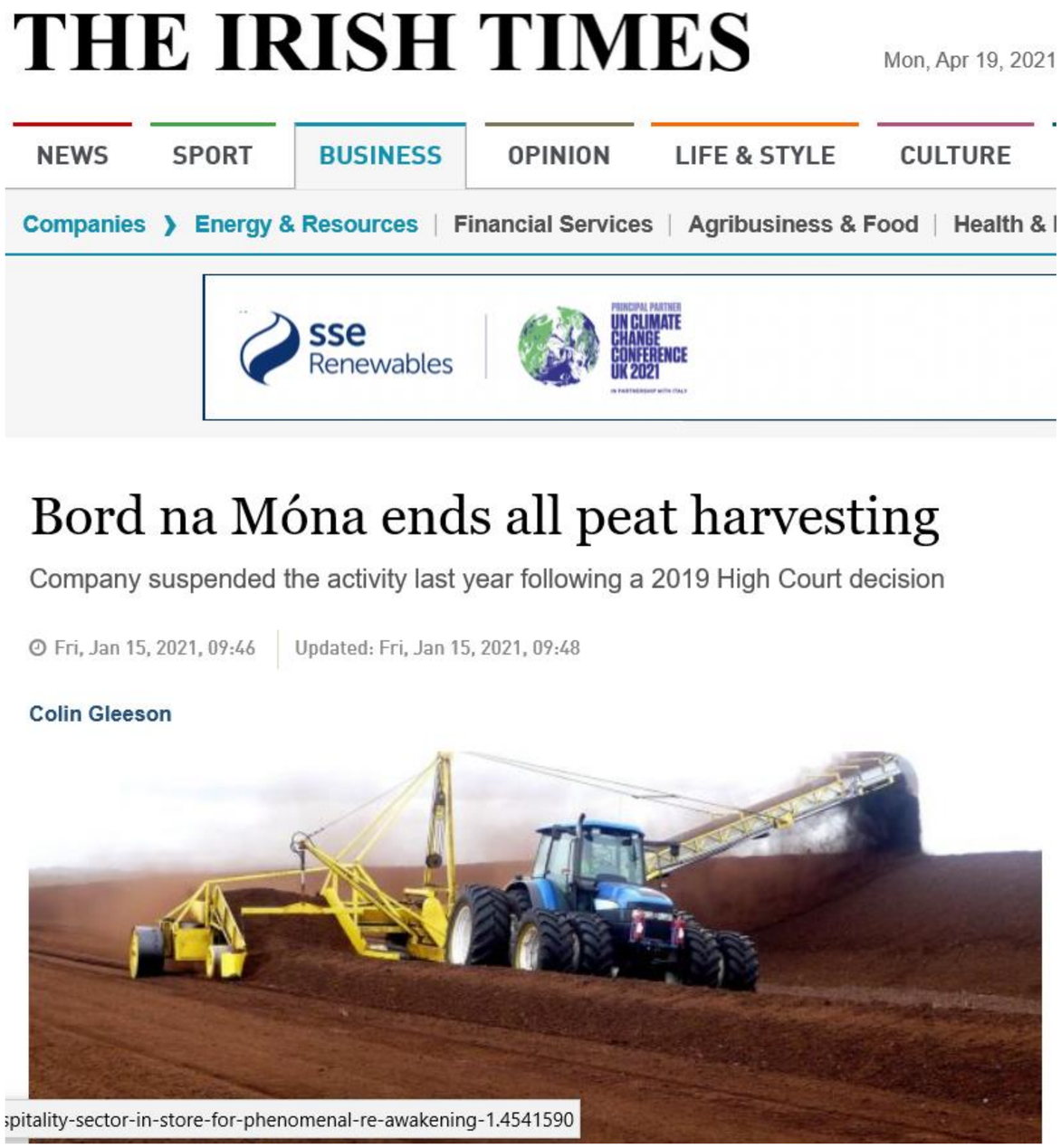
Bord na Móna

Mark McCorry, Doreen King & Chris Cullen, Sept 2022

The Peatland Climate Action Scheme

IUCN – Conference 2022, Aberystwyth



Peatland Climate Action Scheme

Why?

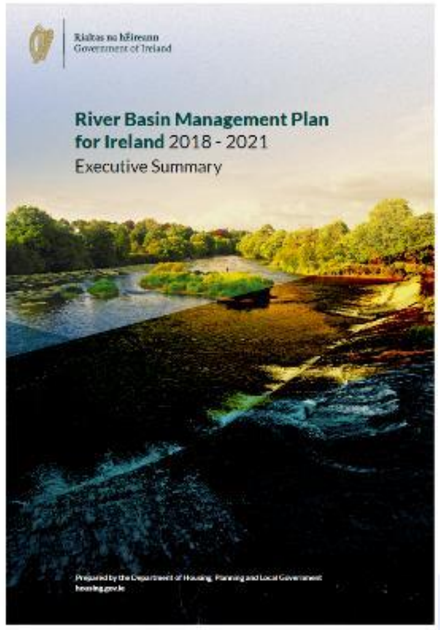
Peatland Climate Action Scheme – Why?

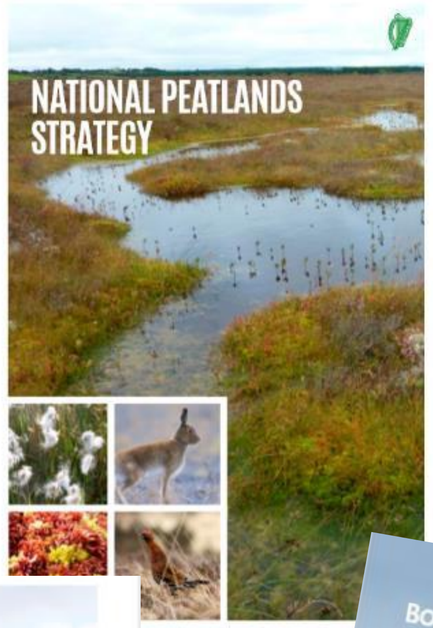
- 109 Million Euro investment
- Supported by the Government's Climate Action Fund
- Supports Bord na Mona/midlands Just Transition – 350 jobs
- Climate Action benefits (carbon storage – residual peat, avoided emissions via new trajectory)
- Other ecosystem service benefits – biodiversity, water, landscape, communities

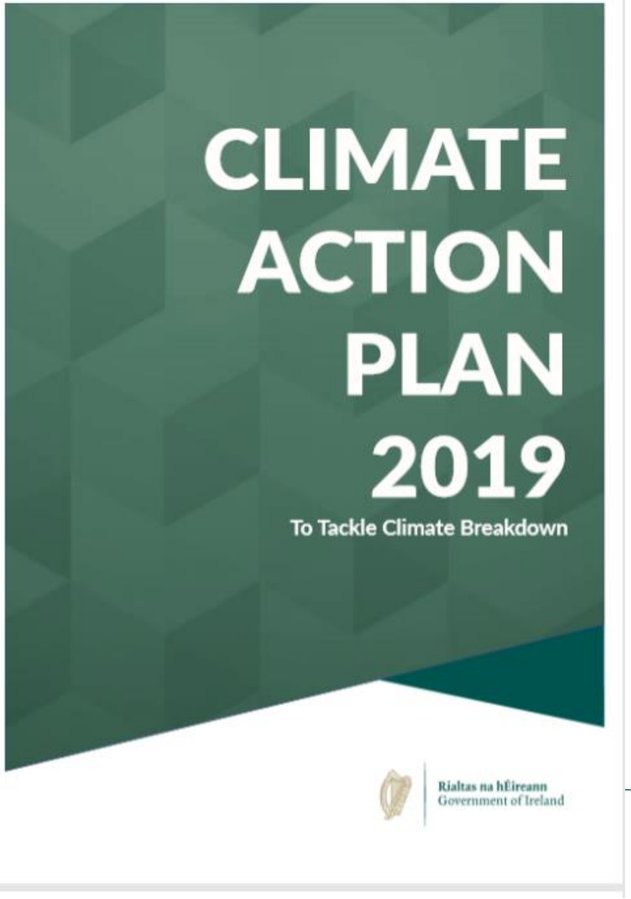
Objective – re-wetting 33,000 ha, optimising suitable hydrology for climate action benefits

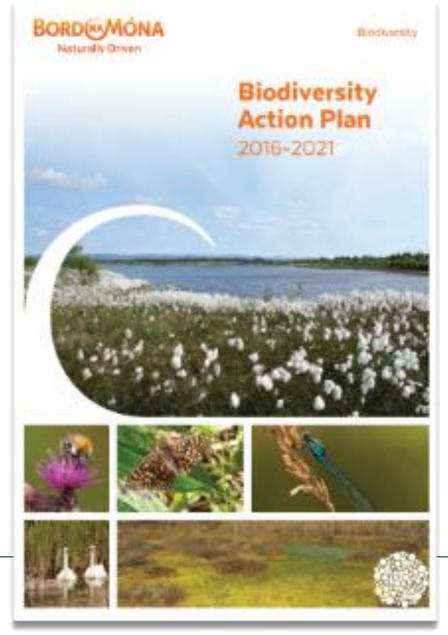
Maximising the wet residual peat footprint

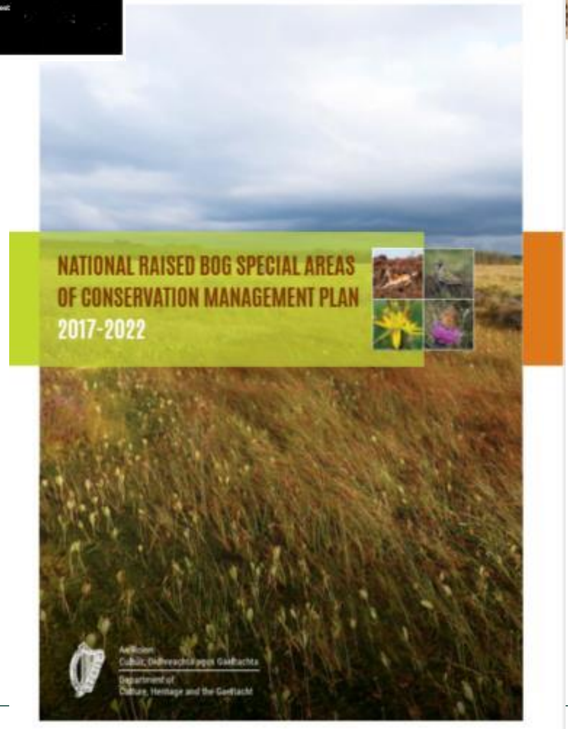

National Biodiversity Action Plan 2017-2021

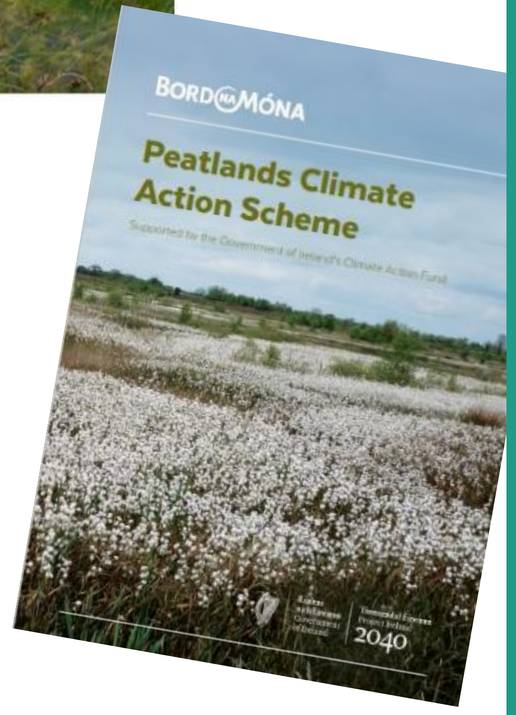

Rialtas na hÉireann
Government of Ireland
River Basin Management Plan
for Ireland 2018 - 2021
Executive Summary


NATIONAL PEATLANDS
STRATEGY


CLIMATE
ACTION
PLAN
2019
To Tackle Climate Breakdown
Rialtas na hÉireann
Government of Ireland


BORD NA MÓNA
Naturally Driven
Biodiversity
Biodiversity
Action Plan
2016-2021


NATIONAL RAISED BOG SPECIAL AREAS
OF CONSERVATION MANAGEMENT PLAN
2017-2022


BORD NA MÓNA
Peatlands Climate
Action Scheme
2040

PCAS – impact on carbon storage and avoided emissions benefit

- NPWS recently estimated that restoring about 6000 ha of raised bog (intact and cutover) would lock 28 million T of carbon in the ground.
- PCAS – 33,000 ha
- Would lock **70 million T of carbon** in the ground (based on estimate of residual peat)

- Analysis suggests a reduction of **3.3 MT carbon CO2eq** over 30 year period across the PCAS footprint (33,000 ha)
- Avoidance of emissions by re-wetting and reducing the emissions factors

Targets – deep peat cutaway

Creation of soggy conditions, **water levels at peat surface**, re-wetting residual deep peat, accelerating Sphagnum-rich vegetation, best outcome for climate action – GHG sink

Timahoe North, Co. Kildare

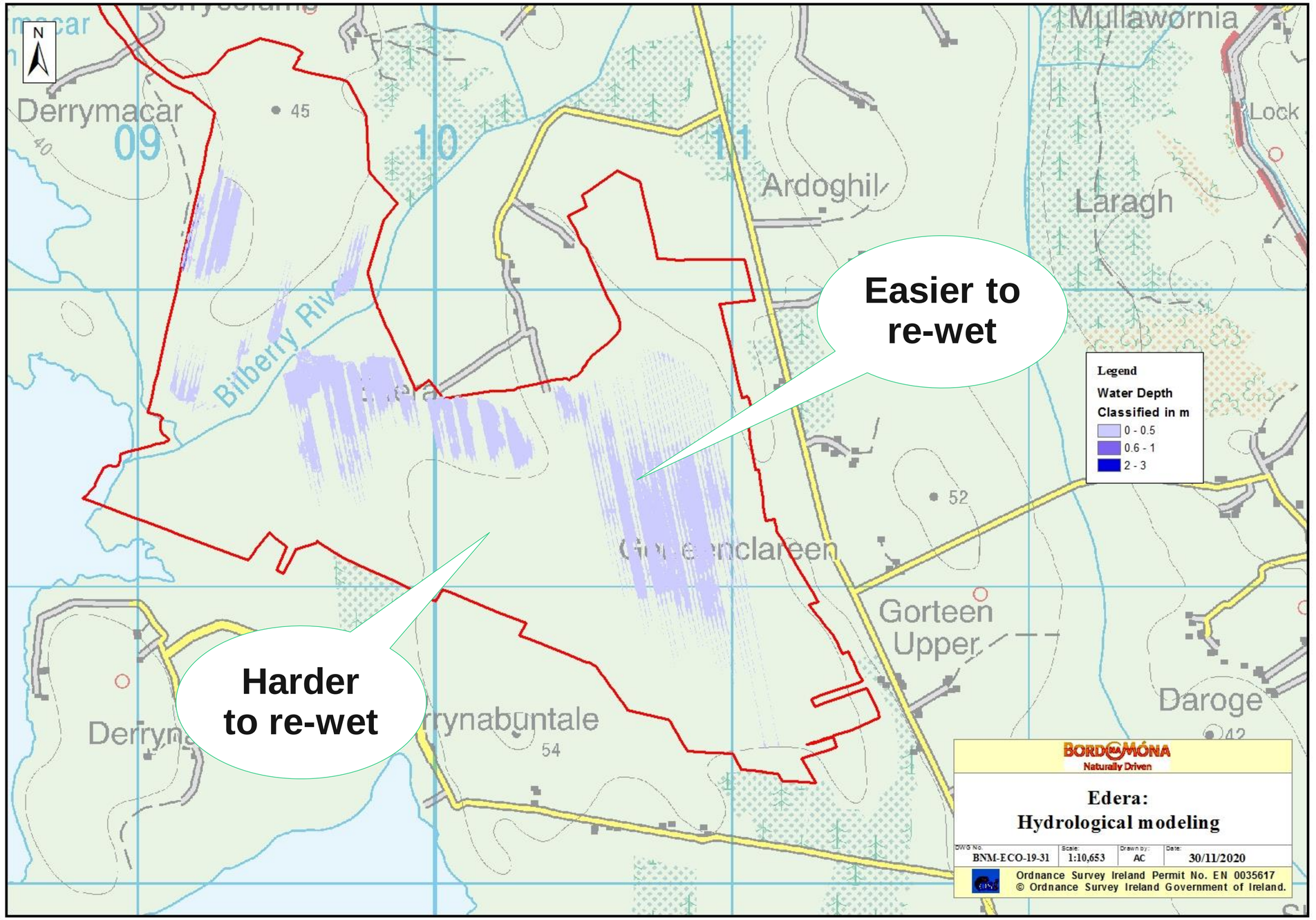
Deep peat site

Too dry? – Heather and scrub development – carbon source

Better hydrological conditions, Bog Cotton and *Sphagnum* lawn

Targets – wetland cutaway

Wetland cutaway – creation of soggy conditions, emergent vegetation, minimising deeper water where possible, minimising dry Birch woodland – creation of fens and Reedbeds (best outcome for climate action – reduced carbon source…..)



Edera Bog

Different environmental conditions

Different rehab measures

Different outcomes & habitats

Bord na Móna

Development of Bord na Móna production bog and cutaway

Heterogenous environment

Different starting conditions,

Different rehab approaches

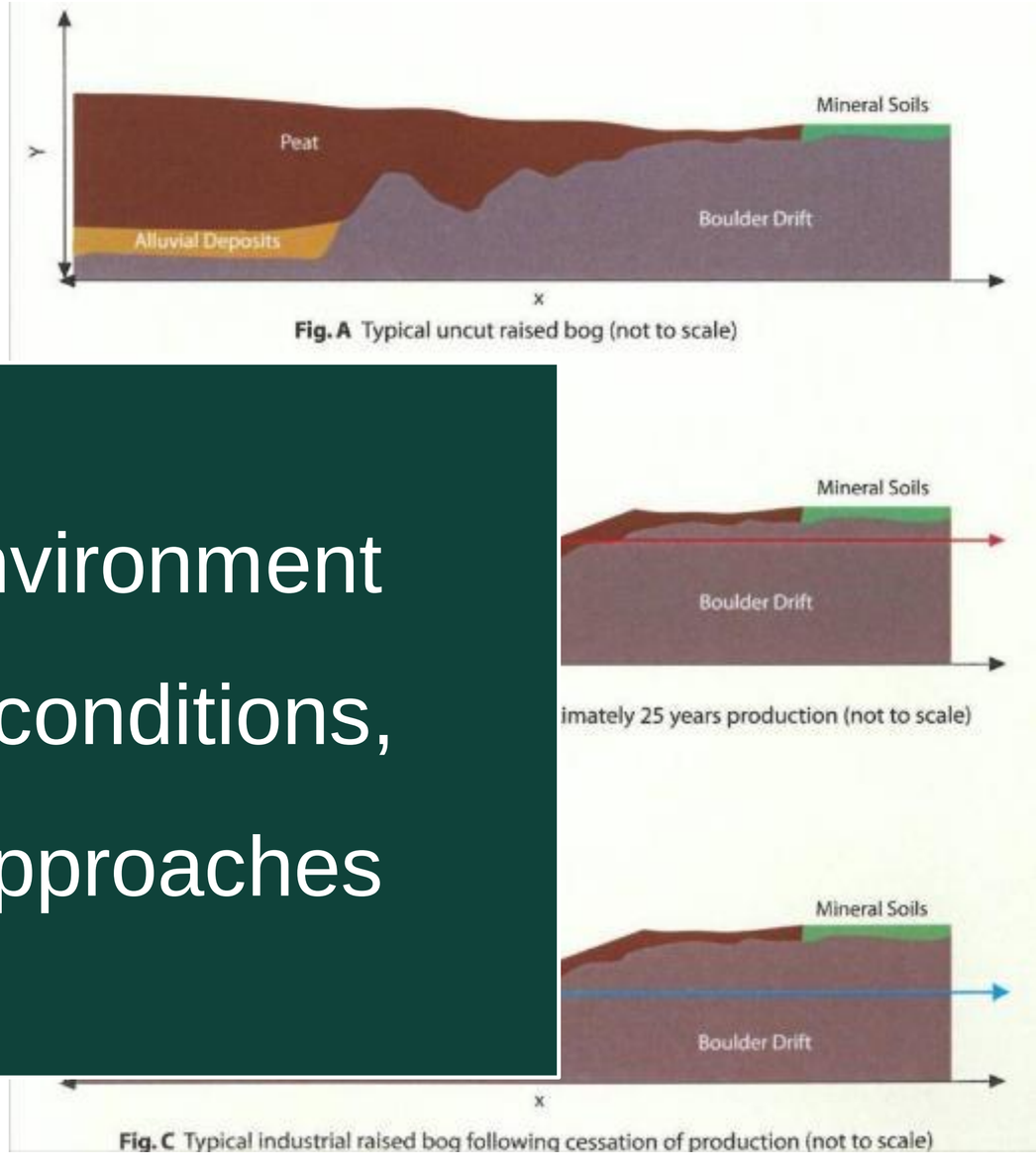
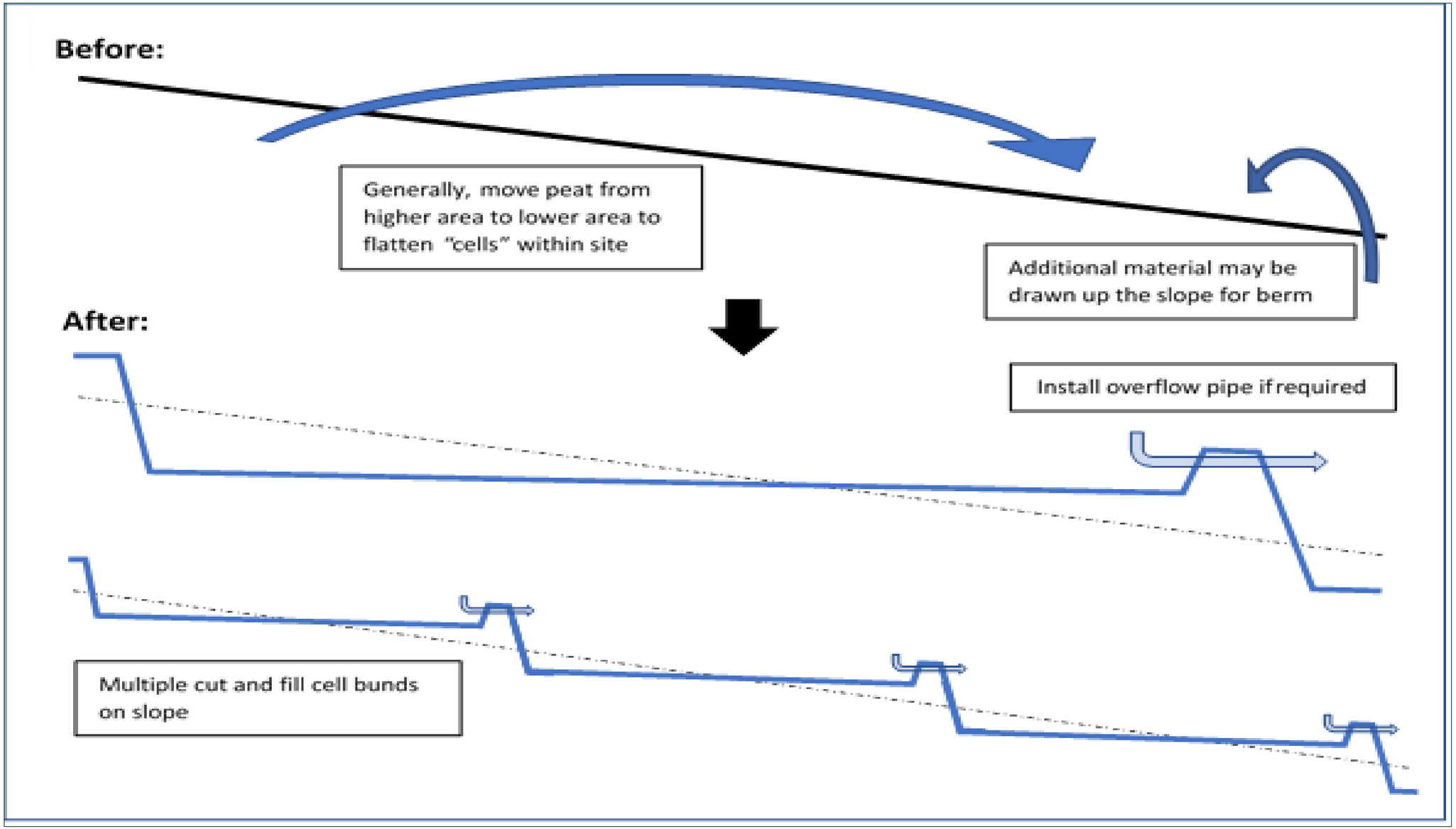


Fig. A Typical uncut raised bog (not to scale)

imately 25 years production (not to scale)

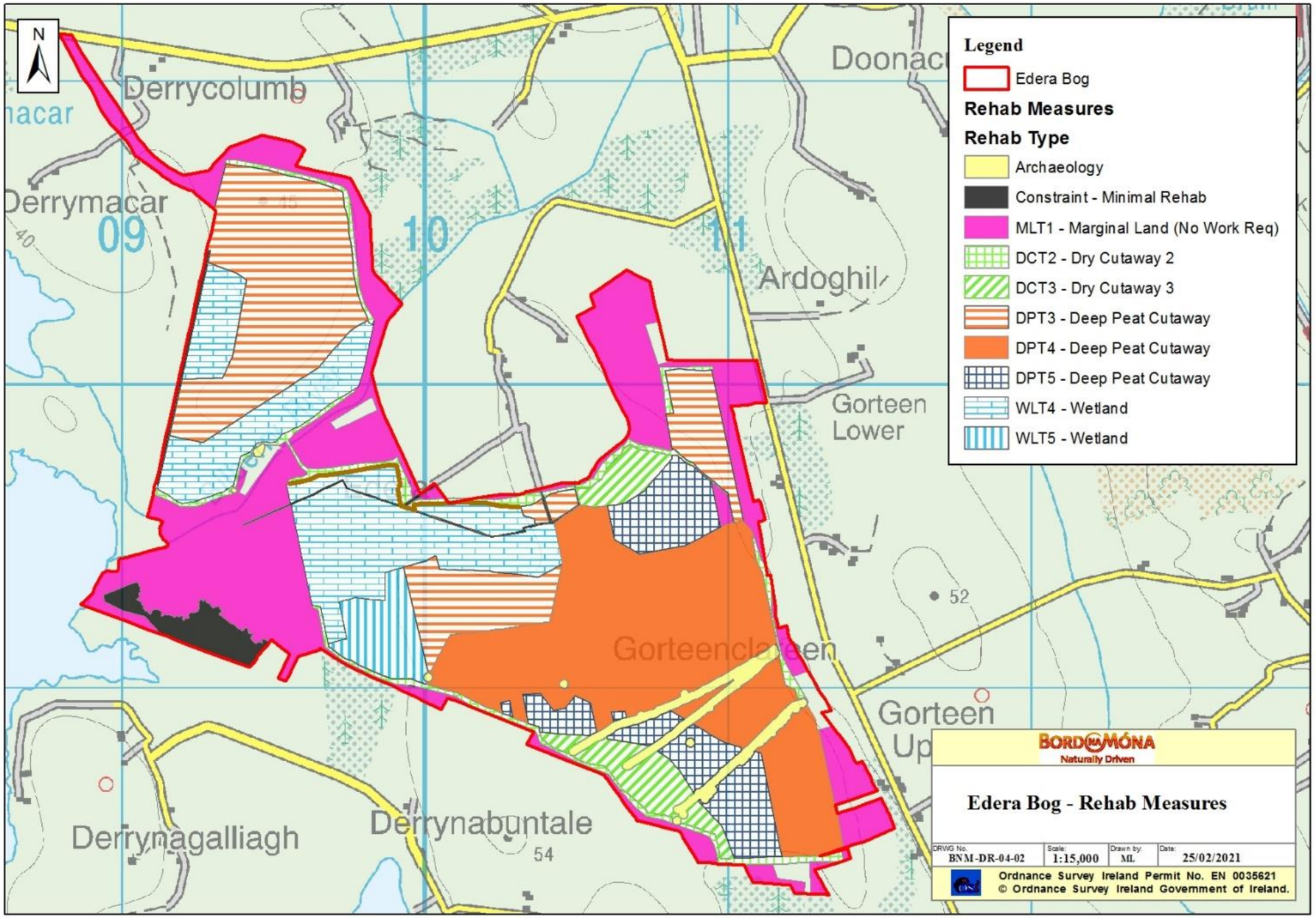
Fig. C Typical industrial raised bog following cessation of production (not to scale)

Enhanced cutaway rehab – modifying topography with bunding and re-profiling

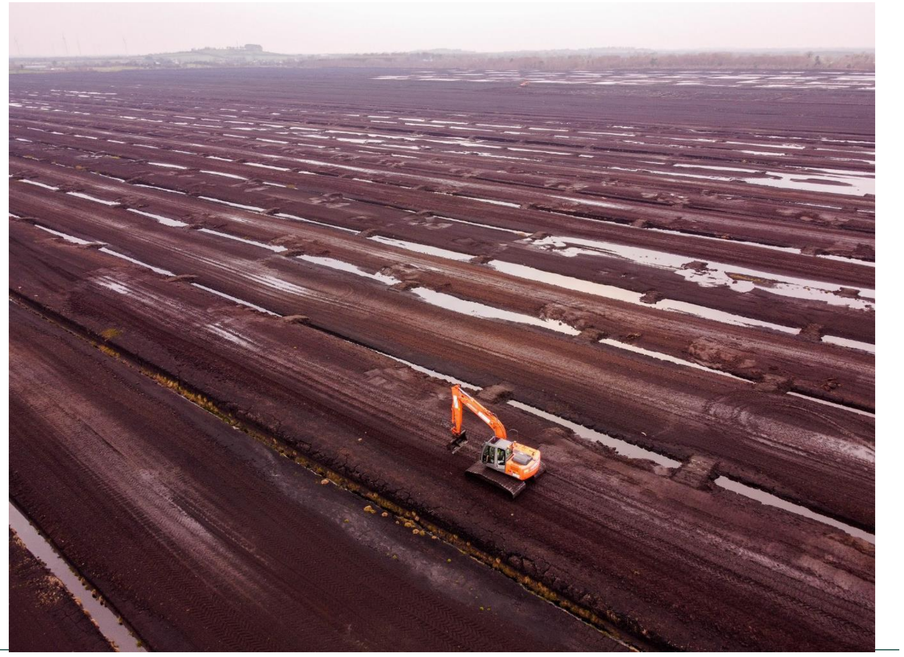


Edera Bog

- Right of ways
- Archaeology constraints
- Hydrological constraints



PCAS Measures



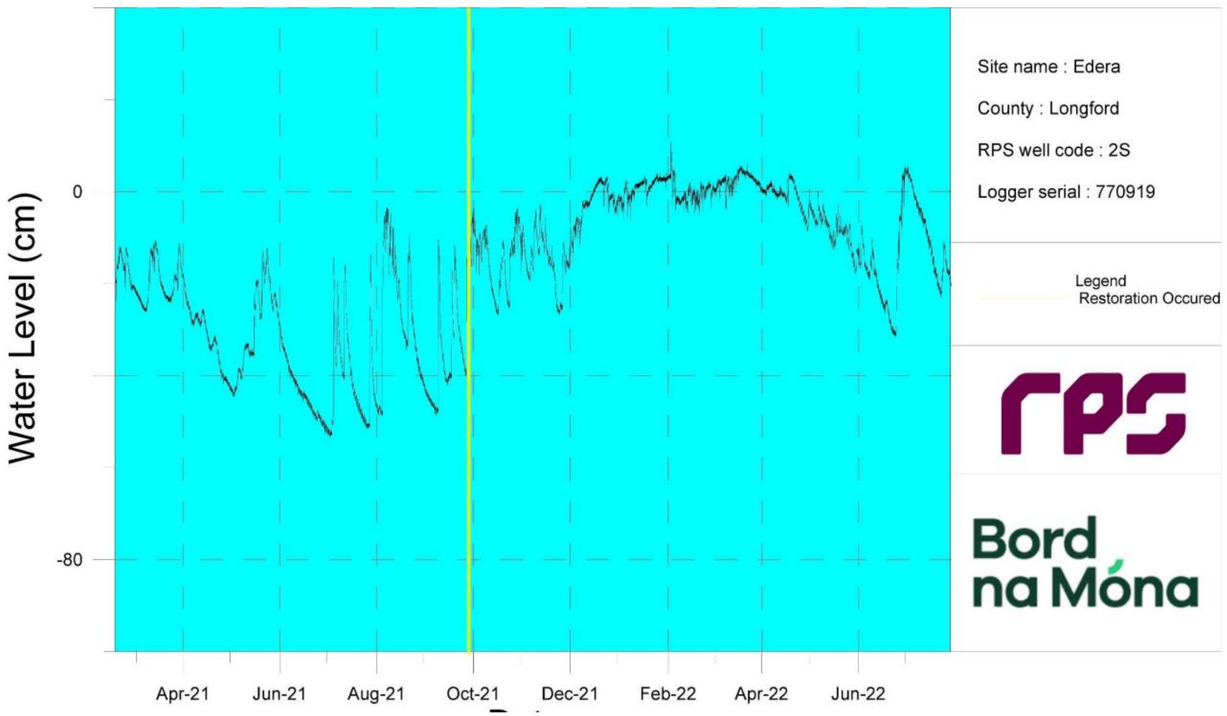
Enhanced rehab measures at Castlegar Bog - PCAS

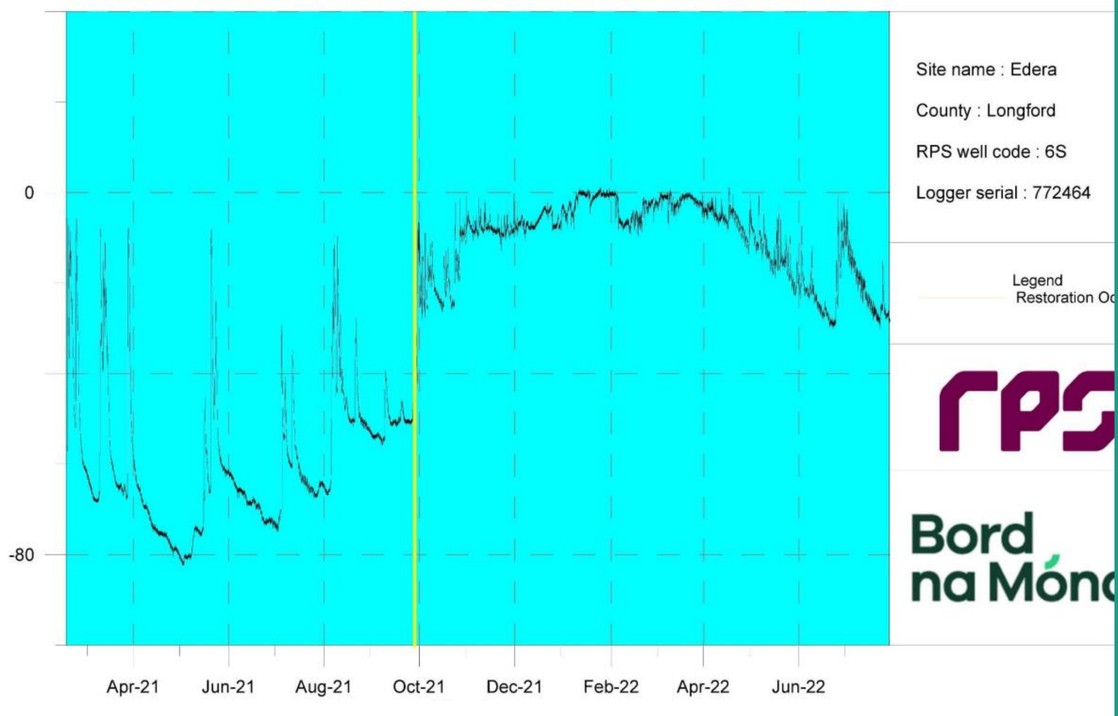
Raised bog restoration – Kellysgrove Bog - PCAS

PCAS Monitoring

Monitoring includes

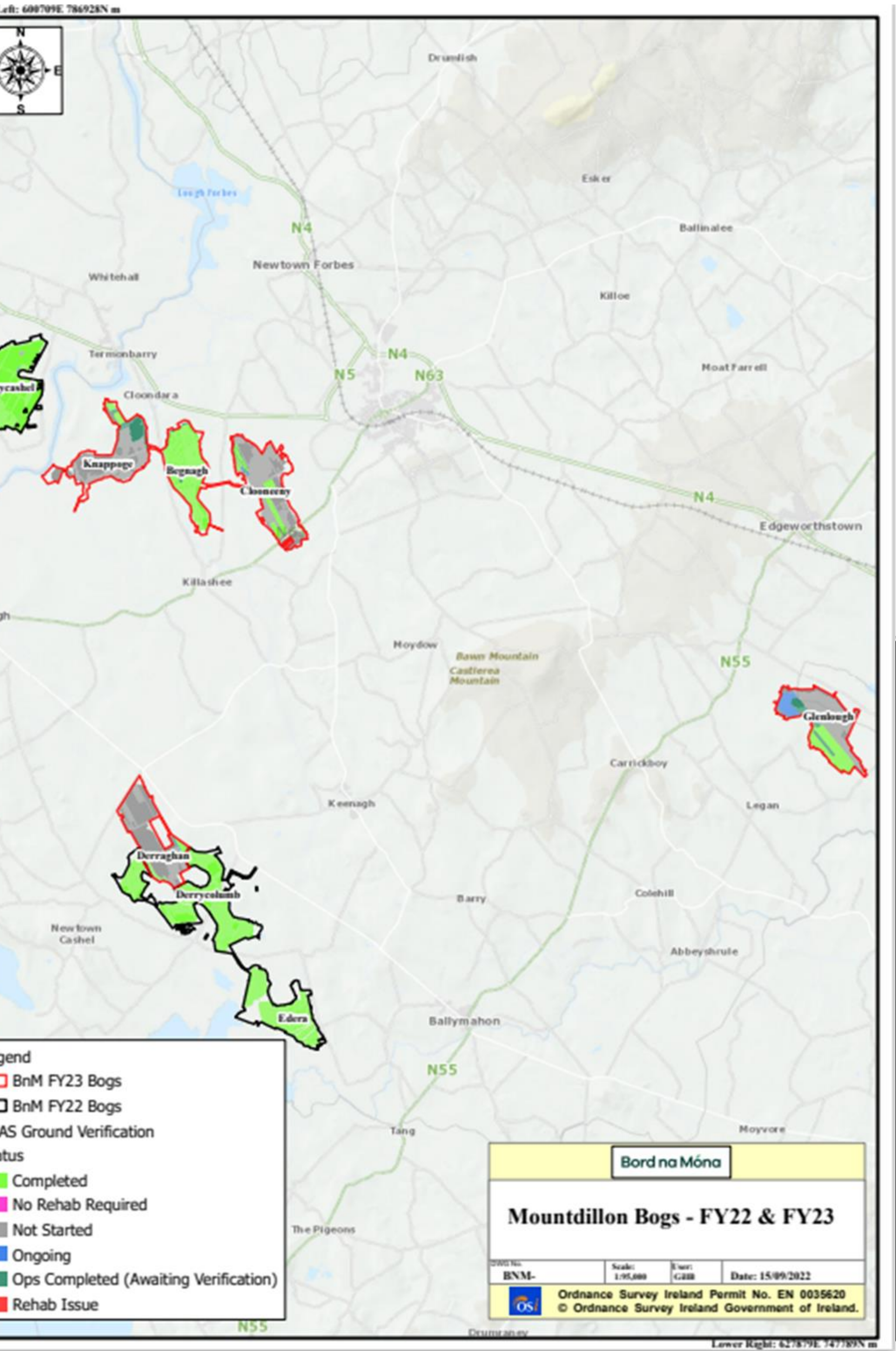
- Delivery of measures (Engineering surveys, aerial photography, LIDAR)
- Vegetation (Habitat mapping, permanent quadrats and indicator species)
- Bog condition (Rapid monitoring stops)
- Biodiversity (Pollinators, wintering birds, breeding birds)
- Hydrology (1363 piezometers in 51 bogs)
- Water quality (Monthly monitoring ongoing on 200 surface water outlets - pH, Suspended Solids, Total Solids, Total Phosphorus, Total Ammonia, Colour & COD)
- Water flows (Flumes and water flow measurement)
- Carbon fluxes (eddie co-variance and chambers)


Water Level (cm)
0
-80
Apr-21
Jun-21
Aug-21
Oct-21
Dec-21
Feb-22
Apr-22
Jun-22
Site name : Edera
County : Longford
RPS well code : 2S
Logger serial : 770919
Legend
Restoration Occured
rps
Bord na Móna


0
-80
Apr-21
Jun-21
Aug-21
Oct-21
Dec-21
Feb-22
Apr-22
Jun-22
Site name : Edera
County : Longford
RPS well code : 6S
Logger serial : 772464
Legend
rps
Bord na Móna

Bord na Móna

PCAS- developing sites with multiple benefits - biodiversity


Mountdillon Bogs - FY22 & FY23
Bord na Móna
Legend
BnM FY23 Bogs
BnM FY22 Bogs
PCAS Ground Verification Status
Completed
No Rehab Required
Not Started
Ongoing
Ops Completed (Awaiting Verification)
Rehab Issue
Knappoge
Begnagh
Cloonshannagh
Glenlough
Derraghan
Derrycolumb
Edera
Date: 15/09/2022
Ordnance Survey Ireland Permit No. EN 0035620
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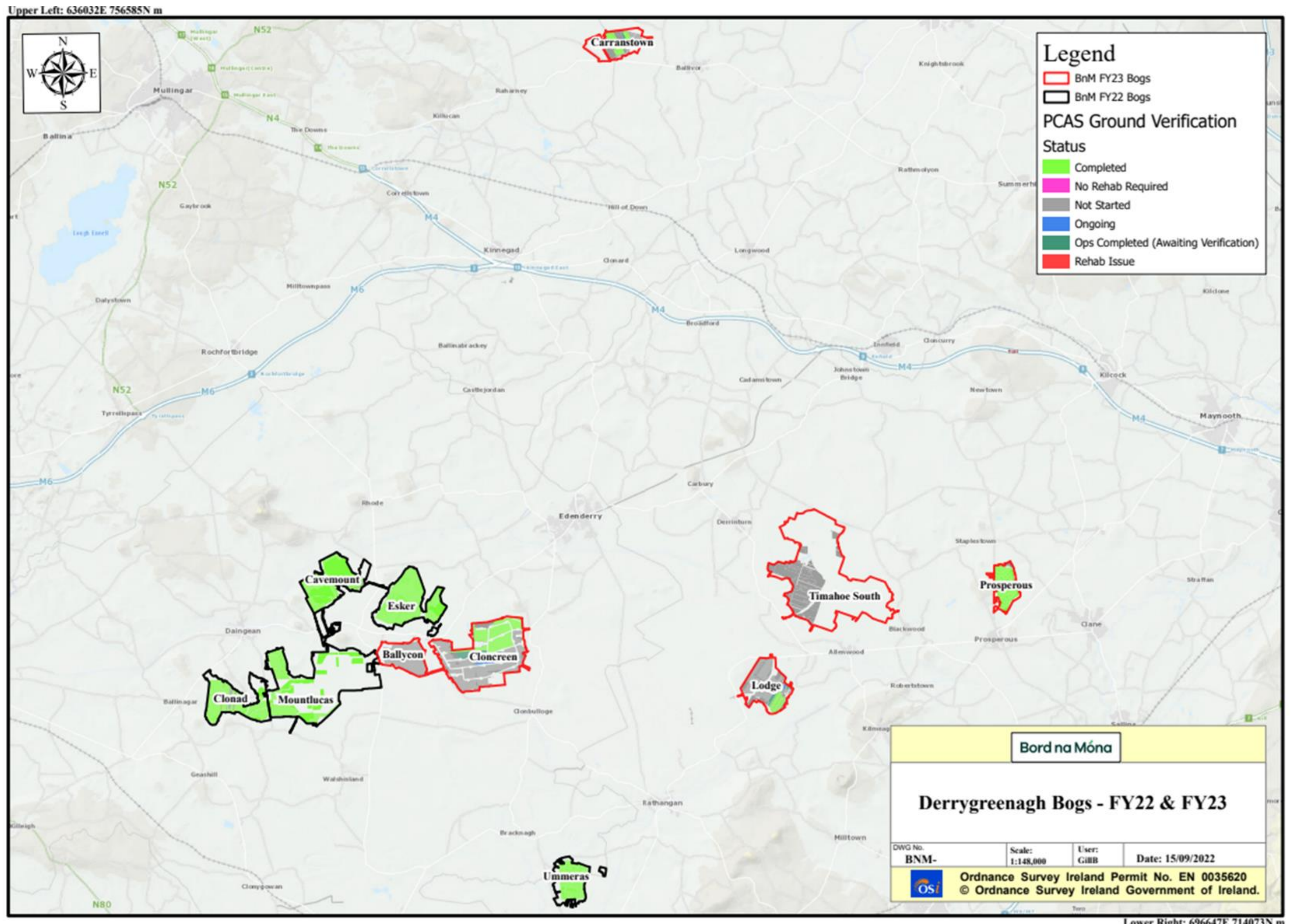
Derrygreenagh Bogs - FY22 & FY23
Bord na Móna
Legend
BnM FY23 Bogs
BnM FY22 Bogs
PCAS Ground Verification Status
Completed
No Rehab Required
Not Started
Ongoing
Ops Completed (Awaiting Verification)
Rehab Issue
Carranstown
Cavemount
Esker
Ballycon
Cloncreen
Clonad
Mountlucas
Timahoe South
Prosperous
Lodge
Ummeras
Date: 15/09/2022
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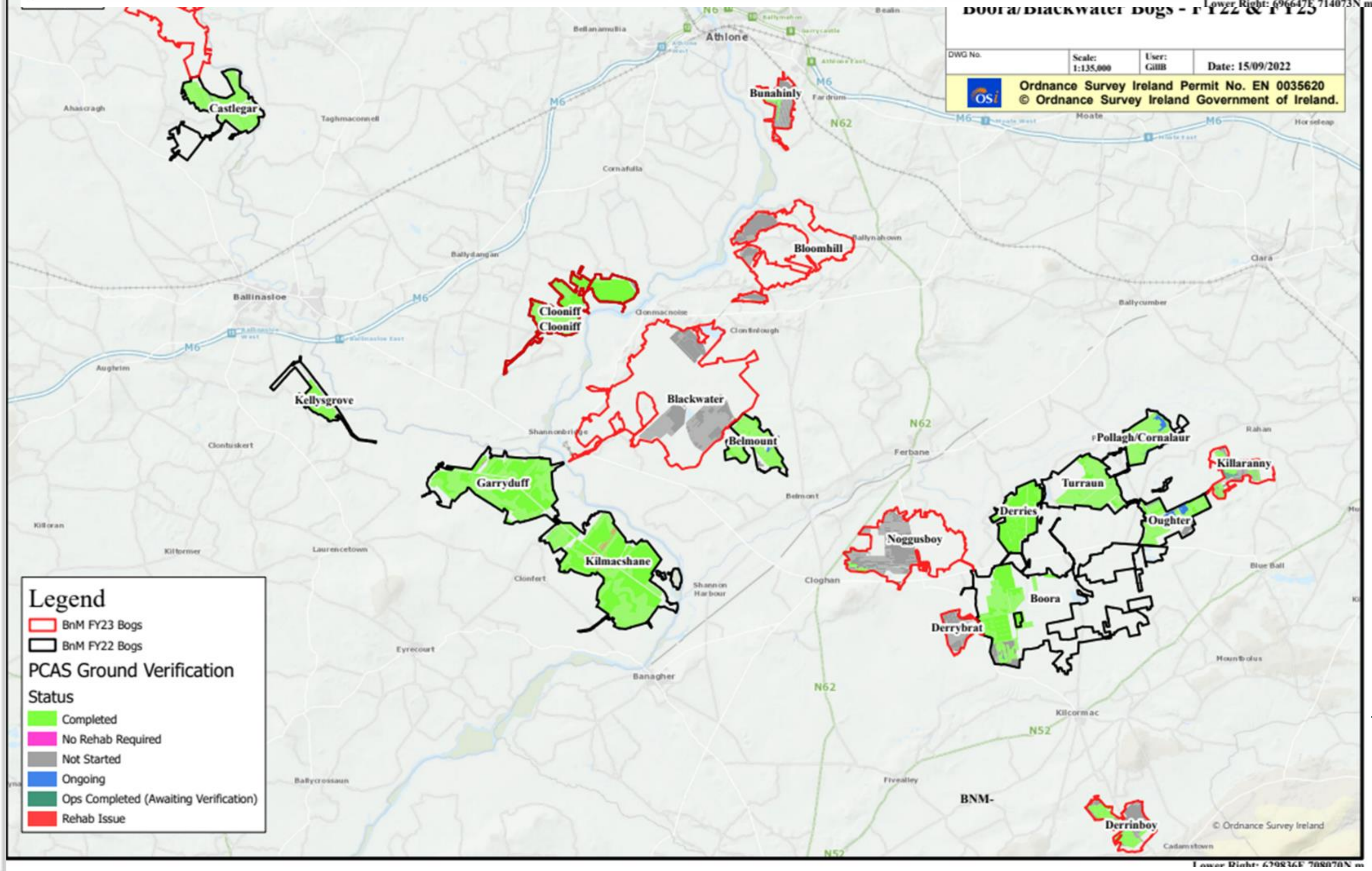
Boora/Blackwater Bogs - FY22 & FY23
Legend
BnM FY23 Bogs
BnM FY22 Bogs
PCAS Ground Verification Status
Completed
No Rehab Required
Not Started
Ongoing
Ops Completed (Awaiting Verification)
Rehab Issue
Castlegar
Bunahinly
Bloomhill
Clooniff
Kellysgrove
Blackwater
Belmount
Garryduff
Kilmacshane
Pollagh/Cornalaur
Turraun
Killaranny
Derries
Oughter
Noggusboy
Boora
Derrybrat
Derrinboy
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Bord na Móna

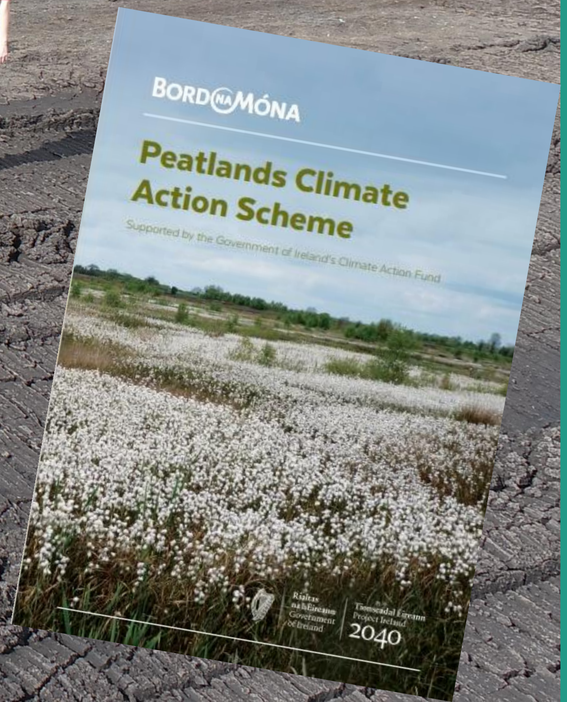
1D2O8669 Photo: Peter Barrow Tel: 087-2559638, 27th November 2014

Mountlucas Windfarm

developing sites with multiple land-uses

Bord na Móna

Thank-you



- **For more information:**
- **www.*bnmpcas.ie***
- Contact us at **pcasinfo@bnm.ie**