

Wild Western Peatlands

Pilot site: Derryclare, Co. Galway
Stakeholder Update

COILLTE
nature



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



REHABILITATING
ECOSYSTEM SERVICES

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Watch our short Wild Western Peatlands intro video

youtu.be/SIZJzM5kyQs

Find out more on our Wild Western Peatlands web page

www.coillte.ie/coillte-nature/ourprojects/wildwesternpeatlands

About Coillte Nature

Coillte Nature is the not-for-profit branch of Coillte. We are building on 30 years' experience in forestry, land management and habitat restoration to deliver real impact on the climate and biodiversity crises through innovative projects-of-scale across four strategic themes:



Rehabilitating ecosystem services by bringing sensitive or degraded lands into better health



Afforesting our landscapes by planting new native woodlands on un-forested land



Restoring important biodiversity areas by investing in major habitat improvements



Regenerating urban forests for the benefit of people and nature

Coillte Nature is underpinned by principles of partnership, integrity and accountability, informed by the best ecological evidence, and supported through collaboration and engagement with public, private, non-governmental and community partners.

Atlantic Blanket Bog: Water, Biodiversity and Carbon

Ireland possesses 8% of the world's blanket bog and is the most important country in Europe for this rare and unique habitat. Peatlands are valuable natural habitats and also provide a range of important ecosystem services.

Water

Atlantic blanket bog occurs in areas with high rainfall, and a healthy bog is a wet bog, often made up of over 90% water. These bogs act as vast water reservoirs and have a vital role to play in the management of water within river catchments.

Biodiversity

Blanket bog is an Annex 1 Habitat under the EU Habitats Directive and provides a habitat for protected species such as golden plover, Greenland white-fronted goose and the marsh fritillary butterfly as well as many other species of plants, insects, amphibians, birds and mammals.

Carbon

Peatlands sequester and store a significant amount of carbon. They are globally the most important long-term land-based carbon store, as they can sequester carbon from the atmosphere and store it for thousands of years. However, human activity has resulted in the majority of peatlands in Ireland changing from being carbon sinks to becoming greenhouse gas emitters. For a bog to absorb carbon from the atmosphere, it must have a high water table or, in simple terms, it must be kept wet.



ABOVE Blanket bog provides a habitat for the protected marsh fritillary butterfly. Photo: Michael Bell



ABOVE Sphagnum mosses are an essential component of the community of plants that make up healthy blanket bog habitats

The Wild Western Peatlands Project

“These areas were planted to create rural employment at a time when the importance of peatlands for carbon storage and biodiversity was not well understood.

The Wild Western Peatlands project will allow us to rehabilitate a rare habitat of international importance. Learnings from this project will help us to develop a range of solutions for rehabilitating other similar areas.”

DR CIARAN FALLON, DIRECTOR AT COILLTE NATURE



ABOVE The Common Hawker Dragonfly is found in blanket bog habitats. Photo: Michael Bell

The Wild Western Peatlands (WWP) project will restore and rehabilitate approximately 2,100 hectares of Atlantic blanket bog and wet heath that is currently planted with spruce and pine forests.

Coillte's new strategic vision for forestry will see the redesign of 30,000 hectares of peatland forests by 2050 through a programme of rewetting or rewilding. The WWP project is a publicly-funded project working to find solutions that will benefit climate, biodiversity, water quality and local communities.

The project is a pathfinder project which will allow us to develop technical, operational, regulatory, reporting and financing capacities for the restoration and rehabilitation of western peatland forests over the next 7-8 years. Derryclare in Co. Galway is the pilot site for the WWP project.

Pilot Site

Derryclare, Co. Galway

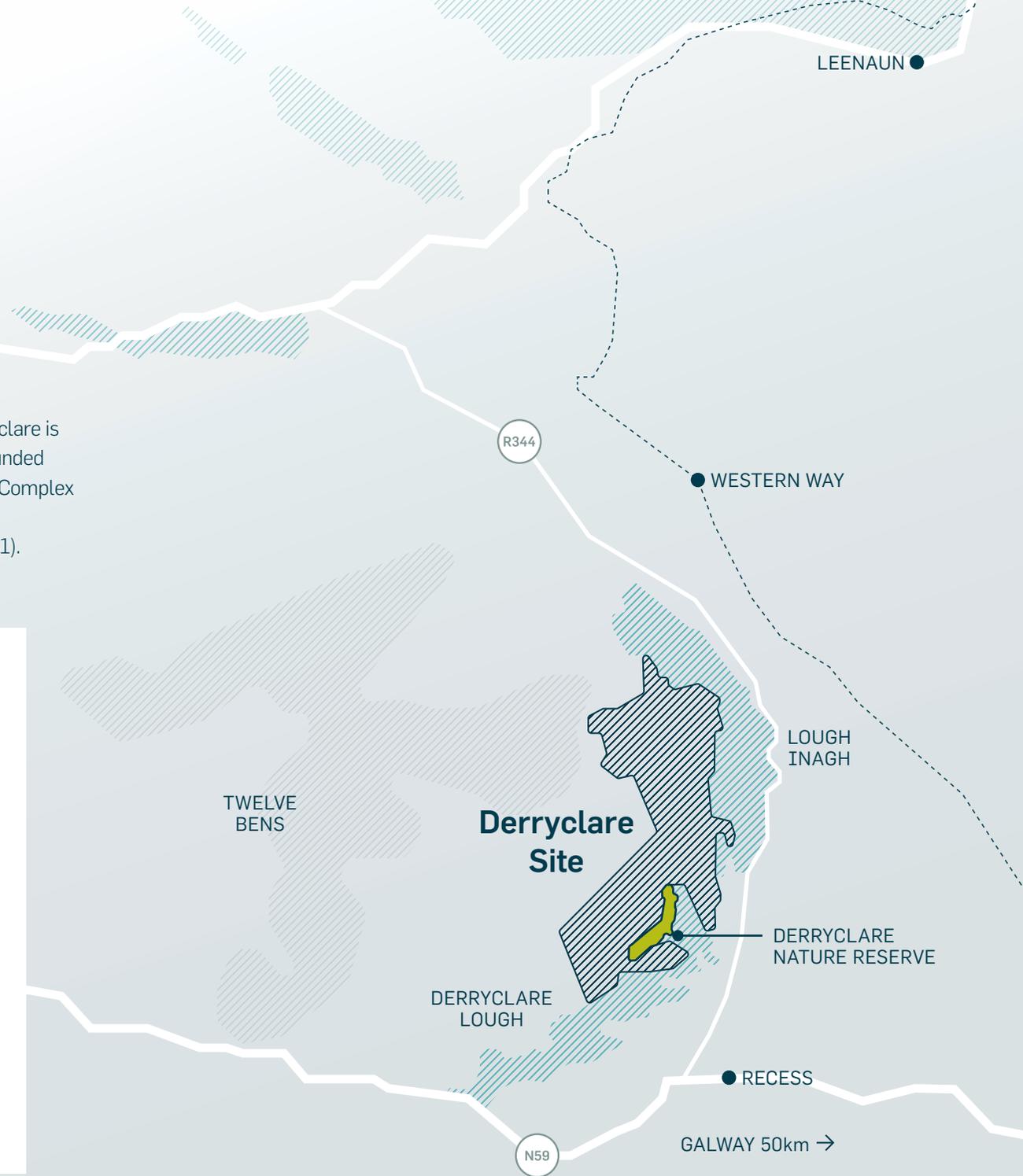
Area	Approx. 560 ha
Elevation	10–180m
Bedrock	Schist dominant, Quartzite at elevations

The Coillte property at Derryclare is undesignated but fully surrounded by the Twelve Bens/Garraun Complex Special Area of Conservation (Natura 2000 code: IE002031).

The Coillte property at Derryclare lies to the west of Lough Inagh and Derryclare Lough in Connemara, North of the Galway to Clifden road (N59). This area is a key tourist and angling destination and is close to the Wild Atlantic Way and the Western Way.

The forest is highly visible from the surrounding area, and when it was planted over 50 years ago there was little consideration given to landscape design. This iconic site contains areas of high biodiversity value and is in a highly sensitive water catchment, and therefore offers great potential for redesign and restoration.

To the south-east of the property lies an old oak-dominated woodland, designated in 1980 as Derryclare Nature Reserve and managed by the National Parks and Wildlife Service. It is one of the finest examples of semi-natural Atlantic oak woodlands in Ireland. The Reserve is enclosed to the east by the lake and the conifer plantations to the west, with no natural opportunity to extend its boundaries.



The Story So Far

1

In 2019 funding by the Department of Agriculture, Food and the Marine was announced for the restoration and redesign of approximately 2,100 hectares of Atlantic blanket bog and wet heath that is currently planted with spruce and pine forests.



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2

The Coillte Nature team took on management of the project and a pilot site was chosen for the project: Derryclare in Co. Galway.



3

Following ecological, hydrological and LIDAR surveys, a management plan for Derryclare was compiled which aims to maximise the biodiversity, climate and water benefits.



4

Engagement has been carried out with a range of stakeholders and incorporated in the development of the management plan.



5

A site shortlist was drawn up for the entire 2,100ha nationally and is close to being finalised, with survey work commencing on some of these sites in 2022.



6

The Coillte Nature team have carried out knowledge-sharing visits to bog restoration projects in Northern Ireland and Scotland.



7

Dr Dermot Tiernan has been recently appointed as Coillte Peatlands Manager and will oversee the WWP project as part of the wider Coillte Nature work programme.



8

Coillte Nature is engaging with the regulatory and licensing process.



Stakeholder Engagement

The success of this project relies on working with a range of interested parties.

An online stakeholder workshop was held in June 2021 with 40+ attendees, representing environmental NGOs, regulatory bodies, government agencies, community networks and local businesses, addressing key themes of:

- Community Engagement
- Learning, Collaboration and Solutions
- Challenges and Areas of Concern

Follow-on discussions on various aspects of management plan were carried out with a range of stakeholders and fed into the development of the management plan.

Stakeholders attended on-site engagements at Derryclare in June 2022 to discuss the proposed management plan. Coillte Nature will continue with ongoing stakeholder engagement for the various Wild Western Peatland project sites.



LEFT Stakeholder meeting at Derryclare, June 2022

STAKEHOLDER COMMENTS FROM INITIAL ONLINE ENGAGEMENT, JUNE 2021

A collection of nine teal speech bubbles arranged in a grid-like pattern. Each bubble contains a positive comment from stakeholders. The comments are: 'Fantastic', 'Welcome', 'Exciting', 'Innovative', 'Delighted', 'Necessary', 'Great to see', 'Excellent', and 'Very happy'.

'Take it slow and steady; this is a long game'

'The project offers social and capital opportunities'

'Is rewilding possible? Would it be acceptable?'

'Why not more than 2,100ha?'

'Great to see Derryclare included'

'Some areas are ticking timebombs'

The project would 'inform the process for other sites along the west'

'We will have to accept that sometimes things will go wrong'; 'adapt as you go'



Management Plan: Current and Target Habitats

A detailed management plan has been developed for the site using data collected during the ecological, hydrological and LIDAR surveys, as well as stakeholder feedback. The aim of this management plan is to maximise biodiversity, water and climate benefits.



ABOVE Sitka spruce on deep peat at the northern end of Derryclare.

The management plan aims to increase the blanket bog and wet heath habitats and to increase the amount of native woodland cover on the site.

Removing Conifers

The first priority is to remove areas of commercial pine and spruce trees which have reached maturity. The primary aim for these areas will be to restore the blanket bog and wet heath habitats. A draft felling schedule has been drawn up and careful planning will be carried out with the input of a harvesting contractor to ensure there is minimal impact on water quality and soils.

Restoring Blanket Bog

Bog restoration will largely be achieved by permanently raising the water table and creating the conditions for habitat restoration. This will be done by removing the trees, managing



ABOVE Flushed bog restoration site, Gowmoss, Scotland 18 months after 'forest to bog' restoration work.

the brash, slowing water flows and blocking drains, as well as using ground-smoothing techniques where appropriate. Many of the areas earmarked for restoration have quite an open forest canopy and the ground vegetation retains elements of the former peatland community due to the high water table.

Manging Invasive Species

Conifers regenerating on felled areas will be removed and there will be targeted control of rhododendron and deer management.

Protecting Water Courses

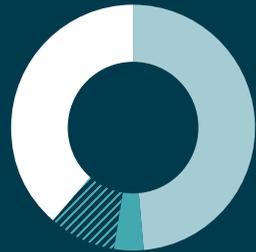
Several watercourses flow into two of the most important salmonid lowland oligotrophic lakes – Lough Inagh and Derryclare Lough. Careful mitigation measures and best practice will be implemented before, during and after these operations along with a programme of ongoing water monitoring.



ABOVE Aerial view of northern and middle of Derryclare with conifers & Lough Inagh

Age structure of existing conifer forest

■ 20yrs or less	39%
▨ 21–30yrs	9%
■ 31–40yrs	4%
■ 40yrs or more	49%



Yield Class* (YC) of existing conifer forest

■ YC 10 or less	70%
▨ YC 12	10%
■ YC 14 or more	20%



*Yield Class (YC) indicates commercial productivity of a stand of trees

Forest Redesign

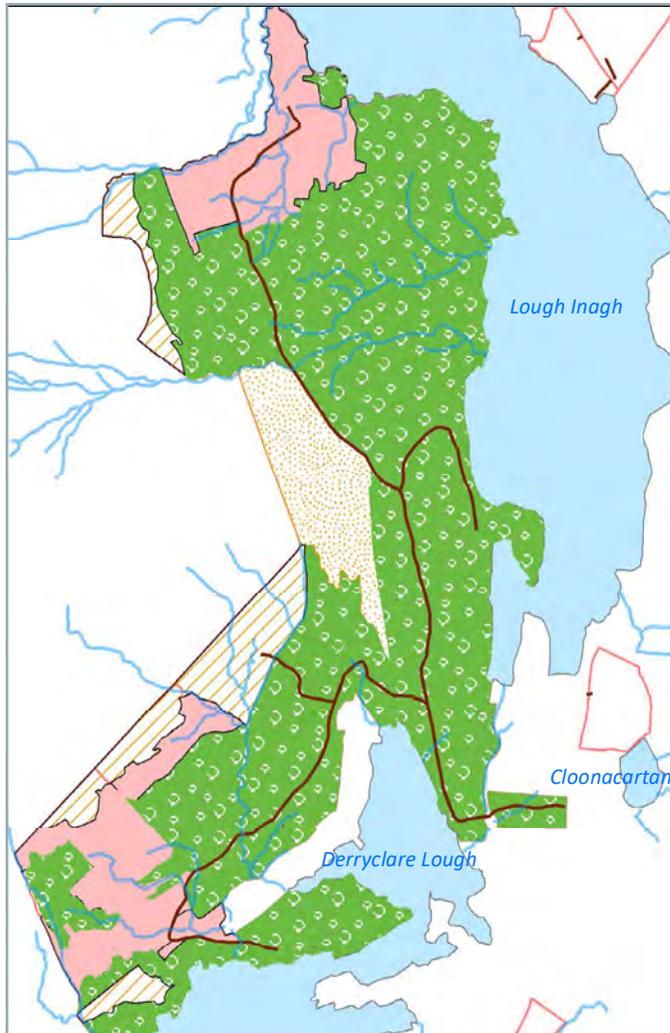
Some forested areas of the site are expected to be difficult to successfully rewet and restore to blanket bog and wet heath habitats. These areas are not priority areas to carry out interventions. Such sections of forest will be left to grow to maturity, as they potentially have a positive carbon balance in the short and medium term.

In some forested areas thinning operations will be trialled to increase the proportion of native species, creating the environment for a more mixed woodland to develop in future.

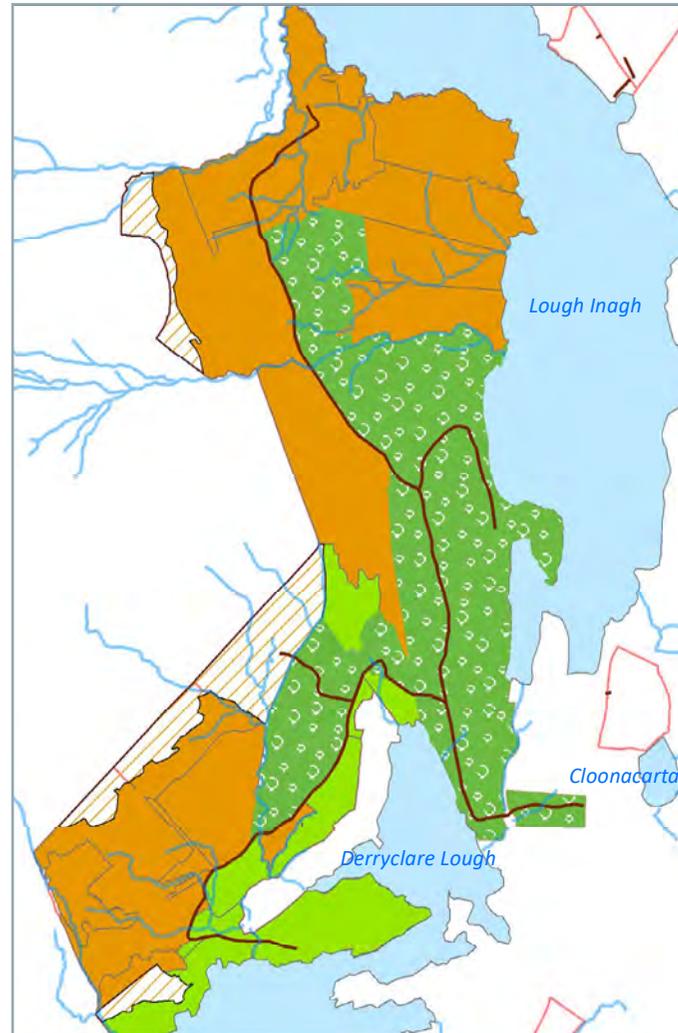
Establishing Native Woodland

There are small areas of the site where soils are more suitable for the establishment of pioneer native woodland, for example, parts of the site bordering the Derryclare Nature Reserve. Such areas will be seeded and planted with native tree and shrub species.

Current Habitats



Target Habitats



The Derryclare management plan aims to increase blanket bog and wet heath habitats and increase native woodland cover in order to maximise biodiversity, water and climate benefits for this site.

See page 5 for map in wider landscape.

Legend

-  EPA streams
-  Roads
-  Existing bog habitat
-  Heath, bog and recently felled
-  Heath, bog and young conifers
-  Forest
-  Native pioneer woodland
-  Restored bog and heath



WWP Shortlisted Sites



Meet the Coillte Nature Team



Dr Ciarán Fallon
Director



Karen Woods
Operations Manager



Dr Declan Little
Ecological Manager



Hedda Dick
Outreach Manager



Lyn Sheeran
Finance Manager



Dr Dermot Tiernan
Peatlands Manager

For further information contact Hedda Dick , Coillte Nature Outreach Manager, on hedda.dick@coillte.ie or see www.coillte.ie/coillte-nature

