnanoon SPA	• Sandwich Tern (*Thalasseus sandvicensis*) [A863]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SPA has been selected.	**9.4 km terrestrial distance.** **There is considered to be no potential source-pathway-receptor linkage to this SPA.**	**OUT**	The subject site is located 9.4km from the Illaunnanoon SPA. There is no potential source-pathway-receptor linkage to this SPA. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that no potential impacts on this SPA have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SPA have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that there are no current impacts on this SPA. In the absence of mitigation measures, no likely significant effects on this SPA are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SPA. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SPA as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Illaunnanoon SPA occurring in any timeframe assessed in this report.**
Connemara Bog Complex SPA	• Cormorant (*Phalacrocorax carbo*) [A017] • Merlin (*Falco columbarius*) [A098]	To maintain or restore the favourable conservation	**13.1 km terrestrial distance.**	**OUT**	The subject site is located 13.1km from the Connemara Bog Complex SPA. There is no potential source-pathway-receptor linkage to this SPA.

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
	• Golden Plover (*Pluvialis apricaria*) [A140] • Common Gull (*Larus canus*) [A182]	condition of the Annex I habitat(s) and/or the Annex II species for which the SPA has been selected.	**There is considered to be no potential source-pathway-receptor linkage to this SPA.**		**Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that no potential impacts on this SPA have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined to the subject site. In the absence of mitigation measures, no likely significant effects on this SPA have occurred. **Impacts which are occurring** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that there are no current impacts on this SPA. In the absence of mitigation measures, no likely significant effects on this SPA are occurring. **Impacts that can reasonably be expected to occur** There is no potential source-pathway-receptor linkage from the subject site to this SPA. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SPA as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Connemara Bog Complex SPA occurring in any timeframe assessed in this report.**
Cross Lough (Killadoon) SPA	• Sandwich Tern (*Thalasseus sandvicensis*) [A863]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which	**13.7 km terrestrial distance.** **There is considered to be no potential source-pathway-**	**OUT**	The subject site is located 13.7km from the Cross Lough (Killadoon) SPA. There is no potential source-pathway-receptor linkage to this SPA. **Impacts which have occurred** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that no potential impacts on this SPA have occurred as a result of previous works carried out onsite. Previous activities (construction and operations) were confined

European Site (Site Code)	Qualifying Interests	Conservation Objectives	Approximate Distance (at the closest point)	Screened IN / OUT	Potential Significant Effects?
		the SPA has been selected.	**receptor linkage to this SPA.**		to the subject site. In the absence of mitigation measures, no likely significant effects on this SPA have occurred. **<u>Impacts which are occurring</u>** Given that there is no potential source-pathway-receptor linkage to this SPA, it is considered that there are no current impacts on this SPA. In the absence of mitigation measures, no likely significant effects on this SPA are occurring. **<u>Impacts that can reasonably be expected to occur</u>** There is no potential source-pathway-receptor linkage from the subject site to this SPA. Therefore, in the absence of mitigation measures, no significant effects are likely to occur to this SPA as a result of the proposed works onsite. **In summary, there were/are/will be no significant effects on the qualifying interests of Cross Lough (Killadoon) SPA occurring in any timeframe assessed in this report.**

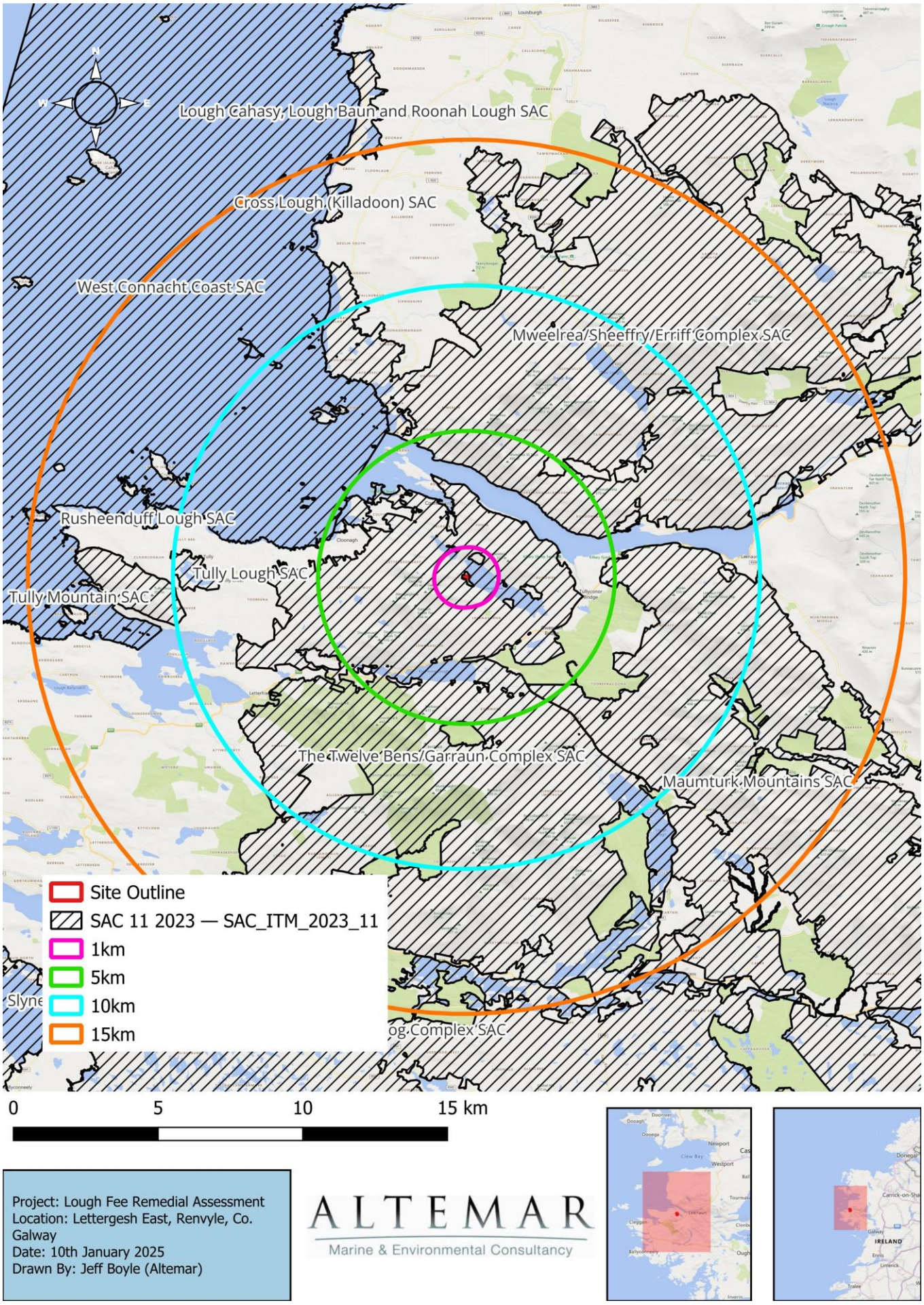


Figure 16. *SACs within 15km of the subject site*

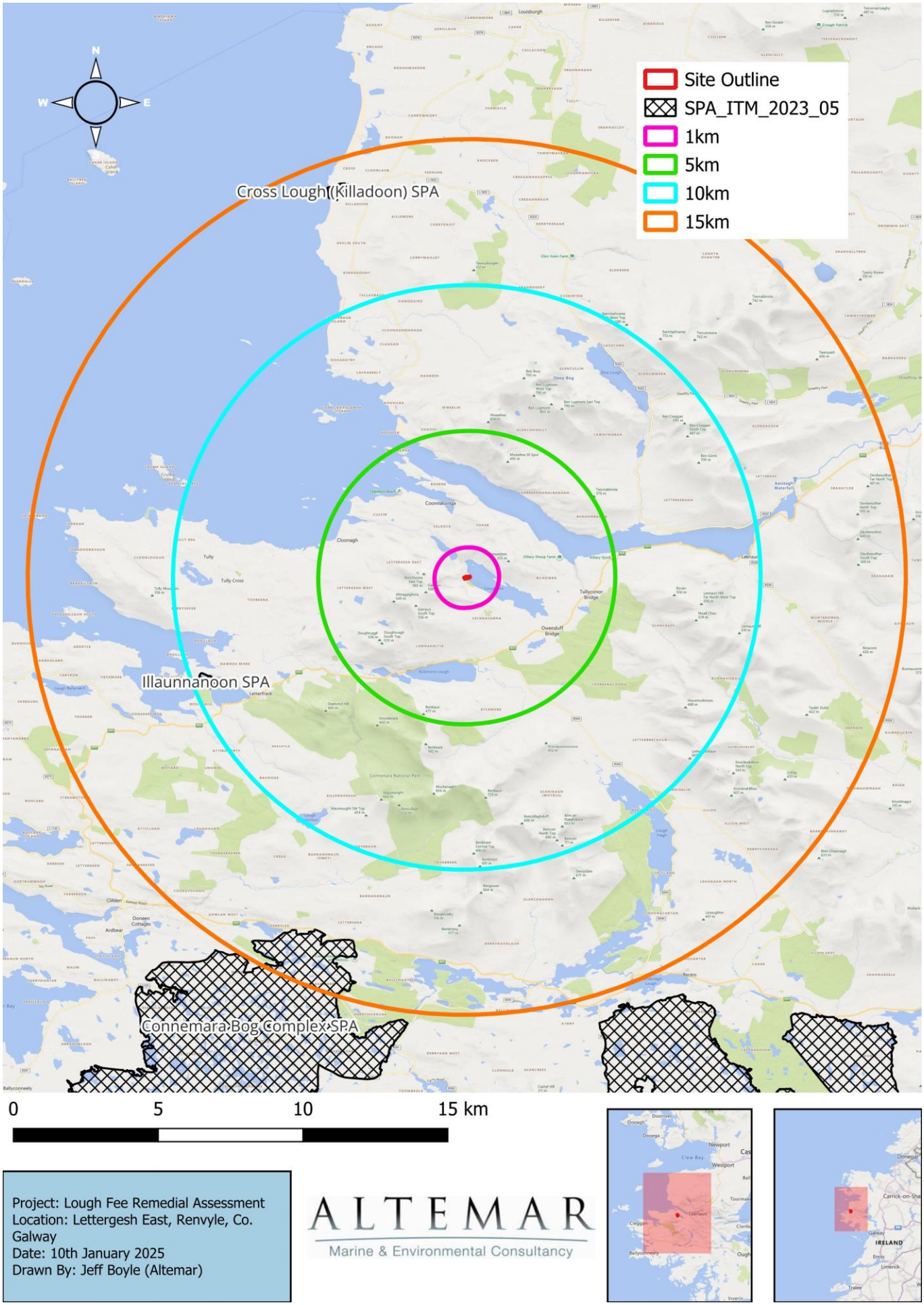


Figure 17. *SPAs within 15km of the subject site*

Figure 18. *Watercourses adjacent to the subject site*

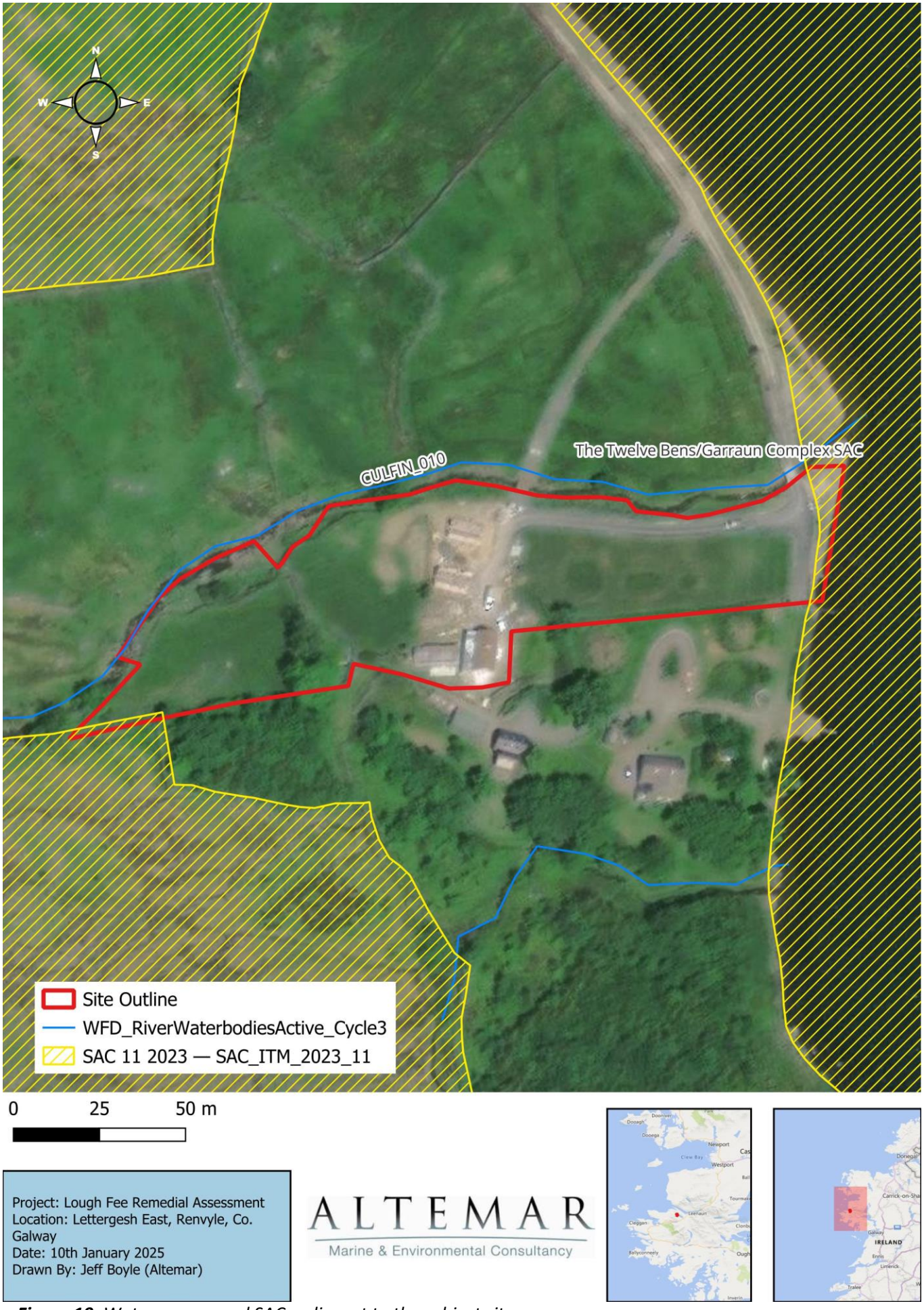


Figure 19. *Watercourses and SACs adjacent to the subject site*

In-Combination Effects

It is a requirement of the Appropriate Assessment process to consider the 'in-combination effects of the proposed development with other plans and projects in the area.

Onsite Wetland

Planning permission was granted by Galway County Council in 2021 (ref. 21312) for the construction of a new septic tank and an integrated constructed wetland treatment (ICW) system and associated site works to be constructed in the field to the front of the dwelling. Vesi Environmental were appointed to carry out these works, which have been completed. All wastewater from the site drains into the constructed wetland ponds. To facilitate access for these works, repair works were proposed for the lough side track within the SAC. Notifiable action permission was not deemed necessary for these works by NPWS and works were carried out on the lough side track, overseen by a local consulting engineer. The access track was constructed onsite prior to the construction of the wetland. Out of an abundance of caution, it is considered that there was the potential for downstream in-combination effects on The Twelve Bens/Garraun Complex SAC. Construction control measures were required to prevent likely significant in-combination effects on The Twelve Bens/Garraun Complex SAC.

Planning Applications Proximate to the Site

The following is a list of planning applications as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal[2]:

Table 4. Approved planning applications in proximity to the site (Both across from the site on the opposite side of Lough Fee)

Ref. No.	Address	Proposal
21312	Lettergesh East ,Renvyle, Co. Galway.	for replacement of the existing effluent treatment system by the installation of a new septic tank and integrated constructed wetland treatment system and associated site works.
2460129	Letterettrin, Renvyle, Co. Galway, H91 FHH9	To construct: (1) Rear / Side Extension to Existing Dwelling, (2) Internal and External Alterations to Existing Dwelling, (3) New Vehicular Access Entrance and Parking Area, (4) Decommission Existing Septic Tank System, (5) Install a New Wastewater Treatment System and Polishing Filter Bed as well as all ancillary site services. This planning application is accompanied by a NIS. Gross floor space of proposed works: 50.39 sqm. Gross floor space of any demolition: 4.44 sqm
2361553	Bunowen , Leenane , Co. Galway	to construct: (1) front and rear extension to existing dwelling, (2) internal and external alterations to existing dwelling, (3) proposed new first floor above the existing ground floor, (4) change of roof design to the elevations of the existing dwelling house, (5) demolish existing shed and replace with a new domestic garage, (6) decommission existing septic tank system, (7) install a new wastewater treatment system and polishing filter bed as well as all ancillary site services. This planning application is accompanied by a NIS. Gross floor space of proposed works: 60 sqm (garage) & 98.07 sqm (extension). Gross floor space of any demolition: 13.73 sqm.

In relation to planning application 21312, the associated Planning Report noted the following in relation to Appropriate Assessment:

'The Planning Authority considered the nature and scale of the proposed development, The Planning Authority conclude that the proposed development, by itself or in combination with other development in the vicinity, would not have a likely significant effect on European sites, their qualifying interests or conservation objectives, directly, indirectly or n combination with other plans and projects in the vicinity of the site. Therefore, no further assessment is deemed required'.

[2] https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de

In relation to planning application **ref. 2460129**, a Natura Impact Statement was prepared by Claddagh Ecology to accompany this application. It concluded with the following:

'Upon examination of the potential effects of the proposed project on Natura 2000 sites and exploration of pathway receptor links pertaining to species and habitats, it can be concluded that, with proper construction practice and adherence to the mitigation measures recommended in this report, no significant negative effects on Natura 2000 sites will arise as a result of this project.

The site consists of habitats which are of relatively low ecological importance, including agricultural grassland (GA1) and a hedgerow (WL1) which largely consists of invasive Rhododenrdon.

No significant habitat for any Annex I or BoCCI red-listed bird species, occurs within the proposed development site and the development of the site will not interfere with the conservation status of any SCI of Illaunanoon SPA.

With good construction practice, in accordance with the design laid out in this application and mitigation measures described in this NIS and associated CEMP, no significant effects on biodiversity are anticipated at any geographical scale as a result of this development'.

In relation to planning application **ref. 2361553**, a Natura Impact Statement was prepared by Claddagh Ecology to accompany this application. It concluded with the following:

'Upon examination of the potential effects of the proposed project on Natura 2000 sites and exploration of pathway receptor links pertaining to species and habitats, it can be concluded that with good construction practice, in accordance with the design laid out in this application and mitigation measures described in this NIS and associated CEMP, no significant negative effects on Natura 2000 sites will arise as a result of this project. No significant effects on biodiversity are anticipated at any geographical scale as a result of this development.'

The above developments are located within the Twelve Bens/Garraun Complex SAC. They consisted of similar site works to those undertaken as part of this application. Significant effects on Natura 2000 sites were ruled out given the relatively low ecological value of habitats onsite, adherence to good construction practice mitigation measures, and the minor nature of works.

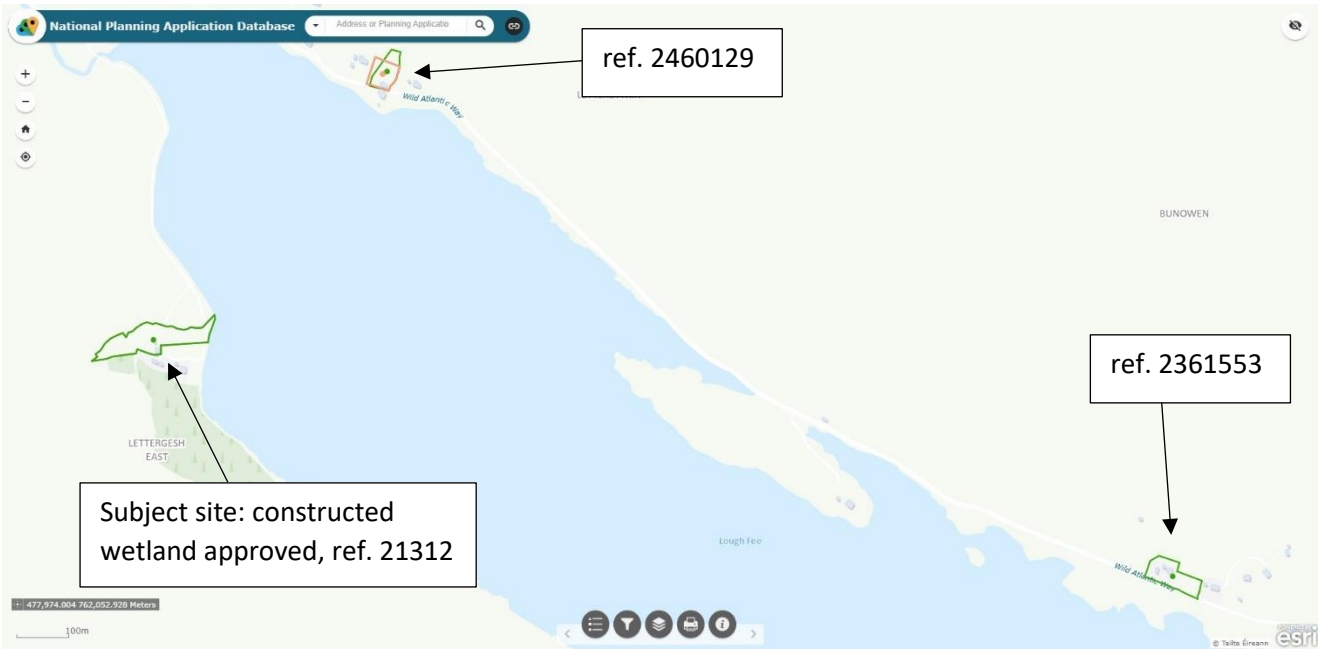


Figure 20. Approved planning applications in the vicinity of the subject site

Plans and Activities within the Wider Area

The following is a list of plans and activities within the area:

Table 5. Plans and activities relevant to the subject site

Address	Relevance/Description
Galway County Development plan 2022-2028	National Heritage/Biodiversity NHB1- Natural Heritage and Biodiversity of Designated Sites, Habitats and Species. Protect and where possible enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts) and extend to any additions or alterations to sites that may occur during the lifetime of this plan. Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 19762010 and the Flora Protection Order (SI 94 of 1999). Support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas, proposed Natural Heritage Areas, Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries (and other designated sites including any future designations) and the promotion of the development of a green/ ecological network. NHB2- European Sites and Appropriate Assessment. To implement Article 6 of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s). All assessments must be in compliance with the European Communities (Birds and Natural Habitats) Regulations 2011. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant. NHB 3 – Protection of European Sites. No plans, programmes, or projects etc. giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.* NHB4 - Ecological Appraisal of Biodiversity. Ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites. Where appropriate require an ecological appraisal, for development not directly connected with or necessary to the management of European Sites, or a proposed European Site and which are likely to have significant effects on that site either individually or cumulatively NHB5 - Ecological Connectivity and Corridors Support the protection and enhancement of biodiversity and ecological connectivity in non-designated sites, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife areas where these form part of the ecological network and/or may be considered as ecological corridors in the context of Article 10 of the Habitats Directive. NHB9 - Protection of Bats and Bats Habitats. Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stonewalls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Assessments shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area,

Address	Relevance/Description
	development will be prohibited or require mitigation and/or compensatory measures, as appropriate. The impact of lighting on bats and their roosts and the lighting up of objects of cultural heritage must be adequately assessed in relation to new developments and the upgrading of existing lighting systems. Water Objectives WR 1- Water Resources. Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans. WR 2 - River Basin Management Plans. It is a policy objective of the Planning Authority to implement the programme of measures developed by the River Basin District Projects under the Water Framework Directive in relation to: Surface and groundwater interaction, Dangerous substances, Hydro-morphology, Forestry, On site wastewater treatment systems, Municipal and industrial discharges, Urban pressures, Abstractions.
Housing	Galway county exhibits a dispersed housing pattern, many with their own individual sewage treatment and water abstraction. This has the potential to negatively impact water quality due to the accumulation of individual sewage treatment systems. Habitat fragmentation is also a potential impact.
Agriculture	Agricultural land uses in the area mainly consist of low-intensity grazing of sheep, and associated herbicide and pesticide use, as well as land fertilisation and drainage.

Conclusion

The proposed project has been assessed, both individually and in conjunction with the combining effects of other plans and projects in the area. There were no other plans or projects of significance proposed in proximity of this development. Given this, it is considered that in combination effects with other existing and proposed developments in proximity to the application area the works undertaken would be unlikely, neutral, not significant and localised. The access track was constructed onsite prior to the construction of the wetland. Out of an abundance of caution, it is considered that there was the potential for downstream in-combination effects on The Twelve Bens/Garraun Complex SAC. Construction control measures were required to prevent likely significant in-combination effects on The Twelve Bens/Garraun Complex SAC.

Out of an abundance of caution, the construction of the access track and onsite wetland is considered to have had the potential to cause likely significant in combination effects on European sites in the absence of best practice control measures.

Remedial Appropriate Assessment Screening Conclusions

An initial screening of the existing arrangement, using the precautionary principle (without the use of any standard construction phase controls or mitigation measures) and the Source/Pathway/Receptor links between the existing arrangement and European sites with the potential to result in significant effects on the conservation objectives and features of interest of the European sites was carried out in Tables 2 and 3. Based on best scientific knowledge and objective information and assessment, the possibility of significant effects caused by the project was excluded for the following European sites within 15km in addition to sites beyond 15km with a direct/indirect pathway:

Special Areas of Conservation

- Mweelrea/Sheeffry/Erriff Complex SAC
- Maumturk Mountains SAC
- West Connacht Coast SAC
- Tully Lough SAC
- Tully Mountain SAC
- Rusheenduff Lough SAC
- Connemara Bog Complex SAC
- Cross Lough (Killadoon) SAC
- Lough Cahasy, Lough Baun and Roonah Lough SAC

Special Protection Areas

- Illaunnanoon SPA
- Connemara Bog Complex SPA
- Cross Lough (Killadoon) SPA

The Twelve Bens/Garraun Complex SAC is directly adjacent to and, in parts along the lough side access track, within the subject site. Additionally, based on an examination of information provided by ASK Solutions (site engineer), EPA watercourse data and fieldwork undertaken by Altemar, a drainage ditch/watercourse has been noted along the northern boundary of the site. This watercourse (Culfin_010 under the WFD) flows directly into Lough Fee which forms part of The Twelve Bens/Garraun Complex SAC. It is therefore considered that there is a direct hydrological and biodiversity connection between the subject site and this SAC via surface water drainage. Given the proximity of the site to this SAC and the direct hydrological connection to this SAC via surface water drainage (by means of direct proximity to this SAC and the northern watercourse), in the absence of control measures, it is considered that there was the potential for downstream impacts on this SAC during construction works associated with the access road. In the absence of construction control measures, there was the potential for hydrocarbons, sedimentation, and pollution runoff to enter the northern watercourse and this SAC and cause downstream impacts. Likely significant effects on this SAC cannot be ruled out at Stage 1 AA. Further information is required. Stage 2 AA is required in relation to downstream impacts which had the potential to occur during construction works.

It has been concluded that significant effects on the Twelve Bens/Garraun Complex SAC are not occurring and are unlikely to occur because of the existence of the site in its current form. Construction works are complete, and no additional works are proposed onsite. The site is continuing to naturally regenerate to above baseline levels given the landowners rewilding programme (planting of 300 native trees) and the presence of the constructed wetland which facilitates the conservation of wetland-dependent wildlife. Following a site inspection, Altemar note that there is no evidence to suggest that silt or pollutants entered the SAC during the construction of the access track, either directly or via the stream which forms the northern border of the site. There was no alteration to QI species and habitats of the SAC during the works, which did not modify the SAC in any way. In the absence of remedial mitigation measures, no significant impacts on this SAC are presently occurring as a result of the existing arrangement onsite.

Acting on a strictly precautionary basis, a remedial Natura Impact Statement (rNIS) is required in respect of the effects of the project on the Twelve Bens/Garraun Complex SAC because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures that the plan or project, individually and/or in combination with other plans or projects, has had, or will have a significant effect on the named European Site/s.

An rNIS or Stage 2 Appropriate Assessment is not required for the effects of the project on all other listed Natura sites and those beyond 15km because it can be excluded based on the best objective scientific information following screening that the plan or project, individually and/or in combination with other plans or projects, has had, or will have a significant effect on the European Site/s.

A remedial Natura Impact Statement (rNIS) is required for the proposed development.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed development, acting on a strictly precautionary basis, a remedial NIS is required in respect of the effects of the project on The Twelve Bens/Garraun Complex SAC (due to the potential for downstream impacts during construction), because it cannot be excluded on the basis of best objective scientific information, in the absence of control or mitigation measures, following screening that the plan or project, individually and/or in combination with other plans or projects, has had a significant effect on the named European Site.

A Stage 2 Appropriate Assessment or NIS is not required for the effects of the project on all other listed Natura sites within, and sites beyond, 15km because, it can be excluded, on the basis of the best objective scientific information following screening, that the plan or project, individually and/or in combination with other plans or projects, has not, and will have not a significant effect on the European Site/s.

The rNIS evaluates the potential for direct, indirect effects, alone or in combination with other plans and projects having considered the use of mitigation measures.

A further review of the Conservation Objectives and features of interest is necessary to determine if significant effects are likely to impact the Twelve Bens/Garraun Complex SAC.

The Twelve Bens/Garraun Complex SAC (Site code: 002031)

As outlined in the Twelve Bens/Garraun Complex SAC Site Synopsis[3] (NPWS, version date 08.12.2015):

'*This is an extensive site situated in the north-west of Connemara in Co. Galway and dominated by mountainous terrain. The site is bounded to the south by the Connemara Bog Complex, to the east by the Maumturk Mountains and to the north by Killary Harbour. Included within the site are the Twelve Bens mountain range, the mountains to the north of Kylemore (Doughruagh, Garraun and Benchoona), rivers including the Ballynahinch and Owenglin systems and an area of coastal heath and machair near Glassilaun. The site also includes some extensive tracts of lowland blanket bog which are continuous with the mountains. Most of the mountain summits reach a height in excess of 500 m, the highest being Ben Baun in the Twelve Bens which reaches 730 m. The site includes a large portion of the Connemara National Park and a Statutory Nature Reserve at Derryclare Wood.*

Geologically, the site can be divided into two distinct parts. The Twelve Bens are composed of resistant quartzite with schists in the valleys, while the mountains north of Kylemore are composed of gneiss and various types of sandstones and mudstones. There are also areas of gabbro (Doughruagh and Currywongaun), mica schist (Muckanaght) and marble outcrops (south of Kylemore Lough). The main soil type within the site is peat.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are Natura 2000 codes):*

[3110] Oligotrophic Waters containing very few minerals, [3130] Oligotrophic to Mesotrophic Standing Waters, [4060] Alpine and Subalpine Heaths, [7130] Blanket Bogs (Active), [7150] Rhynchosporion Vegetation, [8110] Siliceous Scree, [8210] Calcareous Rocky Slopes, [8220] Siliceous Rocky Slopes, [91A0] Old Oak Woodlands, [1029] Freshwater Pearl Mussel (Margaritifera margaritifera), [1106] Atlantic Salmon (Salmo salar), [1355] Otter (Lutra lutra), [1833] Slender Naiad (Najas flexilis).*

The predominant vegetation type at this site is upland blanket bog/heath dominated by Heather (Calluna vulgaris), Deergrass (Scirpus cespitosus), Cross-leaved Heath (Erica cinerea) and the mosses Racomitrium lanuginosum and Sphagnum capillifolium. In places this vegetation can be rich in liverworts, with species such as Adelanthus lindenbergianus and Bazzania pearsonii. This unusual type of species-rich dwarf shrub heath is almost confined to the mountains of the west of Ireland and Scotland, and is particularly well developed in the Twelve Bens. Close to the mountain summits this blanket bog/heath is often developed on a very thin peat with a high proportion of outcropping bedrock.

[3] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY002031.pdf

Another important and widespread habitat is lowland blanket bog dominated by Purple Moor-grass (Molinia caerulea), Black Bog-rush (Schoenus nigricans), Crossleaved Heath and the liverwort Pleurozia purpurea. These areas of lowland blanket bog usually occur in the valleys between the mountains, e.g. the Gleninagh Valley. Rhynchosporion vegetation is well represented around pools, in wet hollows and in quaking and flush areas associated with the lowland blanket bog. White Beak-sedge (Rhynchospora alba) occurs in association with such species as Common Cottongrass (Eriophorum angustifolium), Bogbean (Menyanthes trifoliata), Black Bog-rush and a range of bog mosses, including Sphagnum auriculatum and S. cuspidatum.

The site contains a large range of others habitats, including upland grassland dominated by Sheep's-fescue (Festuca ovina) and Mat-grass (Nardus stricta), oak woodland, scree, oligotrophic (nutrient-poor) lakes, rivers, reedbeds, freshwater marshes, coastal heath, machair, sand dune and saltmarsh.

A number of rare, Red Data Book plant species are found within the site, many of which are associated with rocky scree habitats. These include Alpine Saw-wort (Saussurea alpina), Holly Fern (Polystichum lonchitis), Purple Saxifrage (Saxifraga oppositifolia), and the legally protected (Flora (Protection) Order, 2015) Parsley Fern (Cryptogramma crispa). These are generally confined to mountains cliffs above 400 m, where a number of other scarce plant species are also found (for example, Alpine Meadow-rue, Thalictrum alpinum). Other Red Data Book species have also been recorded from the site, including Corncockle (Agrostemma githago) and the legally protected species Marsh Clubmoss (Lycopodiella inundata) and Heath Cudweed (Omalotheca sylvatica). St. Dabeoc's Heath (Daboecia cantabrica), a species which in Ireland is restricted to Connemara and south Mayo, occurs commonly within the site.

Alpine and subalpine heaths are found in association with exposed rock and scree at high altitudes at this site. Typical species include Heather, Bilberry (Vaccinium myrtillus), Crowberry (Empetrum nigrum), Juniper (Juniperus communis subsp. nana), Bearberry (Arctostaphylos uva-ursi), Bell Heather (Erica cinerea), Tormentil (Potentilla erecta), Great Wood-rush (Luzula sylvatica), Tufted Hair-grass (Deschampsia cespitosa) and Common Bent (Agrostis capillaris). The community also holds important assemblages of oceanic montane bryophytes.

The suite of lowland lakes that encircle the mountains represent some of the finest oligotrophic lakes in the country and two rare, Red Data Book plant species, Slender Naiad (Najas flexilis) and Pillwort (Pilularia globulifera), occur. Slender Naiad is rare in Europe and is listed on Annex II of the E.U. Habitats Directive. Both of these species are listed on the Flora (Protection) Order, 2015.

The site contains several small areas of Sessile Oak (Quercus petraea) woodland, a habitat which is particularly rare in Connemara. The best examples on the site of this habitat are found at Kylemore and on the north shore of Derryclare Lough. Derryclare Wood, a Statutory Nature Reserve, has been particularly well studied. It is composed mostly of Sessile Oak, with some Rowan (Sorbus aucuparia), Downy Birch (Betula pubescens) and occasional Ash (Fraxinus excelsior) forming the canopy layer. There is a well-developed lichen and fungus flora present. The fungal parasite, Hemigrapha astericus, a native of Australia and South America, was first recorded in the northern hemisphere from this wood. The Kylemore woods, though heavily infested by Rhododendron (Rhododendron ponticum), still retain a diverse flora and support interesting communities of mosses and liverworts, including such species as Radula voluta, Lejeunea holtii, L. hibernica, L. flava subsp. moorei, Cephalozia hibernica, Teleranea nematodes, Campylopus setifolius, Oxystegus hibernicus, Grimmia hartmanii and G. funalis.

Irish Hare, Common Frog, Otter and Freshwater Pearl Mussel and have been recorded from the site. These species are protected under the Wildlife Act, 1976, and the latter two are listed on Annex II of the E.U. Habitats Directive. The Owenglin River supports an important population of Salmon, another Annex II species. Arctic Char, a species listed in the Irish Red Data Book as threatened in Ireland, has been recorded from Lough Inagh, Kylemore Lough, Lough Muck and Lough Fee.

Bird species reported from the site include Raven, Wheatear, Stonechat, Meadow Pipit, Red Grouse (a declining species of heather moorland), Snipe, Curlew, Woodcock, Hooded Crow, Twite, Ring Ouzel (the latter two both Irish Red Data Book species) and the E.U. Birds Directive Annex I species: Peregrine, Merlin, Golden Plover and

Chough. The site provides excellent habitat for Peregrine and this species has traditionally bred at several locations within it.

The upland vegetation of the site is most threatened by over-stocking with sheep and by afforestation with coniferous species.

The Twelve Bens/Garraun Complex includes a wide variety of habitat types, nine of which are listed on Annex I of the E.U. Habitats Directive (including one with priority status), and populations of many rare or scarce plant and animal species. It is one of the largest and most varied protected sites in Ireland and so is of high conservation interest.'

The Qualifying Interests (QI) (Features of Interest) and the National conservation status of the QI for The Twelve bens/Garraun Complex SAC are seen in Table 6. The site-specific conservation objectives for European sites are seen in Table 7.

Table 6. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for The Twelve Bens/Garraun Complex SAC

.Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	**Qualifying Interests**	**Current Conservation Status & Trend**
The Twelve Bens/Garraun Complex SAC (002031)	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	**Bad**
	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]	**Poor**
	Alpine and Boreal heaths [4060]	**Bad**
	Blanket bogs (* if active bog) [7130]	**Bad**
	Depressions on peat substrates of the *Rhynchosporion* [7150]	**Bad**
	Siliceous scree of the montane to snow levels (A*ndrosacetalia alpinae and Galeopsietalia ladani*) [8110]	**Poor**
	Calcareous rocky slopes with *chasmophytic* vegetation [8210]	**Poor**
	Siliceous rocky slopes with *chasmophytic* vegetation [8220]	**Poor**
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	**Bad**
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	**Bad**
	Salmo salar (Salmon) [1106]	**Poor**
	Lutra lutra (Otter) [1355]	**Good**
	Najas flexilis (Slender Naiad) [1833]	**Poor**

Table 7. *Site-specific conservation objectives for European sites*

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 3 for indicative lake habitat distribution
Typical species	Occurrence	Typical species present, in good condition, and demonstrating typical abundances and distribution
Vegetation and composition: characteristic zonation	Occurrence	All characteristic zones should be present, correctly distributed and in good condition
Vegetation distribution: maximum depth	Metres	Restore maximum depth of vegetation, subject to natural processes
Hydrological regime: water level fluctuations	Metres	Maintain appropriate natural hydrological regime necessary to support the habitat
Lake substratum quality	Various	Restore appropriate substratum type, extent and chemistry to support the vegetation
Water quality transparency	Metres	Restore appropriate Secchi transparency. There should be no decline in Secchi depth/transparency
Water quality: nutrients	µg/l P; mg/l N	Restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species
Water quality: phytoplankton biomass	µg/l Chlorophyll *a*	Restore appropriate water quality to support the habitat, including high chlorophyll *a* status
Water quality: phytoplankton composition	EPA phytoplankton composition metric	Maintain appropriate water quality to support the habitat, including high phytoplankton composition status
Water quality: attached algal biomass	Algal cover and EPA phytobenthos metric	Restore/maintain trace/absent attached algal biomass (<5% cover) and high phytobenthos status
Water quality: macrophyte status	EPA macrophyte metric (The Free Index)	Maintain high macrophyte status
Acidification status	pH units; mg/l	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat subject to natural processes
Water colour	mg/l PtCo	Restore/maintain appropriate water colour to support the habitat
Dissolved organic carbon (DOC)	mg/l	Restore/maintain appropriate organic carbon levels to support the habitat
Turbidity	Nephelometric turbidity units/ mg/l SS/ other appropriate units	Restore/maintain appropriate turbidity to support the habitat
Fringing habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3110
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 3 for indicative lake habitat distribution
Typical species	Occurrence	Typical species present, in good condition, and demonstrating typical abundances and distribution
Vegetation composition: characteristic zonation	Occurrence	All characteristic zones should be present, correctly distributed and in good condition
Vegetation distribution: maximum depth	Metres	Restore maximum depth of vegetation, subject to natural processes

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Hydrological regime: water level fluctuations	Metres	Maintain appropriate natural hydrological regime necessary to support the habitat
Lake substratum quality	Various	Restore appropriate substratum type, extent and chemistry to support the vegetation
Water quality: transparency	Metres	Restore appropriate Secchi transparency. There should be no decline in Secchi depth/transparency
Water quality: nutrients	µg/l P; mg/l N	Restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species
Water quality: phytoplankton biomass	µg/l Chlorophyll *a*	Restore appropriate water quality to support the habitat, including high chlorophyll *a* status
Water quality: phytoplankton composition	EPA phytoplankton composition metric	Maintain appropriate water quality to support the habitat, including high phytoplankton composition status
Water quality: attached algal biomass	Algal cover and EPA phytobenthos metric	Restore/maintain trace/absent attached algal biomass (<5% cover) and high phytobenthos status
Water quality: macrophyte status	EPA macrophyte metric (The Free Index)	Maintain high macrophyte status
Acidification status	pH units; mg/l	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes
Water colour	mg/l PtCo	Restore/maintain appropriate water colour to support the habitat
Dissolved organic carbon (DOC)	mg/l	Restore/maintain appropriate organic carbon levels to support the habitat
Turbidity	Nephelometric turbidity units/ mg/l SS/ other appropriate units	Restore/maintain appropriate turbidity to support the habitat
Fringing habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3130
Alpine and Boreal Heaths [4060]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range
Community diversity	Abundance of variety of vegetation communities	Maintain variety of vegetation communities, subject to natural processes
Vegetation composition: lichens and bryophytes	Number of species at a representative number of 2m x 2m monitoring stops	Number of bryophyte or non-crustose lichen species present at each monitoring stop is at least three
Vegetation composition: positive indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of positive indicator species at least 66%
Vegetation composition: dwarf shrub species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of dwarf shrub species at least 10%
Vegetation composition: negative indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of negative indicator species less than 10%

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Vegetation composition: nonnative species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of non-native species less than 1%
Vegetation structure: signs of grazing	Percentage of leaves grazed at a representative number of 2m x 2m monitoring stops	Less than 10% collectively of the live leaves of specific graminoids showing signs of grazing
Vegetation structure: signs of browsing	Percentage of shoots browsed at a representative number of 2m x 2m monitoring stops	Less than 33% collectively of the last complete growing season's shoots of ericoids and crowberry (Empetrum nigrum) showing signs of browsing
Vegetation structure: burning	Occurrence in local vicinity of a representative number of monitoring stops	No signs of burning within the habitat
Physical structure: disturbed bare ground	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of disturbed bare ground less than 10%
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat
Blanket Bogs (* if active bog) [7130]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range
Ecosystem function: peat formation	Active blanket bog as a proportion of the total area of Annex I blanket bog habitat	At least 99% of the total Annex I blanket bog area is active
Ecosystem function: hydrology	Flow direction, water levels, occurrence of drains and erosion gullies	Natural hydrology unaffected by drains and erosion
Community diversity	Abundance of variety of vegetation communities	Maintain variety of vegetation communities, subject to natural processes
Vegetation composition: positive indicator species	Number of species at a representative number of 2m x 2m monitoring stops	Number of positive indicator species present at each monitoring stop is at least seven
Vegetation composition: lichens and bryophytes	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of bryophytes or lichens, excluding Sphagnum fallax, at least 10%
Vegetation composition: potential dominant species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of each of the potential dominant species less than 75%
Vegetation composition: negative indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of negative indicator species less than 1%

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Vegetation composition: nonnative species	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of non-native species less than 1%
Vegetation composition: native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Cover of scattered native trees and shrubs less than 10%
Vegetation structure: Sphagnum condition	Condition at a representative number of 2m x 2m monitoring stops	Less than 10% of the Sphagnum cover is crushed, broken and/or pulled up
Vegetation structure: signs of browsing	Percentage of shoots browsed at a representative number of 2m x 2m monitoring stops	Last complete growing season's shoots of ericoids, crowberry (Empetrum nigrum) and bog-myrtle (Myrica gale) showing signs of browsing collectively less than 33%
Vegetation structure: burning	Occurrence in local vicinity of a representative number of monitoring stops	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning
Physical structure: disturbed bare ground	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of disturbed bare ground less than 10%
Physical structure: drainage	Percentage area in local vicinity of a representative number of monitoring stops	Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%
Physical structure: erosion	Percentage area in local vicinity of a representative number of monitoring stops	Less than 5% of the greater bog mosaic comprises erosion gullies and eroded areas
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat
Depressions on peat substrates of the Rhynchosporion [7150]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range
Vegetation composition: positive indicator species	Number of species at a representative number of 2m x 2m monitoring stops	Number of positive indicator species at each monitoring stop is at least five
Vegetation composition: Rhynchospora spp.	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of white beaked sedge (Rhynchospora alba) and brown beaked sedge (R. fusca) at least 10%
Vegetation composition: potential dominant species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of each of the potential dominant species individually less than 35%
Vegetation composition: negative indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of negative indicator species less than 1%

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Vegetation composition: nonnative species	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of non-native species less than 1%
Vegetation composition: native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Cover of scattered native trees and shrubs less than 10%
Vegetation structure: Sphagnum condition	Condition at a representative number of 2m x 2m monitoring stops	Less than 10% of the Sphagnum cover is crushed, broken and/or pulled up
Vegetation structure: signs of browsing	Percentage of shoots browsed at a representative number of 2m x 2m monitoring stops	Last complete growing season's shoots of ericoids, crowberry (Empetrum nigrum) and bog-myrtle (Myrica gale) showing signs of browsing collectively less than 33%
Vegetation structure: burning	Occurrence in local vicinity of a representative number of monitoring stops	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning
Physical structure: disturbed bare ground	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of disturbed bare ground less than 10%
Physical structure: drainage	Percentage area in local vicinity of a representative number of monitoring stops	Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%
Physical structure: erosion	Percentage area in local vicinity of a representative number of monitoring stops	Less than 5% of the greater bog mosaic comprises erosion gullies and eroded areas
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat
Siliceous scree of the montane to snow levels (*Androsacetalia alpinae and Galeopsietalia ladani*) [8110]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range
Vegetation composition: lichens and bryophytes	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of bryophytes and non-crustose lichen species at least 5%
Vegetation composition: negative indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Proportion of vegetation composed of negative indicator species less than 1%
Vegetation composition: nonnative species	Percentage cover at a representative number of 2m x 2m monitoring stops	Proportion of vegetation composed of non-native species less than 1%
Vegetation composition: positive indicator species	Number of species in local vicinity of a representative number of monitoring stops	At least one positive indicator species present in vicinity of each monitoring stop in block scree
Vegetation composition: grass species and dwarf shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Total cover of grass species and dwarf shrubs less than 20%

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Vegetation composition: bracken, native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%
Vegetation structure: grazing and browsing	Percentage of leaves/shoots grazed/browsed at a representative number of 2m x 2m monitoring stops	Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively less than 50%
Physical structure: disturbance	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Ground disturbed by human and animal paths, scree running, vehicles less than 10%
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat
Calcareous rocky slopes with chasmophytic vegetation [8210]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range
Vegetation composition: positive indicator fern and Saxifraga species	Number of species in local vicinity of a representative number of monitoring stops	Number of ferns and Saxifraga indicators at each monitoring stop is at least one
Vegetation composition: positive indicator species	Vegetation composition: positive indicator species	Number of positive indicator species at each monitoring stop is at least three
Vegetation composition: nonnative species	Percentage cover in local vicinity of a representative number of monitoring stops	Proportion of vegetation composed of non-native species less than 1%
Vegetation composition: bracken, native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%
Vegetation structure: grazing and browsing	Percentage of leaves/ shoots grazed/browsed in local vicinity of a representative number of monitoring stops	Percentage of leaves/ shoots grazed/browsed in local vicinity of a representative number of monitoring stops
Indicators of local distinctiveness	Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat
Siliceous rocky slopes with chasmophytic vegetation [8220]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Area stable or increasing, subject to natural processes	Occurrence	No decline, subject to natural processes
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil nutrient status within natural range

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Vegetation composition: positive indicator species	Number of species in local vicinity of a representative number of monitoring stops	At least one positive indicator species present in vicinity of each monitoring stop
Vegetation composition: nonnative species	Percentage cover in local vicinity of a representative number of monitoring stops	Proportion of vegetation composed of non-native species less than 1%
Vegetation composition: bracken, native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%
Vegetation structure: grazing and browsing	Percentage of leaves/ shoots grazed/browsed in local vicinity of a representative number of monitoring stops	Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively less than 50%
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]		
Habitat area	Hectares	Area stable or increasing, subject to natural processes; at least 9.5ha for the sub-site (Derryclare Wood, NSNW site code 1601) surveyed. See map 4 for surveyed area
Habitat distribution	Occurrence	No decline, subject to natural processes. The surveyed woodland location is shown on map 4
Woodland size	Hectares	Area stable or increasing. Where topographically possible, "large" woods at least 25ha in size and “small” woods at least 3ha in size
Woodland structure: cover and height	Percentage and metres	Diverse structure with a relatively closed canopy containing mature trees; subcanopy layer with semimature trees and shrubs; and well-developed herb layer
Woodland structure: community diversity and extent	Hectares	Maintain diversity and extent of community types
Woodland structure: natural regeneration	Seedling:sapling:pole ratio	Seedlings, saplings and pole age-classes occur in adequate proportions to ensure survival of woodland canopy
Woodland structure: dead wood	m^3 per hectare; number per hectare	At least 30m^3/ha of fallen timber greater than 10cm diameter; 30 snags/ha; both categories should include stems greater than 40cm diameter
Woodland structure: veteran trees	Number per hectare	No decline
Woodland structure: indicators of local disctinctiveness	Occurrence	No decline
Vegetation composition: native tree cover	Percentage	No decline. Native tree cover not less than 95%
Vegetation composition: typical species	Occurrence	A variety of typical native species present, depending on woodland type, including oak (Quercus petraea) and birch (Betula pubescens)
Vegetation composition: negative indicator species	Occurrence	Negative indicator species, particularly non-native invasive species, absent or under control
Freshwater Pearl Mussel Margaritifera margaritifera [1029]		
Distribution	Kilometres	Maintain at 6.43km

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Population size	Number of adult mussels	Restore Dawros population to at least 800,000 adult mussels
Population structure: recruitment	Percentage per size class	Restore to at least 20% of population no more than 65mm in length; and at least 5% of population no more than 30mm in length
Population structure: adult mortality	Percentage	No more than 5% decline from previous number of live adults counted; dead shells less than 1% of the adult population and scattered in distribution
Suitable habitat: extent	Kilometres	Restore suitable habitat in more than 4.8km in the Dawros system (see map 5) and any additional stretches necessary for salmonid spawning
Suitable habitat: condition	Kilometres	Restore condition of suitable habitat
Water quality: macroinvertebrate and phytobenthos (diatoms)	Ecological quality ratio (EQR)	Restore water quality - macroinvertebrates: EQR greater than 0.90 (Q4-5 or Q5); phytobenthos: EQR greater than 0.93
Substratum quality: filamentous algae (macroalgae); macrophytes (rooted higher plants)	Percentage	Restore substratum quality - filamentous algae: absent or trace (less than 5%); macrophytes: absent or trace (less than 5%)
Substratum quality: sediment	Occurrence	Restore substratum quality - stable cobble and gravel substrate with very little fine material; no artificially elevated levels of fine sediment
Substratum quality: oxygen availability	Redox potential	Restore to no more than 20% decline from water column to 5cm depth in substrate
Hydrological regime: flow variability	Metres per second	Restore appropriate hydrological regimes
Host fish	Number	Maintain sufficient juvenile salmonids to host glochidial larvae
Fringing habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the population
Salmon (*Salmo salar*) [1106] (Maintain the favourable conservation condition)		
Distribution: extent of anadromy	Percentage of river accessible	100% of river channels down to second order accessible from estuary
Adult spawning fish	Number	Conservation limit (CL) for each system consistently exceeded
Salmon fry abundance	Number of fry/5 minutes electrofishing	Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling
Out-migrating smolt abundance	Number	No significant decline
Number and distribution of redds	Number and occurrence	No decline in number and distribution of spawning redds due to anthropogenic causes
Water quality	EPA Q value	At least Q4 at all sites sampled by EPA
Otter (*Lutra lutra*) [1355] (Maintain the favourable conservation condition)		
Distribution	Percentage positive survey sites	No significant decline
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 854.66ha along river banks/ lake shoreline/around ponds
Extent of marine habitat	Hectares	No significant decline. Area mapped and calculated as 53.81ha
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 382.7km

The Twelve Bens/Garraun Complex SAC [002031]		
Attribute	**Measure**	**Target**
Extent of freshwater (lake) habitat	Hectares	No significant decline. Area mapped and calculated as 540.7ha
Couching sites and holts	Number	No significant decline
Fish biomass available	Kilograms	No significant decline
Barriers to connectivity	Number	No significant increase. For guidance,
Slender Naiad (*Najas flexilis*) [1833] (Restore the favourable conservation condition)		
Population extent	Hectares; distribution	No change to the spatial extent of Najas flexilis within Pollacappul and Kylemore Loughs, subject to natural processes. See map 7 for known locations
Population depth	Metres	No change to the depth range of Najas flexilis within the lakes, subject to natural processes
Population viability	Plant traits	Restore plant fitness, subject to natural processes
Population abundance	Square metres	Restore the cover abundance of *Najas flexilis*, subject to natural processes
Species distribution	Occurrence	No decline, subject to natural processes
Habitat extent	Hectares	No decline, subject to natural processes
Hydrological regime: water level fluctuations	Metres	Maintain appropriate natural hydrological regime necessary to support the habitat for the species
Lake substratum quality	Various	Maintain appropriate substratum type, extent and chemistry to support the populations of the species
Water quality	Various	Maintain/restore appropriate water quality to support the populations of the species
Acidification status	pH units; mg/l	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the populations of Najas flexilis, subject to natural processes
Water colour	mg/l PtCo	Maintain appropriate water colour to support the populations of Najas flexilis
Associated species	Species composition and abundance	Restore appropriate associated species and vegetation communities to support the population of *Najas flexilis*
Fringing habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the population of *Najas flexilis*

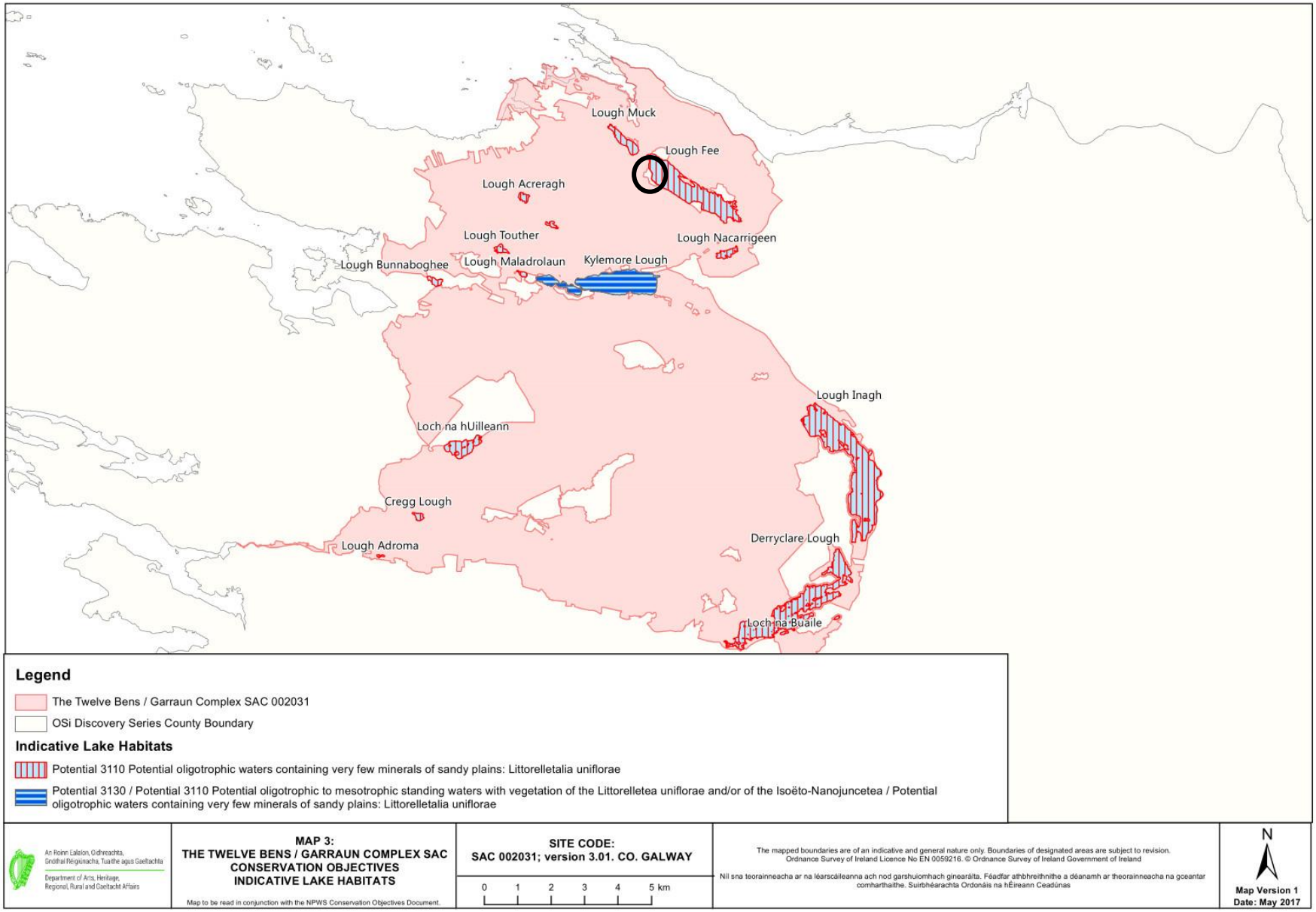


Figure 21. Twelve Bens/Garraun Complex SAC conservation objectives: Indicative Lake habitats (approx. site area = black circle)

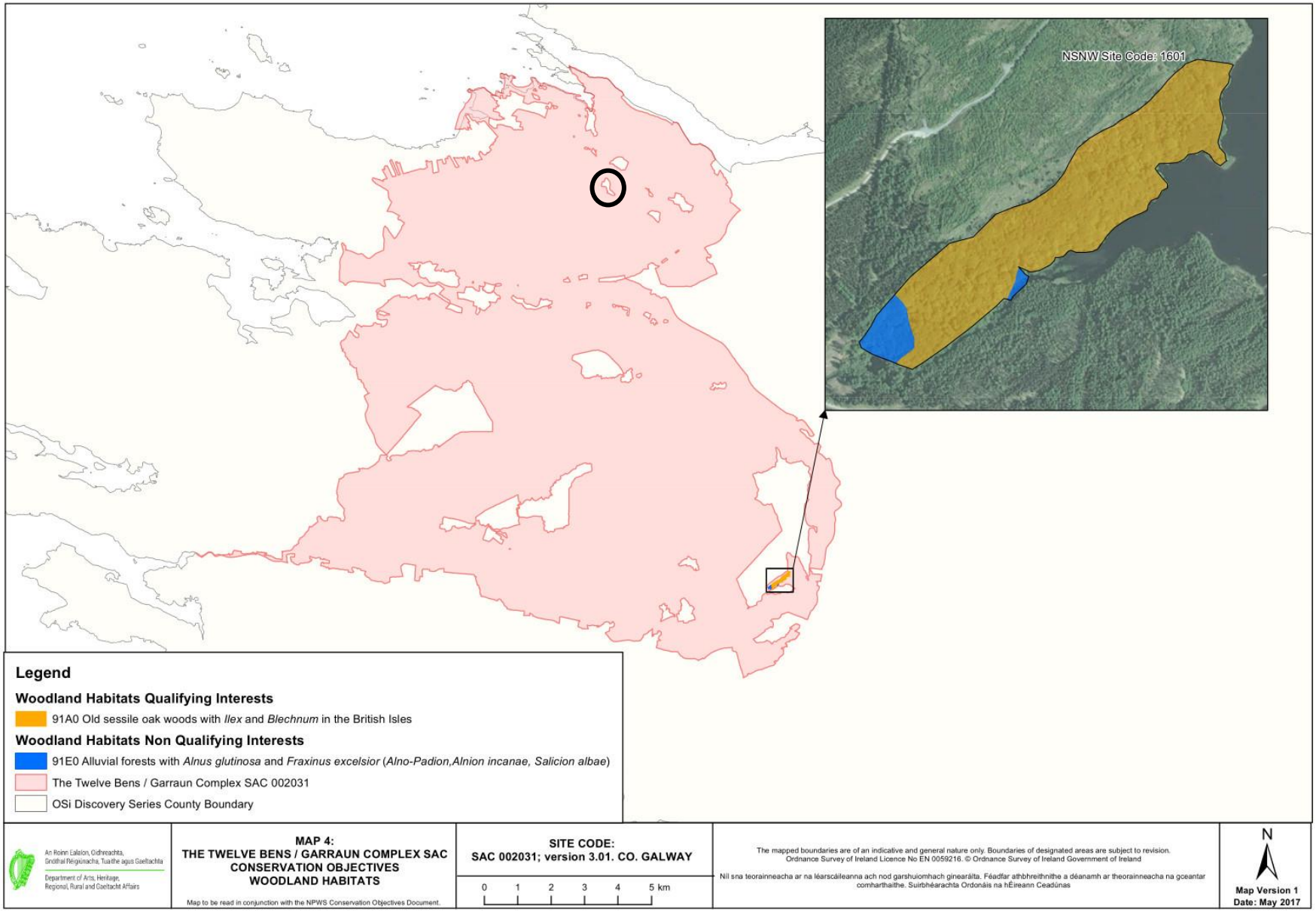


Figure 22. Twelve Bens/Garraun Complex SAC conservation objectives: Woodland habitats (approx. site area = black circle)

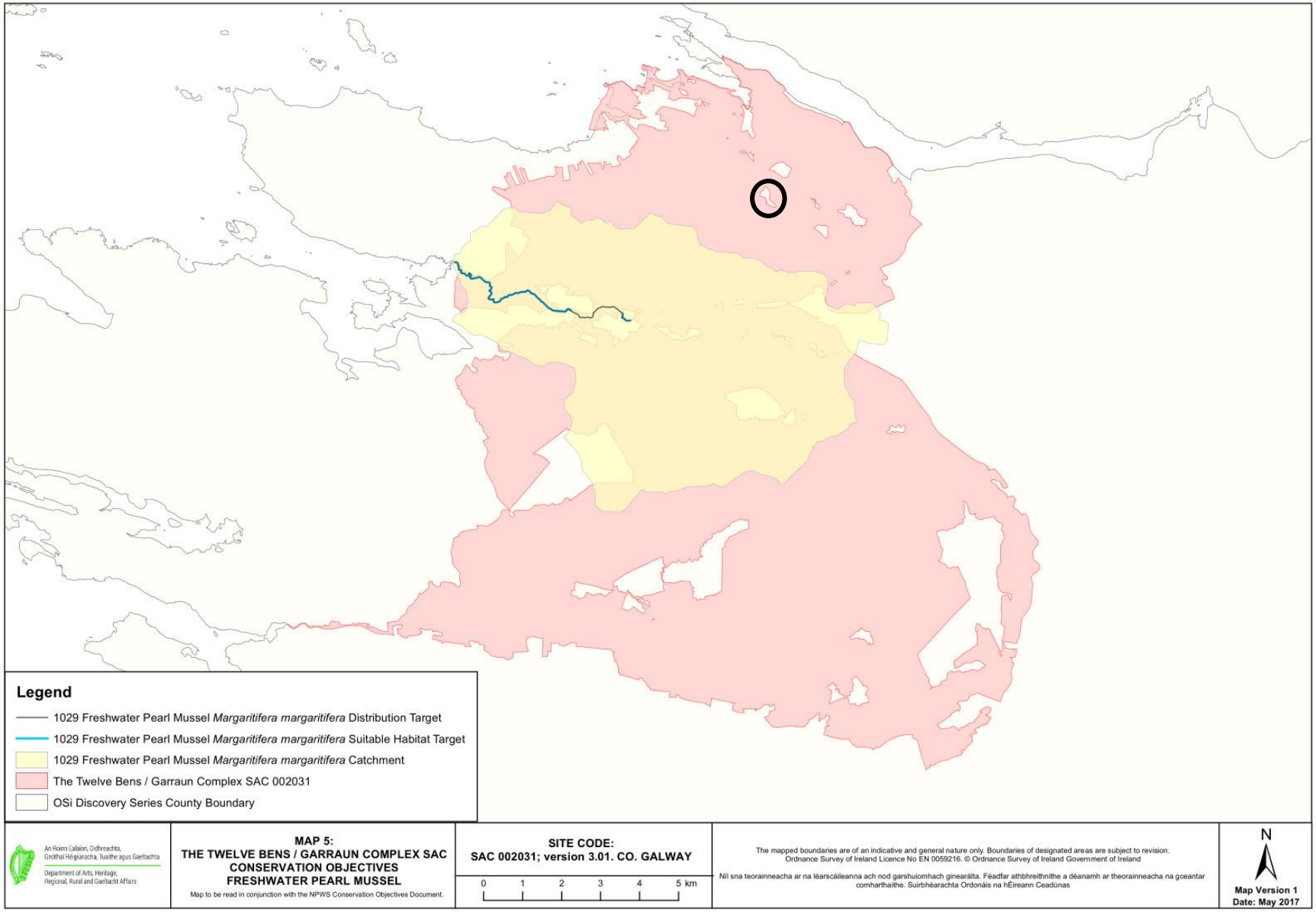


Figure 23. Twelve Bens/Garraun Complex SAC conservation objectives: Freshwater peal mussel (approx. site area = black circle)

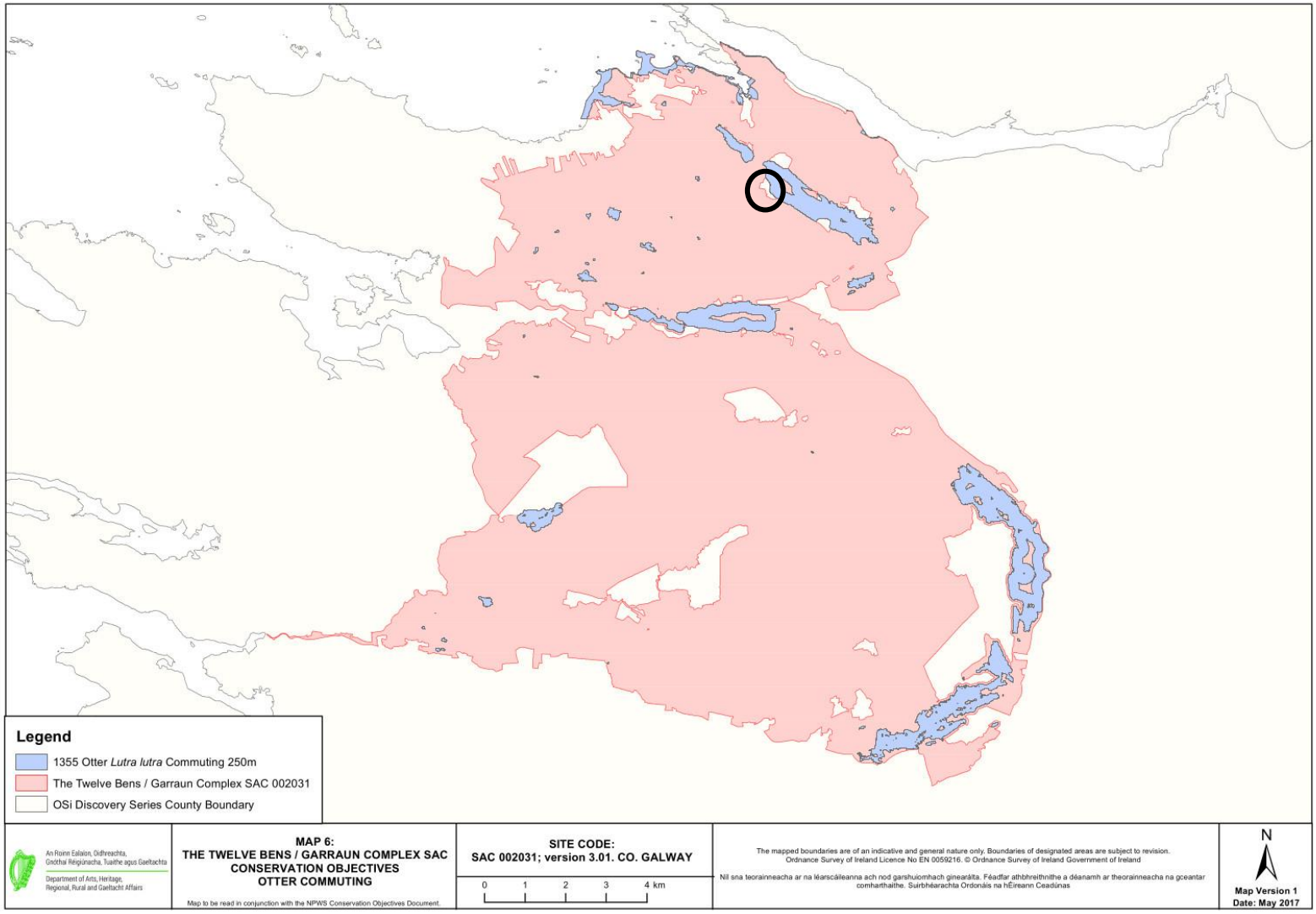


Figure 24. Twelve Bens/Garraun Complex SAC conservation objectives: Otter commuting (approx. site area = black circle)

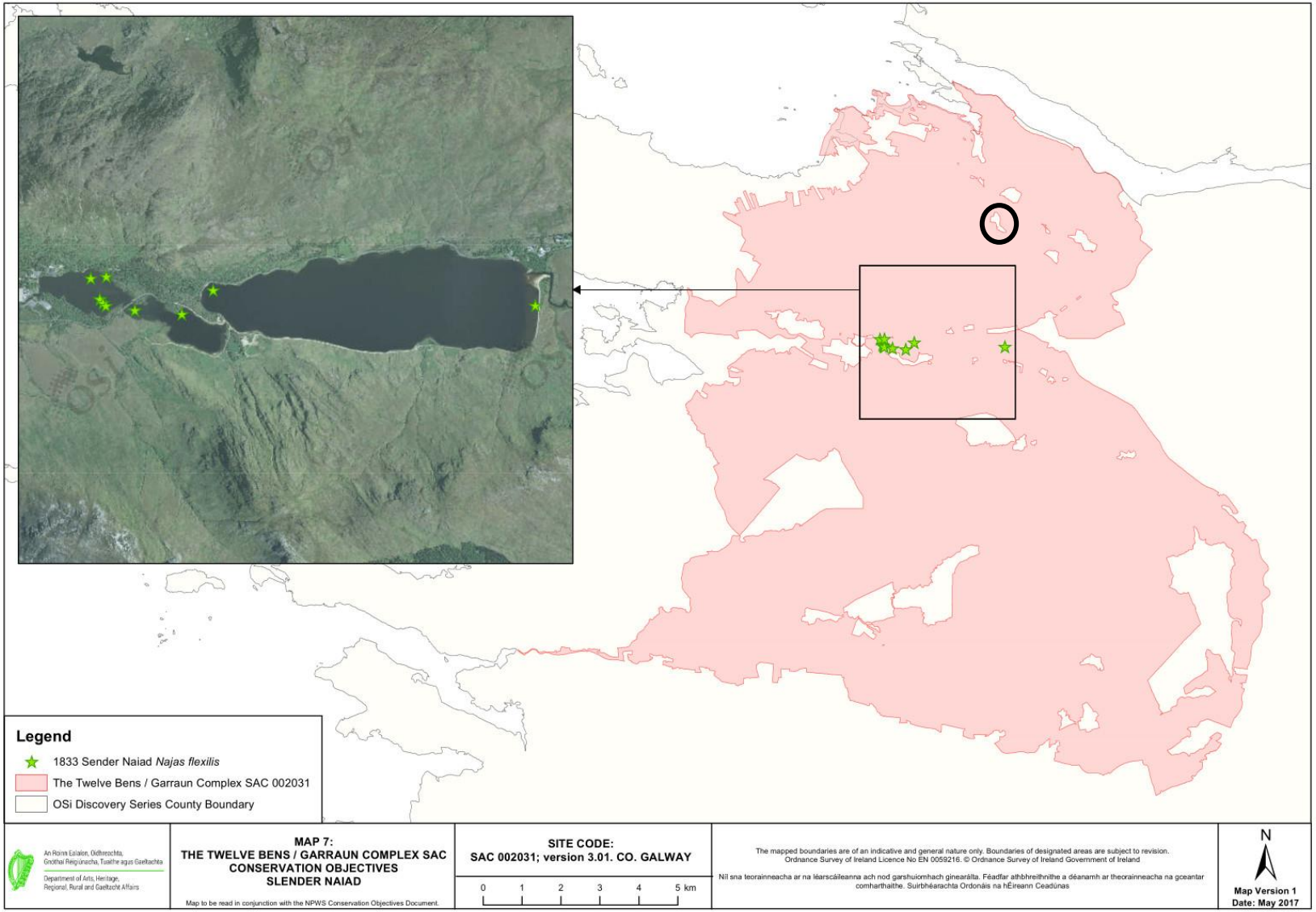


Figure 25. Twelve Bens/Garraun Complex SAC conservation objectives: Slender naiad (approx. site area = black circle)

Analysis of the Potential Impacts on the Twelve Bens/Garraun Complex SAC

The development works the subject of this application consist of:

1. Retention permission for works consisting of;
    i. Construction of a replacement access track and entrance; and
    ii. other development on site consisting of:
        (a) construction of 2 replacement agricultural structures; and
        (b) provision of new polycarbonate roof to the refurbished agricultural building
        (C) provision of all associated site development works and drainage

Construction Impacts

The Twelve Bens/Garraun Complex SAC is directly adjacent to and, in parts along the lough side access track, within the subject site. There is a direct hydrological and biodiversity connection between the subject site and this SAC via surface water drainage. Given the proximity of the site to this SAC and the direct hydrological connection to this SAC via surface water drainage (by means of direct proximity to this SAC and the northern watercourse), in the absence of control measures, it is considered that there was the potential for downstream impacts on this SAC during construction works associated with the access road. In the absence of construction control measures, there was the potential for hydrocarbons, sedimentation, and pollution runoff to enter the northern watercourse and this SAC and cause downstream impacts. Details on these potential impacts are outlined in Table 8. Compliance with Water Pollution Acts, retention of vegetative buffers between the works and the access track / SAC, and the implementation of standard construction control measures are seen as the primary method of ensuring no significant impact on designated conservation sites.

As seen in Figure 26 below, best practice measures (such as terram underlaid during access track works and the retention of the vegetative buffer along the watercourse) were in place during the construction of the access track. Construction control measures implemented during the construction phase of development are detailed in Table 9.

Operational Impacts

It has been concluded that significant effects on the Twelve Bens/Garraun Complex SAC are not occurring and are unlikely to occur because of the existence of the site in its current form. Construction works are complete, and no additional works are proposed onsite. The site is continuing to naturally regenerate to above baseline levels given the landowners rewilding programme (planting of 300 native trees) and the presence of the constructed wetland which facilitates the conservation of wetland-dependent wildlife. Following a site inspection, Altemar note that there is no evidence to suggest that silt or pollutants entered the SAC during the construction of the access track, either directly or via the stream which forms the northern border of the site. There was no alteration to QI species and habitats of the SAC during the works, which did not modify the SAC in any way. In the absence of remedial mitigation measures, no significant impacts on this SAC are presently occurring, or expected to occur, as a result of the existing arrangement onsite.

Figure 26. Access track works during the construction phase: terram underlaid and retention of vegetative buffer along the watercourse

Table 8. Potential for adverse effects on the qualifying interests and conservation objectives of European sites		
European Site & Site Code	Qualifying Interests	Potential for Adverse Effects
The Twelve Bens/Garraun Complex SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] Alpine and Boreal heaths [4060] Blanket bogs (* if active bog) [7130] Depressions on peat substrates of the Rhynchosporion [7150] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355] Najas flexilis (Slender Naiad) [1833]	In the absence of control measures, dust and contaminated ground / surface water runoff on site during construction of the access track had the potential to introduce silt or contaminated materials from site into the adjacent watercourse and ultimately discharge to this SAC. Further, the use of plant and machinery had the potential to introduce pollution on site or in the adjacent watercourse. Given the nature of the construction works, the outlined potential effects would have been localised in nature and restricted to the immediate vicinity of the site. However, without the implementation of best practice control measures, there was the potential for downstream effects if significant quantities of hydrocarbons, pollution, or silt were introduced into the watercourse leading to The Twelve Bens/Garraun Complex SAC. Out of an abundance of caution, given the nature of the potential effects outlined above, the construction of this development had the potential to impact on: 1) Typical species, Vegetation and composition: characteristic zonation, Lake substratum quality, Water quality transparency, Water quality: nutrients, Water quality: phytoplankton biomass, Water quality: phytoplankton composition, Water quality: attached algal biomass, Water quality: macrophyte status, Acidification status, Turbidity of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] (see Figure 21 for proximity of site to this habitat) 2) Fish biomass available of Otters [1355] (see Figure 24 for proximity of site to areas identified within this SAC for otters) The best practice control measures outlined in Table 9 were in place to ensure that no pollutants, hydrocarbons, or sediments entered the adjacent watercourse or The Twelve Bens/Garraun Complex SAC during the construction phase of the project. The implementation of the outlined best practice control measures (Table 9) is considered sufficient to have prevented any potential for adverse effects on the Qualifying Interests or conservation objectives of this SAC.

Table 9. Control Measures in place during construction

Sensitive Receptors	Potential Impacts on SPA & SAC	Control Measures Implemented to Prevent Impacts on The Twelve Bens/Garraun Complex SAC
Twelve Bens/Garraun Complex SAC	• Habitat degradation • Dust deposition • Pollution • Silt ingress from site runoff • Downstream impacts • Negative impacts on aquatic species and qualifying interests.	**As outlined in the CEMP prepared by Sean Harrington Architects for this project, the following best practice measures were in place during works previously undertaken onsite. These measures are deemed sufficient to ensure no adverse effects on the adjacent watercourse which discharges to Lough Fee and as such the Twelve Bens/Garraun Complex SAC.** **<u>Biodiversity</u>** • Minimise the area to be disturbed. • Retain an undisturbed margin along stream and the lough. • Topsoil and subsoil will not be mixed together. Where at all possible, soil excavation will be completed during dry periods. • Confine construction traffic to minimum area. • No concrete washings are to be disposed on site. • All vehicles and plant will be regularly inspected for fuel, oil and hydraulic fluid leaks. • Suitable equipment to deal with spills will be maintained on site. **<u>Land and Soils</u>** • Replace as much soil as possible. • Reduce sealing. • Minimise excavation and do so only in dry weather. • A silt curtain should in position to protect against any accidental runoff in heavy rainfall periods. • A spill kit with sand, earth or commercial products to deal with small spills should be at hand. • Staff will be trained on how to use spill kits correctly. • No chemicals are to be stored on site. Mobile plant will be refuelled off site. • Concrete washings are to be removed from the site. **<u>Water/Hydrology</u>** • Avoid excavation during rainfall periods. • Concrete truck washings must not be disposed of on site and should be removed. • No chemicals or fuel oil should be stored on site. • No liquid waste should be disposed of on site. • A geotextile silt curtain should be put in place to contain runoff during construction around all foundations works for the buildings and sheds. • Surface water will be disposed to soakaways that form part of the integrated constructed wetland treatment system.

Sensitive Receptors	Potential Impacts on SPA & SAC	Control Measures Implemented to Prevent Impacts on The Twelve Bens/Garraun Complex SAC
		• Ground water will be protected with the installation of an integrated constructed wetland treatment system as specified. **<u>Air</u>** • Vehicle speeds will be limited in the construction site. • Surrounding roads used by trucks to access to and egress from the site will be cleaned when dirtied. **<u>Landscape</u>** • Confine disturbance to a minimum. Retain landscape features (Stone walls) where possible. • Landscape with native flora when construction is complete. • Use existing soil only as it contains the seed to regenerate existing Biodiversity. • Maintain a natural boundary along the River Bank as a Nature corridor. **As detailed in the Works Methodology, the following construction phase controls were implemented during the construction of the access track onsite. These measures are deemed sufficient to ensure no adverse effects on the adjacent watercourse which discharges to Lough Fee and as such the Twelve Bens/Garraun Complex SAC.** <u>The works overseen;</u> (c) Construction of improvements access road running along the north side of the site from the existing east gate to the existing old lakeside road. Road to be approximately 80 m long, 3 m wide and constructed in accordance with Drg GW-03. Specifically; • Scrape off top soil/turf/grass from field (approx 100mm) and store on site. • Dig out soft boggy ground to a depth of 200mm at the top of the site, and 400mm at the bottom of the site and store on site. • Lay SR 21/804 inside geotextile membrane, which will “contain” the gravel, preventing spread into field either side. Minimum size 20mm. • Lay crushed stone base, filling any depressions and compress. (approx 150mm thick in total). • Crushed stone graded from 40mm to dust. Lay in this several layers and compact each. No wet materials, e.g. concrete, cement or tarmac were used. Works were supervised me, and took place in dry weather. Excavated topsoil and bog was temporarily stored (separately) on the adjacent field (in the ownership of the client) and then reused to form the raised banks and top surfaces of the integrated constructed wetland ponds.

Sensitive Receptors	Potential Impacts on SPA & SAC	Control Measures Implemented to Prevent Impacts on The Twelve Bens/Garraun Complex SAC
		Once excavations had concluded, the permeable geotextile membrane was laid, and delivery of crushed stone and gravel commenced. This was poured directly into the excavated depression, avoiding any large areas of on-site storage of stone and gravel. All the works to the track took place in dry conditions and there was therefore no runoff of rainwater in any direction. In its finished state, the track has been designed to be permeable to rainfall and ground water. There is little or no rainwater run off to the soft ground verges, instead rainfall seeps through the open gravel surface. (d) Relocation of the entrance gate at the east end of this modified access road and the construction of a parking area 15 m x 2.5 m by the entrance gate. Date of construction; 21.5.21 – 5.6.21. Weather conditions at the time of works; Dry and fine Measures to safeguard against fugitive surface water, or construction waters or construction materials including fuels from discharging the site either directly from the site into the lough or the surface water channel, were as per set out in the CEMP, attached, and the specification included for; The Contractor shall allow for taking all reasonable precautions to ensure the efficient protection of all streams and waterways against pollution arising out of or by reason of the execution of the works. I confirm there were no accidents effects occur during works that might have given rise to interaction with the lough. Materials used; • SR 21/804 inside geotextile membrane, • Top surface gravel, Minimum size 20mm. • Crushed stone base, graded from 40mm to dust. All materials sourced from reputable suppliers, by contractor Mark Walsh Plant Hire from Glassilaun, Renvyle, Co Galway. No wet materials, e.g. concrete, cement or tarmac were used.

Adverse Effects on the conservation objectives of European sites likely to occur from the project (post mitigation)

A robust series of best practice works measures were carried out. These were developed by a multidisciplinary project team. These would have ensured that ground and surface water from the site was clean and uncontaminated, that dust levels were controlled on site, and that operational measures were in place to prevent pollution.

As the outlined control measures (Table 9) were successfully carried out during the construction phase of development, no adverse effects on the Qualifying Interests or conservation objectives of The Twelve Bens/Garraun Complex SAC were likely as a result of the construction works. The construction best practice measures implemented during construction works satisfactorily addresses the potential impacts on The Twelve Bens/Garraun Complex SAC. No significant adverse impacts on the conservation objectives of European sites are likely to have occurred following the implementation of the control measures outlined above.

Retention and existence elements of the development will not result in an adverse effect on The Twelve Bens/Garraun Complex SAC in the absence of control measures. It has been concluded that significant effects on the Twelve Bens/Garraun Complex SAC are not occurring and are unlikely to occur because of the existence of the site in its current form. Construction works are complete, and no additional works are proposed onsite. The site is continuing to naturally regenerate to above baseline levels given the landowners rewilding programme (planting of 300 native trees) and the presence of the constructed wetland which facilitates the conservation of wetland-dependent wildlife. Following a site inspection, Altemar note that there is no evidence to suggest that silt or pollutants entered the SAC during the construction of the access track, either directly or via the stream which forms the northern border of the site. There was no alteration to QI species and habitats of the SAC during the works, which did not modify the SAC in any way. In the absence of remedial mitigation measures, no significant impacts on this SAC are presently occurring, or expected to occur, as a result of the existing arrangement onsite.

In-Combination Effects

It is a requirement of the Appropriate Assessment process to consider the 'in-combination effects of the proposed development with other plans and projects in the area.

Onsite Wetland

Planning permission was granted by Galway County Council in 2021 (ref. 21312) for the construction of a new septic tank and an integrated constructed wetland treatment (ICW) system and associated site works to be constructed in the field to the front of the dwelling. Vesi Environmental were appointed to carry out these works, which have been completed. All wastewater from the site drains into the constructed wetland ponds. To facilitate access for these works, repair works were proposed for the lough side track within the SAC. Notifiable action permission was not deemed necessary for these works by NPWS and works were carried out on the lough side track, overseen by a local consulting engineer. Following the implementation of best practice control measures outlined in Table 9, no downstream in-combination effects were likely. The access track was constructed onsite prior to the construction of the wetland. The best practice control measures implemented onsite were sufficient to prevent likely significant in-combination effects on The Twelve Bens/Garraun Complex SAC.

Planning Applications Proximate to the Site

The following is a list of planning applications as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal[4]:

Table 10. Approved planning applications in proximity to the site (Both across from the site on the opposite side of Lough Fee)

Ref. No.	Address	Proposal
21312	Lettergesh East ,Renvyle, Co. Galway.	for replacement of the existing effluent treatment system by the installation of a new septic tank and integrated constructed wetland treatment system and associated site works.
2460129	Letterettrin, Renvyle, Co. Galway, H91 FHH9	To construct: (1) Rear / Side Extension to Existing Dwelling, (2) Internal and External Alterations to Existing Dwelling, (3) New Vehicular Access Entrance and Parking Area, (4) Decommission Existing Septic Tank System, (5) Install a New Wastewater Treatment System and Polishing Filter Bed as well as all ancillary site services. This planning application is accompanied by a NIS. Gross floor space of proposed works: 50.39 sqm. Gross floor space of any demolition: 4.44 sqm
2361553	Bunowen , Leenane , Co. Galway	to construct: (1) front and rear extension to existing dwelling, (2) internal and external alterations to existing dwelling, (3) proposed new first floor above the existing ground floor, (4) change of roof design to the elevations of the existing dwelling house, (5) demolish existing shed and replace with a new domestic garage, (6) decommission existing septic tank system, (7) install a new wastewater treatment system and polishing filter bed as well as all ancillary site services. This planning application is accompanied by a NIS. Gross floor space of proposed works: 60 sqm (garage) & 98.07 sqm (extension). Gross floor space of any demolition: 13.73 sqm.

In relation to planning application 21312, the associated Planning Report noted the following in relation to Appropriate Assessment:

'The Planning Authority considered the nature and scale of the proposed development, The Planning Authority conclude that the proposed development, by itself or in combination with other development in the vicinity, would not have a likely significant effect on European sites, their qualifying interests or conservation objectives, directly, indirectly or n combination with other plans and projects in the vicinity of the site. Therefore, no further assessment is deemed required'.

[4] https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de

In relation to planning application **ref. 2460129**, a Natura Impact Statement was prepared by Claddagh Ecology to accompany this application. It concluded with the following:

'Upon examination of the potential effects of the proposed project on Natura 2000 sites and exploration of pathway receptor links pertaining to species and habitats, it can be concluded that, with proper construction practice and adherence to the mitigation measures recommended in this report, no significant negative effects on Natura 2000 sites will arise as a result of this project.

The site consists of habitats which are of relatively low ecological importance, including agricultural grassland (GA1) and a hedgerow (WL1) which largely consists of invasive Rhododenrdon.

No significant habitat for any Annex I or BoCCI red-listed bird species, occurs within the proposed development site and the development of the site will not interfere with the conservation status of any SCI of Illaunanoon SPA.

With good construction practice, in accordance with the design laid out in this application and mitigation measures described in this NIS and associated CEMP, no significant effects on biodiversity are anticipated at any geographical scale as a result of this development'.

In relation to planning application **ref. 2361553**, a Natura Impact Statement was prepared by Claddagh Ecology to accompany this application. It concluded with the following:

'Upon examination of the potential effects of the proposed project on Natura 2000 sites and exploration of pathway receptor links pertaining to species and habitats, it can be concluded that with good construction practice, in accordance with the design laid out in this application and mitigation measures described in this NIS and associated CEMP, no significant negative effects on Natura 2000 sites will arise as a result of this project. No significant effects on biodiversity are anticipated at any geographical scale as a result of this development.'

The above developments are located within the Twelve Bens/Garraun Complex SAC. They consisted of similar site works to those undertaken as part of this application. Significant effects on Natura 2000 sites were ruled out given the relatively low ecological value of habitats onsite, adherence to good construction practice mitigation measures, and the minor nature of works.

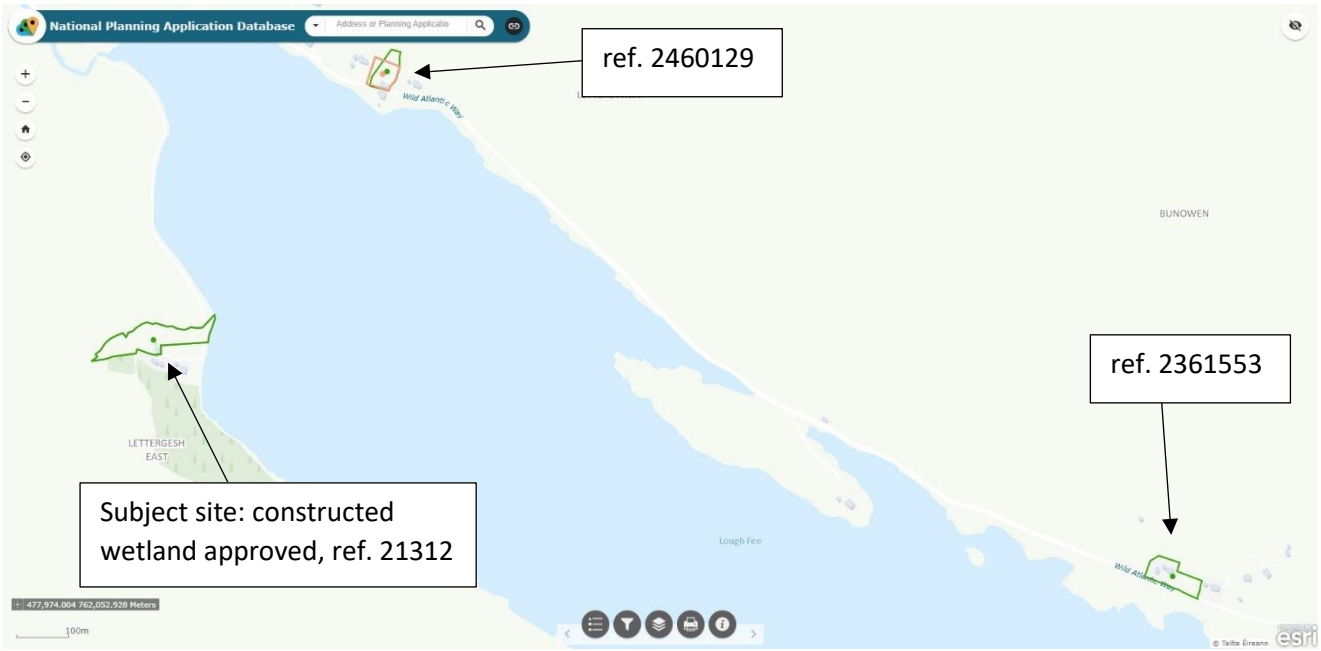


Figure 27. Approved planning applications in the vicinity of the subject site

Plans and Activities within the Wider Area

The following is a list of plans and activities within the area:

Table 11. Plans and activities relevant to the subject site

Address	Relevance/Description
Galway County Development plan 2022-2028	National Heritage/Biodiversity NHB1- Natural Heritage and Biodiversity of Designated Sites, Habitats and Species. Protect and where possible enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts) and extend to any additions or alterations to sites that may occur during the lifetime of this plan. Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 19762010 and the Flora Protection Order (SI 94 of 1999). Support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas, proposed Natural Heritage Areas, Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries (and other designated sites including any future designations) and the promotion of the development of a green/ ecological network. NHB2- European Sites and Appropriate Assessment. To implement Article 6 of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s). All assessments must be in compliance with the European Communities (Birds and Natural Habitats) Regulations 2011. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant. NHB 3 – Protection of European Sites. No plans, programmes, or projects etc. giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.* NHB4 - Ecological Appraisal of Biodiversity. Ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites. Where appropriate require an ecological appraisal, for development not directly connected with or necessary to the management of European Sites, or a proposed European Site and which are likely to have significant effects on that site either individually or cumulatively NHB5 - Ecological Connectivity and Corridors Support the protection and enhancement of biodiversity and ecological connectivity in non-designated sites, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife areas where these form part of the ecological network and/or may be considered as ecological corridors in the context of Article 10 of the Habitats Directive. NHB9 - Protection of Bats and Bats Habitats. Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stonewalls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Assessments shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area,

Address	Relevance/Description
	development will be prohibited or require mitigation and/or compensatory measures, as appropriate. The impact of lighting on bats and their roosts and the lighting up of objects of cultural heritage must be adequately assessed in relation to new developments and the upgrading of existing lighting systems. Water Objectives WR 1- Water Resources. Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans. WR 2 - River Basin Management Plans. It is a policy objective of the Planning Authority to implement the programme of measures developed by the River Basin District Projects under the Water Framework Directive in relation to: Surface and groundwater interaction, Dangerous substances, Hydro-morphology, Forestry, On site wastewater treatment systems, Municipal and industrial discharges, Urban pressures, Abstractions.
Housing	Galway county exhibits a dispersed housing pattern, many with their own individual sewage treatment and water abstraction. This has the potential to negatively impact water quality due to the accumulation of individual sewage treatment systems. Habitat fragmentation is also a potential impact.
Agriculture	Agricultural land uses in the area mainly consist of low-intensity grazing of sheep, and associated herbicide and pesticide use, as well as land fertilisation and drainage.

Conclusion

The proposed project has been assessed, both individually and in conjunction with the combining effects of other plans and projects in the area. There were no other plans or projects of significance proposed in proximity of this development. Given this, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. Following the implementation of best practice control measures outlined in Table 9, no downstream in-combination effects were likely. The access track was constructed onsite prior to the construction of the wetland. The best practice control measures implemented onsite were sufficient to prevent likely significant in-combination effects on The Twelve Bens/Garraun Complex SAC.

Following the implementation of best practice control measures outlined in Table 9, no projects in the vicinity of the proposed development were seen to have a significant in combination effect on Natura 2000 sites.

Conclusion

In a strict application of the precautionary principle, it has been concluded that best practice control measures were required to prevent impacts on The Twelve Bens/Garraun Complex SAC. The Twelve Bens/Garraun Complex SAC is directly adjacent to and, in parts along the lough side access track, within the subject site. There is a direct hydrological and biodiversity connection between the subject site and this SAC via surface water drainage. Given the proximity of the site to this SAC and the direct hydrological connection to this SAC via surface water drainage (by means of direct proximity to this SAC and the northern watercourse), in the absence of control measures, it is considered that there was the potential for downstream impacts on this SAC during construction works associated with the access road. In the absence of construction control measures, there was the potential for hydrocarbons, sedimentation, and pollution runoff to enter the northern watercourse and this SAC and cause downstream impacts. For this reason, a rNIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, had previously or has the potential to adversely affect the integrity of the European Site. All other European sites were screened out at initial screening.

Best practice works measures were in place to ensure there were no significant impacts on surface and groundwater that leads to The Twelve Bens/Garraun Complex SAC. Compliance with Water Pollution Acts, retention of vegetative buffers between the works and the access track / SAC, and the implementation of standard construction control measures were implemented to ensure no significant impact on The Twelve Bens/Garraun Complex SAC. A project ecologist inspected the site post-works and determined that no significant effects have occurred, are occurring, or likely to occur as a result of the works undertaken. The implementation of best practice controls measures during the construction phase of development (Table 9) were sufficient to prevent adverse effects on the integrity of European sites.

Following the implementation of the best practice measures outlined, the construction of this development would not be deemed to have had a significant impact on the integrity of European sites. No significant impacts are likely on European sites, alone in combination with other plans and projects based on the best practice works measures and the works methodology statement as outlined in this report.

These reports present a remedial Appropriate Assessment Screening and rNIS for the proposed development. The rNIS outlines the information required for the competent authority to screen for appropriate assessment and to determine whether or not the proposed development, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, has previously or will adversely affect the integrity of the European site.

On the basis of the content of this report, the competent authority is enabled to conduct a remedial Appropriate Assessment and consider whether, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, has previously or will adversely affect the integrity of the European site.

No significant effects are likely on European sites, their features of interest or conservation objectives. The proposed project has not & will not will adversely affect the integrity of European sites.

References

1. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities March 2010.
2. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing NATURA 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EC; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC1028(02)&from=EN
6. 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 interest, compensatory measures, overall coherence, opinion of the commission; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
7. Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
8. The Status of EU Protected Habitats and Species in Ireland. www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf
9. NPWS (2017) Conservation Objectives: The Twelve Bens/Garraun Complex SAC 002031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
10. NPWS (2017) Conservation Objectives: Mweelrea/Sheeffry/Erriff Complex SAC 001932. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
11. NPWS (2017) Conservation Objectives: Maumturk Mountains SAC 002008. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
12. NPWS (2025) Conservation Objectives: West Connacht Coast SAC 002998. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
13. NPWS (2021) Conservation Objectives: Tully Lough SAC 002130. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
14. NPWS (2019) Conservation Objectives: Tully Mountain SAC 000330. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
15. NPWS (2021) Conservation Objectives: Rusheenduff Lough SAC 001311. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
16. NPWS (201) Conservation Objectives: Connemara Bog Complex SAC 002034. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
17. NPWS (2021) Conservation Objectives: Cross Lough (Killadoon) SAC 000484. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
18. NPWS (2017) Conservation Objectives: Lough Cahasy, Lough Baun and Roonah Lough SAC 001529. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
19. NPWS (2025) Conservation Objectives: Illaunnanoon SPA 004221. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
20. NPWS (2023) Conservation Objectives: Connemara Bog Complex SPA 004181. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
21. NPWS (2025) Conservation Objectives: Cross Lough (Killadoon) SPA 004212. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

Appendix I. NPWS Correspondence

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Sean Harrington,
Lugnaneach,
Lough Fee,
Salrock,
Lettergesh East,
Renvyle,
Co. Galway.

Date: 21/03/2024

NPWS Ref: CD 002031/01/2024/AOD
(Please quote the above reference in all relevant correspondence)

Decision on application for permission to repair existing stone bridge abutment at Lettergesh East, Renvyle, Co. Galway located at 53°35'22.6"N 9°50'23.9"W. The site is located within the The Twelve Bens/Garraun Complex SAC (Site Code: 002031) a site to which the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) apply.

Dear Mr. Harrington,

I refer to your application for repair an existing bridge abutment in the townland of Lettergesh East, Renvyle, Co. Galway within the The Twelve Bens/Garraun Complex SAC (Site Code: 002031).

In light of the proposed works outlined above, please be advised that the Minister has **granted consent** for this activity **subject to the following conditions:**

1. It is the responsibility of the applicant to ensure that any other necessary permits, licences or permissions from the appropriate authorities and/or landowners are in place before undertaking the works.

2. Works are restricted to the area highlighted in red on the attached aerial photograph.

3. Works are restricted to those described in the e-mail correspondence From Sean Harrington to Dermot Breen, Conservation Ranger, National Parks & Wildlife Service dated 6th March 2024 and listed as 'Option 1' in said correspondence.

4. All waste material generated by the works to be removed from the designated site upon completion of works.

5. No materials used in the repair work e.g. semi-dry cement/sand mortar/grout/silt/hydrocarbons etc. to enter the watercourse with best practice for protection of waterways to be adhered to.

6. Works are not to commence without Dermot Breen, local Conservation Ranger or Aonghus O'Donaill, District Conservation Officer, being notified in advance during normal working hours and consenting to works.

7. This permission is valid from date of issue until 31st December 2024.

Please see attached aerial photograph below denoting location of consent for the operation:

Right of Appeal

You may, not later than 28 days after the day on which the decision is given by the Minister to attach conditions to the consent decision (**not later than 17th April 2024**), serve notice of appeal in writing on the Minister against that decision. A notice of appeal must be accompanied by a declaration made by you stating that you have or are entitled to an interest in or over the land the subject matter of the appeal.

Please do not hesitate to contact me at 087 2582213/Aonghus.ODonaill@npws.gov.ie if you have any further queries in relation to the above.

Compensation

You may also apply for compensation in accordance with Regulation 41 of the European Communities (Birds and Natural Habitats) Regulations 2011. Please note that, in the circumstances set out in Regulation 41(6) of the European Communities (Birds and Natural) Habitats Regulations 2011, compensation is only payable in relation to works/activities that

had been carried out by you in the period of five years immediately preceding the decision to attach conditions to the consent decision. A claim for compensation must be made in writing not later than 6 months from the date of issue of the decision by the Minister to attach conditions to the consent decision (**not later than 21st September 2024**).

In the event that you serve notice of appeal on the Minister against a decision to refuse consent you may apply for compensation not later than six months from the date of the decision on your appeal.

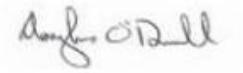
Please note that the serving of a notice of appeal or a claim for compensation made after the statutory timeframes referenced above cannot be accepted.

The serving of a notice of appeal or any claim for compensation must be submitted **in writing** to me by post or email. Verbal requests will not constitute registration of your appeal or claim.

Please do not hesitate to contact me at the details below if you have any further queries.

Yours sincerely,

Aonghus O'Donaill,
District Conservation Officer,
National Parks & Wildlife Service,
Connemara District.
C/O Connemara National Park,
Letterfrack,
Co. Galway.
H91K2Y1
087 2582213
Aonghus.ODonaill@npws.gov.ie



Ground Works Methodology Statement at Lug na Neach

For Sean Harrington

Methodology Statement

Description: Site Ground Works

The works overseen;

(e) Construction of improvements access road running along the north side of the site from the existing east gate to the existing old lakeside road. Road to be approximately 80 m long, 3 m wide and constructed in accordance with Drg GW-03.

Specifically;

- Scrape off top soil/turf/grass from field (approx 100mm) and store on site.
- Dig out soft boggy ground to a depth of 200mm at the top of the site, and 400mm at the bottom of the site and store on site.
- Lay SR 21/804 inside geotextile membrane, which will "contain" the gravel, preventing spread into field either side. Minimum size 20mm.
- Lay crushed stone base, filling any depressions and compress. (approx 150mm thick in total).
- Crushed stone graded from 40mm to dust. Lay in this several layers and compact each.

No wet materials, e.g. concrete, cement or tarmac were used. Works were supervised me, and took place in dry weather.

Excavated topsoil and bog was temporarily stored (separately) on the adjacent field (in the ownership of the client) and then reused to form the raised banks and top surfaces of the integrated constructed wetland ponds.

Once excavations had concluded, the permeable geotextile membrane was laid, and delivery of crushed stone and gravel commenced. This was poured directly into the excavated depression, avoiding any large areas of on-site storage of stone and gravel.

All the works to the track took place in dry conditions and there was therefore no runoff of rainwater in any direction.

In its finished state, the track has been designed to be permeable to rainfall and ground water. There is little or no rainwater run off to the soft ground verges, instead rainfall seeps through the open gravel surface.

(f) Relocation of the entrance gate at the east end of this modified access road and the construction of a parking area 15 m x 2.5 m by the entrance gate.

Date of construction; 21.5.21 – 5.6.21.

Weather conditions at the time of works; Dry and fine

Measures to safeguard against fugitive surface water, or construction waters or construction materials including fuels from discharging the site either directly from the site into the lough or the surface water channel, were as per set out in the CEMP, attached, and the specification included for;

The Contractor shall allow for taking all reasonable precautions to ensure the efficient protection of all streams and waterways against pollution arising out of or by reason of the execution of the works.

I confirm there were no accidents effects occur during works that might have given rise to interaction with the lough.

Materials used;

- SR 21/804 inside geotextile membrane,
- Top surface gravel, Minimum size 20mm.
- Crushed stone base, graded from 40mm to dust.

All materials sourced from reputable suppliers, by contractor Mark Walsh Plant Hire from Glassilaun, Renvyle, Co Galway.

No wet materials, e.g. concrete, cement or tarmac were used.

Alan Kay

29.07. 2025

ASK Solutions

Lettergesh East

Renvyle

Co. Galway

H91 K5RT