Rialtas na hÉireann
Government of Ireland

Screening for Appropriate Assessment

Adoption of necessary conservation measures within Tullaher Lough & Bog Special Area of Conservation in accordance with Regulation 42A EC (Birds and Natural) Habitats Regulations 2011-2021

Prepared by the Department of Housing, Local Government and Heritage
npws.ie

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1. Introduction

This determination on Screening for Appropriate Assessment (AA) has been made by the Ecological Assessment Unit (EAU) of the Department of Housing, Local Government and Heritage (DHLGH) in accordance with Regulation 42A(8) of the European Communities (Birds and Natural Habitats) Regulations 2011-2021 ('the 2011 Regulations").[1]

On the 2nd December 2024, in accordance with the requirements of Regulation 42A(3) of the 2011-2021 Regulations, the Minister for Housing, Local Government and Heritage ('the Minister') furnished the EAU with a request for a Screening for Appropriate Assessment (AA) determination for proposed targeted treatment of Invasive Alien Species (IAS) species within Tullaher Lough & Bog Special Area of Conservation (SAC) [Site Code: 002343]. Hereafter referred to as "the project".

The EAU have evaluated and analysed the information contained in the referred to above documents and location maps provided and carried out a determination. The purpose of this document is to provide a record and an audit trail of the EAU reasoned thinking in view of best scientific knowledge and the Conservation Objectives of European Sites.

[1] As inserted by Regulation 7 of the European Union (Birds and Natural Habitats) (Amendment).

2. Background

Pursuant to Regulation 42A(1) of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477 of 2011), a Screening for AA is required to be carried out on the project. AA is a process required under Article 6(3) of the EU Habitats Directive. Article 6(3) is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended, and by Part XAB of the Planning and Development Act, 2000, as amended.

All plans and projects which are not directly connected with or necessary to the management of a European Site, but which either individually or in combination with other plans or projects, are likely to have a significant effect on a “European Site”, require that an AA of these effects to determine if they will adversely affect the integrity of these sites. The proposed conservation measures are considered to fall under the requirements of AA as applied to all plans and projects.

The Screening for AA process scrutinises the plan or project to determine if there is potential for likely significant effects either individually or in combination with other plans or projects, on a European Site. European Sites are part of the Natura 2000 network and include those designated as Special Areas of Conservation (SAC), Candidate SACs (cSACs) or Special Protection Areas (SPA). This Screening for Appropriate Assessment describes the outcome of this analysis in respect of the project.

3. Legislation and Guidance

This section provides details on the adopted methodology with sources of guidance and information gathered to inform the preparation of the report.

3.1. Guidance and Data Sources

- Communication from the Commission on the precautionary principle. European Commission (2000);
- European Commission. (2001) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- European Commission. (2007) Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC;
- Department of Environment, Heritage and Local Government. (2010) Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities;
- Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10;
- European Commission. (2018) Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC;
- Office of the Planning Regulator. (2021) Practice Note PN01 - AA Screening for Development Management; and,
- Official Journal of the European Union. (2021) Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (Volume 64; 2021/C 437/01).

3.2. Assessment Methodology

This report is based on review of desktop data. Sources of information utilised for this report and accessed during March 2024 include the following:

- National Parks & Wildlife Service (NPWS) Designations Viewer[2]; and,
- National Biodiversity Data Centre (NBDC) Maps[3].

3.3. Legislative Background

According to the EU Habitats Directive (92/43/EEC) and the EU Birds Directive (79/409/EEC), Member States are required to establish a Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU.

In Ireland, the Natura 2000 network of European sites comprises SACs, candidate SACs and SPAs.

SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and all migratory birds and their habitats. The Annex habitats and species, for which each site is selected, are the Qualifying Interests (QI) for SACs and Special Conservation Interests (SCI) for SPAs of each site. Conservation Objectives for the site are defined for these QI or SCI.

A key requirement of the Habitats Directive is that the effects of any plan or project, which is not directly connected with or necessary to the management of a European Site, but which alone, or in combination with, other plans or projects, are likely to have a significant effect on a European Site, should be assessed before any decision is made to allow that plan or project to proceed. The obligation to undertake a screening for AA, and if necessary, an AA, derives from Article 6(3) of the Habitats Directive and both involve a number of steps and tests that need to be applied in sequential order.

Article 6(3) is concerned with the strict protection of sites, while Article 6(4) is the procedure for allowing derogation from this strict protection in certain restricted circumstances.

[2] National Parks & Wildlife Service Designation Viewer. Accessed at ArcGIS Web Application 01/03/2024

[3] National Biodiversity Data Centre Maps. Accessed at Maps - Biodiversity Maps (biodiversityireland.ie) 01/03/2024

Article 6(3) of the Habitats Directive states:

> "Any plan or project not directly connected with, or necessary to, the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only 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".

Article 6(4) states:

> "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.
>
> Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

The competent authority is required to carry out a screening for AA, and if necessary, an AA as required by Article 6(3) of the Habitats Directive. If the competent authority determines that the plan or project will adversely affect the integrity of a European site, it may only authorise that plan or project by following the Article 6(4) procedure.

The Article 6(3) and 6(4) procedures are outlined as follows:

Stage 1 - Screening for Appropriate Assessment – to assess, in view of best scientific knowledge, if the project or plan, individually or in combination with another plan or project is likely to have a significant effect on the Natura 2000 site.

Stage 2 - Appropriate Assessment – This is required if it cannot be excluded, on the basis of objective information, that the project or plan, individually or in combination with other plans or projects, will have a significant effect on a Natura 2000 site. The AA must include a final determination by the competent authority as to whether or not a proposed project would adversely affect the integrity of a Natura 2000 site. In order to reach a final determination, the competent authority must undertake examination, analysis and evaluation, followed by findings, conclusions and a final determination. The appropriate assessment must contain complete, precise and definitive findings and conclusions, and may not have lacunae or gaps.

Stage 3 – Assessment of alternative solutions - the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage 4 - Assessment where no alternative solutions exist and where adverse impacts remain - an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

Under Regulation 42A(1) of the European Communities (Birds and Natural Habitats) Regulations, 2011-2021 (S.I. 293 of 2021), the Ecological Assessment Unit is the competent authority in relation to screening for AA of projects and plans (such as the proposed conservation measures) which the Minister proposes to undertake or adopt.

4. Overview of the Project

Tullagher Lough and Bog SAC is located 4km south-east of Doonbeg in the townlands of Carrowmore South, Carrowblough Beg and Tullaher in Co. Clare (Figure 1). This is a diverse site comprising of raised bog (including areas of high bog and cutover bog), wet grassland, improved grassland, scrub woodland, alkaline fen and lake.

Tullaher Lough and Bog SAC is a site of considerable conservation significance as it comprises a diverse site with lake, transition mire and raised bog habitats. The site contains one of the few remaining examples of raised bog in Co. Clare and represents the western extreme of the range of raised bogs in Ireland. Raised bog is a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total E.U. resource of raised bog (over 60%) and so has a special responsibility for its conservation at an international level. The presence of a good example of transition mire is also of particular significance. Its value as a wintering ground for Greenland White-fronted Goose is also noteworthy.

The aim of this project is to treat the IAS which were identified in a previous survey report of the SAC. Species to be treated include; Japanese knotweed (*Reynoutria japonica*), Montbretia (*Crocosmia x crocosmiifora*), Sitka Spruce (*Picea sitchensis*), New Zealand Flax (*Phormium tenax*), Rugosa Rose (*Rosa rugosa*), Cherry Laurel (*Prunus laurocerasus*), and Cabbage Palm (*Cordyline australis*).

4.1. Purpose

The importance of the threat of invasive alien species is reflected in a suite of international, European and national policy and legislation.

Habitats Directive (Article 6.2) obliges Member States to take appropriate steps to avoid the deterioration of natural habitats and the significant disturbance of the species for which a site has been designated. In this context 'taking appropriate steps' means for the Minister to adopt the necessary legal and/or contractual measures to make sure that the deterioration of the natural habitats for which the Twelve Bens/Garraun Complex Special Area of Conservation has been designated is avoided.

In September 2011, comprehensive regulations which address deficiencies in Irish law implementing the EU Birds and Habitats Directives were signed into law. The European Communities (Birds and Natural Habitats) Regulations 2011 contain important new provisions to address the problem of invasive species. A black list of unwanted species is set out in the Regulations. It will be an offence without a licence, to release or allow to disperse or escape, to breed, propagate, import, transport, sell or advertise such species.

Two regulations that deal specifically with these scheduled lists of species are:

Regulation 49: Prohibition on introduction and dispersal of certain species.

The Conference of the Parties to the Convention on Biological Diversity (CBD) at their tenth meeting set out a Strategic Plan for Biodiversity with 20 headline targets for 2020 organized under five strategic goals. The mission of the Strategic Plan is to —take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services.

Target 9 states: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

On September 29th, 2014, the European Council adopted a Regulation on the prevention and management of the introduction and spread of invasive alien species [1143/2014]. The Regulation, that is a binding legal tool for all Member States, entered into force January 1st 2015. The Regulation lays down rules to prevent, minimise and mitigate the adverse impacts of the introduction and spread, both intentional and unintentional, of invasive alien species on biodiversity and the related ecosystem services, as well as other adverse impact on human health or the economy.

On 25th January 2024, Ireland's 4th National Biodiversity Action Plan (NBAP), for the period 2023-2030 was launched with 5 objectives. The plan aims to deliver the transformative changes required to the ways in which we value and protect nature. The 4th NBAP has been developed with the support, advice and input of the interdepartmental Biodiversity Working Group and the independent Biodiversity Forum. Objective 2 focuses on invasive species management.

Action 1D5 states that NPWS will continue to support Local Authorities biodiversity projects through the LBAF, which includes action on invasive alien species, throughout the lifetime of this Plan.

Outcome 2H includes actions related to Invasive alien species (IAS) are controlled and managed on an all-island basis to reduce the harmful impact they have on biodiversity and measures are undertaken to tackle the introduction and spread of new IAS to the environment.

4.2. Project Description

Herbicide treatment using glyphosate (as Round-up Biactive) has been successfully used by to control Japanese Knotweed and other plant species. This herbicide can be used as a foliar application, through stem injection or as stump cut application where the stems are cut and the herbicide is directly applied immediately after cutting. Treatment can be carried out between May and October.

For best results, it is recommended that foliar treatment is conducted in July, with follow-up treatment in September (application rate of 5 litres per hectare). For stem injection, treatment is most effective when applied to flowering stems (late summer to October). For stump cut application, treatment is most effective in September / October before senescence occurs.

Stem injection and stump cut application can be used to treat individual plants when they are interspersed among native vegetation, thus avoiding non-target impacts.

For stem injection (Japanese Knotweed), glyphosate should be injected into the cane between the 1st and 2nd node above the stem base. For stump cut application, individual stems should be cut 20 cm above their base and 4 cm above a node, and the cut surface should be hollowed out to create a well. The herbicide can then be applied within 15 minutes of cutting with a pipette. For both treatments, a 10 ml dose per stem is recommended (made up of 5 parts water and 1-part glyphosate).

- Contractor Materials: Storage of materials and refilling of equipment for invasive species clearance will be off site and in a secure location. All materials used for treatment will be removed from the areas on completion of works.
- Retreatment and Regrowth: While it may take as long as up to 7 months for the herbicide to take full effect and for the plants to fully die, the treated areas will be inspected by NPWS staff and trained personnel to ensure correct methodologies are being applied by visual inspection of treated plants.
    - Where following visual inspection it is deemed that the plants in the area have not all been eradicated these will be effectively retreated within six months.
    - All cleared sites in an area where seed input is ongoing will require ongoing management so that re-infestation from seed is not allowed to succeed.
    - The project must regularly and systematically follow-up as required to deal with re-growth and seedling germination within the defined management areas.
    - As long as an external seed source remains, repeated systematic sweeps through the site will be required, to prevent newly established plants from reaching flowering age and setting seed.

The Project Manager will liaise with Regional NPWS staff to ensure that surveys and up to date field data informs the roll out of the control project. Elements of the project are required to take place during the bird nesting season (1st March- 31st August

inclusive). There is provision for, notwithstanding anything contained in Section 40 of the Wildlife Act 1976-2023 (prohibits the cutting, grubbing, burning or other destruction of vegetation growing on “any land not then cultivated” between 1st March and 31st August annually), the authorisation for the destruction of vegetation comprising the species of flora that the Minister considers poses a threat to the objectives of the Birds Directive or the Habitats Directive under Regulation 49(13) of the European Communities (Birds and Natural Habitats) 2011 - 2021. The Project Manager and/or a NPWS Authorised Officer will ensure this work is undertaken under licence and that the project can progress (access, route and egress) in compliance with Section 22 and Section 23 of those Acts prior to works (where applicable).

The Project Manager will ensure best practice guidance on correct invasive and non-native species control procedures are adhered to. Work will be reviewed by the Project Manager and/or a NPWS Authorised Officer at regular intervals to ensure that correct procedures are being followed.

5. Part 1: Necessary conservation measures

Answer these questions if the activity is “directly connected with or necessary to the management of the site”. Otherwise go to Part 2.

a). List the European site(s) and the relevant Conservation Objectives (include version number of the Conservation Objective).

Tullaher Lough and Bog SAC [Site code: 002343].

NPWS (2017) Conservation Objectives: Tullaher Lough and Bog SAC 002343. Version 1. Accessed 1st March 2024.

Available at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002343.pdf

Qualifying Interests

Active raised bog* [7110]

Degraded raised bogs still capable of natural regeneration [7120]

Transition mires and quaking bogs [7140]

Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives for Qualifying Interests.

Active raised bogs [7110]

To restore the favourable conservation condition of Active raised bogs in Tullaher Lough and Bog SAC, which is defined by the following list of attributes:

- Habitat area.
- Habitat distribution.
- High bog area.
- Hydrological regime: water levels.
- Hydrological regime: flow patterns.
- Transitional areas between high bog and adjacent mineral soils (including cutover areas).
- Vegetation quality: central ecotope, active flush, soaks, bog woodland.
- Vegetation quality: microtopographical features.

- Vegetation quality: bog moss (*Sphagnum*) species.
- Typical ARB species: flora.
- Typical ARB species: fauna.
- Elements of local distinctiveness.
- Negative physical indicators.
- Vegetation composition: native negative indicator species.
- Vegetation composition: non-native invasive species.
- Air quality: nitrogen deposition.
- Water quality.

Degraded raised bogs still capable of natural regeneration [7120]

The long-term aim for Degraded raised bogs still capable of natural regeneration is that its peat-forming capability is re-established; therefore, the conservation objective for this habitat is inherently linked to that of Active raised bogs (7110) and a separate conservation objective has not been set in Tullaher Lough and Bog SAC.

Transition mires and quaking bogs [7140]

To maintain the favourable conservation condition of Transition mires and quaking bogs in Tullaher Lough and Bog SAC, which is defined by the following list of attributes:

- Habitat area.
- Habitat distribution.
- Hydrological regime: water levels.
- Hydrological regime: flow patterns.
- Vegetation quality: plant community diversity.
- Vegetation quality: microtopographical features.
- Vegetation quality: bog moss and other moss species.
- Vegetation composition: typical species.

- Elements of local distinctiveness.
- Negative physical indicators.
- Vegetation composition: native negative indicator species.
- Vegetation composition: non-native invasive species.
- Air quality: nitrogen deposition.
- Water quality.

Depressions on peat substrates of the Rhynchosporion [7150]

Depressions on peat substrates of the Rhynchosporion is an integral part of good quality Active raised bogs (7110) and thus a separate conservation objective has not been set for the habitat in Tullaher Lough and Bog SAC.

b). State how this activity furthers the Conservation Objective(s)

Under Article 6 of the EU Habitats Directive, DHLGH is required to ensure the favourable conservation status of all Annex I habitats and Annex II species within SACs. The Conservation Objectives seek to maintain protected SAC feature(s) where evidence exists that it is in favourable condition in the site, or where there is uncertainty concerning the assessed condition of a feature but no reason to suspect deterioration in condition since designation.

The conservation condition of Active raised bog is considered as in an unfavourable condition in the Tullaher Lough and Bog SAC and therefore the Conservation Objectives seek to restore this condition. The measures proposed have all been trialled and shown to be practical and effective.

The implementation of the restoration measures within the site as outlined above will directly contribute to the Site Specific Conservation Objectives. Notably:

Active raised bogs [7110]

- **Vegetation composition: non-native invasive species.**

Transition mires and quaking bogs [7140]

- **Vegetation composition: non-native invasive species.**

The project will be beneficial to maintaining and working towards achieving favourable conservation condition of the Active raised bogs, Degraded raised bogs still capable of natural regeneration, Transition mires and quaking bogs, Depressions on peat substrates of the Rhynchosporion and the typical species of these protected habitat type.

c). Does this activity have the potential to impact negatively on any Conservation Objective (CO), Qualifying Interest (QI)/Special Conservation Interest (SCI) for this or any other European site?

A review of best available scientific information shows no evidence of any chemical legacy through the application of this method of IAS treatment in soils, suggesting that chemical impacts do not pose any indirect or legacy effects, or barriers to habitat recovery.

The effect on European Sites and their Qualifying Interests/Special Conservation Interests within a defined Zone of Influence of the project was assessed using expert opinion. No significant adverse impacts on the QI or SCI features of any other SAC or SPA are anticipated.

Yes ☐ No ☑

d). Are there aspects of this activity which are NOT directly connected with the management of the site?

Yes ☐ No ☑

If the answer to EITHER of the above questions is **Yes** a Screening for AA is required, go to Part 2.

If the answer to BOTH questions is **No** go to Part 5.

6. Part 2: Identification of European Sites within the Potential Zone of Influence of proposed activities

List all European sites which may be affected by this activity because they are linked by an ecological pathway. If the site has a second European designation (SAC, SPA) this also needs to be considered.

7. Part 3: Assess the likelihood of significant effects

Provide this information for **each site** listed in Part 2.

List the QI/SCIs for the site(s), their current conservation condition and the Site Specific Conservation Objectives (SSCO) for that QI/SCI. Then answer the questions about the impact on that QI/SCI.

Tick all the boxes below which may apply.

Your answer will determine if the activity is likely to have a (negative) effect on this QI/SCI. Negative effects may arise because of the activity's location within the site; its proximity to the QI/SCI or the size of the land take involved; the abstraction of water or minerals; emissions or waste arising; the types of transport or machinery being used; the length of time involved or seasonality of the work.

a). There is likely to be a reduction in the area of QI/SCI habitat ☐

b). The physical/chemical quality of the environment is likely to be changed in a way which may cause the deterioration of the QI/SCI habitat (e.g. applying lime to an acidic soil) ☐

c). The structure of the ecological community is likely to be altered (e.g. through altered species composition) in a way which will have negative impact on the QI/SCI. ☐

d). A QI/SCI species is likely to be disturbed (e.g. through noise, vibrations) ☐

e). The population size, characteristics or reproductive success of a QI/SCI species is likely to be changed either directly or indirectly (e.g. lighting close to a bat roost entrance) ☐

f). QI/SCI species or habitats are likely to be more vulnerable to change or less resilient to external change (e.g. to flooding, fire or drought) ☐

g). There are likely to be effects on other species /habitats (not a QI/SCI for this site) which are ecologically linked with this QI/SCI and, as a consequence, there are likely to be negative effects on this QI/SCI (e.g. the impacts on geese which are the SCI when their non-QI feeding areas are damaged). ☐

h). This activity will cause a deterioration in the conservation condition of this QI/SCI. ☐

i). There are likely to be other ecological effects not listed above which are likely to have a significant effect on the QI/SCI. ☐

Explain the effects:

_____

If you have ticked a box for any QI/SCI in any of the sites affected by this activity the likelihood of a significant effect cannot be ruled out and the activity MUST be screened IN for AA.

8. Part 4: In Combination Effects

Is this activity likely to cause negative effects in combination with any other plan or project?

(In answering this question you should consider any other consents which have been applied for or granted. For example, other ARCs, planning consents, forestry consents, or activities authorised as part of an agreed farm or land management plan. List the plans or projects considered).

_____

_____

No ☑ **Yes** ☐ **Uncertain** ☐

If the answer is Yes or Uncertain the activity MUST be screened IN for AA. Fill in Part 5 accordingly.

9. Part 5: Findings of the Screening for AA

Screening not carried out as the activity is “directly connected with or necessary to the management of the site”. ☑

Likely significant effects are expected or uncertain.

This activity Screens **IN** and AA **is** required. ☐

Likely significant effects are NOT expected.

This activity Screens **OUT** AA **is not** required. ☐

Signature: Ryan Wilson-Parr, Head of Ecological Assessment

Date: 17th April 2024.

10. Part 6: Conclusion

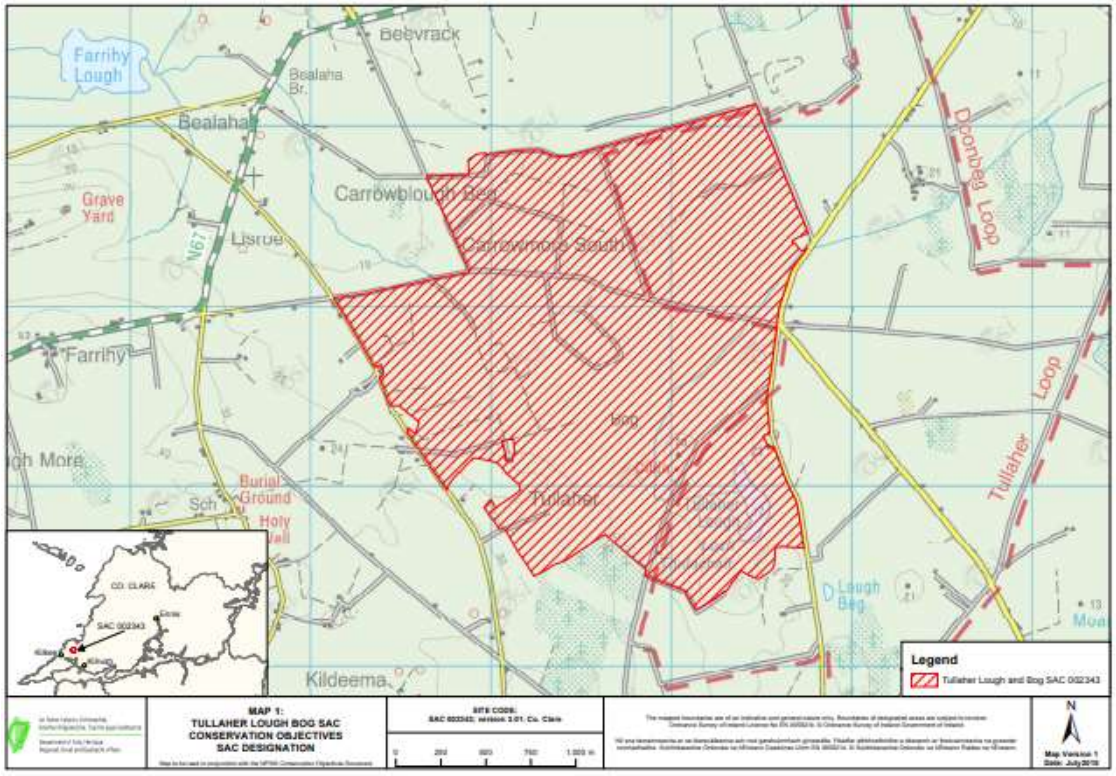
Following an analysis of the activity, the EAU determines[4], in accordance with Regulation 42A(8) of the 2011 Regulations, that the targeted treatment of Invasive Alien Species (IAS) within Tullaher Lough & Bog Special Area of Conservation is entirely comprised of activities that directly support the Conservation Objectives of this European site.

It can be concluded with certainty that the project is a necessary conservation measure that is directly connected with or necessary for the management of the site.

[4] Ryan Wilson-Parr (Head of Ecological Assessment, Department of Housing, Local Government and Heritage) 17th April 2024.

11. Supplementary Information

Figure 1. (below): Location of Tullaher Lough Bog SAC as per the NPWS (2016) Conservation Objectives: Tullaher Lough Bog SAC 002343. Version 1.



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