

Bord na Móna

Enhanced Decommissioning, Restoration and Rehabilitation Scheme (EDRRS)

Annual Report – Year 1

Commencement of Scheme to March 2022

Bord na Móna

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Contents

Contents.....	3
1. Executive Summary.....	6
2. Introduction	7
3. Rehabilitation - General	8
3.1 Objective	8
3.2 Rehab Methodology.....	8
3.3 Appropriate Assessment	9
4. Rehabilitation by Bog.....	9
4.1 Belmont Bog.....	10
4.2 Clooniff Bog.....	11
4.3 Garryduff Bog.....	12
4.4 Kellysgrove Bog	13
4.5 Kilmacshane Bog	14
4.6 Boora Bog.....	15
4.7 Derries Bog.....	16
4.8 Oughter Bog	17
4.9 Pollagh Bog.....	18
4.10 Turraun Bog.....	19
4.11 Castlegar Bog.....	20
4.12 Cavemount Bog.....	21
4.13 Clonad Bog	22
4.14 Esker Bog.....	24
4.15 Mountlucas Bog	25
4.16 Ummeras Bog.....	26
4.17 Derrycashel Bog	27
4.18 Derrycolumb Bog	28
4.19 Edera Bog	29
4.20 Summary of Rehabilitation Completed to End March 2022.	30

5.	Decommissioning.....	30
5.1	Decommissioning General	30
5.2	Decommissioning to End March 2022	30
6.	Stakeholder Engagement.....	31
6.1	General.....	31
6.2	Consultation for EDRRS Year 1 Bogs	31
6.3	Consultation for EDRRS Year 2 Bogs	32
7.	Training	32
7.1	General.....	32
7.2	Training Courses.....	33
7.3	Impact of Covid 19	33
7.4	Amendments to Planned Training Programme.....	34
7.5	Solas CSCS Courses.....	34
7.6	Partners and Suppliers	34
7.7	Summary of Training Completed	35
8.	Monitoring	35
9.	Design Status.....	36
9.1	Design – EDRRS Year 1 Bogs.....	36
9.2	Design – EDRRS Year 2 Bogs.....	36
10.	Lessons Learned / Recommendations	36
10.1	Initial observations on EDRRS to date.....	37

Appendices

Appendix A: Description of Rehabilitation Methodologies

Appendix B: Rehabilitation Details by Bog

List of Abbreviations

AA	Appropriate Assessment
CLO	Community Liaison Officer
CSCS	Construction Skills Certification Scheme
DECC	Department of Environment, Climate and Communications
EDRRS	Enhanced Restoration, Rehabilitation and Decommissioning Scheme
EPA	Environmental Protection Agency
ETB	Education and Training Board
GIS	Geographic Information System
IPC	Integrated Pollution Control
IWS	Irish Water Safety
LiDAR	Light Detection and Ranging
LOETB	Laois and Offaly Education and Training Board
MBE	Midland Border East
NEBOSH	National Examination Board in Occupational Safety and Health
NGO	Non-Governmental Organisation
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
QQI	Quality and Qualifications Ireland
TNA	Training Needs Analysis

1. Executive Summary

Funding for the Enhanced Restoration, Rehabilitation and Decommissioning Scheme (EDRRS), also referred to as the Peatlands Climate Action Scheme (PCAS), was approved by the Department of Environment, Climate and Communications in November 2020. Funding for the scheme of €108 million is secured through the EU Recovery and Resilience Facility (RRF), the key instrument at the heart of NextGenerationEU. At a national level, this funding is administered through Ireland's National Recovery Resilience Plan (NRRP). Additional funding of €18m is provided by Bord na Móna. The scheme includes for the restoration or rehabilitation of 32,779 hectares. The Department of the Environment, Climate and Communications (DECC) acts as the Approving Authority for the Scheme and has ultimate responsibility. The National Parks and Wildlife Service (NPWS) acts as the Scheme Regulator.

The objective of the enhanced rehabilitation measures employed in EDRRS is to optimise suitable baseline hydrological conditions for climate action benefits, to slow the movement of water across these landscapes and to accelerate environmental stabilisation via natural colonisation. A variety of rehabilitation methodologies are employed based on the topography, peat depths, drainage regime, hydro-geological regime, ecology, and other constraints in each bog.

Apart from initial trials, rehabilitation of Bord na Móna bogs under EDRRS commenced in April 2021 and rehabilitation was carried out on eighteen bogs from the launch of the scheme to the end March 2022. Commencement of rehabilitation on each bog was subject to the approval of the rehabilitation measures by NPWS and the completion of the Appropriate Assessment process for each bog.

In total 7,455 hectares were rehabilitated in the EDRRS Year 1 bogs from the commencement of the scheme to the end of March 2022. This is 90% of the hectares to be rehabilitated in the Year 1 bogs and 82% of the Work Content to be completed on these bogs.

Some rail decommissioning and bog clean-up was completed during this period; however the focus of the scheme has been on the implementation of the rehabilitation measures. A stakeholder engagement process was carried out for the EDRRS Year 1 and Year 2 bogs. A dedicated website was set up to provide information and a Community Liaison Officer was appointed to deal with any queries.

A variety of relevant training courses were carried out under EDRRS and were delivered internally by Bord na Móna or by external providers. Much of the training sessions was also supported and funded by the Laois and Offaly Education and Training Board (LOETB).

The EDRRS monitoring programme is ongoing and a separate Annual Monitoring Report will be provided detailing the monitoring that has been carried out under EDRRS.

Detailed design packages were prepared for each of the EDRRS Year 1 bogs and these packages were submitted to NPWS and approval received from NPWS prior to the commencement of rehabilitation.

Implementation of the first year of EDRRS was a huge undertaking for all involved in the scheme. While some small scale trials had been carried out, the scale of this rehabilitation was unprecedented. Experience was gained and lessons were learned as the rehabilitation was implemented. The benefits from the rehabilitation measures are not immediate and it will only be over time that the extent of the success of optimising climate benefits by improving hydrological conditions can be definitively ascertained. However, the initial results are promising – visually the bogs are significantly wetter following the rehabilitation. Aerial photography carried out in Summer 2022 show visible rewetted areas and preliminary results from the piezometer monitoring are also very positive.

2. Introduction

Funding for the Enhanced Restoration, Rehabilitation and Decommissioning Scheme (EDRRS), also referred to as the Peatlands Climate Action Scheme (PCAS), was approved by the Department of Environment, Climate and Communications in November 2020. Funding for the scheme of €108 million is secured through the EU Recovery and Resilience Facility (RRF), the key instrument at the heart of NextGenerationEU. At a national level, this funding is administered through Ireland's National Recovery Resilience Plan (NRRP). Additional funding of €18m is provided by Bord na Móna.

The initial announcement summarised the Scheme benefits as follows:

"The Scheme will deliver a range of climate action benefits from greenhouse gas mitigation through reduced carbon emissions, carbon storage and accelerated carbon sequestration. The Scheme is expected to be completed by the end of 2025 and is estimated to result in sequestering greenhouse gas emissions of 3.2 million tonnes of carbon out to 2050, with continued savings beyond that point.

The enhanced improvements will also enrich the State's natural capital, increase eco-system services, strengthen biodiversity, improve water quality and storage attenuation, develop the amenity potential of the peatlands as well as providing employment opportunities as part of a Just Transition in the Midlands. It is expected that these improvements, accompanied with an enhanced monitoring program will increase the understanding of the role peatlands play in climate regulation and the development of best practice guidelines for future projects".

The scheme includes for the restoration or rehabilitation of 32,779 hectares and decommissioning of 47,000 hectares in 82 bog units. The original announcement stated the scheme would extend to the end of 2025 however this has now been extended to August 2026.

The Department of the Environment, Climate and Communications (DECC) acts as the Approving Authority for the Scheme and has ultimate responsibility. The National Parks and Wildlife Service (NPWS) acts as the Scheme Regulator and Bord na Móna are the Operator for the delivery of the scheme. Clause 11.6 of the EDRRS Regulatory controls states the following:

Within six months of the end of each year that the Scheme is in operation, the Operator will submit an annual report on the Scheme to both DECC and NPWS/DHLGH. This report will include data on the Greenhouse Gas and biodiversity indicators agreed for the Scheme by all parties, on any future indicators agreed for the Scheme, the area restored under each Enhanced Rehabilitation Bog Plan, and the overall area restored in the year in question.

In addition, Clause 9.2 of the EDRRS Funding Agreement states the following:

"An annual report prepared by BNM in respect of each calendar year in which the Agreement subsists shall be submitted to the Minister by 30th September of the following year ("the Annual Report"). The Annual Report shall detail the work done to further the aims and objectives and deliver the Scheme outcomes and outputs. For the avoidance of doubt the first calendar year end shall not be before the 31st December 2021."

Funding for the Enhanced Monitoring, Restoration and Rehabilitation Scheme (EDRRS) was announced in November 2020. Plans were approved for 19 bogs and on site rehabilitation commenced on eighteen bogs in 2021. For the purpose of the Annual Reports, these eighteen bogs are referred to as the EDRRS Year 1 bogs. The Bord na Móna financial year runs from April to March and the first year

of EDRRS includes the additional months from the announcement of the scheme and extends from November 2020 to the end of March 2022.

This report details the rehabilitation, decommissioning, training, stakeholder engagement and design carried out during this period. A separate Annual Monitoring and Verification Report is currently being prepared and this monitoring and verification report will include any available data on the Greenhouse Gas and Biodiversity indicators as well as details of other monitoring and initial results observed on the EDRRS Year 1 Bogs (i.e. bogs where rehabilitation commenced in 2021).

3. Rehabilitation - General

3.1 Objective

The objective of the enhanced rehabilitation measures employed in EDRRS is to optimise suitable baseline hydrological conditions for climate action benefits, to slow the movement of water across these landscapes and to accelerate environmental stabilisation via natural colonisation. This means re-wetting peat with the most optimum water levels (generally at or slightly above the surface of the peat) for the development of vegetation that suits the underlying environmental conditions, setting these areas on a trajectory towards naturally functioning wetland and peatland. Where conditions are suitable, and the peat can be re-wetted, there is potential to re-develop *Sphagnum*-rich plant communities that are considered carbon sinks and in time can restore the carbon sequestration function of these sites.

These objectives are set out in the Rehabilitation Plans for each bog, and these documents and the Methodology Report, Appropriate Assessment Screening Reports, Natura Impact Statements and Determinations are all available on the scheme website at bnmpcas.ie

3.2 Rehab Methodology

In general, the Bord na Móna peat production bogs consist of former peat production fields with drains at 15m intervals. These fields were formed with a camber (i.e. higher in the centre with a gradient towards the drains) to facilitate drainage. The various enhanced rehabilitation measures consist of a combination of peat drain blocks, field re-profiling, formation of low berms, berm and field re-profiling to form cells, modification of outfalls, application of fertiliser and *Sphagnum* inoculation. The basis for selection of a specific methodology is driven by the heterogeneity of the Bord na Móna cutaway (e.g. Deep Peat, Dry Cutaway, Wetland, etc.), together with the need to deploy different measures and strategies in different environmental conditions. While several of the enhanced measures can be applied to cutaway of different types, others are more suitable for one particular cutaway type (e.g. cell formation is most suitable for deep peat cutaway). Deep peat cutover bog sites are likely to have the best potential for the application of intensive enhanced cutaway rehabilitation measures. The enhanced measures in these areas will accelerate and optimise the area of *Sphagnum*-rich vegetation communities across the Bord na Móna cutaway.

The rehabilitation methodologies employed as part of the scheme are listed in Table 3.1 below and are described in more detail in Appendix A. The use of each specific rehabilitation methodology is designed based on the topography, peat depths, drainage regime, hydro-geological regime, ecology and other constraints in each bog. Further information on these methodologies is available in the EDRRS Methodology Report.

Rehab Methodologies and associated Land Type Categories			
Deep Peat Cutover Bog		Wetland	
DPT1	Deep Peat Type 1	WLT1	Wetland Type 1
DPT2	Deep Peat Type 2	WLT2	Wetland Type 1
DPT3	Deep Peat Type 3	WLT3	Wetland Type 1
DPT4	Deep Peat Type 4	WLT4	Wetland Type 1
DPT5	Deep Peat Type 5	WLT5	Wetland Type 1
DPT6	Deep Peat Type 6		
Dry Cutaway		Marginal Land	
DCT1	Dry Cutaway Type 1	MLT1	Marginal Land Type 1
DCT2	Dry Cutaway Type 2	MLT2	Marginal Land Type 2
DCT3	Dry Cutaway Type 3		
Additional Work			
AW1	Additional Work 1		
AW2	Additional Work 2		

Table 3.1 Rehabilitation Methodologies

While some trials of various rehabilitation measures were carried out in 2020, rehabilitation of Bord na Móna bogs under EDRRS commenced in April 2021. The commencement date varied for each bog and was subject to the approval of the rehabilitation measures by National Parks and Wildlife Services and the completion of the Appropriate Assessment process for each bog. Rehabilitation was planned to be carried out on nineteen bogs in the first year of the scheme, however rehabilitation on one of the bogs, Clooniff, did not commence until April 2022.

3.3 Appropriate Assessment

Bord na Móna appointed third party consultants to carry out screening for Appropriate Assessment on each of the EDRRS Year 1 bogs to assess if the measures were likely to have significant effects on any European Site. If this screening concluded that there was a likelihood of significant effects to a designated site, an Appropriate Assessment or Natura Impact Statement (NIS) was completed and submitted to the relevant Minister for observations. Following new legislation in 2021 the completed NIS was also subject to a public consultation process. Bord na Móna having regard to these submissions and observations then made a determination as to whether the proposed project individually or in combination with other plans or projects, would have any adverse effects on the integrity of any European site. A determination was also prepared by Bord na Móna where a Natura Impact Statement was not required. These determinations were completed prior to the commencement of the proposed rehabilitation measures.

4. Rehabilitation by Bog

The following sections provide a breakdown of the rehabilitation measures proposed and carried out on each of the EDRRS Year 1 bogs where rehabilitation commenced in 2021. A table is provided for each bog setting out the hectares rehabilitated on each bog and which contribute towards the overall 32,779 hectares to be rehabilitated under the scheme. Areas of a bog that are constrained from rehabilitation are not included in these areas.

As rehabilitation progressed on each bog there were some amendments to the original rehabilitation proposals submitted and approved by NPWS. These amendments were generally due to a change in

methodology due to conditions encountered on the ground. Examples of such changes are a reduction in intensity of measures due to the presence of significant vegetation, reduction in intensity of measures as the ground conditions were wetter than anticipated and amendment in proposed rehabilitation measures due to turbary/land ownership issues in bog remnant areas. In some cases, the rehab intensity was increased, and this was carried out in line with the approved change process agreed between Bord na Móna and NPWS. These changes were recorded in a Rehab Type Change Register issued on a regular basis to NPWS and will be addressed in detail in the Ex-Post report for each bog when the bog is fully complete.

A review of the Marginal Land Type 1 (MLT1) and Additional Work Type 1 (AWT1) areas was carried out on the EDRRS Year 1 bogs after some bog packages had been submitted to and approved by NPWS. These are areas that are considered to benefit from adjoining rehabilitation measures and are included in the hectares regarded as rehabilitated, however there is no specific rehabilitation carried out within them. This review resulted in a reduction in these areas with some areas re-classified as *Constraint* or *Other Areas*. These re-classified areas are not included as contributing to the 32,779 hectares to be rehabilitated under the scheme. This will also be addressed in the Ex-post report for each bog. The tables included in each Bog sections below sets out the approved rehabilitation design and the amended rehabilitation design at the end March 2022.

While the number of hectares rehabilitated can be considered when assessing the progress of the rehabilitation measures, the intensity of the work carried out varies depending on the rehabilitation method completed in these hectares. In order to take account of this, the *Work Content Completed* is included in the assessment of rehabilitation progress on each bog. This takes account of the variation in the intensity of work required for each methodology and it also takes account of additional measures such as berms or drains included in the individual cost estimates.

The percentage of work content completed is therefore a more accurate measure of the progress of the scheme than the hectares rehabilitated.

4.1 Belmont Bog

Site Description

Belmont Bog in Co. Offaly is located one kilometre north-west of Belmont Village and the overall area of the bog is 320 hectares. Some of this area is constrained and not included for rehabilitation due to existing forestry leases and domestic turfcutting. The bog had been in peat production since the 1960's and industrial peat extraction ceased in 2018. Further information on the bog is available in the Belmont Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in May 2021 setting out the proposals for the rehabilitation of Belmont Bog and these proposed measures and associated cost estimate was approved by NPWS. Rehabilitation commenced on this bog in June 2021. The proposed rehabilitation is set out in Table 4.1 below and in Appendix B1 and consists of a combination of Deep Peat, Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Belmont Bog are included in Appendix B1 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Belmont Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	4.2	0.0	45.2	8.7	4.65	54.5	0.0	0.0	8.4	8.1	104.4	0.0	56.3	7.2	0.0	0.0	301.6
Design Rehab Methodologies incorporating amendments post commencement	0.0	4.7	0.0	41.0	8.5	4.7	51.5	0.0	0.0	8.4	8.1	111.2	0.0	28.5	7.2	0.0	0.0	273.8
Rehab Methodologies Completed at end Mar 2022	0.0	4.7	0.0	40.1	3.6	6.6	37.0	0.0	0.0	12.8	8.1	103.6	0.0	25.6	3.1	0.0	1.1	246.2
Percentage area rehabilitated at End March 2022																		90%
Percentage Work Content completed at End March 2022																		83%

Table 4.1 Summary of Belmont Rehabilitation

The area rehabilitated in Belmont Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 246 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. In general, one Area leader and five Operatives were employed using two bull-dozer, three excavators, and six tractors to implement the rehab measures in Belmont Bog.

Appropriate Assessment

The Appropriate Assessment screening for Belmont Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on 15 European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.2 Clooniff Bog

Site Description

Clooniff Bog is located approximately 4 km to the north of Shannonbridge in Co. Roscommon, on the western banks of the River Shannon and the overall area of the bog is 531 hectares. Peat production at Clooniff Bog commenced in the 1970s, with all commercial peat extraction ceasing in 2019. Further information on the bog is available in the Clooniff Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in April 2021 setting out the proposals for the rehabilitation of Clooniff Bog and these proposed measures and associated cost estimate were approved by NPWS. While some mobilisation took place on this bog, due to delays in the Appropriate Assessment consultation process, a decision was made to postpone the commencement of rehabilitation on Clooniff Bog until April 2022. The proposed rehabilitation is set out in Table 4.2 below and in Appendix B2 and consists of a combination of Deep Peat, Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS is included in Appendix B2 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Clooniff Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	71.3	33.3	0.0	0	46.7	0.0	0.0	0.0	209.3	71.2	0.0	70.4	5.3	0.0	0.0	507.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	71.8	33.9	0.0	0.0	45.9	0.0	0.0	0.0	209.5	70.8	0.0	39.6	5.3	0.0	0.0	476.7
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percentage area rehabilitated at End March 2022																		0%
Percentage Work Content completed at End March 2022																		0%

Table 4.2 Summary of Clooniff Rehabilitation

No hectares were rehabilitated on this bog at the end March 2022.

Appropriate Assessment

The Appropriate Assessment screening for Clooniff Bog concluded that there was a likelihood of significant effects to three of the thirteen relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of the River Shannon Callows SAC, the River Suck Callows SPA and the Middle Shannon Callows SPA. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations and was also issued for public consultation. No observations were received from the public consultation process. Observations were received from the Minister and these were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.3 Garryduff Bog

Site Description

Garryduff Bog is located approximately 1 km south of Shannonbridge in Co. Galway and the area of the bog is 972 hectares. The River Suck flows along the northern boundary and meets the River Shannon, which flows along the eastern boundary. Garryduff Bog was drained and developed for industrial peat production in the 1960s and was in active peat production from 1968 until industrial peat production ceased in 2019. Further information on the bog is available in the Garryduff Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in June 2021 setting out the proposals for the rehabilitation of Garryduff Bog and these proposed measures and associated cost estimate was approved by NPWS. Rehabilitation commenced on this bog in July 2021. The proposed rehabilitation is set out in Table 4.3 below and in Appendix B3 and consists of a combination of Deep Peat, Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Garryduff Bog are included in Appendix B3 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Garryduff Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	6.5	0.0	5.2	32.9	0.0	64.6	0.0	0.0	342.0	43.4	281.4	0.0	113.1	1.3	0.0	0.0	890.4
Design Rehab Methodologies incorporating amendments post commencement	0.0	13.3	0.0	4.8	26.6	0.0	69.4	0.0	0.0	344.1	45.8	286.1	0.0	63.6	14.3	0.0	0.0	868.0
Rehab Methodologies Completed at end Mar 2022	0.0	13.3	0.0	4.8	26.6	0.0	69.4	0.0	0.0	344.1	45.8	286.1	0.0	63.6	14.3	0.0	0.0	868.0
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		96%

Table 4.3 Summary of Garryduff Rehabilitation

The area rehabilitated in Garryduff Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 868 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. In general, one Area leader and six Operatives were employed using one bull-dozer, five excavators, and seven tractors to implement the rehabilitation measures in Garryduff Bog.

Appropriate Assessment

The Appropriate Assessment screening for Garryduff Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on 17 relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.4 Kellysgrove Bog

Site Description

Kellysgrove Bog is located in east Co. Galway, just over 2km south of Ballinasloe and the area of the bog is 203 hectares. Kellysgrove Bog was drained in the 1980s in anticipation of peat production but no peat harvesting ever took place. Prior to the commencement of the rehabilitation measures, the site still retained raised bog vegetation, although it was degraded. Further information on the bog is available in the Kellysgrove Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Kellysgrove Bog and these proposed measures and associated cost estimate was approved by NPWS. Rehabilitation commenced on this bog in April 2021 and was fully completed by early September 2021. The proposed rehabilitation is set out in Table 4.4 below and in Appendix B4 and consists of Deep Peat Type 2 measures to avoid disturbance to existing vegetation. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Kellysgrove Bog are included in Appendix B4 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Kellysgrove Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.0	0.0	0.0	0.0	196.1
Design Rehab Methodologies incorporating amendments post commencement	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	132.4
Rehab Methodologies Completed at end Mar 2022	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	132.4
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		100%

Table 4.4 Summary of Kellysgrove Rehabilitation

The area rehabilitated in Kellysgrove Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 132 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied during the course of the rehabilitation. The resources were one Area leader and between two and five Operatives each using an excavator implemented the rehab measures in Kellysgrove Bog.

Appropriate Assessment

The Appropriate Assessment screening for Kellysgrove Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on 13 relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.5 Kilmacshane Bog

Site Description

Kilmacshane Bog is located in Co. Galway, on the western banks of the River Shannon approximately 1.5 km north of Banagher. The area of the bog is 1,298 hectares. Kilmacshane Bog was drained and developed for industrial peat production in the 1960s and was in active peat production from 1968 until industrial peat production ceased in 2014. Further information on the bog is available in the Kilmacshane Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in April 2021 setting out the proposals for the rehabilitation of Kilmacshane Bog and these proposed measures and associated cost estimate was approved by NPWS. Rehabilitation commenced on this bog in May 2021. The proposed rehabilitation is set out in Table 4.5 below and in Appendix B5 and consists of a mainly Wetland methodologies with some small areas of Deep Peat and Dry Cutaway methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Kilmacshane Bog are included in Appendix B5 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Kilmacshane Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	27.7	0.0	65.9	0.0	1.4	126.6	0.0	0.0	400.6	157.4	303.0	0.0	168.9	0.0	0.0	0.0	1251.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	36.6	0.0	58.5	0.0	1.4	129.9	0.0	0.0	400.6	157.8	302.0	0.0	110.0	10.6	0.0	0.0	1207.4
Rehab Methodologies Completed at end Mar 2022	0.0	36.6	0.0	57.2	0.0	15.6	116.9	0.0	0.0	400.6	157.5	271.0	0.0	106.9	10.6	0.0	0.0	1172.9
Percentage area rehabilitated at End March 2022																		97%
Percentage Work Content completed at End March 2022																		90%

Table 4.5 Summary of Garryduff Rehabilitation

The area rehabilitated in Kilmacshane Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 1173 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. In general, one Area leader and twelve to fifteen Operatives were employed using two bull-dozer, eight excavators, and twelve tractors to implement the rehab measures in Kilmacshane Bog.

Appropriate Assessment

The Appropriate Assessment screening for Kilmacshane Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in combination with other plans or projects. Therefore, the potential for significant effects on 20 relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.6 Boora Bog

Site Description

Boora Bog is located in Co. Offaly, ca.1.5km north of Kilcormac Village. The overall Boora bog is divided into two main sections, often assigned the designation Boora East and Boora West. The area of the bog is 1,851 hectares. Boora Bog was in peat production since the early 1950's. Boora Bog is also the site of Lough Boora Discovery Park which has a network of off-road walking and cycling routes within a perimeter of approximately 20 kilometres. Further information on the bog is available in the Boora Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in June 2021 setting out the proposals for the rehabilitation of Boora Bog and these proposed measures and associated cost estimate was approved by NPWS. Rehabilitation commenced on this bog in August 2021. The proposed rehabilitation is set out in Table 4.6 below and in Appendix B6 and consists of Deep Peat, Dry Cutaway, Wetland and Additional Works methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Boora Bog are included in Appendix B6 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Boora Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	14.6	0.0	122.9	0.0	119.8	15.6	0.0	0.0	0.0	67.7	113.1	0.0	74.9	0.0	200.8	35.4	764.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	14.6	0.0	113.6	0.0	120.1	15.4	0.0	0.0	0.0	76.9	113.1	0.0	33.0	0.0	135.9	37.8	660.4
Rehab Methodologies Completed at end Mar 2022	0.0	14.6	0.0	50.5	0.0	120.1	14.0	0.0	0.0	0.0	50.1	113.1	0.0	26.9	0.0	110.7	37.8	537.8
Percentage area rehabilitated at End March 2022																		81%
Percentage Work Content completed at End March 2022																		58%

Table 4.6 Summary of Boora Rehabilitation

The area rehabilitated in Boora Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 538 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. The number of operatives implementing rehab on Boora Bog varied from five to twelve with a combination of dozers, excavators and tractors as required depending on the resources.

Appropriate Assessment

The Appropriate Assessment screening for Boora Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on 20 relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.7 Derries Bog

Site Description

Derries Bog is located in Co. Offaly, just over 4km south east of Ferbane. The area of the bog is 371 hectares. The majority of Derries Bog was in in peat production from the 1960's until 2005. Further information on the bog is available in the Derries Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in June 2021 setting out the proposals for the rehabilitation of Derries Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in August 2021. The proposed rehabilitation is set out in Table 4.7 below and in Appendix B7 and consists of a combination of Wetland and Dry Cutaway and a small area of Deep Peat methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Derries Bog are included in Appendix B7 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derries Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	12.3	3.2	112.5	14.7	0.0	0.0	181.0	0.0	0.0	0.0	31.9	0.0	0.0	0.0	355.6
Design Rehab Methodologies incorporating amendments post commencement	0.0	4.3	0.0	3.4	3.4	112.2	48.4	0.0	0.0	147.5	4.6	0.0	0.0	30.0	0.0	0.0	5.2	359.1
Rehab Methodologies Completed at end Mar 2022	0.0	4.3	0.0	3.4	3.4	112.2	48.1	0.0	0.0	147.5	4.6	0.0	0.0	30.0	0.0	0.0	5.2	358.7
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		96%

Table 4.7 Summary of Derries Rehabilitation

The area rehabilitated in Derries Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 359 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. In general, four Operatives were employed using two bull-dozers, two excavators, and four tractors to implement the rehab measures in Derries Bog.

Appropriate Assessment

The Appropriate Assessment screening for Derries Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on 12 relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.8 Oughter Bog

Site Description

Oughter Bog is located in Co. Offaly, circa 3km to the west of Blueball. The area of the bog is 358 hectares. Oughter bog lies to the south of the River Brosna and the Grand Canal. Industrial peat production ceased at Oughter Bog in 2012. Further information on the bog is available in the Oughter Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Oughter Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in July 2021. The proposed rehabilitation is set out in Table 4.8 below and in Appendix B8 and consists of a combination of Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Oughter Bog are included in Appendix B8 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Oughter Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	15.3	44.1	0.0	0.0	35.4	22.9	123.1	0.0	40.5	0.0	0.0	0.0	281.3
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	15.2	39.2	0.0	0.0	33.9	21.1	127.6	0.0	32.3	5.6	0.0	19.8	294.7
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	14.8	36.4	0.0	0.0	14.0	21.1	123.6	0.0	26.5	5.6	0.0	0.0	241.9
Percentage area rehabilitated at End March 2022																		82%
Percentage Work Content completed at End March 2022																		67%

Table 4.8 Summary of Oughter Rehabilitation

The area rehabilitated in Oughter Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 242 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area leader and three Operatives were employed using one bull-dozer, two excavators, and four tractors to implement the rehab measures in Oughter Bog.

Appropriate Assessment

The Appropriate Assessment screening for Oughter Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on eight relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.9 Pollagh Bog

Site Description

Pollagh Bog is located adjacent to the village of Pollagh in County Offaly and to the south of the Grand Canal. The area of the bog is 304 hectares. Pollagh Bog was originally developed for peat production in the 1950's with industrial peat production ceasing in 2019. Further information on the bog is available in the Pollagh Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in April 2021 setting out the proposals for the rehabilitation of Pollagh Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in May 2021. The proposed rehabilitation is set out in Table 4.9 below and in Appendix B9 and consists of a combination of Deep Peat, Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Pollagh Bog are included in Appendix B9 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Pollagh Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	6.9	76.3	5.8	0.0	42.8	0.0	0.0	1.7	29.6	83.0	0.0	40.7	0.0	0.0	0.0	286.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	2.6	6.9	72.3	4.7	0.0	41.9	0.0	0.0	1.7	29.1	87.1	0.0	17.8	0.0	0.0	0.0	264.1
Rehab Methodologies Completed at end Mar 2022	0.0	0.2	6.9	72.3	4.7	0.0	41.9	0.0	0.0	1.7	14.9	87.1	0.0	16.6	0.0	0.0	0.0	246.3
Percentage area rehabilitated at End March 2022																		93%
Percentage Work Content completed at End March 2022																		90%

Table 4.9 Summary of Pollagh Rehabilitation

The area rehabilitated in Pollagh Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 249 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area leader and seven Operatives were employed using two bull-dozer, four excavators and eight tractors to implement the rehab measures in Pollagh Bog.

Appropriate Assessment

The Appropriate Assessment screening for Pollagh Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on eight relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.10 Turraun Bog

Site Description

Turraun Bog is located in Co. Offaly, circa 5.5km the south-east of Ferbane. The area of the bog is 541 hectares. Part of Turraun was developed for wetlands and amenity as part of the Lough Boora Discovery Park in the 1990s. Turraun Bog was originally drained and developed for industrial peat production in the 1940s. Industrial peat production ceased in 2018. Further information on the bog is available in the Turraun Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in June 2021 setting out the proposals for the rehabilitation of Turraun Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in July 2021. The proposed rehabilitation is set out in Table 4.10 below and in Appendix B10 and consists of a combination of Dry Cutaway and Wetland rehab methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Turraun Bog are included in Appendix B10 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Turraun Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	0.0	82.7	0.0	0.0	7.2	14.3	213.9	1.4	198.4	0.0	0.0	0.0	517.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	0.0	88.9	0.0	0.0	38.3	5.7	185.1	1.4	66.0	0.0	0.0	0.0	385.3
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	88.9	0.0	0.0	38.3	5.7	184.7	1.4	65.9	0.0	0.0	0.0	384.8
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.10 Summary of Turraun Rehabilitation

The area rehabilitated in Turraun Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 385 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, two Operatives were employed using two excavators, and two tractors to implement the rehab measures in Turraun Bog.

Appropriate Assessment

The Appropriate Assessment screening for Oughter Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on twelve relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.11 Castlegar Bog

Site Description

Castlegar Bog is located in east County Galway to the west of the River Suck and the overall area of the bog is 520 hectares. This area includes a section of Annaghbeg Bog National Heritage Area (NHA). No rehabilitation measures were proposed or carried out on Annaghbeg Bog as there has been no Bord na Mona drainage, bog development or industrial peat production in this area. A site location map of the bog is included in Appendix B1.

The remainder of bog was drained and developed for industrial peat production in the 1990s and was in active peat production since 2004. Industrial peat production permanently ceased in 2019. The site is located adjacent to the River Suck and several designated sites. Further information on the bog is available in the Castlegar Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Castlegar Bog and these proposed measures and associated cost estimate was approved by NPWS. The proposed rehabilitation is set out in Table 4.11 below and in Appendix B11 herein, and mainly consist of Deep Peat rehabilitation methodologies. Castlegar Bog was a trial site and these trials commenced in Summer 2020. A number of variations on methodologies were trialled in advance of full rehabilitation to establish the most suitable methods of implementing

the various measures. These included the use of a screwleveller to re-profile a production field rather than a bull-dozer and these trials were sub-sets of the rehabilitation methodologies set out in the Table below.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Castlegar Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	22.4	55.0	68.3	92.9	61.7	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	65.7	1.2	0.0	0.0	379.3
Design Rehab Methodologies incorporating amendments post commencement	23.0	58.7	100.1	92.5	30.3	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	54.2	1.2	0.0	0.0	371.1
Rehab Methodologies Completed at end Mar 2022	23.0	58.7	100.1	92.5	22.7	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	52.7	0.0	0.0	0.0	360.8
Percentage area rehabilitated at End March 2022																		97%
Percentage Work Content completed at End March 2022																		87%

Table 4.11 Summary of Castlegar Rehabilitation

The area rehabilitated in Castlegar Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 361 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year and the ground and weather conditions. During a typical week in the Summer months, one Area leader and ten Operatives were employed using four bull-dozers, five excavators, one screw-leveller and eleven tractors to implement the rehab measures in Castlegar Bog.

Appropriate Assessment

The Appropriate Assessment screening for Castlegar Bog concluded that there was a likelihood of significant effects to two of the fourteen relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of the River Shannon Callows SPA and the Middle Shannon Callows SPA. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations and was also issued for public consultation. One submission was received from the public consultation process and observations were received from the Minister. These observations and submission were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.12 Cavemount Bog

Site Description

Cavemount Bog is located in Co. Offaly, approximately 3km north east of the village of Daingean and 2km south west of the village of Rhode. The bog lies to the south side of the Grand Canal proposed National Heritage Area (pNHA). The area of the bog is 513 hectares. Cavemount Bog was drained and developed for industrial peat production in the 1970s while industrial peat production ceased completely in 2015. Further information on the bog is available in the Cavemount Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Cavemount Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in August 2021. The proposed rehabilitation is set out in Table 4.12 below and in Appendix B12 and consists of mainly Wetland methodologies with some smaller areas of Dry Cutaway and Deep Peat methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Cavemount Bog are included in Appendix B9 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Cavemount Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	16.7	0.0	12.1	59.1	0.0	0.0	7.5	243.9	50.2	0.0	116.0	0.0	0.0	0.0	505.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	17.2	0.0	12.1	39.4	0.0	0.0	7.4	242.6	42.6	0.0	39.6	0.0	0.0	28.2	429.2
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	17.2	0.0	4.8	38.7	0.0	0.0	7.4	242.6	42.6	0.0	38.8	0.0	0.0	28.2	420.4
Percentage area rehabilitated at End March 2022																		98%
Percentage Work Content completed at End March 2022																		87%

Table 4.9 Summary of Cavemount Rehabilitation

The area rehabilitated in Cavemount Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 420 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, two to four Operatives were employed to implement the rehab measures using bull-dozers, excavators and tractors as required for the particular methodology being implemented at the time.

Appropriate Assessment

The Appropriate Assessment screening for Cavemount Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on four relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.13 Clonad Bog

Site Description

Clonad Bog is in Co. Offaly, approximately 2km south of Daingean and c.2.5km north of Geashill. The area of the bog is 446 hectares. Clonad Bog was drained and developed for industrial peat production in the 1970s while industrial peat production ceased completely in 2020. Further information on the bog is available in the Clonad Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in May 2021 setting out the proposals for the rehabilitation of Clonad Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in late September 2021. The proposed rehabilitation is set out in Table 4.13 below and in Appendix B13 and consists of a combination of Dry Cutaway and Wetland rehab methodologies with a small area of Deep Peat methodology. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Clonad Bog are included in Appendix B13 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Clonad Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	37.9	8.3	0.0	84.7	0.0	0.0	0.0	2.4	189.6	0.0	93.6	14.0	0.0	0.0	430.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	41.3	8.2	0.0	82.7	0.0	0.0	0.0	2.4	188.4	0.0	32.7	14.0	0.0	0.0	369.6
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	34.0	0.3	0.0	64.4	0.0	0.0	0.0	2.4	163.4	0.0	25.7	0.0	0.0	0.0	290.2
Percentage area rehabilitated at End March 2022																		79%
Percentage Work Content completed at End March 2022																		59%

Table 4.13 Summary of Clonad Rehabilitation

The area rehabilitated in Clonad Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 290 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. A maximum of nine Operatives were employed using four bull-dozers, four excavators and eight tractors to implement the rehab measures in Clonad Bog although these level of resources and plant were not maintained on this bog for the full rehab period.

Appropriate Assessment

The Appropriate Assessment screening for Clonad Bog concluded that there was a likelihood of significant effects to three of the seven relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of the River Barrow and River Nore SAC, Charleville Wood SAC and River Shannon Callows SAC. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations and was also issued for public consultation. One submission was received from the public consultation process and observations were received from the Minister. These observations and submission were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.14 Esker Bog

Site Description

Esker Bog is in Co. Offaly, approximately 3.5km southeast of Rhode. The area of the bog is 566 hectares. The Bog was drained and developed for industrial peat production in the early 1970s while industrial peat production ceased completely in 2019. Further information on the bog is available in the Esker Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in April 2021 setting out the proposals for the rehabilitation of Esker Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in late May 2021. The proposed rehabilitation is set out in Table 4.14 below and in Appendix B14 and consists of a mainly Deep Peat methodologies with some Dry Cutaway and Wetland methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Esker Bog are included in Appendix B14 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Esker Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	159.4	131.6	45.0	0.0	69.7	0.0	0.0	0.0	34.6	34.3	0.0	55.9	3.3	0.0	0.0	533.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	159.9	116.8	44.7	10.9	53.6	0.0	0.0	0.0	34.6	53.6	0.0	38.0	3.3	0.0	0.0	515.5
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	156.9	114.3	44.7	10.9	53.6	0.0	0.0	0.0	34.6	53.6	0.0	37.6	3.3	0.0	0.0	509.5
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		92%

Table 4.14 Summary of Esker Rehabilitation

The area rehabilitated in Esker Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 509 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area leader and thirteen Operatives were employed using five bulldozers, seven excavators and fourteen tractors to implement the rehab measures in Esker Bog.

Appropriate Assessment

The Appropriate Assessment screening for Esker Bog concluded that there was a likelihood of significant effects to one of the three relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of the River Barrow and River Nore SAC. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations, however public consultation was not required as the relevant legislation had not come into force. Observations were received from the Minister and these were taken into

account by Bord na Móna before the determination to accept the Consultant's recommendation was completed.

4.15 Mountlucas Bog

Site Description

Mountlucas Bog is located approximately eight kilometres south-east of Daingean in Co Offaly. The area of the bog is 1,229 hectares. Bord na Móna has constructed a 28 turbine (80 MW) wind farm at Mountlucas and this is operational since 2014. Peat Production at Mountlucas commenced in the mid-1970s and ceased in 2020. Further information on the bog is available in the Mountlucas Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in May 2021 setting out the proposals for the rehabilitation of Mountlucas Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in June 2021. The proposed rehabilitation is set out in Table 4.15 below and in Appendix B15 and consists of a combination of Deep Peat, Dry Cutaway, Wetland methodologies as well as Additional Works (targeted drain blocking). A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Mountlucas Bog are included in Appendix B15 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Mountlucas Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	27.9	24.1	43.4	0.0	64.5	0.0	0.0	4.1	21.4	75.4	0.0	95.3	0.0	0.0	253.4	609.3
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	32.8	25.3	37.8	0.0	64.3	0.0	0.0	4.1	21.4	75.2	0.0	58.2	0.0	0.0	115.8	434.9
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	32.8	25.3	37.8	0.0	64.3	0.0	0.0	4.1	21.4	75.2	0.0	58.2	0.0	0.0	115.8	434.9
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.15 Summary of Mountlucas Rehabilitation

The area rehabilitated in Mountlucas Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 435 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, nine Operatives were employed using three bull-dozers, five excavators and nine tractors to implement the rehab measures in Mountlucas Bog.

Appropriate Assessment

The Appropriate Assessment screening for Mountlucas Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on five relevant European Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.16 Ummeras Bog

Site Description

Ummeras Bog is located approximately 3 km North of Monasterevin and straddles the border between Co. Offaly to the north and Co. Kildare to the south. The Grand Canal is located to the east of the site. The Slate River flows to the north of the site and meets the Figile, where it then flows south to the west of Ummeras Bog to meet the Barrow. The area of the bog is 302 hectares. Bord na Móna started to level and cut drains at Ummeras Bog in 1973. Sod peat moss was originally harvested in 1980 and then harvesting of milled moss peat began in 1989 and ceased in 2019.

Further information on the bog is available in the Ummeras Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Ummeras Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in July 2021. The proposed rehabilitation is set out in Table 4.16 below and in Appendix B16 and consists of mainly Deep Peat methodologies with some Dry Cutaway and Wetland methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Ummeras Bog are included in Appendix B16 herein.

Bog	Rehabilitation Methodology (by hectare)																Total Area (Hectares)	
Ummeras Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	4.0	11.4	0.0	120.8	26.6	6.4	28.7	0.0	1.8	0.0	1.1	4.0	0.0	79.0	0.0	0.0	0.0	283.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	11.4	0.0	112.5	22.5	5.9	28.7	0.0	0.3	5.9	1.1	17.1	0.0	33.1	0.0	0.0	0.0	238.3
Rehab Methodologies Completed at end Mar 2022	0.0	11.4	0.0	112.5	22.5	5.9	28.7	0.0	0.3	5.9	1.1	17.1	0.0	33.1	0.0	0.0	0.0	238.4
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		91%

Table 4.16 Summary of Ummeras Rehabilitation

The area rehabilitated in Ummeras Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 238 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area Leader and ten Operatives were employed using five bull-dozers, four excavators and eleven tractors to implement the rehab measures in Ummeras Bog.

Appropriate Assessment

The Appropriate Assessment screening for Ummeras Bog concluded that there was a likelihood of significant effects to one of the four relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of the River Barrow and River Nore SAC. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the

required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations, however public consultation was not required as the relevant legislation had not come into force. Observations were received from the Minister and these were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.17 Derrycashel Bog

Site Description

Derrycashel bog is in Co. Roscommon along the River Shannon, circa 5 km north of Lanesborough. The area of the bog is 384 hectares. Derrycashel bog is a relatively old production bog and was in production from 1951 until 2018. Further information on the bog is available in the Derrycashel Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in April 2021 setting out the proposals for the rehabilitation of Ummeras Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in November 2021. The proposed rehabilitation is set out in Table 4.17 below and in Appendix B17 and consists of mainly Wetland methodologies with some Dry Cutaway and Marginal land methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Derrycashel Bog are included in Appendix B17 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derrycashel Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	0.0	73.8	0.0	4.6	188.6	0.0	49.1	0.0	25.1	39.2	0.0	0.0	380.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	0.0	73.4	0.0	4.6	189.2	0.0	49.1	0.0	0.0	41.5	0.0	0.0	357.8
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	70.9	0.0	4.6	189.2	0.0	47.9	0.0	0.0	41.5	0.0	0.0	354.1
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		89%

Table 4.17 Summary of Derrycashel Rehabilitation

The area rehabilitated in Derrycashel Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 354 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, two Operatives were employed using two excavators and two tractors to implement the rehab measures in Derrycashel Bog.

Appropriate Assessment

The Appropriate Assessment screening for Derrycashel Bog concluded that there was no likelihood of significant effects to European Sites because of the proposed project, either alone or in-combination with other plans or projects. Therefore, the potential for significant effects on ten relevant European

Sites has been excluded and have been 'Screened Out' from the Appropriate Assessment process and no Appropriate Assessment is required for these European Sites.

4.18 Derrycolumb Bog

Site Description

Derrycolumb Bog is located approximately 9.5km to the west of Ballymahon in County Longford. The area of the bog is 461 hectares. Industrial peat production commenced in the mid-1980s with production ceasing in 2019. Further information on the bog is available in the Derrycolumb Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in March 2021 setting out the proposals for the rehabilitation of Derrycolumb Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in May 2021. The proposed rehabilitation is set out in Table 4.18 below and in Appendix B18 and consists of a combination of Deep Peat, Dry Cutaway and Wetland methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Derrycolumb Bog are included in Appendix B18 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derrycolumb Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	2.9	75.2	40.6	4.4	0.0	77.8	0.0	0.0	43.2	20.1	95.9	0.0	65.7	0.0	0.0	0.0	425.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	9.6	70.9	40.7	4.6	0.0	83.3	0.0	0.0	43.3	19.8	97.0	0.0	40.9	0.0	0.0	0.0	410.0
Rehab Methodologies Completed at end Mar 2022	0.0	9.6	70.9	38.8	4.6	0.0	83.3	0.0	0.0	43.3	19.8	97.0	0.0	40.7	0.0	0.0	0.0	408.0
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		92%

Table 4.18 Summary of Derrycolumb Rehabilitation

The area rehabilitated in Derrycolumb Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 408 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area Leader and six Operatives were employed using one bull-dozer, five excavators and seven tractors to implement the rehab measures in Derrycashel Bog.

Appropriate Assessment

The Appropriate Assessment screening for Derrycolumb Bog concluded that there was a likelihood of significant effects to two of the nine relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore required in respect of Lough Ree SAC and Lough Ree SPA. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that "given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the

integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations, however public consultation was not required as the relevant legislation had not come into force. Observations were received from the Minister and these were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.19 Edera Bog

Site Description

Edera Bog is located approximately 4.5km to the west of Ballymahon in Co. Longford. Edera Bog is located adjacent to Lough Ree and several designated conservation sites and the Bilberry River flows through the site. The area of the bog is 282 hectares. Edera Bog has been in peat production since 2003, with all commercial peat extraction ceasing on site in 2018. Further information on the bog is available in the Edera Bog Cutaway Bog Decommissioning and Rehabilitation Plan 2021.

Rehabilitation Design and Implementation

A package of documents and drawings was submitted to NPWS in February 2021 setting out the proposals for the rehabilitation of Edera Bog and these proposed measures and associated cost estimate were approved by NPWS. Rehabilitation commenced on this bog in May 2021. The proposed rehabilitation is set out in Table 4.19 below and in Appendix B19 and consists of a combination of Deep Peat, Dry Cutaway and Wetland methodologies. A drawing of the proposed rehabilitation approved by NPWS and the rehabilitation completed at the end of March 2022 in Edera Bog are included in Appendix B19 herein.

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Edera Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	48.9	60.5	19.7	0.0	10.3	9.7	0.0	0.0	0.0	41.9	7.0	67.4	0.0	0.0	0.0	265.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.7	51.1	59.1	18.1	0.0	10.3	9.9	0.0	0.0	0.0	42.4	6.8	51.4	0.0	0.0	0.0	249.8
Rehab Methodologies Completed at end Mar 2022	0.0	0.7	51.1	59.1	18.1	0.0	10.3	9.9	0.0	0.0	0.0	42.4	6.8	51.4	0.0	0.0	0.0	249.8
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.19 Summary of Edera Rehabilitation

The area rehabilitated in Edera Bog and contributing to the 32,779 hectares to be rehabilitated under EDRRS was 250 hectares at the end March 2022.

Plant and Resources

The number of resources and the equipment utilised to implement the rehabilitation measures varied depending on the time of year, ground and weather conditions and resource allocation. In general, one Area Leader and eight Operatives were employed using four bull-dozers, four excavators and nine tractors to implement the rehab measures in Derrycashel Bog.

Appropriate Assessment

The Appropriate Assessment screening for Edera Bog concluded that there was a likelihood of significant effects to two of the four relevant European Sites because of the proposed project, either alone or in-combination with other plans or projects. An Appropriate Assessment was therefore

required in respect of Lough Ree SAC and Lough Ree SPA. A Natura Impact Statement (NIS) was subsequently prepared by third party consultants and this recommended that “given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed development will not give rise to adverse effects on the integrity of any of the identified European sites evaluated herein.” This document was issued to the Minister for observations, however public consultation was not required as the relevant legislation had not come into force. Observations were received from the Minister and these were taken into account by Bord na Móna before the determination to accept the Consultant’s recommendation was completed.

4.20 Summary of Rehabilitation Completed to End March 2022.

Rehabilitation

In total 7455 hectares was rehabilitated in the EDRRS Year 1 bogs from the commencement of the scheme to the end of March 2022. This is 90.3% of the hectares to be rehabilitated in the Year 1 bogs and 82.1% of the Work Content to be completed on these bogs. A summary of this completed rehabilitation by bog and by methodology is included in Appendix B20.

5. Decommissioning

5.1 Decommissioning General

The decommissioning of an ex-industrial peatland involves the removal of all infrastructure, plant, equipment, materials, and wastes. The associated IPC Licence condition requires Bord na Mona to:

“Decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution”

These decommissioning requirements for each bog are initially identified and recorded using a Geographic Information System (GIS) based application and all infrastructure is quantified and included where applicable in the following years decommissioning. Discrete waste items are also located and added to the schedule using survey-based apps and all is recorded and managed on the Bord na Móna GIS mapping system.

The decommissioning is then planned alongside the associated rehabilitation in a particular year using a variety of internal and external resources to dismantle and transport these waste items off the applicable bog for either reuse or recycling. Items defined as waste are collected by approved and licenced waste management with associated waste records to ensure all waste item volumes/weights are tracked from the bog to the end destination. The decommissioning process is managed and tracked using a variety of key performance indicators (KPI’s) such as Bog Clean-up (hectares) and Rail Decommissioning (kilometres).

5.2 Decommissioning to End March 2022

For the EDRRS Year 1 bogs, the associated targets and performance at the end March 2022 was as follows:

Bog Clean Up		Rail Decommissioning	
Target (hectares)	Completed (hectares)	Target (Kms)	Completed (Kms)
8,667	7,234	70.2	39.2

Table 5.1: Decommissioning completed in EDRRS Year 1 Bogs

The factors and variables that effect the performance of these KPI's include resource availability from prioritised rehabilitation, waste items to be removed from each bog, waste collection service and upstream peat stock and rehabilitation transport requirements.

The focus of the scheme has been on the implementation of the rehabilitation measures during this period. Existing rail infrastructure is used to support the rehabilitation measures and in general rail decommissioning is completed when bogs have been fully rehabilitated.

The measurement and verification of the decommissioning is managed using a data gathering application, Survey123, where once a bog has been declared as decommissioned, the Environmental Department visit the bog and confirm that all waste items identified as part of the initial survey, have been removed from site. These records are managed and maintained for reporting to the EDRRS scheme, as part of the Annual Environmental Report (AER) submitted to the EPA and will also be used for the eventual Independent Closure Audit and the EPA's Exit Audit process.

Any decommissioning that is a requirement of the existing IPC licences is not funded under EDRRS other than the Time Value Money (TVM) costs associated with the acceleration of these decommissioning activities.

6. Stakeholder Engagement

6.1 General

A Stakeholder Engagement Process was carried out prior to the commencement of the EDRRS rehabilitation measures on all bogs as it is considered important to explain the purpose of the scheme and the proposed rehabilitation. Consultation is also a requirement of the Integrated Pollution Control (IPC) licences issued by the Environmental Protection Agency (EPA) under which Bord na Móna carried out peat production. This requirement is set out in section 2 of the EPA document *Guidance on the process of preparing and implementing a bog rehabilitation plan*.

At the commencement of the scheme a Community Liaison Officer was appointed to deal specifically with EDRRS and address any queries raised by the public or other stakeholders. A dedicated website was developed by Bord na Móna containing information on the scheme and providing details of the dedicated email address and contact details for the Community Liaison Officer. The website is located at <https://www.bnmpcas.ie/> and the dedicated email address is pcasinfo@bnm.ie.

6.2 Consultation for EDRRS Year 1 Bogs

As part of the initial consultation process for the EDRRS Year 1 Bogs, an email advising of Bord na Mona's intention to rehabilitate each bog along with a link to the draft Rehabilitation Plan was sent to a list of stakeholders. The stakeholders included local authorities, farming organisations, community groups, environmental groups, Non-Governmental Organisations (NGOs), relevant Government Departments, relevant semi-state organisations and regulatory/statutory bodies along

with local and national elected representatives. Submissions were invited from all stakeholders and a consultation period (typically three weeks) was provided for.

The consultation period for the EDRRS Year 1 bogs commenced in December 2020 with all but one email issued by the end February 2021. An email in relation to Boora Bog was issued in late April 2021.

In addition to this email, households within a 1 km radius of the bog boundary received a letter advising of the intended rehabilitation and providing contact details for any queries. This letter was accompanied by an information leaflet and these documents were hand delivered by the dedicated EDRRS Community Liaison Officer (CLO) with the assistance of other Bord na Mona representatives as needed. However, for the EDRRS Year 1 bogs, door to door visits only took place for three of the bogs due to COVID 19 restrictions. As an alternative to these house calls, advertisements were placed in local papers for the remaining bogs.

The Community Liaison Officer was available to take telephone calls, meet landowners/stakeholders onsite, where possible under Covid restrictions, and respond to email queries as necessary. Over 40 meetings were held with interested parties up to March 2022 consisting of onsite visits, in-person and virtual meetings and presentations. Attendees included local residents groups, Irish Farmers Association (IFA), Irish Creamery and Milk Suppliers Association (ICMSA), Teagasc, National Association of Regional Game Councils (NARGC), Community Wetlands Forum, Heritage Council, County Councillors, Irish Water, Irish Peatland Conservation Council (IPCC), Irish Peat Society, Irish Wildlife Trust (IWT), National Museum of Ireland, local authorities and local and national elected representatives.

Stakeholder submissions for the EDRRS year 1 bogs consisted of general queries, acknowledgements, and more detailed submissions. All submissions were logged, responded to, and considered in the Final Rehabilitation Plan. Details of these submissions and responses are contained in the Consultation section of the Final Rehabilitation Plans (Chapter 4 and Appendix XI) for each bog.

Following the public Consultation process a Final Rehabilitation Plan was developed for each of the EDRRS Year 1 bogs. When approval for the proposed rehabilitation was provided by NPWS each Rehabilitation Plan was updated and submitted to the EPA for approval. Once approved by the EPA each Final Rehabilitation Plan was uploaded to the website replacing the Draft Rehabilitation Plan.

6.3 Consultation for EDRRS Year 2 Bogs

Consultation for eighteen of the nineteen EDRRS Year 2 bogs was also carried out during this period. As Covid restrictions had eased it was possible to deliver the brochure and letter to all households within one kilometre of the proposed rehabilitation on these bogs.

7. Training

7.1 General

Following the cessation of peat production and the announcement of EDRRS, Bord na Móna commenced planning for bog rehabilitation activities to replace peat production. As part of this planning a Training Needs Analysis (TNA) was completed to identify the necessary skills and qualifications Bord na Móna employees would require facilitating the implementation of enhanced rehabilitation and decommissioning. A suite of courses was identified which were rolled out by Bord

na M6na internal trainers and, where Bord na M6na did not have the in-house available expertise, by external providers.

7.2 Training Courses

The mandatory, and other, identified training that was delivered under EDRRS by Bord na M6na was as follows:

- Environmental Health & Safety Induction
- Bord na M6na Certificate - Manual Handling
- Bord na M6na Certificate - Abrasive Wheels
- Internal Certificate - Asbestos Awareness
- Internal Certificate - Working at Heights
- Specialist Bord na M6na Fire Safety Module 1
- Lantra Tractor & Attachment Operations

Other training identified through the TNA was delivered by external providers. Most of these training sessions were supported and funded by the Laois and Offaly Education and Training Board (LOETB). Supplier costs were fully funded, however the operatives time and any expenses to attend training was funded by EDRRS. The courses provided by external bodies are listed below:

- Quality and Qualifications Ireland (QQI) Level 5 Forestry Fencing
- CILT - ADR Driving Training Certificate
- Irish Water Safety (IWS) - Water Safety
- Solas - SafePass
- Solas - Construction Skills Certification Scheme (CSCS) 360 Excavator Training
- Solas - CSCS Telescopic Handler Training
- Solas - CSCS Dozer Training
- National Examination Board in Occupational Safety and Health (NEBOSH) - Environmental & Waste Certificate
- QQI - Level 5 Biodiversity and the Natural Environment (Discontinued)

Note: ADR - Driver Training Certificate ADR is the acronym given to the Agreement Concerning the International Carriage of Dangerous Goods by Road. CILT is the examining body for the ADR Driver Training Certificate appointed by the Health and Safety Authority (HSA).

7.3 Impact of Covid 19

As Bord na M6na were progressing through the EDRRS training programme, difficulty was experienced in procuring spaces on Solas Safepass and all CSCS courses. This was as a result of the COVID 19 pandemic which created large backlogs. In order to progress the training and avoid any delay to EDRRS, Bord na M6na procured the services of an external training company which provided non Solas certified excavator and dozer training. This company provided their own certification for these sessions and a commitment was made to employees that Bord na M6na would ensure they completed a CSCS certification at a later date.

Talent Pool Virtual Limited (TPV) supplied this training and 20% funding for this training was received from Midland Border East (MBE) Skillnet. It is worth noting that the instructor from TPV Ltd. was a CSCS certified instructor, so this training benefited many operatives at a later stage when they completed the certified CSCS course as these courses were based on the CSCS equivalent. All bogs had at least one operative who had a full CSCS certificate.

7.4 Amendments to Planned Training Programme

As part of the TNA's it was decided that operatives would complete a course on Biodiversity. The purpose of this training was to increase the employee's awareness of Biodiversity and Ecology and help them gain an understanding of why the rehabilitation work is important for the environment. The above course was chosen after much consultation with external partners like the Education and Training Boards (ETB) and agricultural colleges. This course was planned to run for 15 days for 165 employees.

When the initial 80 employees completed Day 1 of the course, feedback was obtained and unfortunately this feedback was not positive. Many employees felt that the course was too difficult and required a high-level foundation understating of biodiversity as a pre-requisite to the course. On further consultation with the ETB and the course tutors it was decided that this course would not be continued, and Biodiversity toolbox talks were delivered to all operatives as an alternative.

Additional employees were trained in the QQI Forestry and Fencing course as it was mainly practical based. This course is beneficial to EDRRS as fencing of silt ponds in accessible locations is included in the scheme.

7.5 Solas CSCS Courses

At the start of the training programme many operatives completed the three-day New Entrants Construction Skills Certification Scheme (CSCS) ticket on the 360 degree excavator and the Tractor Dozer. This certification lasts for two years and is similar to holding a provisional license on that machine. After six months an operative can then complete his Experienced Operators ticket, which takes one day, and this certificate is valid for five years.

As many operatives completed the New Entrants CSCS course early on in the EDRRS training programme, the Experienced Operatives training is still ongoing and will continue into next year. The LOETB had originally agreed to cover the New Entrants training, however the Experienced Operators training is fully funded by EDRRS. These CSCS programmes are some of the largest courses rolled out by the Bord na Móna Training Department as part of EDRRS.

7.6 Partners and Suppliers

The following organisations have been involved in the provision of training for EDRRS.

- Laois Offaly Enterprise Training Board (LOETB)
- Mountbellew Agricultural College
- Apex Fire Safety
- Lantra Training
- Midlands Border East Skillnet
- Talent Pool Virtual Limited
- Mountlucas National Construction Training Centre
- National Construction Training & Safety Rooskey
- Carroll's Training Centre, Ballyroan, Co. Laois
- Gurteen Agricultural College
- Hynes Quinn Driving School
- KTC Training & Consultancy
- Shorcontrol Safety Training
- Chris Mee Group Training
- CMG Training

7.7 Summary of Training Completed

Please see table 7.1 below which sets out a summary of the training completed to date.

Course	Days	Employees
QQI Level 5 Forestry Fencing	5	45
CILT ADR	6	25
IWS Water Safety	1	50
Specialist BNM Fire Safety Module 1	1	30
BNM Cert Manual Handling	1	100
BNM Cert Abrasive Wheels	1	60
Internal Cert Asbestos Awareness	1	15
Internal Cert Working at Heights	1	80
Solas SafePass	1	130
Solas CSCS 360 Excavator	5	80
Solas CSCS Telescopic Handler	5	10
Solas CSCS Dozer	5	60
Lantra Tractor & Attachment Operations	2	100
QQI Level 5 Biodiversity and the Natural Environment (Discontinued)	1	80
NEBOSH Environmental & Waste Certificate	5	16

Table 7.1 – EDRRS Training Completed

8. Monitoring

A separate Annual Monitoring and Verification Report will be provided detailing the monitoring that has been carried out under EDRRS and this report will cover all monitoring completed to the end June 2022. As a summary the following monitoring and verification is ongoing as part of the scheme:

- Monitoring of carbon fluxes using a combination of Eddy Co-variance towers and carbon chambers.
- Monitoring of surface water quality (circa 70% of drainage catchments) on a monthly basis.
- Monitoring of hydrology on the bogs through a network of piezometers equipped with loggers or dipped manually.
- Monitoring of changes in vegetation using habitat mapping and vegetation monitoring quadrats.
- Monitoring of pollinator response through the use of pollinator transects
- Monitoring of breeding birds and wintering birds.
- Monitoring of changes in bog condition over the lifetime through Bog Condition mapping.
- Aerial photography to verify rehabilitation measures.
- Flow Monitoring – using a combination of probes and flumes at sample locations.
- Archaeological Monitoring – The National Monuments Service engaged Archaeological Management Solutions (AMS) to carry out monitoring at four bogs in the scheme. Monitoring was carried out at Edera, Derrycolumb, Pollagh and Ummeras bogs.

A breakdown of the monitoring on a bog by bog basis will be included in the Annual Monitoring Report.

9. Design Status

9.1 Design – EDRRS Year 1 Bogs

Detailed design packages were prepared for each of the EDRRS Year 1 bogs and these packages were submitted to NPWS and approval received from NPWS prior to the commencement of rehabilitation. These packages required significant input from Bord na Móna Ecologists, Engineers, Surveyors, Environmental personnel, GIS Specialists, Finance personnel and Project Management personnel. External consultants, RPS Ltd. also provided input in relation to hydrology and hydrogeology. The packages for each bog included documents, detailed drawings and GIS layers.

Aerial photography and Light Detection and Ranging (LiDAR) surveys were purchased for all bogs included in EDRRS at the commencement of the scheme and validation of the LiDAR was carried by Bord an Móna Engineering. A topographical drainage survey was carried out on the EDRRS Year 1 and Year 2 bogs by the Bord na Móna Surveying Team. Numerous site visits and surveys were also carried out by Bord na Móna Engineers and Ecologists.

As the scheme was not formally in place until November 2020, the first package for the EDRRS Year 1 bogs was not submitted to NPWS for approval until February 2021 with the final package submitted in June 2021. Approvals for these packages were received from NPWS between March and August of 2021. This resulted in a later than preferred commencement for most of the EDRRS year 1 Bogs.

9.2 Design – EDRRS Year 2 Bogs

Selection and design of the nineteen EDRRS Year 2 bogs commenced in 2021 with nine packages submitted to NPWS by the end of December 2021 and seventeen submitted by the end of March 2022. Approvals for seven of the EDRRS Year 2 bogs were in place at the end of March 2022.

10. Lessons Learned / Recommendations

Implementation of the first year of EDRRS was a huge undertaking for all involved in the scheme. While some small-scale trials have been carried out, the scale of this rehabilitation was unprecedented. Experience was gained and lessons were learned as the rehabilitation was implemented and the rehabilitation design was influenced by emerging data. Some of these lessons learned are set out below:

Focus on the more intensive Deep Peat methodologies during the Summer months

The more intensive Deep peat methodologies require the use of dozers and screw-levellers and are difficult, if not impossible, to implement when bog conditions are very wet and soft. The creation of the DPT4 and DPT5 cells and the re-profiling of production fields for the DPT 3 methodologies need to be completed in the dryer summer months. When implementing the EDRRS Year 1 rehabilitation, it was necessary to cease the implementation of some of these measures until after the winter when conditions were dryer. The recommendation is that these deep peat rehabilitation methodologies are prioritised and commenced as soon as possible from April onwards and the other methodologies consisting of drain blocks carried out in the wetter Winter months, if necessary, to complete the programme of measures.

Install flow control in DPT4 and DPT5 cells as soon as possible after completion of cells

Due to the late commencement of some of the EDRRS Year 1 bogs it was not possible to complete the flow control system between the Deep Peat cells in all of the DPT4 and DPT5 rehabilitation measures before the wet weather made access to these cells more difficult. These flow control measures create a system to allow the water to flow from one cell to another and maintain optimum water levels in the cells. As result, the water level in some of the cells rose to the berm height level during the winter months and in some cases over topped the berms. While there was no evidence of any damage, such high water levels in the cells could weaken the berms and also result in water levels that are not optimum for suitable vegetation. The recommendation is that flow control is provided as soon as cells are completed and prior to the removal of resources from the bog. Where it is anticipated that there will be a lag period in providing the flow control features, overflow channels between the cells will be provided to reduce the risk of the internal system filling up. These channels will be positioned at the site of the proposed flow control feature to be installed at a later date.

Use of Plastic Sheet Piles to control flow between cells

The original design for the DPT4 and DPT5 cells included for pipes in the berms to control the flow between cells and control the level of water within each cell. While these pipes worked well, there were instances, due to conditions encountered in some locations, where the pipes became dis-lodged and did not function as designed. Alternatives were considered and following a trial, plastic sheet piles were identified as a suitable option. The recommendation is to consider the use of plastic sheet piles as an alternative to pipes for this flow control. In most bogs a combination of pipes at the edge cells with sheet piles within the bog is recommended, however this will be determined by the relevant Bord na Móna Engineer.

Postpone rail decommissioning until after bog rehabilitation is complete

As the rehabilitation progressed on the bogs, it was clear that the rail infrastructure where available was the most efficient means of re-fuelling the plant and equipment implementing the rehabilitation measures. The recommendation is that all rail decommissioning on a bog is delayed until the rehabilitation measures on that bog have been completed.

Requirement for greater than envisaged machine maintenance

The implementation of the rehabilitation involved intense use of excavators and dozers for eight to ten hours per day, sometimes in difficult ground conditions. As a result, the machine maintenance required to keep these machines operational and to minimise time lost due to breakdowns was greater than originally envisaged in the Financial Model. The recommendation is that an allowance be made for increased machine maintenance in future cost projections for the scheme.

10.1 Initial observations on EDRRS to date

The benefits from the rehabilitation measures are not immediate and it will only be over time that the success or otherwise can be definitively ascertained. However, the initial results are promising with the bogs appearing to be significantly wetter following the rehabilitation. Aerial photography carried out in Summer 2022 show visible rewetted areas.

Preliminary results from the piezometer monitoring are also very positive. Where rehabilitation measures have been implemented preliminary results indicate that phreatic water levels are typically

rising when compared with pre-rehabilitation data sets. This indicates that these levels are on an upward trajectory.

Preliminary Biodiversity monitoring results indicate some uptake of rewetted areas by species of conservation concern, including BOCCI Red listed species of birds, important refugia for invertebrates such as Marsh Fritillary and Large Heath butterflies and continued usage by important numbers of wintering water birds.

Enhanced Decommissioning, Restoration and Rehabilitation Scheme (EDRRS)

Annual Report – Year 1: Commencement of Scheme to March 2022

Appendices

Appendix A: Description of Rehabilitation Methodologies

Appendix B: Rehabilitation Details by Bog

Appendix B1:	Belmont Bog
Appendix B2:	Clooniff Bog
Appendix B3:	Garryduff Bog
Appendix B4:	Kellysgrove Bog
Appendix B5:	Kilmacshane Bog
Appendix B6:	Boora Bog
Appendix B7:	Derries Bog
Appendix B8:	Oughter Bog
Appendix B9:	Pollagh Bog
Appendix B10:	Turraun Bog
Appendix B11:	Castlegar Bog
Appendix B12:	Cavemount Bog
Appendix B13:	Clonad Bog
Appendix B14:	Esker Bog
Appendix B15:	Mountlucas Bog
Appendix B16:	Ummeras Bog
Appendix B17:	Derrycashel Bog
Appendix B18:	Derrycolumb Bog
Appendix B19:	Edera Bog
Appendix B20:	Summary of Rehabilitation

Appendix A
Description of Rehabilitation Methodologies

Code	Description
Deep Peat Cutover Bog	
DPT1	Regular drain blocking – Speed Bump method (3/100 m) + modifying outfalls and managing water levels with overflow pipes
DPT2	More intensive drain blocking (max 7/100 m) + modifying outfalls and managing overflows with a controlled weir outfall + fertiliser application
DPT3	More intensive drain blocking (max 7/100 m), + field reprofiling + modifying outfalls and managing overflows with a controlled weir outfall + fertiliser application
DPT4	Berms and field re-profiling (circa 45m x 60m cell) + modifying outfalls and managing overflows with a controlled weir outfall + drainage channels for excess water + fertiliser application + Sphagnum inoculation
DPT5	Cut and Fill cell bunding (circa 30m x 30m cell) + modifying outfalls and managing overflows with a controlled weir outfall + drainage channels for excess water + fertiliser application + Sphagnum inoculation
DPT6	Trench drain blocking + modifying outfalls and managing overflows with a controlled weir outfall + fertiliser application
Dry Cutaway	
DCT1	Targeted fertiliser application
DCT2	Regular drain blocking – speed bump method (3/100 m) + modifying outfalls and managing water levels with overflow pipes + targeted fertiliser treatment
DCT3	More intensive drain blocking (max 7/100 m) + modifying outfalls and managing overflows with a controlled weir outfall + targeted fertiliser treatment
Wetland	
WLT1	Turn off or reduce pumping to re-wet cutaway + modifying outfalls and managing water levels with overflow pipes+ targeted fertiliser application
WLT2	Turn off or reduce pumping to re-wet cutaway + modifying outfalls and managing water levels with overflow pipes + Targeted modifying of outfalls within a site+ targeted fertiliser application
WLT3	Turn off or reduce pumping to re-wet cutaway + modifying outfalls and managing water levels with overflow pipes + Targeted modifying of outfalls within a site + constructing larger berms to re-wet cutaway + transplanting Reeds and other rhizomes+ targeted fertiliser application
WLT4	More intensive drain blocking (4/100 m), + modifying outfalls and managing overflows with a controlled weir outfall + transplanting Reeds and other rhizomes+ targeted fertiliser application
WLT5	More intensive drain blocking (max 7/100 m), + field reprofiling + modifying outfalls and managing overflows with a controlled weir outfall + transplanting Reeds and other rhizomes+ targeted fertiliser application
Marginal Land	
MLT1	No work required
MLT2	More intensive drain blocking (max 7/100 m)
Additional Work – no specific land category	
AW1	No work required
AW2	Targeted drain blocking with excavator (1 per 100m)

Appendix B – Rehabilitation Details by Bog

Appendix B1 - Belmont Bog

Table 4.1 Summary of Belmont Rehabilitation Measures

Drg. No BNM-13-ER-01: Belmont Site Location Plan

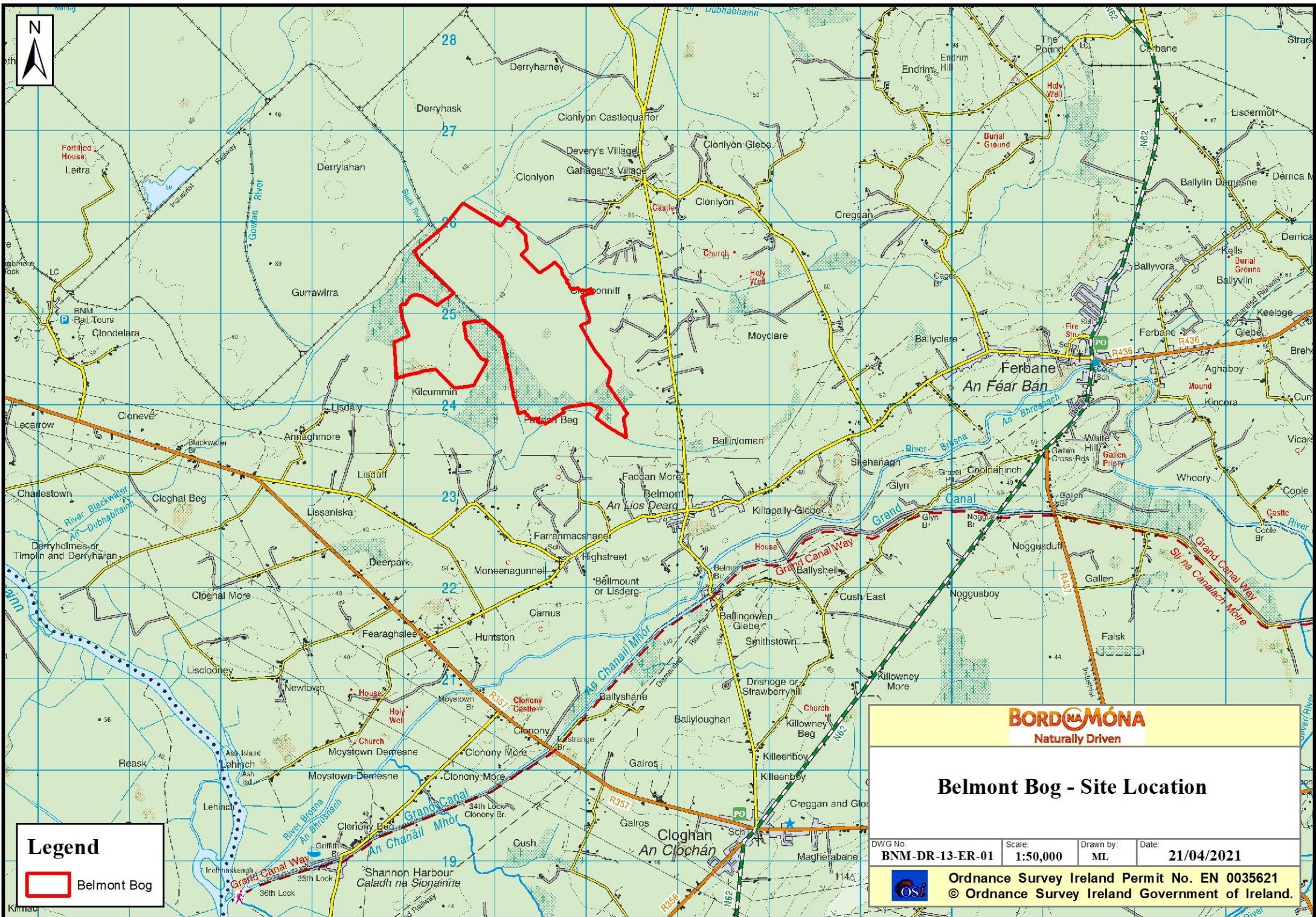
Drg No BNM-DR-13-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-00-22-13: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Belmont Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Belmont Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	4.2	0.0	45.2	8.7	4.65	54.5	0.0	0.0	8.4	8.1	104.4	0.0	56.3	7.2	0.0	0.0	301.6
Design Rehab Methodologies incorporating amendments post commencement	0.0	4.7	0.0	41.0	8.5	4.7	51.5	0.0	0.0	8.4	8.1	111.2	0.0	28.5	7.2	0.0	0.0	273.8
Rehab Methodologies Completed at end Mar 2022	0.0	4.7	0.0	40.1	3.6	6.6	37.0	0.0	0.0	12.8	8.1	103.6	0.0	25.6	3.1	0.0	1.1	246.2
Percentage area rehabilitated at End March 2022																		90%
Percentage Work Content completed at End March 2022																		83%

Table 4.1 Summary of Belmont Rehabilitation

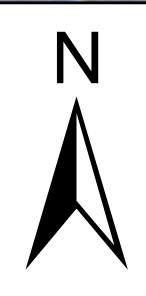


☐ Belmont Bog

Belmont Bog - Site Location



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Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line
- High Fields
- Silt Ponds
- BnM Boundary


Rehab Measures

- Proposed Drain Blocks
- Berms
- Bunded Cells

Rehab Measures

Rehab Code


- Constraint - Minimal Rehab
- DCT1 - Dry Cutaway 1
- DCT2 - Dry Cutaway 2
- DPT2 - Deep Peat Cutaway 2
- DPT4 - Deep Peat Cutaway 4
- DPT5 - Deep Peat Cutaway 5
- MLT1 - Marginal Land 1
- MLT2 - Marginal Land 2
- WLT2 - Wetland 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4



BORD NA MÓNA
Naturally Driven

Peatlands Climate Action Scheme
Belmont Bog
Proposed Measures - Site Layout Plan

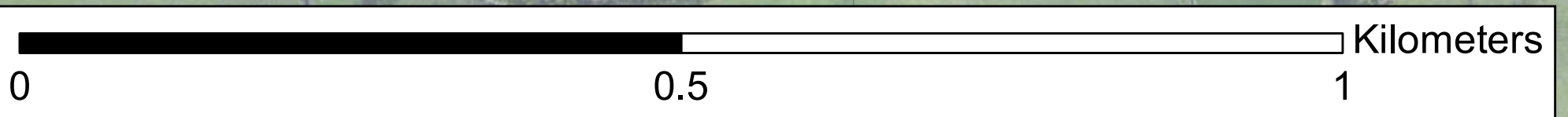
DRWG No. BNM-DR-13-02	Scale: 1:4,500	Drawn by: SK	Date: 28/04/2021
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Sphagnum Inoculation Areas to be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.


Fertiliser to be applied to High Field and
Headland Areas.







Legend

 Completed

 Ongoing

 Not Started

 BnM Boundary




Bord na Móna			
Belmont Bog As Completed Rehab Measures			
DRWG No: BNM-DR-23-13-32	Scale: 1:11,000	Drawn by: BG	Date: 29/09/2022
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Plate B1.1: Belmont Bog rehabilitation measures – October 2021



Plate B1.2: Belmont Bog rehabilitation measures – June 2022

Appendix B2 - Clooniff Bog

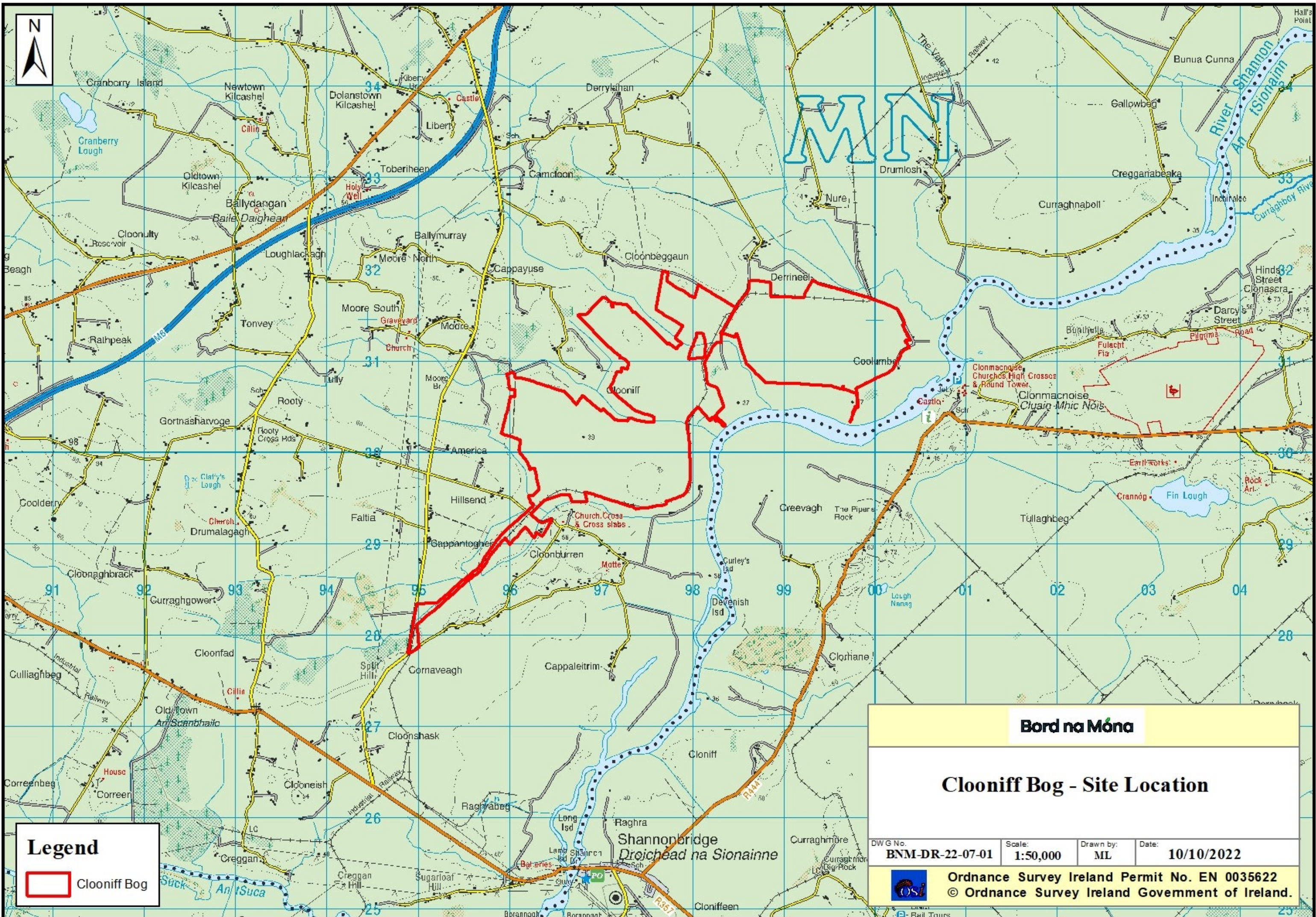
Table 4.2 Summary of Clooniff Rehabilitation Measures

Drg. No. BNM-DR-22-07-01: Clooniff Site Location Plan

Drg No BNM-DR-07-02: Proposed Measures (approved prior to rehab commencement)

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Clooniff Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	71.3	33.3	0.0	0	46.7	0.0	0.0	0.0	209.3	71.2	0.0	70.4	5.3	0.0	0.0	507.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	71.8	33.9	0.0	0.0	45.9	0.0	0.0	0.0	209.5	70.8	0.0	39.6	5.3	0.0	0.0	476.7
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percentage area rehabilitated at End March 2022																		0%
Percentage Work Content completed at End March 2022																		0%

Table 4.2 Summary of Clooniff Rehabilitation



Legend

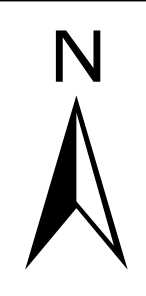
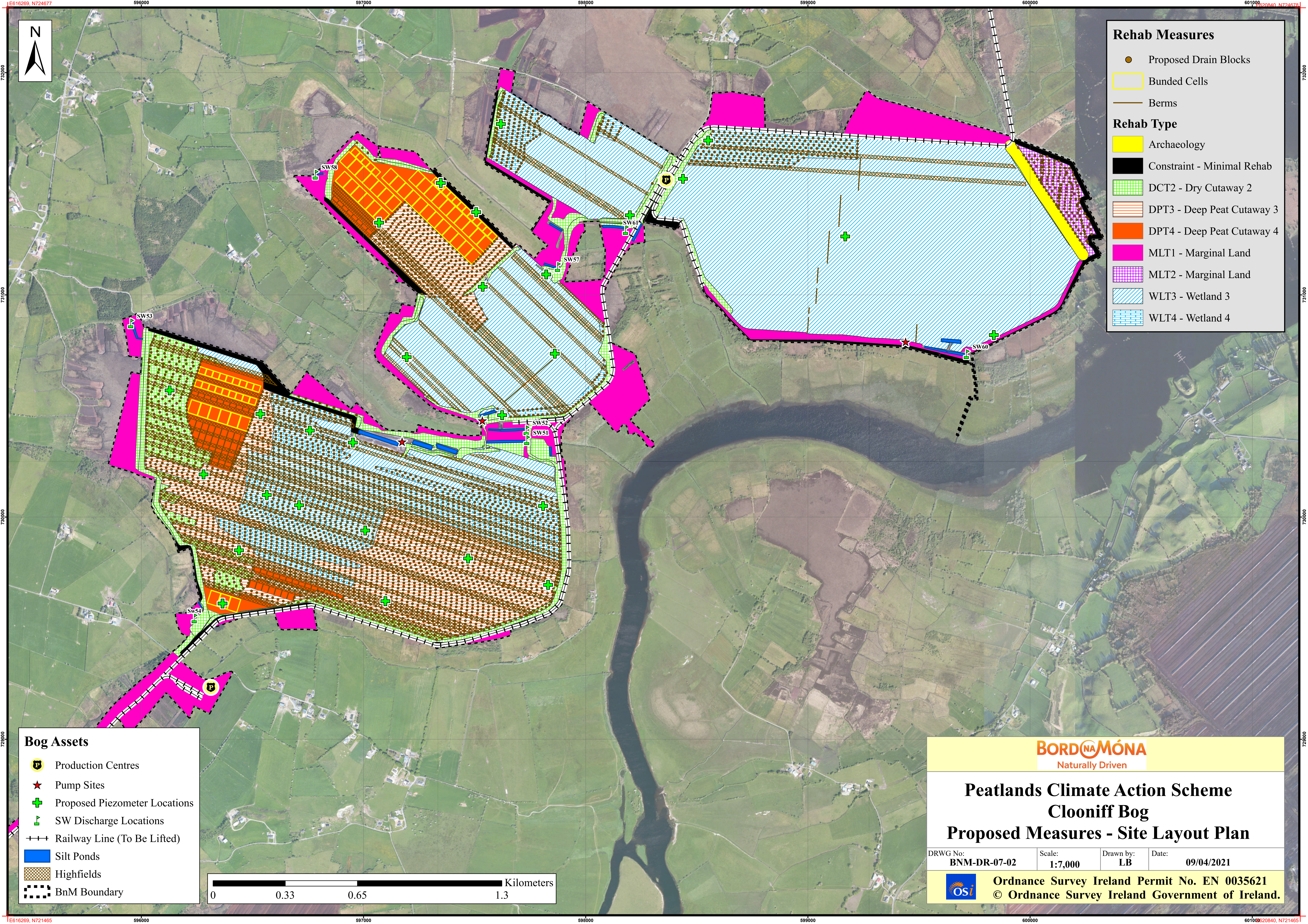
 Clonliff Bog

Bord na Móna

Clonliff Bog - Site Location

DWG No. BNM-DR-22-07-01	Scale: 1:50,000	Drawn by: ML	Date: 10/10/2022
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Bog Assets

- Production Centres
- Pump Sites
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- Highfields
- BnM Boundary



Rehab Measures

- Proposed Drain Blocks
- Bunded Cells
- Berms
- Rehab Type**
- Archaeology
- Constraint - Minimal Rehab
- DCT2 - Dry Cutaway 2
- DPT3 - Deep Peat Cutaway 3
- DPT4 - Deep Peat Cutaway 4
- MLT1 - Marginal Land
- MLT2 - Marginal Land
- WLT3 - Wetland 3
- WLT4 - Wetland 4



**Peatlands Climate Action Scheme
Clooniff Bog
Proposed Measures - Site Layout Plan**

DRWG No: BNM-DR-07-02	Scale: 1:7,000	Drawn by: LB	Date: 09/04/2021
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Appendix B3 - Garryduff Bog

Table 4.3 Summary of Garryduff Rehabilitation Measures

Drg. No BNM-14-ER-01: Garryduff Site Location Plan

Drg No BNM-DR-14- 02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-14-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Garryduff Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Garryduff Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	6.5	0.0	5.2	32.9	0.0	64.6	0.0	0.0	342.0	43.4	281.4	0.0	113.1	1.3	0.0	0.0	890.4
Design Rehab Methodologies incorporating amendments post commencement	0.0	13.3	0.0	4.8	26.6	0.0	69.4	0.0	0.0	344.1	45.8	286.1	0.0	63.6	14.3	0.0	0.0	868.0
Rehab Methodologies Completed at end Mar 2022	0.0	13.3	0.0	4.8	26.6	0.0	69.4	0.0	0.0	344.1	45.8	286.1	0.0	63.6	14.3	0.0	0.0	868.0
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		96%

Table 4.3 Summary of Garryduff Rehabilitation



Legend

 BnM Boundary

0 0.75 1.5 3 Kilometers

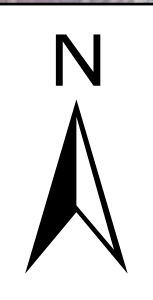
Bord na Móna

Garryduff Bog Bog Site Location

DRWG No: **BNM-DR-14-ER-01** Scale: **1:60,000** Drawn by: **LB** Date: **01/06/2021**



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Rehab Measures

- Proposed Drain Blocks
- Bunded Cells

Rehab Type

- Archaeology
- Constraint - Minimal Rehab
- DCT2 - Dry Cutaway 2
- DPT2 - Deep Peat Cutaway 2
- DPT4 - Deep Peat Cutaway 4
- DPT5 - Deep Peat Cutaway 5
- MLT1 - Marginal Land
- MLT2 - Marginal Land
- WLT2 - Wetland 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4

Bog Assets

- Production Centres
- Pump Sites
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- Highfields
- BnM Boundary



Bord na Móna

Peatlands Climate Action Scheme

Garryduff Bog

Proposed Measures - Site Layout Plan

DRWG No:
BNM-DR-14-02

Scale:
1:9,000

Drawn by:
LB

Date:
09/06/2021

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Legend

-  Completed
-  Not Started
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Garryduff Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-14-32	1:15,000	BG	29/09/2022

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Plate B3.1: Garryduff Bog rehabilitation measures – October 2021



Plate B3.2: Garryduff Bog rehabilitation measures – October 2021

Appendix B4 - Kellysgrove Bog

Table 4.4 Summary of Kellysgrove Rehabilitation Measures

Drg. No BNM-17-24-03: Kellysgrove Location Map

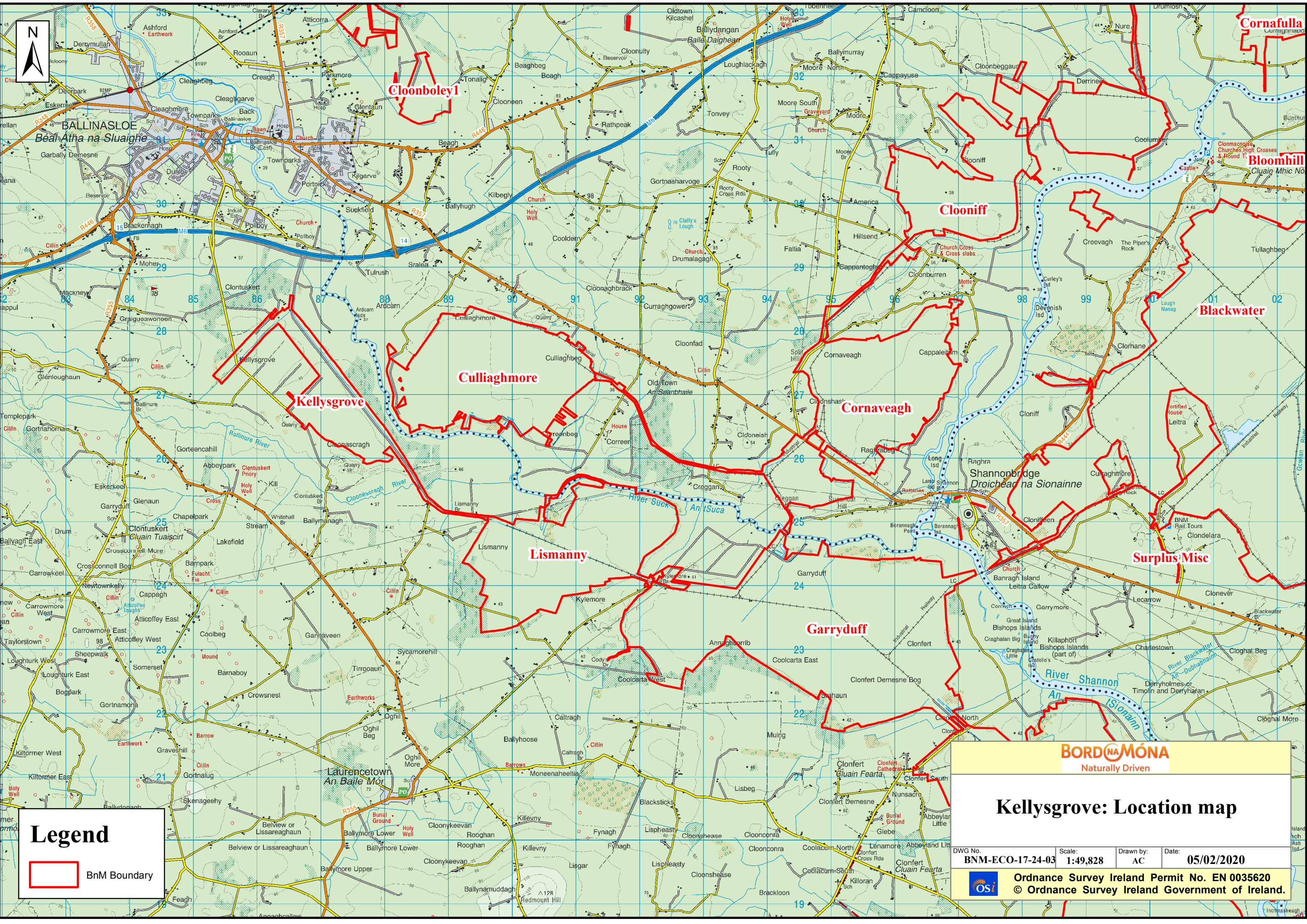
Drg No BNM-DR-02_DP-01: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-02-32: As Completed Rehabilitation Measures (at end Mar 2022)


Sample Photographs of Kellysgrove Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Kellysgrove Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.0	0.0	0.0	0.0	196.1
Design Rehab Methodologies incorporating amendments post commencement	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	132.4
Rehab Methodologies Completed at end Mar 2022	0.0	105.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	132.4
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		100%

Table 4.4 Summary of Kellysgrove Rehabilitation




Legend

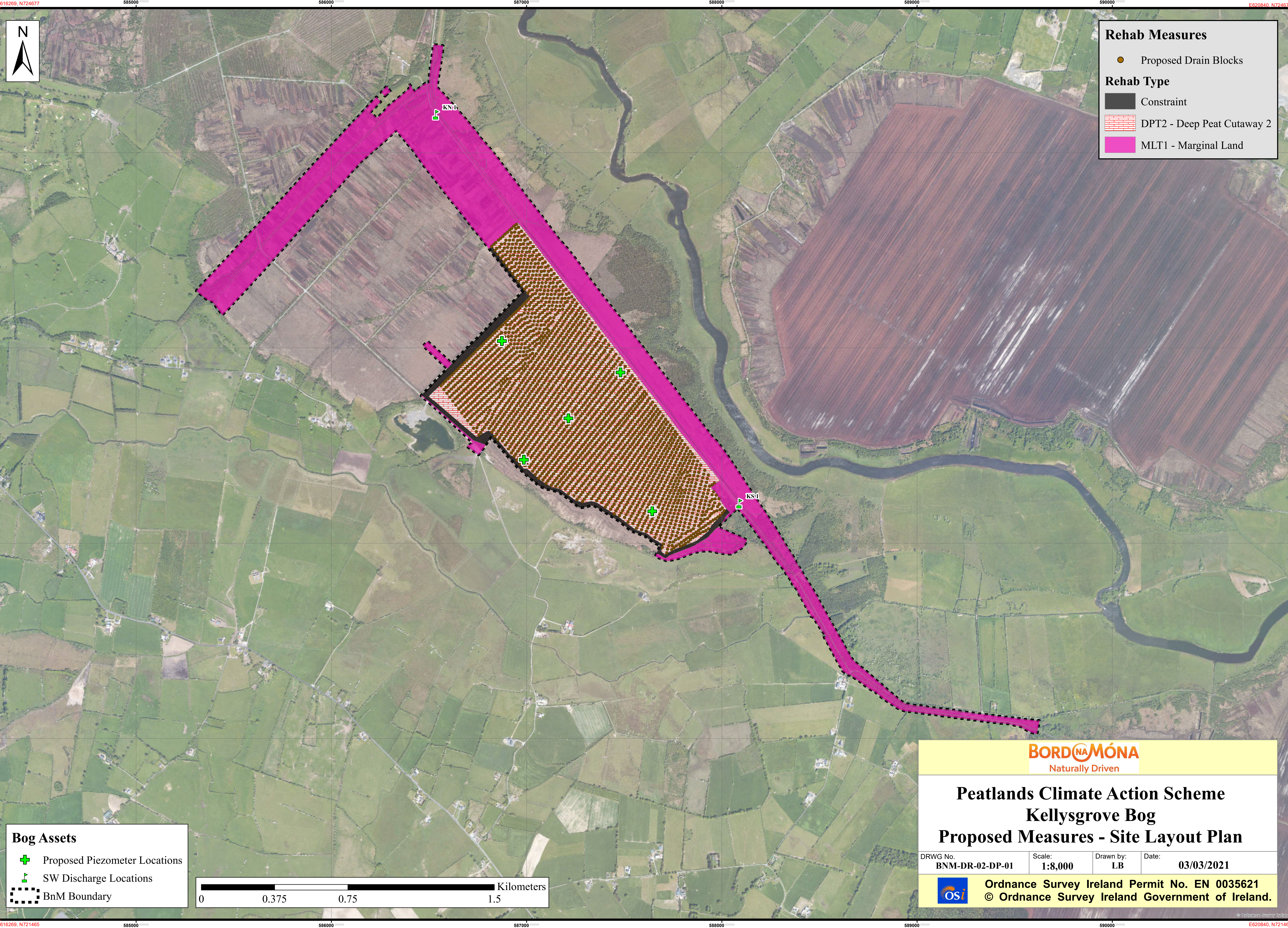
 BnM Boundary

BORD MÓNA
Naturally Driven

Kellysgrove: Location map

DWG No.	Scale:	Drawn by:	Date:
BNM-ECO-17-24-03	1:49,828	AC	05/02/2020

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Rehab Measures

Proposed Drain Blocks

Rehab Type

Constraint

DPT2 - Deep Peat Cutaway 2

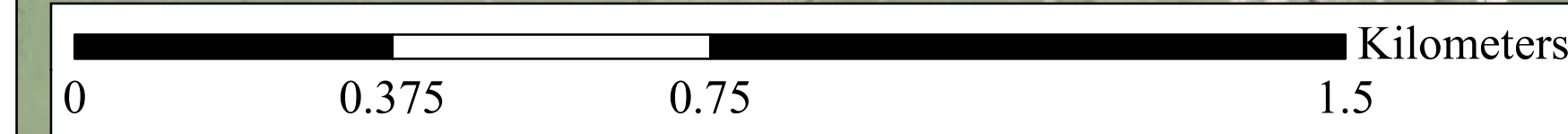
MLT1 - Marginal Land

Bog Assets

Proposed Piezometer Locations

SW Discharge Locations

BnM Boundary



BORD**NA****MÓNA**

Naturally Driven

Peatlands Climate Action Scheme

Kellysgrove Bog

Proposed Measures - Site Layout Plan

DRWG No.
BNM-DR-02-DP-01

Scale:
1:8,000



Drawn by:
LB

Date:
03/03/2021

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Legend

-  Completed
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Kellysgrove Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-02-32	1:14,000	BG	29/09/2022



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Plate B4.1: Kellysgrove Bog rehabilitation measures – March 2022



Plate B4.2: Kellysgrove Bog rehabilitation measures – March 2022

Appendix B5 - Kilmacshane Bog

Table 4.5 Summary of Kilmacshane Rehabilitation Measures

Drg. No BNM-DR-05-ER-01: Kilmacshane Site Location Plan

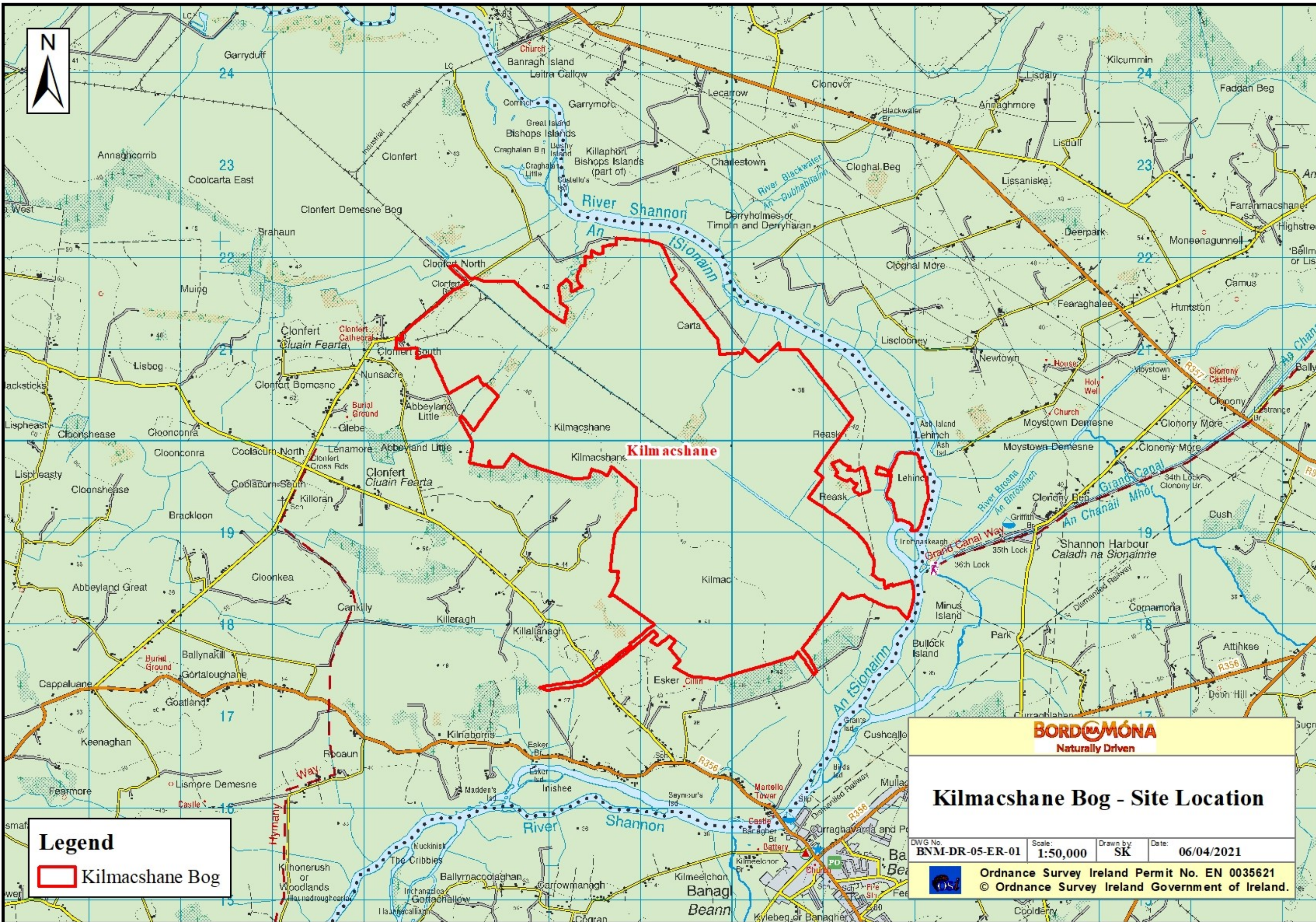
Drg No BNM-DR-05-02-REV-A: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-05-32: As Completed Rehabilitation Measures (at end Mar 2022)


Sample Photographs of Kilmacshane Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Kilmacshane Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	27.7	0.0	65.9	0.0	1.4	126.6	0.0	0.0	400.6	157.4	303.0	0.0	168.9	0.0	0.0	0.0	1251.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	36.6	0.0	58.5	0.0	1.4	129.9	0.0	0.0	400.6	157.8	302.0	0.0	110.0	10.6	0.0	0.0	1207.4
Rehab Methodologies Completed at end Mar 2022	0.0	36.6	0.0	57.2	0.0	15.6	116.9	0.0	0.0	400.6	157.5	271.0	0.0	106.9	10.6	0.0	0.0	1172.9
Percentage area rehabilitated at End March 2022																		97%
Percentage Work Content completed at End March 2022																		90%

Table 4.5 Summary of Kilmacshane Rehabilitation



Legend

 Kilmacshane Bog

BORDOMÓNA
Naturally Driven

Kilmacshane Bog - Site Location

DWG No. BNM-DR-05-ER-01	Scale: 1:50,000	Drawn by SK	Date: 06/04/2021
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Sphagnum Inoculation Areas to be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

Rehab Measures

- Proposed Drain Blocks
- Bunded Cells
- Berms

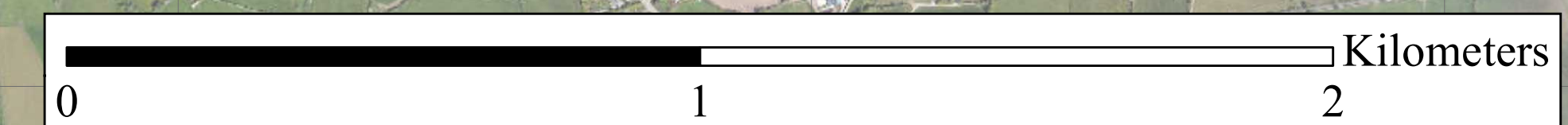
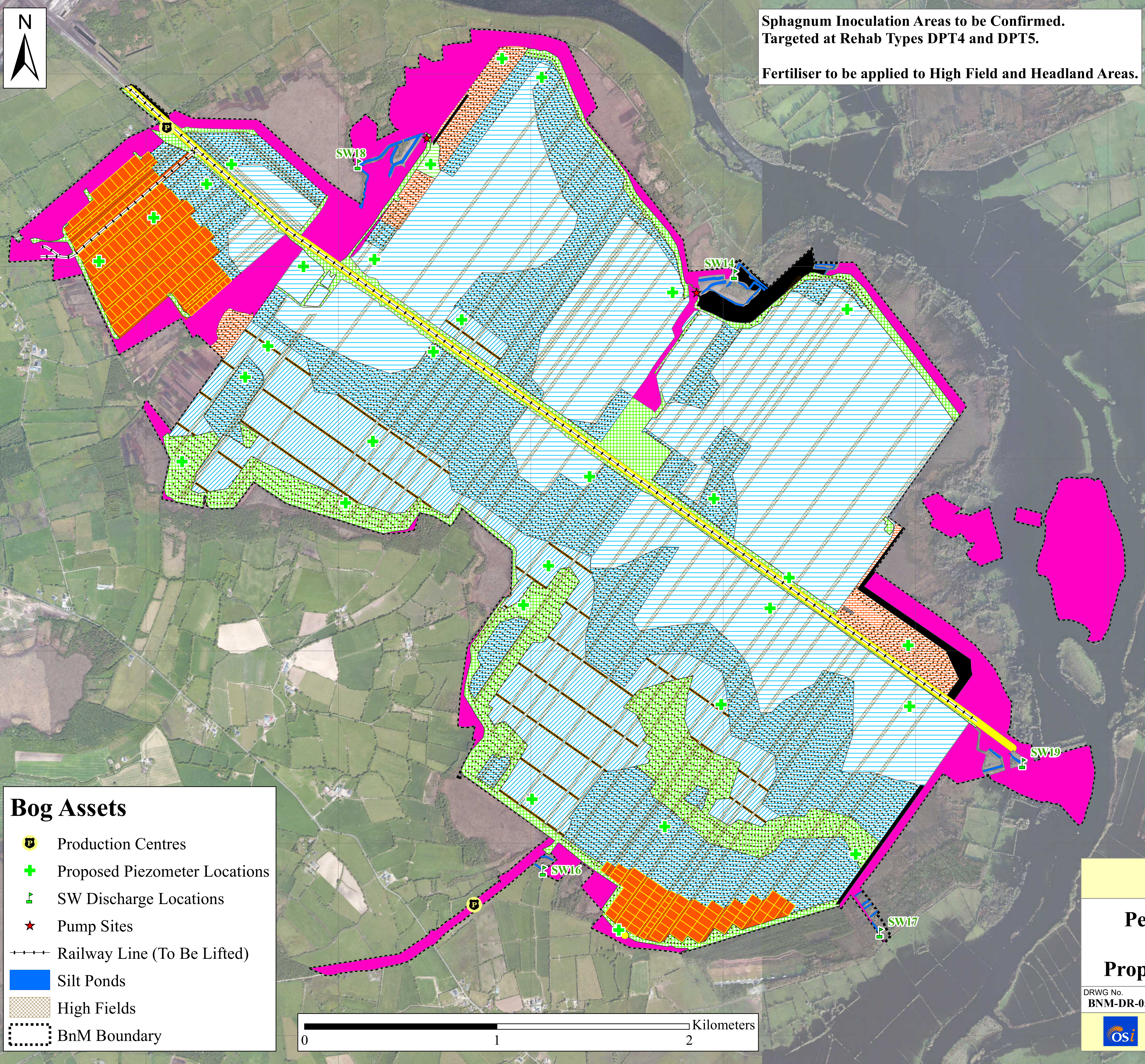
Rehab Measures


Rehab Type

- Archeology Constraint
- Constraint - Minimal Rehab
- DCT1 - Dry Cutaway 1
- DCT2 - Dry Cutaway 2
- DPT2 - Deep Peat Cutaway 2
- DPT4 - Deep Peat Cutaway 4
- MLT1 - Marginal Land 1
- WLT2 - Wetland 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4

Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Pump Sites
- Railway Line (To Be Lifted)
- Silt Ponds
- High Fields
- BnM Boundary





Naturally Driven

Peatlands Climate Action Scheme

Kilmacshane Bog


Proposed Measures - Site Layout Plan

DRWG No.
BNM-DR-05-02-REV-A

Scale:
1:9,500

Drawn by:
SK





Date:
28/06/2021



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Legend

-  Completed
-  Ongoing
-  Not Started
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Kilmacshane Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-05-32	1:22,000	BG	29/09/2022
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Plate B5.1: Kilmacshane Bog rehabilitation measures – October 2021



Plate B5.2: Kilmacshane Bog rehabilitation measures – October 2021

Appendix B6 - Boora Bog

Table 4.6 Summary of Boora Rehabilitation Measures

Drg. No DR-15-ER-01: Boora Site Location Plan

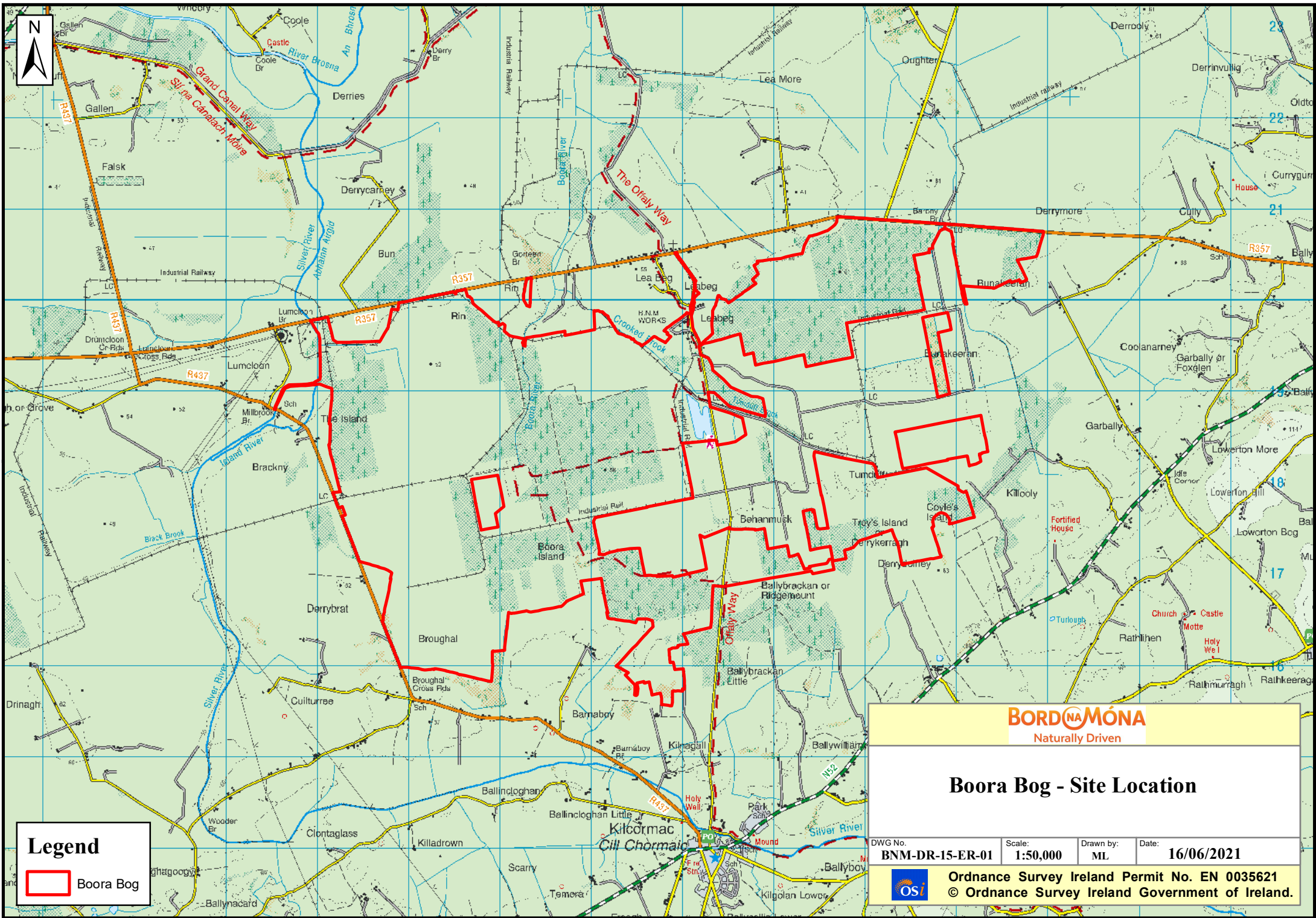
Drg No BNM-DR-15-02 REV-A: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-15-32: As Completed Rehabilitation Measures (at end Mar 2022)


Sample Photographs of Boora Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Boora Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	14.6	0.0	122.9	0.0	119.8	15.6	0.0	0.0	0.0	67.7	113.1	0.0	74.9	0.0	200.8	35.4	764.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	14.6	0.0	113.6	0.0	120.1	15.4	0.0	0.0	0.0	76.9	113.1	0.0	33.0	0.0	135.9	37.8	660.4
Rehab Methodologies Completed at end Mar 2022	0.0	14.6	0.0	50.5	0.0	120.1	14.0	0.0	0.0	0.0	50.1	113.1	0.0	26.9	0.0	110.7	37.8	537.8
Percentage area rehabilitated at End March 2022																		81%
Percentage Work Content completed at End March 2022																		58%

Table 4.6 Summary of Boora Rehabilitation




Legend

 Boora Bog

BORD na MÓNA
Naturally Driven

Boora Bog - Site Location

DWG No.	Scale:	Drawn by:	Date:
BNM-DR-15-ER-01	1:50,000	ML	16/06/2021
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Rehab Measures

- Proposed Drain Blocks
- Bunded Cells
- Berms

Rehab Type

- Additional Work 1
- Additional Work 2
- Archaeology
- Completed
- Constraint - Minimal Rehab
- DCT1 - Dry Cutaway 1
- DCT2 - Dry Cutaway 2
- DPT2 - Deep Peat Cutaway 2
- DPT4 - Deep Peat Cutaway 4
- MLT1 - Marginal Land
- WLT3 - Wetland 3
- WLT4 - Wetland 4

Bog Assets

- Production Centres
- Pump Sites
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- Highfields
- Stockpiles (To Be Removed)
- BnM Boundary



Subject to future
Irish Wildlife Trust agreement

Bord na Móna

Peatlands Climate Action Scheme

Boora Bog

Proposed Measures - Site Layout Plan

DRWG No:
BNM-DR-15-02-REV-A

Scale:
1:13,000





Drawn by:
LB

Date:
28/06/2021

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Legend

-  Completed
-  Ongoing
-  Not Started
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Boora Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-15-32	1:18,000	BG	29/09/2022
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Plate B6.2 Boora Bog rehabilitation measures – July 2022



Plate B6.1 Boora Bog rehabilitation measures – Oct 2022

Appendix B7 - Derries Bog

Table 4.7 Summary of Derries Rehabilitation Measures

Drg. No BNM-DR-16-ER-01: Derries Site Location Plan

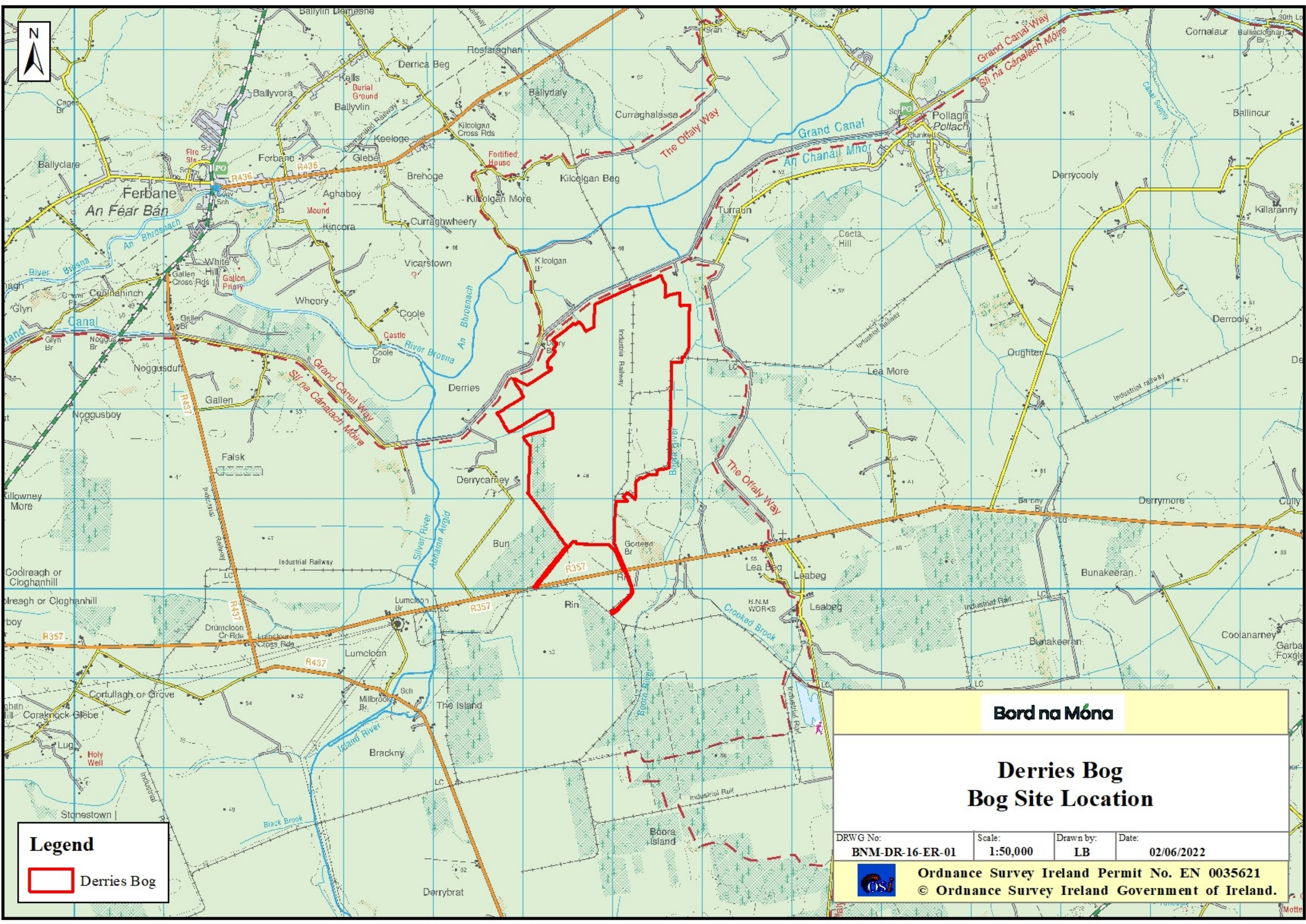
Drg No BNM-DR-16-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-16-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Derries Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derries Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	12.3	3.2	112.5	14.7	0.0	0.0	181.0	0.0	0.0	0.0	31.9	0.0	0.0	0.0	355.6
Design Rehab Methodologies incorporating amendments post commencement	0.0	4.3	0.0	3.4	3.4	112.2	48.4	0.0	0.0	147.5	4.6	0.0	0.0	30.0	0.0	0.0	5.2	359.1
Rehab Methodologies Completed at end Mar 2022	0.0	4.3	0.0	3.4	3.4	112.2	48.1	0.0	0.0	147.5	4.6	0.0	0.0	30.0	0.0	0.0	5.2	358.7
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		96%

Table 4.7 Summary of Derries Rehabilitation




Legend

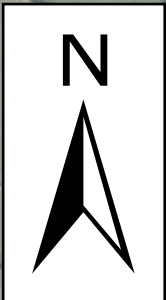
 Derries Bog

Bord na Móna

**Derries Bog
Bog Site Location**

DRWG No: BNM-DR-16-ER-01	Scale: 1:50,000	Drawn by: LB	Date: 02/06/2022
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Rehab Measures

Proposed Drain Blocks

Berms

Bunded Cells

Rehab Type

Constraint - Minimal Rehab

DCT1 - Dry Cutaway 1

DCT2 - Dry Cutaway 2

DPT4 - Deep Peat Cutaway 4

DPT5 - Deep Peat Cutaway 5

MLT1 - Marginal Land

WLT2 - Wetland 2

Bog Assets

Production Centres

Pump Sites

Proposed Piezometer Locations

SW Discharge Locations

Railway Line (To Be Lifted)

Silt Ponds

Highfields

BnM Boundary



Bord na Móna

Peatlands Climate Action Scheme
Derries Bog
Proposed Measures - Site Layout Plan

DRWG No:
BNM-DR-16-02

Scale:
1:6,000

Drawn by:
LB

Date:
11/06/2021

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Legend

-  Completed
-  Ongoing
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Derries Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-16-32	1:13,000	BG	29/09/2022



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Plate B7.1: Derries Bog rehabilitation measures – August 2021



Plate B7.2: Derries Bog rehabilitation measures – October 2021

Appendix B8 - Oughter Bog

Table 4.8 Summary of Oughter Rehabilitation Measures

Drg. No BNM-DR-22-08-01: Oughter Site Location Plan

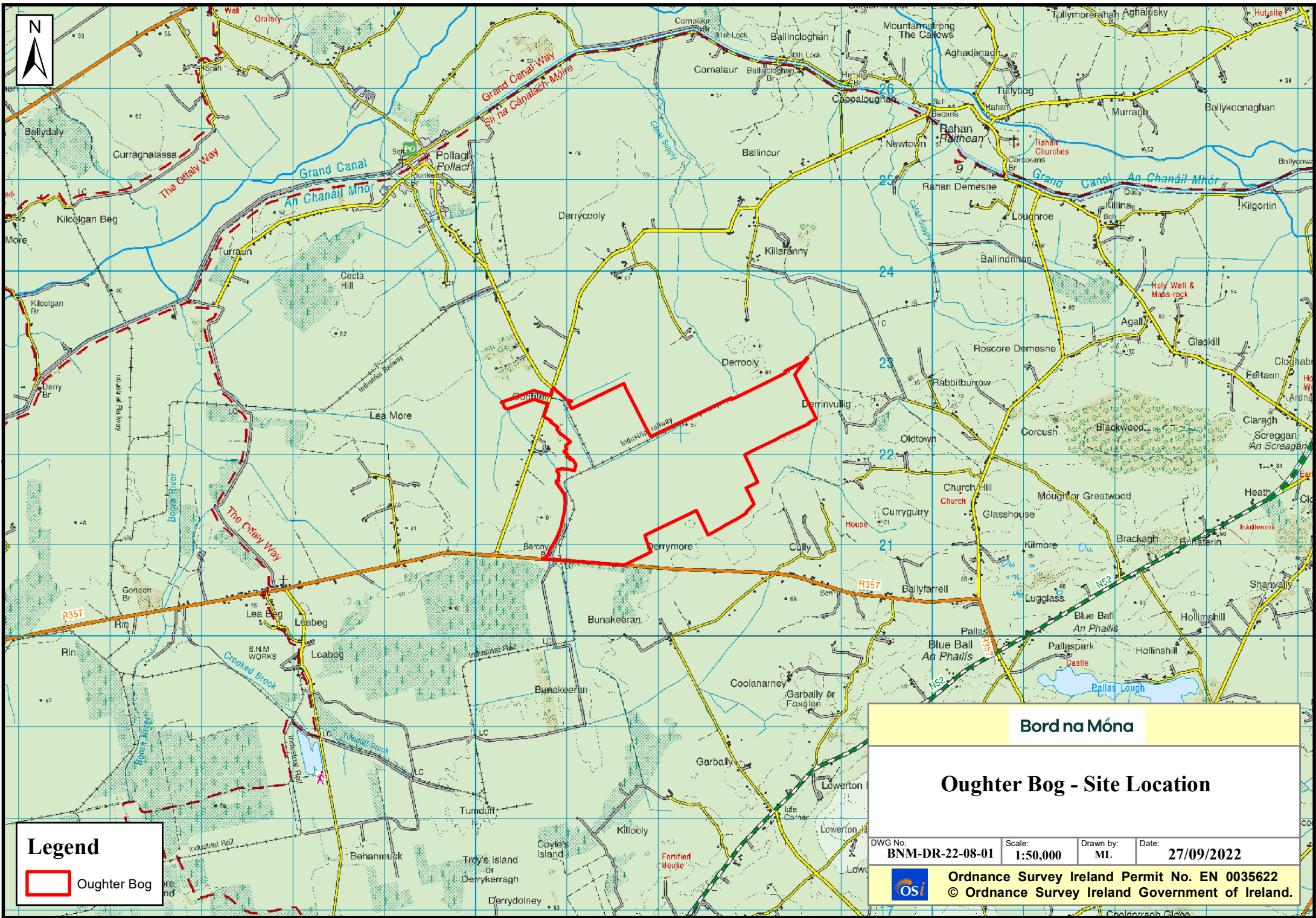
Drg No BNM-DR-08-02-REV-A: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-08-32: As Completed Rehabilitation Measures (at end Mar 2022)


Sample Photographs of Oughter Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Oughter Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	15.3	44.1	0.0	0.0	35.4	22.9	123.1	0.0	40.5	0.0	0.0	0.0	281.3
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	15.2	39.2	0.0	0.0	33.9	21.1	127.6	0.0	32.3	5.6	0.0	19.8	294.7
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	14.8	36.4	0.0	0.0	14.0	21.1	123.6	0.0	26.5	5.6	0.0	0.0	241.9
Percentage area rehabilitated at End March 2022																		82%
Percentage Work Content completed at End March 2022																		67%

Table 4.8 Summary of Oughter Rehabilitation




Legend

 Oughter Bog

Bord na Móna

Oughter Bog - Site Location

DWG No. BNM-DR-22-08-01	Scale: 1:50,000	Drawn by: ML	Date: 27/09/2022
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Rehab Measures

● Proposed Drain Blocks

— Berms

Rehab Type

□ Additional Work 2

■ Constraint - Minimal Rehab

▨ DCT1 - Dry Cutaway 1

▨ DCT2 - Dry Cutaway 2

■ MLT1 - Marginal Land

▨ MLT2 - Marginal Land

▨ WLT2 - Wetland 2

▨ WLT3 - Wetland 3

▨ WLT4 - Wetland 4

Bog Assets

● Production Centres

✚ Proposed Piezometer Locations

✚ SW Discharge Locations

+++ Railway Line (To Be Lifted)

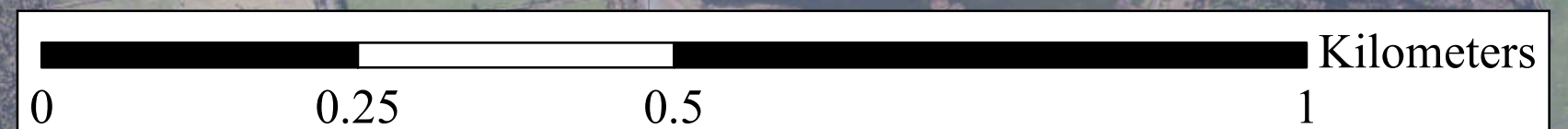
■ Silt Ponds

▨ Highfields

□ BnM Boundary

Construct New Drain

Retain Drain



BORD NA MÓNA
Naturally Driven

Peatlands Climate Action Scheme Oughter Bog Proposed Measures - Site Layout Plan

DRWG No:
BNM-DR-08-02-REV-A

Scale:
1:5,500

Drawn by:
LB

Date:
08/07/2021



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Legend

- Completed
- Ongoing
- Not Started
- BnM Boundary



Bord na Móna

Oughter Bog As Completed Rehab Measures


DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-08-32	1:10,000	BG	29/09/2022
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Plate B8.1: Oughter Bog rehabilitation measures – June 2022



Plate B8.2: Oughter Bog rehabilitation measures – June 2022

Appendix B9 - Pollagh Bog

Table 4.9 Summary of Pollagh Rehabilitation Measures

Drg. No BNM-DR-03-ER-01: Pollagh Site Location Plan

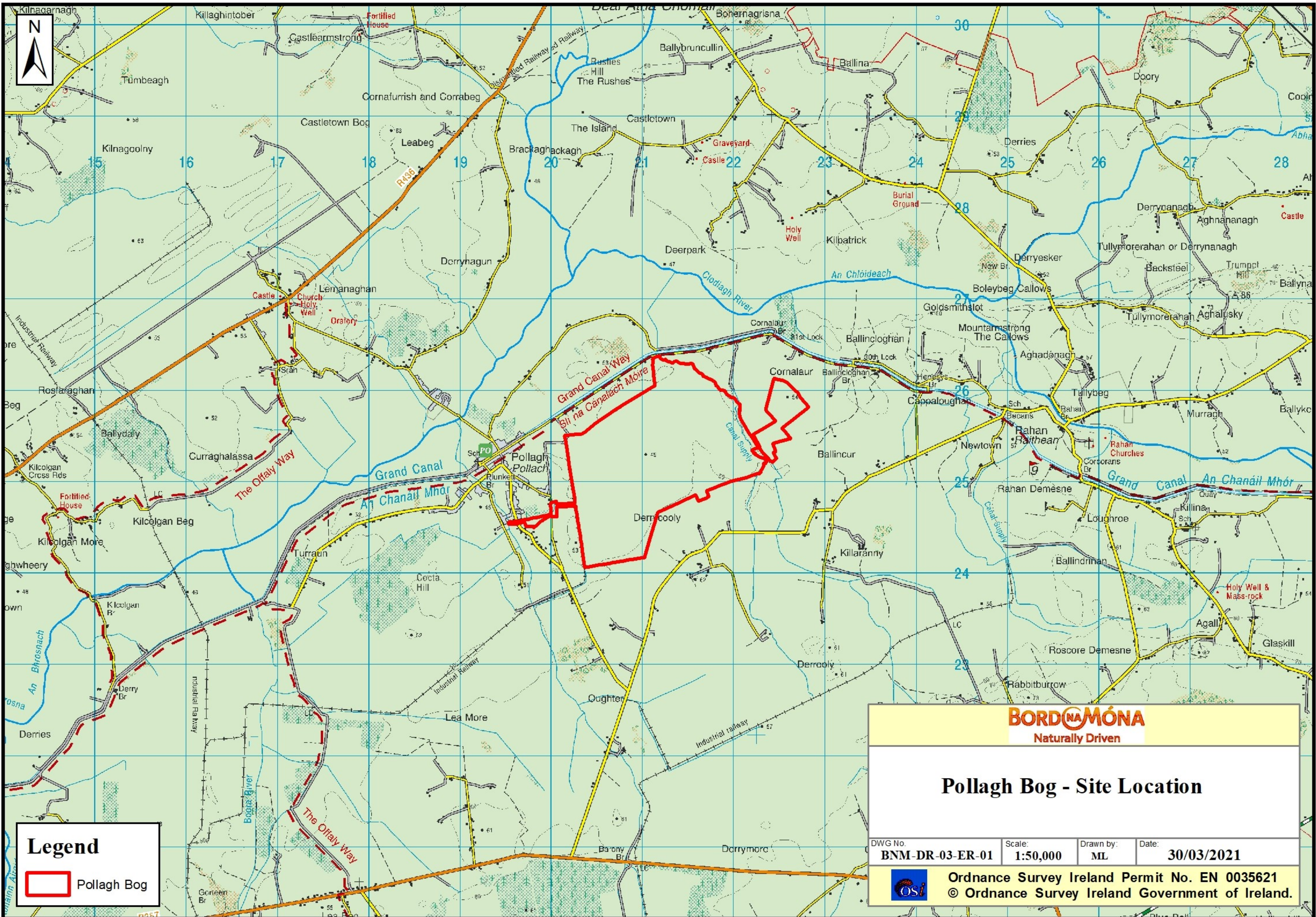
Drg No BNM-DR-03-DP-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-03-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Pollagh Rehabilitation Measures


Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Pollagh Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	6.9	76.3	5.8	0.0	42.8	0.0	0.0	1.7	29.6	83.0	0.0	40.7	0.0	0.0	0.0	286.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	2.6	6.9	72.3	4.7	0.0	41.9	0.0	0.0	1.7	29.1	87.1	0.0	17.8	0.0	0.0	0.0	264.1
Rehab Methodologies Completed at end Mar 2022	0.0	0.2	6.9	72.3	4.7	0.0	41.9	0.0	0.0	1.7	14.9	87.1	0.0	16.6	0.0	0.0	0.0	246.3
Percentage area rehabilitated at End March 2022																		93%
Percentage Work Content completed at End March 2022																		90%

Table 4.9 Summary of Pollagh Rehabilitation



Legend


 Pollagh Bog



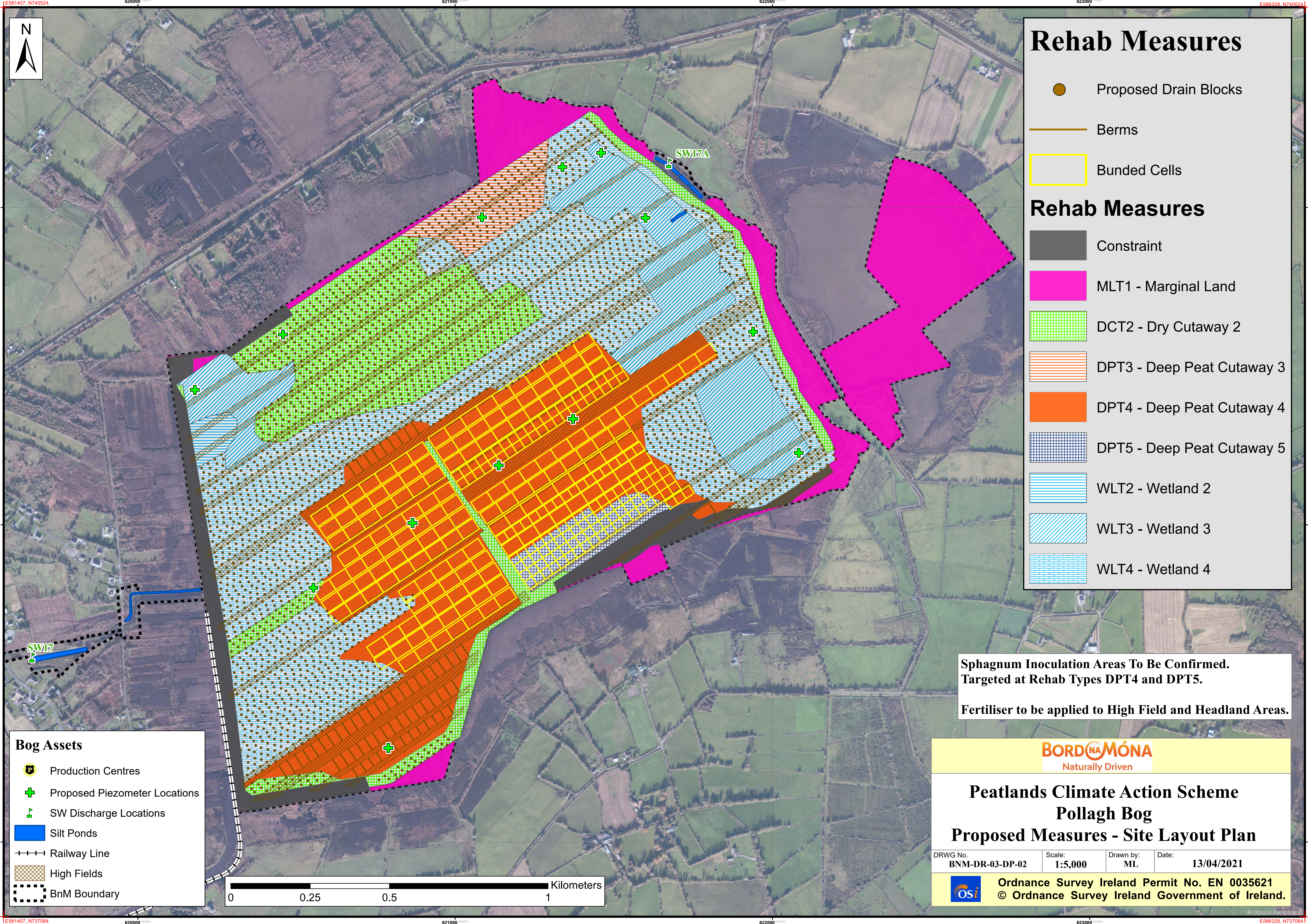
BORD na MÓNA
Naturally Driven

Pollagh Bog - Site Location

DWG No. BNM-DR-03-ER-01	Scale: 1:50,000	Drawn by: ML	Date: 30/03/2021
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E581407, N740524

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E581407, N737084

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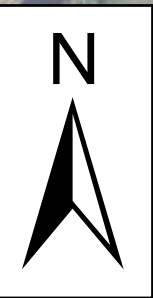
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Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Silt Ponds
- Railway Line
- High Fields
- BnM Boundary



Rehab Measures

Proposed Drain Blocks

Berms

Bunded Cells

Rehab Measures

Constraint

MLT1 - Marginal Land

DCT2 - Dry Cutaway 2

DPT3 - Deep Peat Cutaway 3

DPT4 - Deep Peat Cutaway 4

DPT5 - Deep Peat Cutaway 5

WLT2 - Wetland 2

WLT3 - Wetland 3

WLT4 - Wetland 4

Sphagnum Inoculation Areas To Be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

BORD NA MÓNA
Naturally Driven

Peatlands Climate Action Scheme Pollagh Bog Proposed Measures - Site Layout Plan


DRWG No. BNM-DR-03-DP-02	Scale: 1:5,000	Drawn by: ML	Date: 13/04/2021
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Legend

 Completed

 Ongoing

 BnM Boundary




Bord na Móna			
Pollagh Bog As Completed Rehab Measures			
DRWG No: BNM-DR-23-03-32	Scale: 1:10,000	Drawn by: BG	Date: 29/09/2022
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Plate B9.1: Pollagh Bog rehabilitation measures – November 2021



Plate B9.2: Pollagh Bog rehabilitation measures – November 2021

Appendix B10 - Turraun Bog

Table 4.10 Summary of Turraun Rehabilitation Measures

Drg. No BNM-DR-09-ER-01: Turraun Site Location Plan

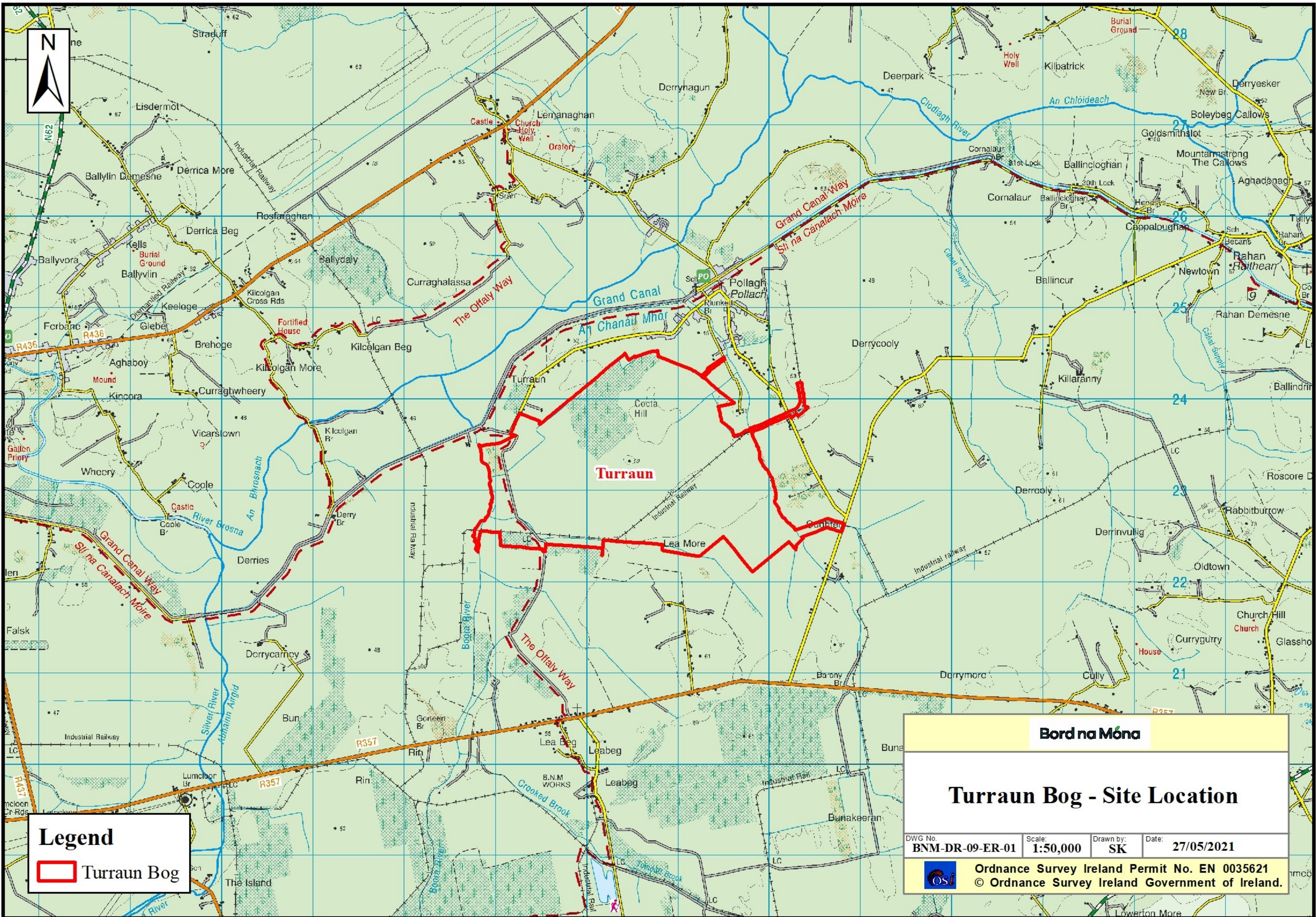
Drg No BNM-DR-09-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-09-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Turraun Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Turraun Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	0.0	82.7	0.0	0.0	7.2	14.3	213.9	1.4	198.4	0.0	0.0	0.0	517.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	0.0	88.9	0.0	0.0	38.3	5.7	185.1	1.4	66.0	0.0	0.0	0.0	385.3
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	88.9	0.0	0.0	38.3	5.7	184.7	1.4	65.9	0.0	0.0	0.0	384.8
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.10 Summary of Turraun Rehabilitation



Legend

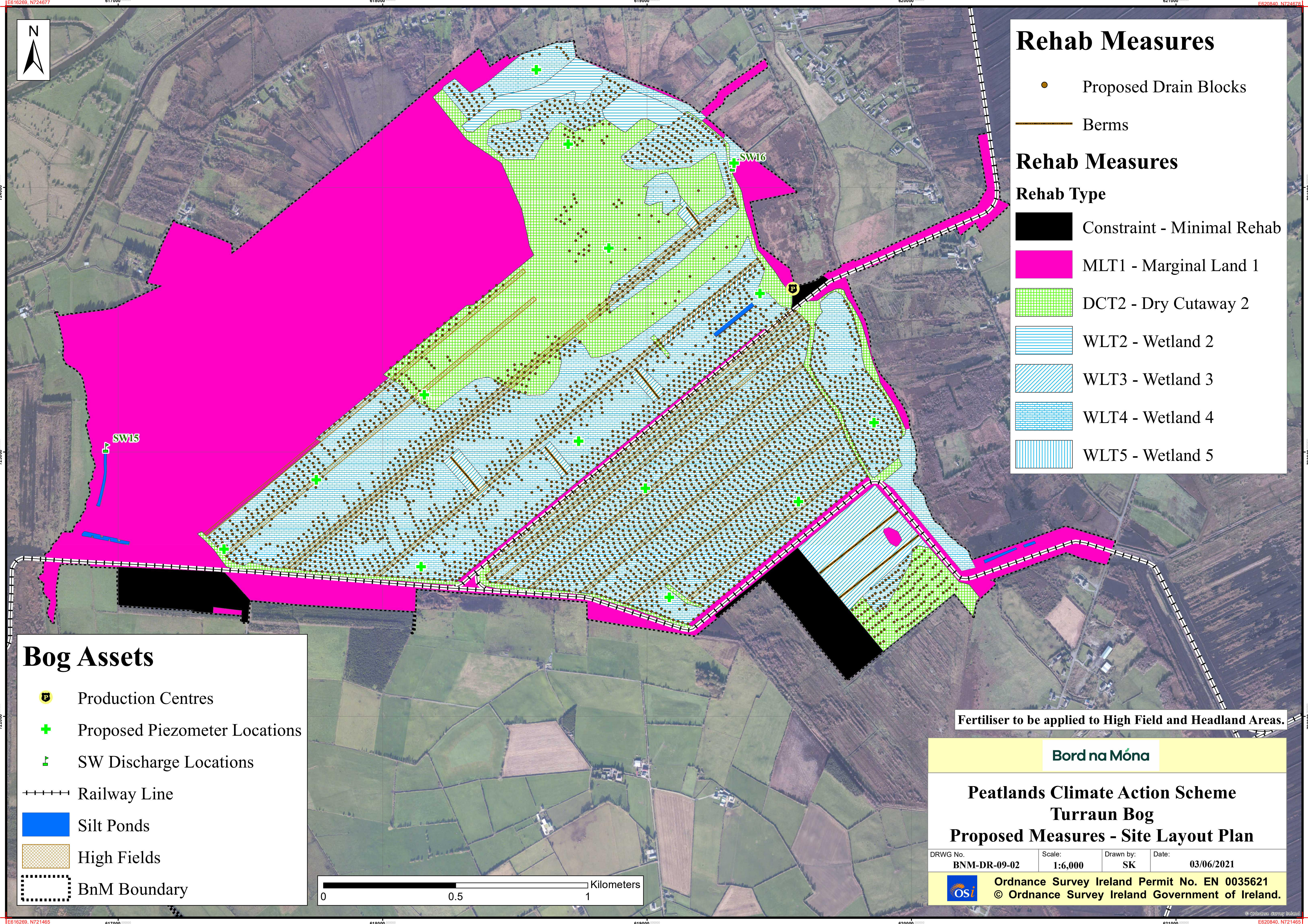
Turraun Bog

Bord na Móna

Turraun Bog - Site Location

DWG No. BNM-DR-09-ER-01	Scale: 1:50,000	Drawn by: SK	Date: 27/05/2021
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Rehab Measures

- Proposed Drain Blocks
- Berms

Rehab Measures

Rehab Type

- Constraint - Minimal Rehab
- MLT1 - Marginal Land 1
- DCT2 - Dry Cutaway 2
- WLT2 - Wetland 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4
- WLT5 - Wetland 5

Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line
- Silt Ponds
- High Fields
- BnM Boundary

Fertiliser to be applied to High Field and Headland Areas.

Bord na Móna

Peatlands Climate Action Scheme Turraun Bog Proposed Measures - Site Layout Plan

DRWG No. BNM-DR-09-02	Scale: 1:6,000	Drawn by: SK	Date: 03/06/2021
Ordnance Survey Ireland Permit No. EN 0035621 © Ordnance Survey Ireland Government of Ireland.			





Legend

-  Completed
-  Ongoing
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Turraun Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-09-32	1:12,000	BG	29/09/2022
 Ordnance Survey Ireland Permit No. EN 0035622 © Ordnance Survey Ireland Government of Ireland.			



Plate B10.1: Turraun Bog rehabilitation measures – July 2021



Plate B10.2: Turraun Bog rehabilitation measures – April 2021

Appendix B11 - Castlegar Bog

Table 4.11 Summary of Castlegar Rehabilitation Measures

Drg. No BNM-DR-01-ER-01: Castlegar Site Location Plan

Drg No BNM-DR-01-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-01-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Castlegar Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Castlegar Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	22.4	55.0	68.3	92.9	61.7	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	65.7	1.2	0.0	0.0	379.3
Design Rehab Methodologies incorporating amendments post commencement	23.0	58.7	100.1	92.5	30.3	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	54.2	1.2	0.0	0.0	371.1
Rehab Methodologies Completed at end Mar 2022	23.0	58.7	100.1	92.5	22.7	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	52.7	0.0	0.0	0.0	360.8
Percentage area rehabilitated at End March 2022																		97%
Percentage Work Content completed at End March 2022																		87%

Table 4.11 Summary of Castlegar Rehabilitation



Gowla

Derryfadda

Killeglan

Castlegar

Killeglan

Newtown/Loughgore

Cloonboyley1

Legend



BnM Boundary

0 0.75 1.5 3 Kilometers

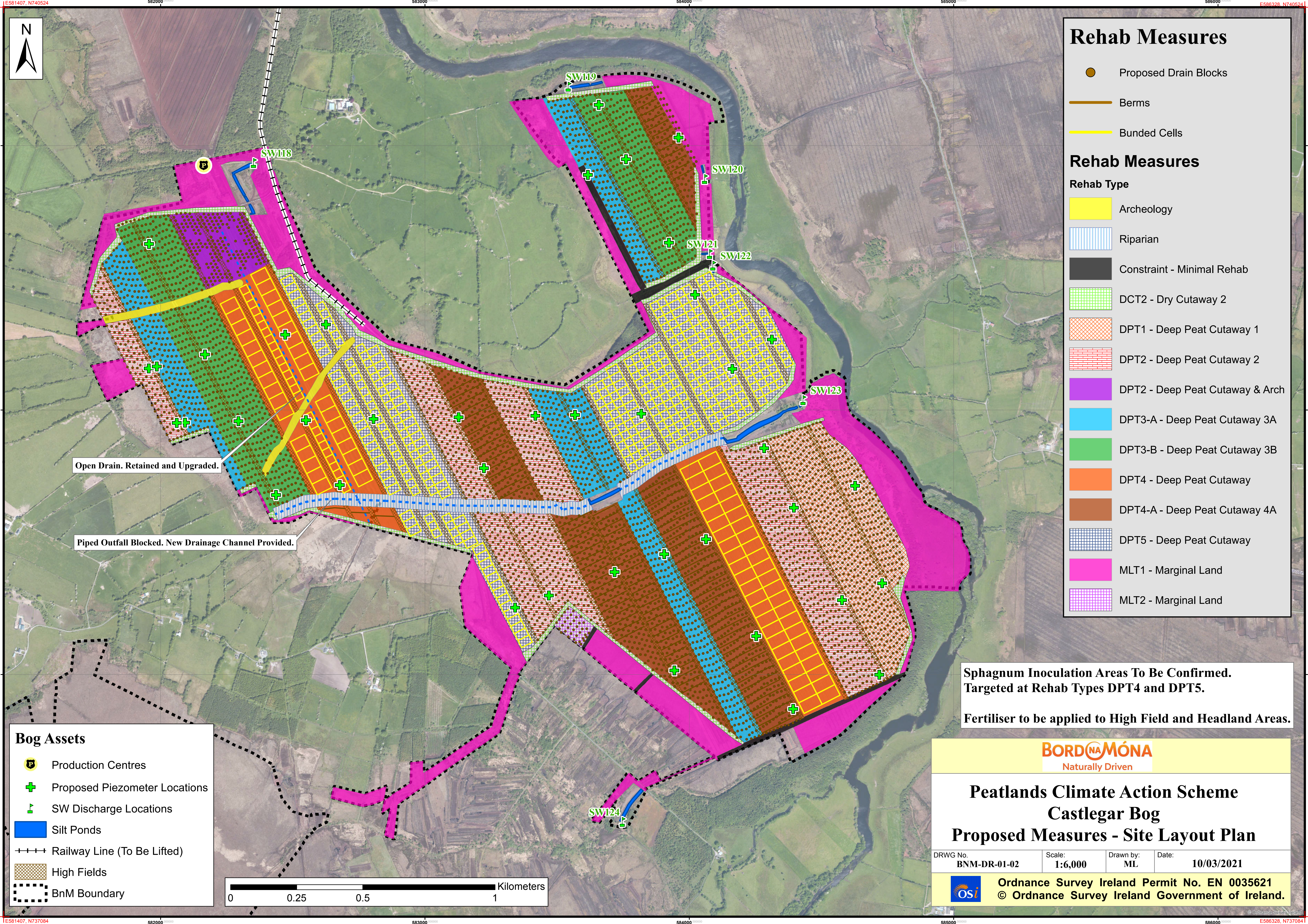
BORD na MÓNA
Naturally Driven

Castlegar Bog Bog Site Location

DRWG No: BNM-DR-01-ER-01 Scale: 1:60,000 Drawn by: LB Date: 22/04/2021



Ordnance Survey Ireland Permit No. EN 0035621
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Rehab Measures

- Proposed Drain Blocks
- Berms
- Bunded Cells

Rehab Measures

- Rehab Type
- Archeology
 - Riparian
 - Constraint - Minimal Rehab
 - DCT2 - Dry Cutaway 2
 - DPT1 - Deep Peat Cutaway 1
 - DPT2 - Deep Peat Cutaway 2
 - DPT2 - Deep Peat Cutaway & Arch
 - DPT3-A - Deep Peat Cutaway 3A
 - DPT3-B - Deep Peat Cutaway 3B
 - DPT4 - Deep Peat Cutaway
 - DPT4-A - Deep Peat Cutaway 4A
 - DPT5 - Deep Peat Cutaway
 - MLT1 - Marginal Land
 - MLT2 - Marginal Land

Open Drain. Retained and Upgraded.

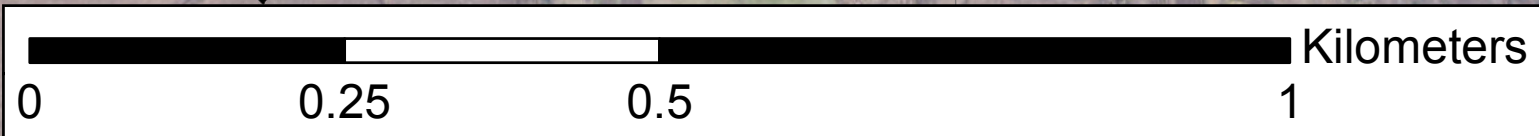
Piped Outfall Blocked. New Drainage Channel Provided.

Sphagnum Inoculation Areas To Be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Silt Ponds
- Railway Line (To Be Lifted)
- High Fields
- BnM Boundary



Peatlands Climate Action Scheme Castlegar Bog Proposed Measures - Site Layout Plan

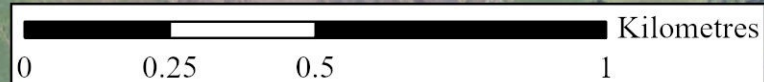
DRWG No. BNM-DR-01-02	Scale: 1:6,000	Drawn by: ML	Date: 10/03/2021
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Legend

- Completed
- Ongoing
- Not Started
- BnM Boundary



Bord na Móna

Castlegar Bog As Completed Rehab Measures

DRWG No: BNM-DR-23-01-32	Scale: 1:13,000	Drawn by: BG	Date: 29/09/2022
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Plate B11.1: Castlegar Bog rehabilitation measures – April 2021



Plate B11.2: Castlegar Bog rehabilitation measures – April 2021

Appendix B12 - Cavemount Bog

Table 4.12 Summary of Cavemount Rehabilitation Measures

Drg. No BNM-ECO-19-31: Cavemount Site Location Plan

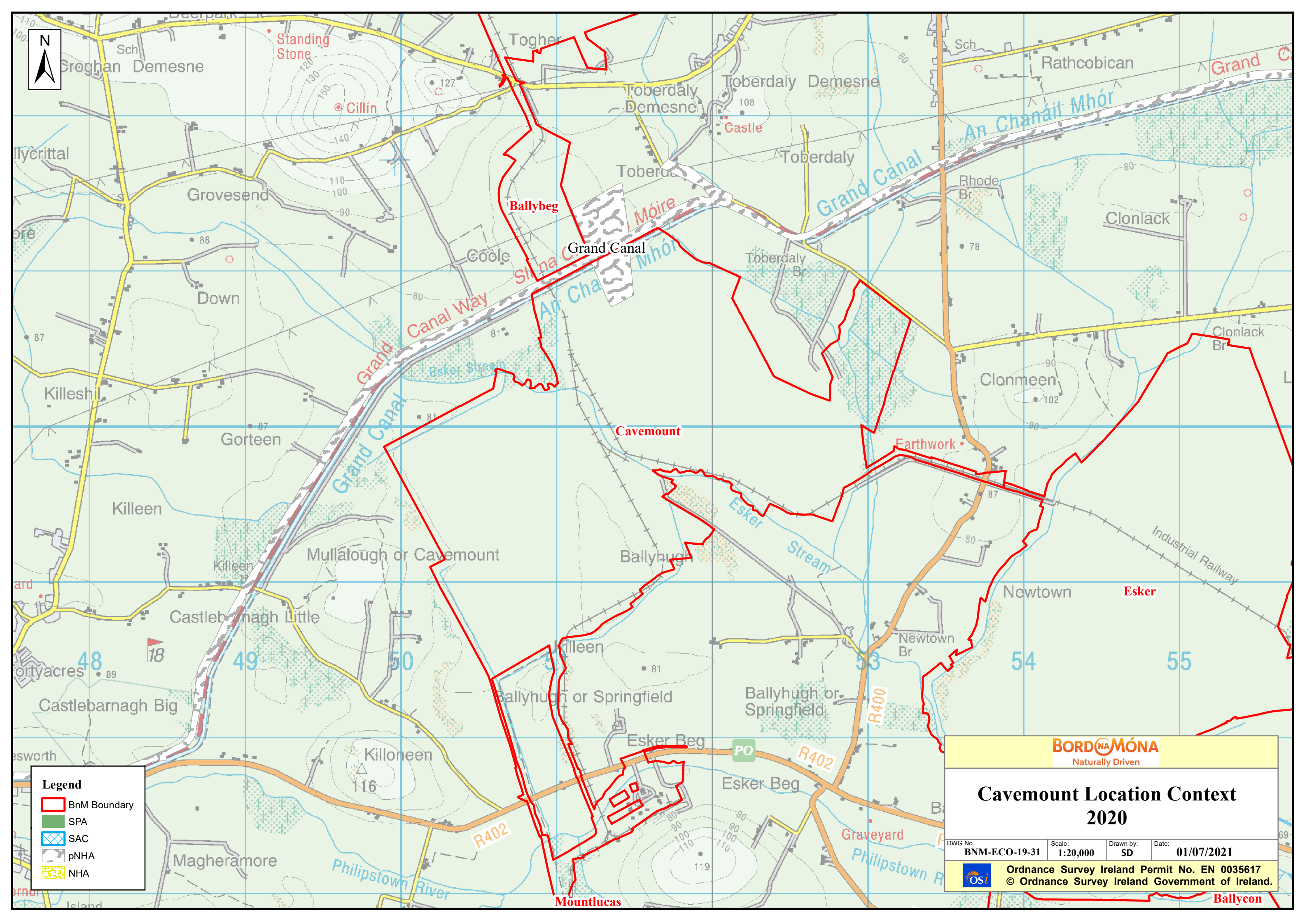
Drg No BNM-DR-10-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-10-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Cavemount Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Cavemount Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	16.7	0.0	12.1	59.1	0.0	0.0	7.5	243.9	50.2	0.0	116.0	0.0	0.0	0.0	505.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	17.2	0.0	12.1	39.4	0.0	0.0	7.4	242.6	42.6	0.0	39.6	0.0	0.0	28.2	429.2
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	17.2	0.0	4.8	38.7	0.0	0.0	7.4	242.6	42.6	0.0	38.8	0.0	0.0	28.2	420.4
Percentage area rehabilitated at End March 2022																		98%
Percentage Work Content completed at End March 2022																		87%

Table 4.12: Summary of Cavemount Rehabilitation



Legend

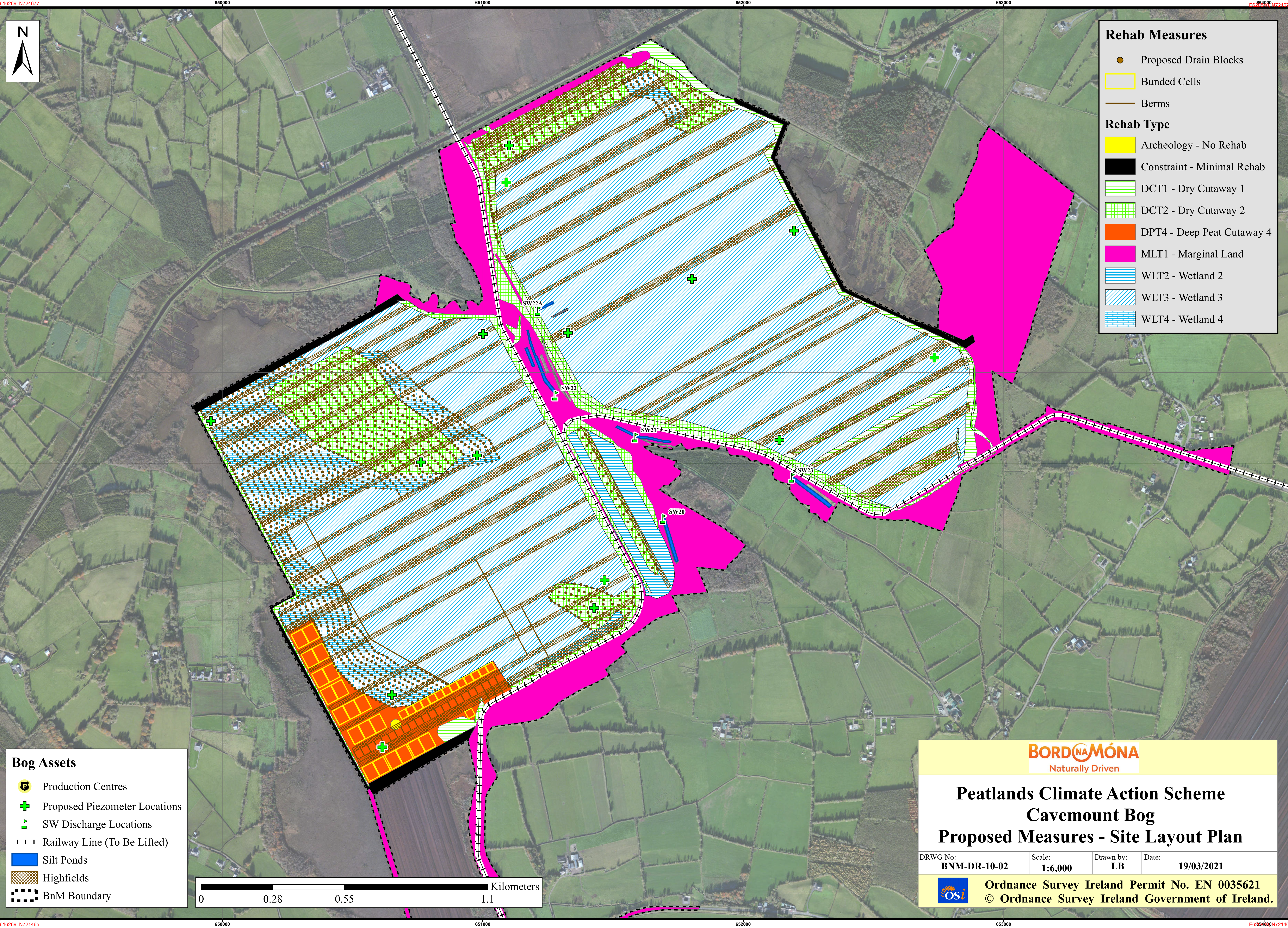
- BnM Boundary
- SPA
- SAC
- pNHA
- NHA

BORD NA MÓNA
Naturally Driven

**Cavemount Location Context
2020**

DWG No. BNM-ECO-19-31	Scale: 1:20,000	Drawn by: SD	Date: 01/07/2021
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Rehab Measures

Proposed Drain Blocks

Bunded Cells

Berms

Rehab Type

Archeology - No Rehab

Constraint - Minimal Rehab

DCT1 - Dry Cutaway 1

DCT2 - Dry Cutaway 2

DPT4 - Deep Peat Cutaway 4

MLT1 - Marginal Land

WLT2 - Wetland 2

WLT3 - Wetland 3

WLT4 - Wetland 4

Bog Assets

Production Centres

Proposed Piezometer Locations

SW Discharge Locations

Railway Line (To Be Lifted)

Silt Ponds

Highfields

BnM Boundary



BORD NA MÓNA
Naturally Driven

**Peatlands Climate Action Scheme
Cavemount Bog
Proposed Measures - Site Layout Plan**

DRWG No:
BNM-DR-10-02

Scale:
1:6,000


Drawn by:
LB


Date:
19/03/2021


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Legend

 Completed

 Not Started

 BnM Boundary




Bord na Móna			
Cavemount Bog As Completed Rehab Measures			
DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-10-32	1:13,000	BG	29/09/2022
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Plate B12.1: Cavemount Bog rehabilitation measures – October 2021



Plate B12.2: Cavemount Bog rehabilitation measures – October 2021

Appendix B13 - Clonad Bog

Table 4.13 Summary of Clonad Rehabilitation Measures

Drg. No DR-19-ER-01: Clonad Site Location Plan

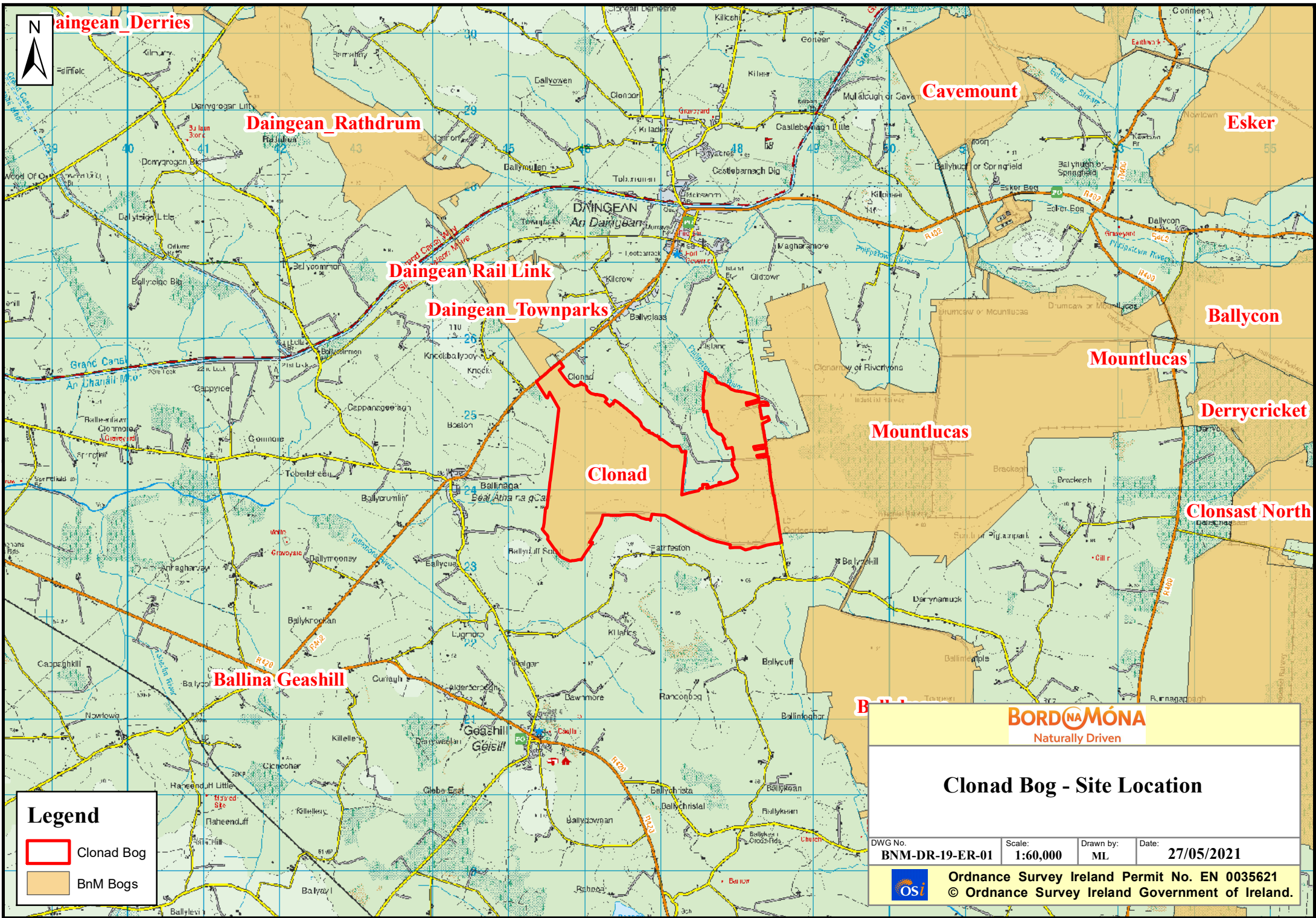
Drg No BNM-DR-20-DP-02REVA: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-19-32: As Completed Rehabilitation Measures (at end Mar 2022)



Sample Photographs of Clonad Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Clonad Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	37.9	8.3	0.0	84.7	0.0	0.0	0.0	2.4	189.6	0.0	93.6	14.0	0.0	0.0	430.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	41.3	8.2	0.0	82.7	0.0	0.0	0.0	2.4	188.4	0.0	32.7	14.0	0.0	0.0	369.6
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	34.0	0.3	0.0	64.4	0.0	0.0	0.0	2.4	163.4	0.0	25.7	0.0	0.0	0.0	290.2
Percentage area rehabilitated at End March 2022																		79%
Percentage Work Content completed at End March 2022																		59%

Table 4.13: Summary of Clonad Rehabilitation




Legend

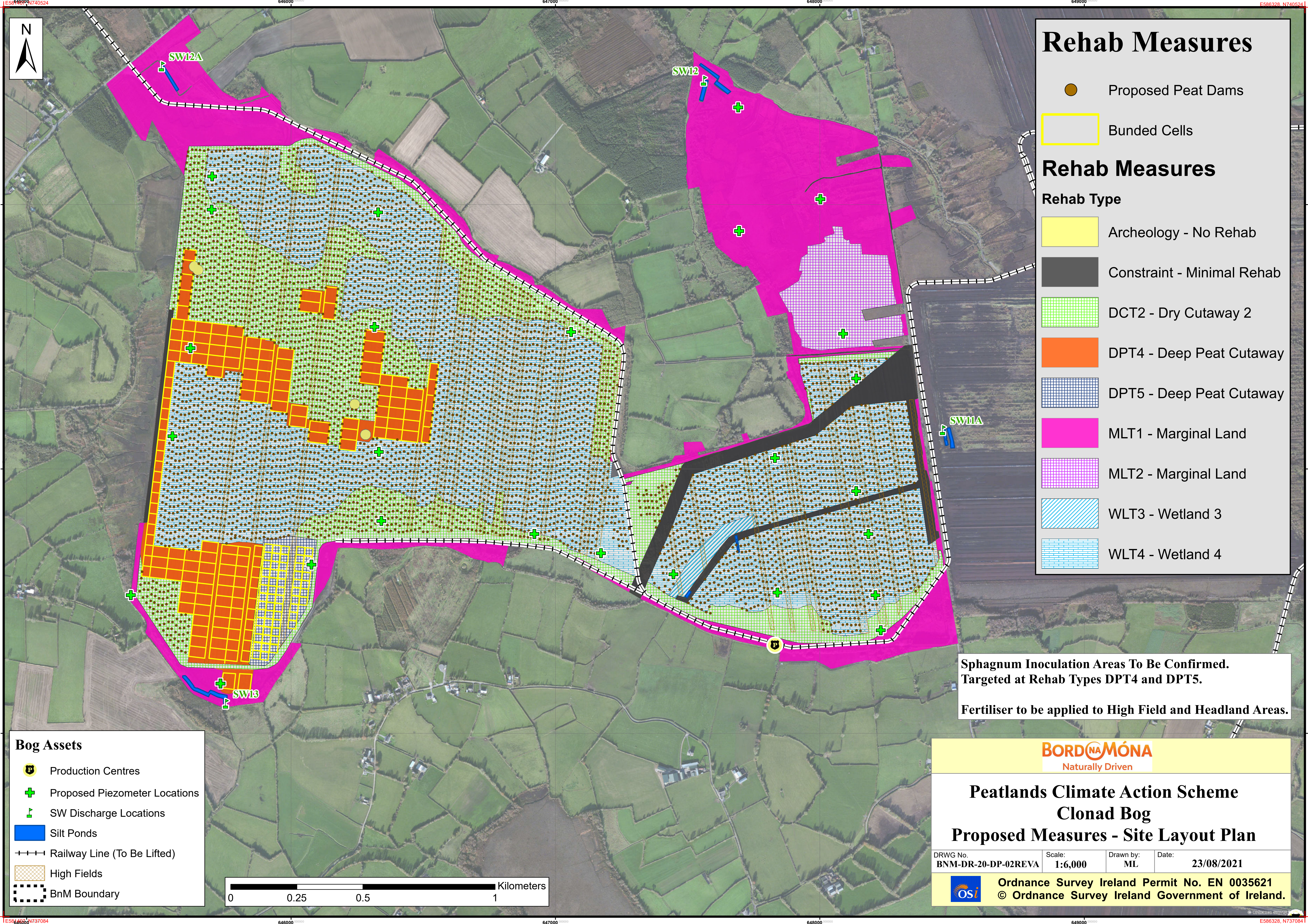
-  Clonad Bog
-  BnM Bogs

BORD na MÓNA
Naturally Driven

Clonad Bog - Site Location

DWG No. BNM-DR-19-ER-01	Scale: 1:60,000	Drawn by: ML	Date: 27/05/2021
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Bog Assets

Production Centres

Proposed Piezometer Locations

SW Discharge Locations

Silt Ponds

Railway Line (To Be Lifted)

High Fields

BnM Boundary

Rehab Measures

Proposed Peat Dams

Bunded Cells

Rehab Measures

Rehab Type

Archeology - No Rehab

Constraint - Minimal Rehab

DCT2 - Dry Cutaway 2

DPT4 - Deep Peat Cutaway

DPT5 - Deep Peat Cutaway

MLT1 - Marginal Land

MLT2 - Marginal Land

WLT3 - Wetland 3

WLT4 - Wetland 4

Sphagnum Inoculation Areas To Be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

Naturally Driven

Peatlands Climate Action Scheme
Clonad Bog
Proposed Measures - Site Layout Plan

DRWG No.
BNM-DR-20-DP-02REVA

Scale:
1:6,000





Drawn by:
ML

Date:
23/08/2021

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Legend


-  Completed
-  Ongoing
-  Not Started
-  BnM Boundary



Bord na Móna

Clonad Bog
As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-19-32	1:13,000	BG	29/09/2022

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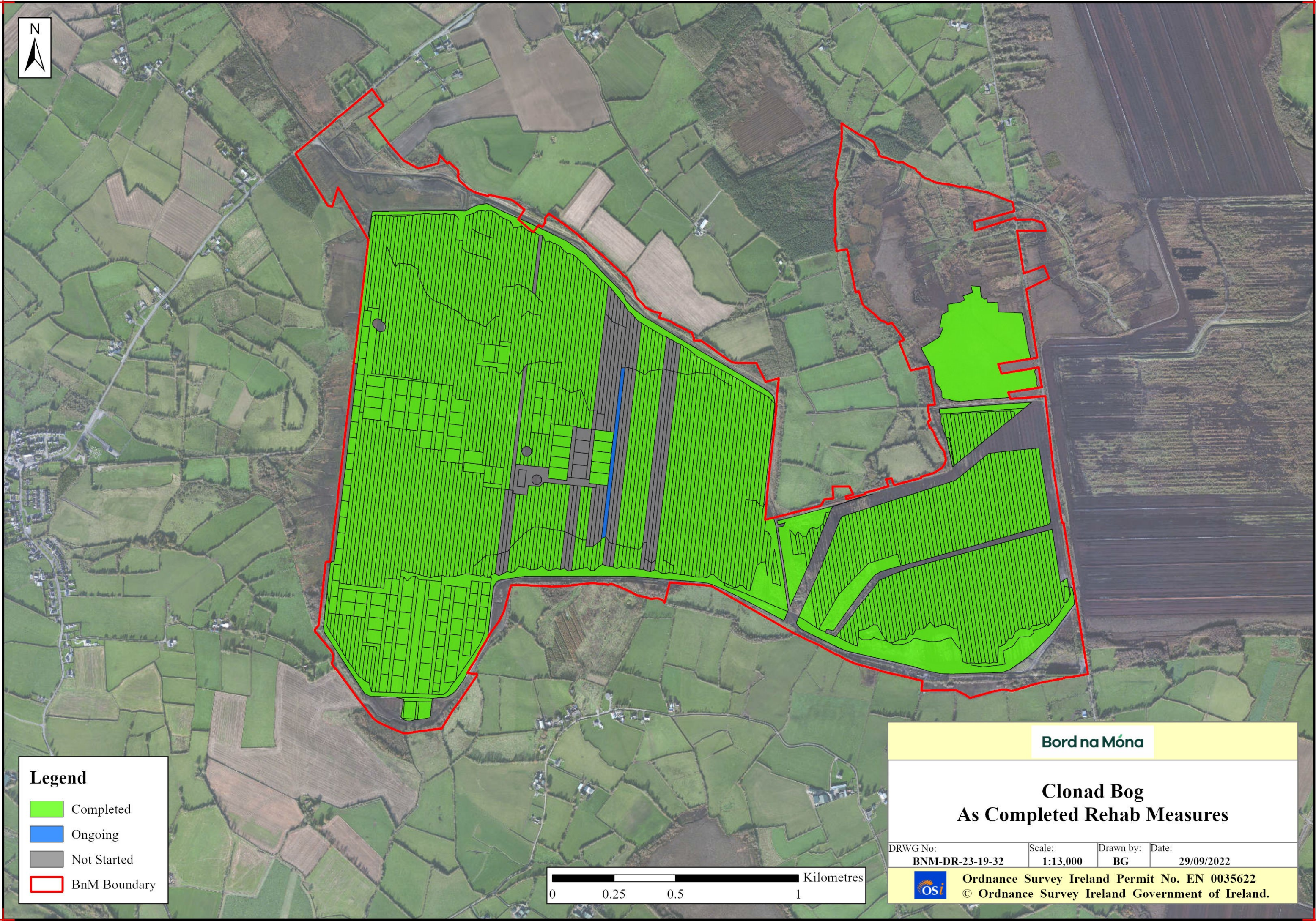




Plate B13.1: Clonad Bog rehabilitation measures – October 2021



Plate B13.2: Cavemount Bog rehabilitation measures – October 2021

Appendix B14 - Esker Bog

Table 4.14 Summary of Esker Rehabilitation Measures

Drg. No BNM-DR-17-ER-01: Esker Site Location Plan

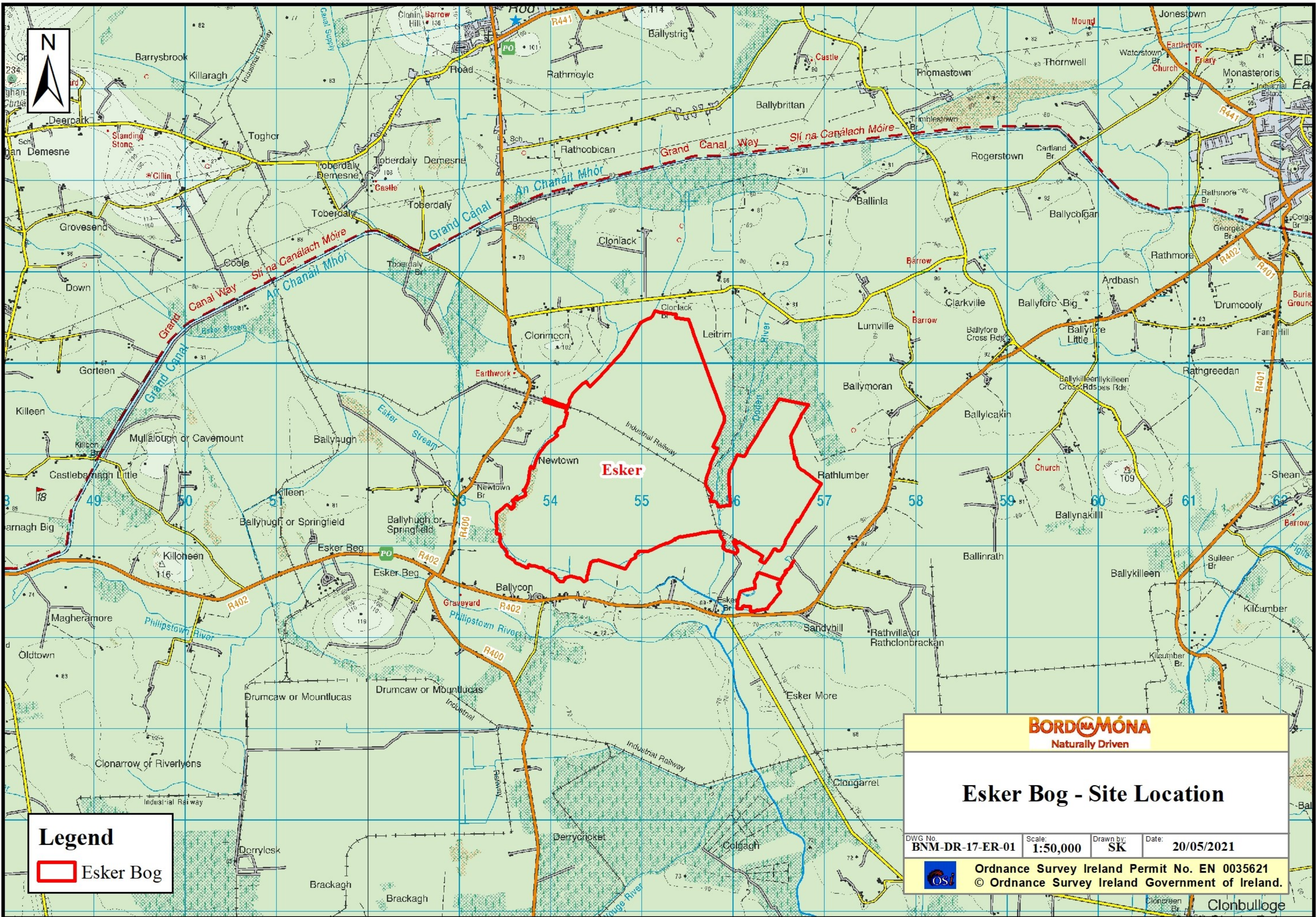
Drg No BNM-DR-17-DP-01: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-17-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Esker Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Esker Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	159.4	131.6	45.0	0.0	69.7	0.0	0.0	0.0	34.6	34.3	0.0	55.9	3.3	0.0	0.0	533.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	159.9	116.8	44.7	10.9	53.6	0.0	0.0	0.0	34.6	53.6	0.0	38.0	3.3	0.0	0.0	515.5
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	156.9	114.3	44.7	10.9	53.6	0.0	0.0	0.0	34.6	53.6	0.0	37.6	3.3	0.0	0.0	509.5
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		92%

Table 4.14: Summary of Esker Rehabilitation



Legend

 Esker Bog

BORD na MÓNA
Naturally Driven

Esker Bog - Site Location

DWG No. BNM-DR-17-ER-01	Scale: 1:50,000	Drawn by: SK	Date: 20/05/2021
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Rehab Measures

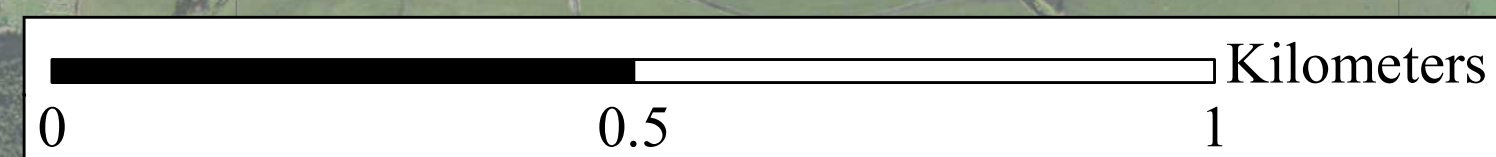
- Proposed Drain Blocks
- Bunded Cells
- Berms

Rehab Type

- Constraint - Minimal Rehab
- DCT2 - Dry Cutaway 2
- DPT3 - Deep Peat Cutaway 3
- DPT4 - Deep Peat Cutaway 4
- DPT5 - Deep Peat Cutaway 5
- MLT1 - Marginal Land 1
- MLT2 - Marginal Land 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4

Bog Assets


- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- High Fields
- BnM Boundary



Additional berms to be constructed in WLT4 Areas as required.

Sphagnum Inoculation Areas to be Confirmed. Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.




Naturally Driven

Peatlands Climate Action Scheme

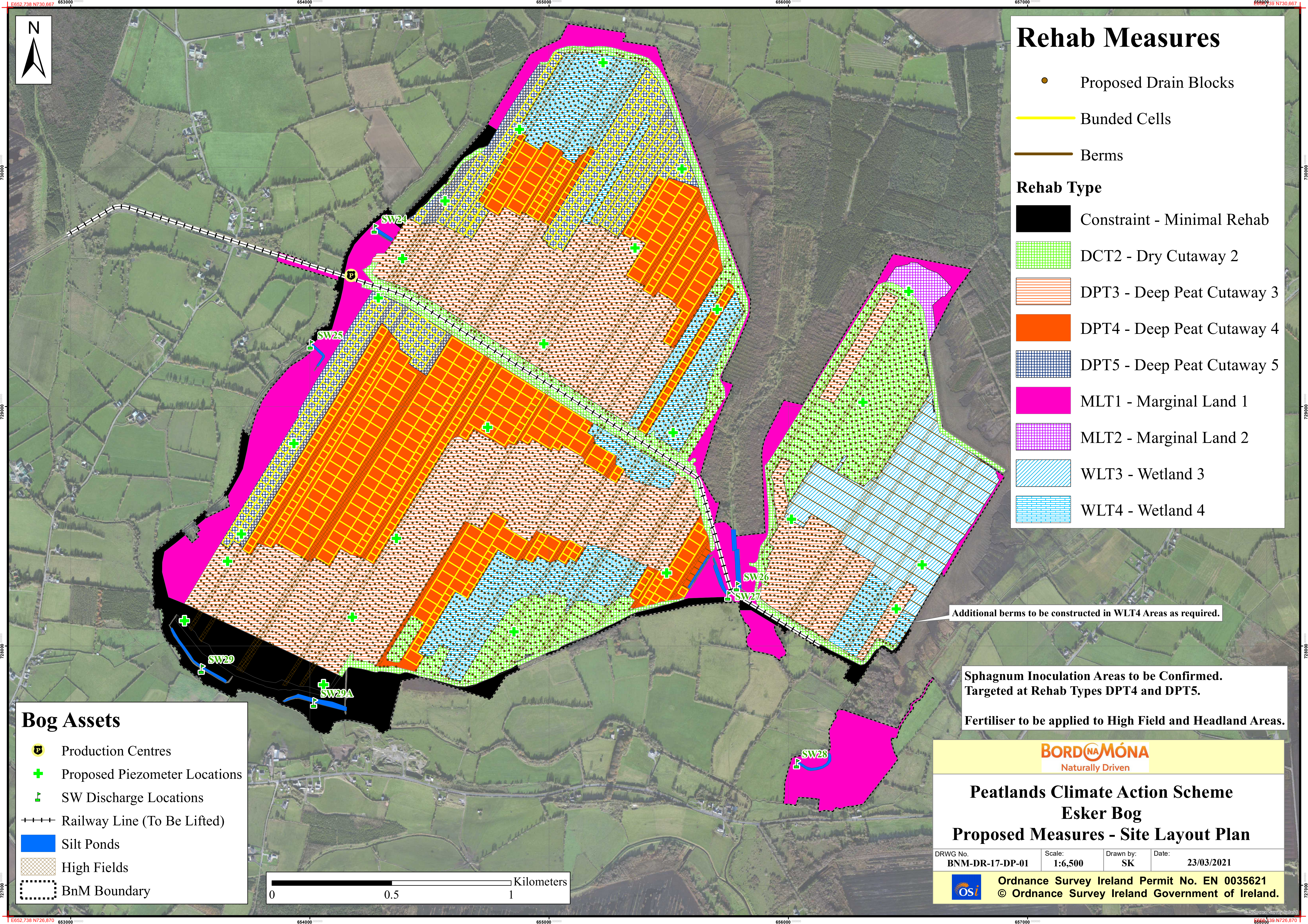
Esker Bog

Proposed Measures - Site Layout Plan

DRWG No. BNM-DR-17-DP-01	Scale: 1:6,500	Drawn by: SK	Date: 23/03/2021
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Legend

-  Completed
-  BnM Boundary



Bord na Móna

Esker Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-17-32	1:14,000	BG	29/09/2022



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Plate B14.1: Esker Bog rehabilitation measures – November 2021



Plate B14.2: Esker Bog rehabilitation measures – November 2021

Appendix B15 - Mountlucas Bog

Table 4.15 Summary of Mountlucas Rehabilitation Measures

Drg. No BNM-DR-11-ER-01: Mountlucas Site Location Plan

Drg No BNM-DR-11-02-REV A: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-11-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Mountlucas Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Mountlucas Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	27.9	24.1	43.4	0.0	64.5	0.0	0.0	4.1	21.4	75.4	0.0	95.3	0.0	0.0	253.4	609.3
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	32.8	25.3	37.8	0.0	64.3	0.0	0.0	4.1	21.4	75.2	0.0	58.2	0.0	0.0	115.8	434.9
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	32.8	25.3	37.8	0.0	64.3	0.0	0.0	4.1	21.4	75.2	0.0	58.2	0.0	0.0	115.8	434.9
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.15: Summary of Mountlucas Rehabilitation



Daingean-Rathdrum

Daingean Rail Link

Daingean Townparks

Clonad

Cavemount

Esker

Ballycon

Cloncreen

Mountlucas

Derrycricket

Clonsast North

Ballykeane

Legend

 BnM Boundary

0 0.75 1.5 3 Kilometers

BORD NA MÓNA
Naturally Driven

Mountlucas Bog Bog Site Location










DRWG No: BNM-DR-11-ER-01	Scale: 1:50,000	Drawn by: LB	Date: 27/04/2021
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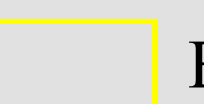
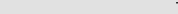


Bog Assets




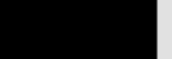

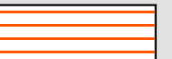






-  Production Centres
-  Pump Sites
-  Proposed Piezometer Locations
-  SW Discharge Locations
-  Railway Line (To Be Lifted)
-  Silt Ponds
-  Highfields
-  Stockpiles (To Be Removed)
-  BnM Boundary



Rehab Measures


-  Proposed Drain Blocks
-  Bunded Cells
-  Berms

Rehab Type

-  Additional Work 1
-  Additional Work 2
-  Archaeology
-  Constraint - Minimal Rehab
-  DCT2 - Dry Cutaway 2
-  DPT3 - Deep Peat Cutaway 3
-  DPT4 - Deep Peat Cutaway 4
-  DPT5 - Deep Peat Cutaway 5
-  MLT1 - Marginal Land
-  WLT2 - Wetland 2
-  WLT3 - Wetland 3
-  WLT4 - Wetland 4





Peatlands Climate Action Scheme Mountlucas Bog Proposed Measures - Site Layout Plan

DRWG No: BNM-DR-11-02-REV-A	Scale: 1:9,000	Drawn by: LB	Date: 23/06/2021
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Legend

-  Completed
-  BnM Boundary

0 0.25 0.5 1 Kilometres

Bord na Móna

Mount Lucas Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-11-32	1:17,000	BG	29/09/2022



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Plate B15.1: Mountlucas Bog rehabilitation measures – October 2021



Plate B15.2: Mountlucas Bog rehabilitation measures – September 2021

Appendix B16 - Ummeras Bog

Table 4.16 Summary of Ummeras Rehabilitation Measures

Drg. No BNM-DR-06-ER-01: Ummeras Site Location Plan

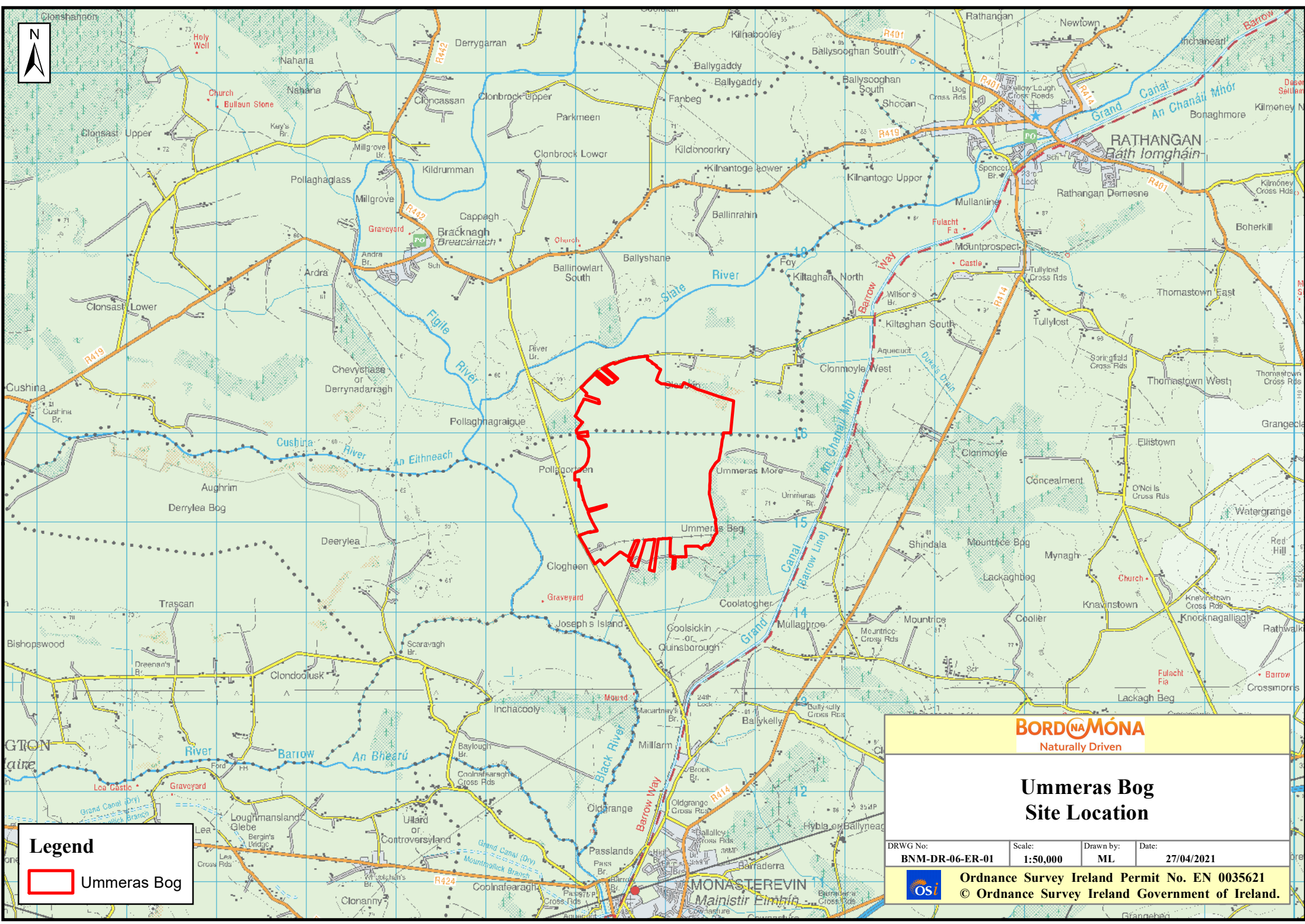
Drg No BNM-DR-06-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-06-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Ummeras Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area
Ummeras Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	(Hectares)
Design Rehab Methodologies submitted to and approved by NPWS	4.0	11.4	0.0	120.8	26.6	6.4	28.7	0.0	1.8	0.0	1.1	4.0	0.0	79.0	0.0	0.0	0.0	283.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	11.4	0.0	112.5	22.5	5.9	28.7	0.0	0.3	5.9	1.1	17.1	0.0	33.1	0.0	0.0	0.0	238.3
Rehab Methodologies Completed at end Mar 2022	0.0	11.4	0.0	112.5	22.5	5.9	28.7	0.0	0.3	5.9	1.1	17.1	0.0	33.1	0.0	0.0	0.0	238.4
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		91%

Table 4.16: Summary of Ummeras Rehabilitation




Legend

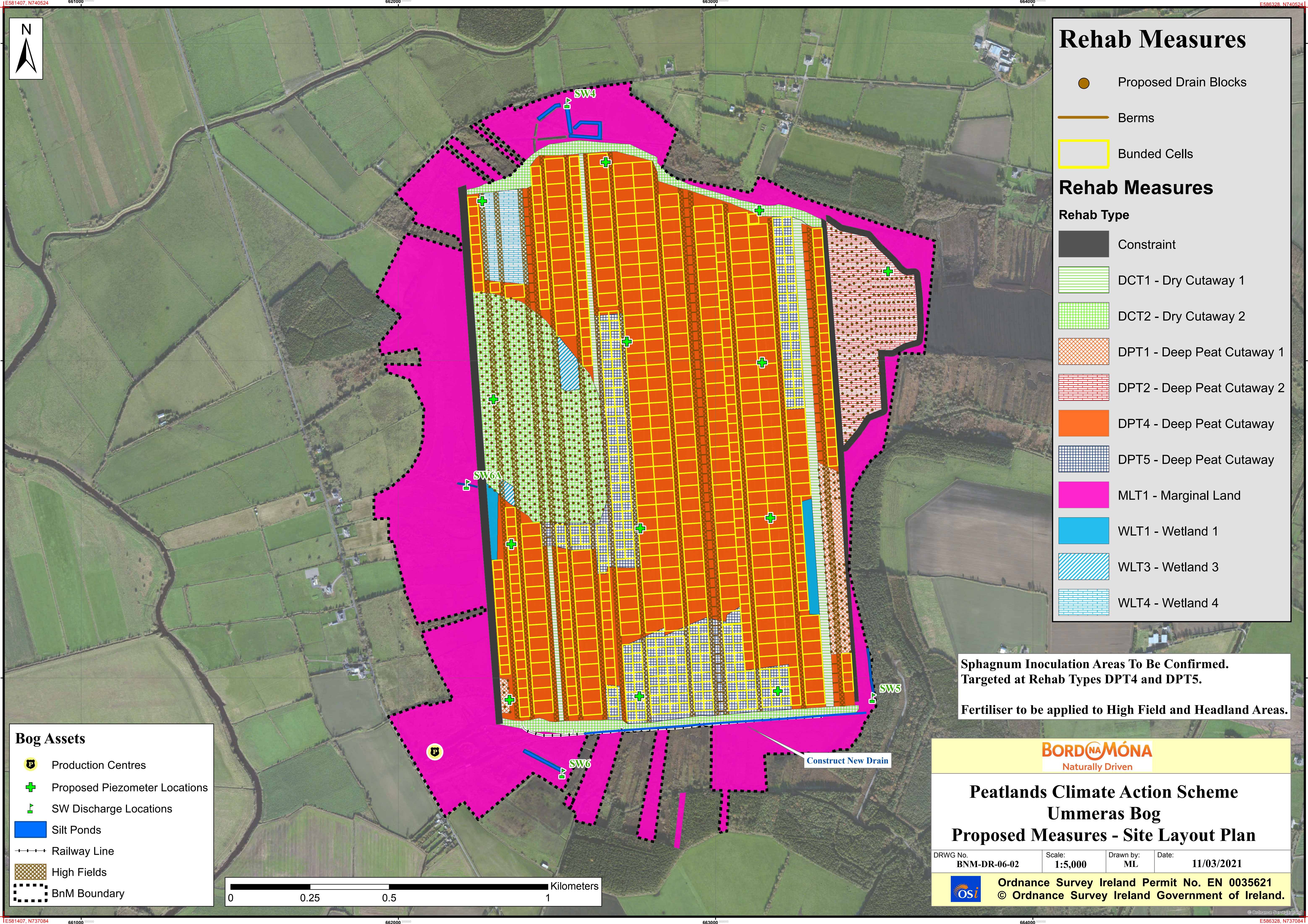
 Ummeras Bog

BORD na MÓNA
Naturally Driven

**Ummeras Bog
Site Location**

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-06-ER-01	1:50,000	ML	27/04/2021

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E581407, N740524

661000

662000

663000

664000

717000

716000

715000

E581407, N737084

661000

662000

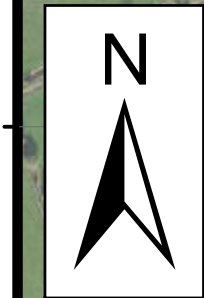
663000

664000

715000

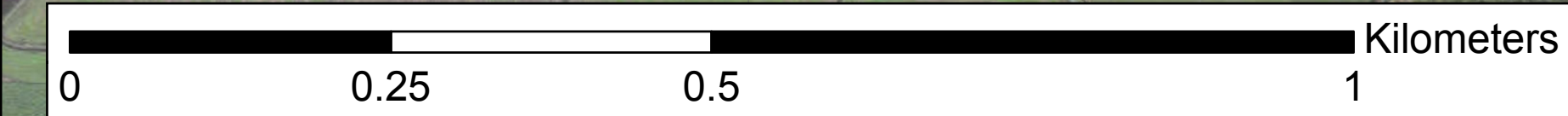
716000

717000



Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Silt Ponds
- Railway Line
- High Fields
- BnM Boundary



Rehab Measures

- Proposed Drain Blocks
- Berms
- Bunded Cells

Rehab Measures

Rehab Type

- Constraint
- DCT1 - Dry Cutaway 1
- DCT2 - Dry Cutaway 2
- DPT1 - Deep Peat Cutaway 1
- DPT2 - Deep Peat Cutaway 2
- DPT4 - Deep Peat Cutaway
- DPT5 - Deep Peat Cutaway
- MLT1 - Marginal Land
- WLT1 - Wetland 1
- WLT3 - Wetland 3
- WLT4 - Wetland 4

Sphagnum Inoculation Areas To Be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

Naturally Driven

Peatlands Climate Action Scheme

Ummeras Bog



Proposed Measures - Site Layout Plan

DRWG No. BNM-DR-06-02	Scale: 1:5,000	Drawn by: ML	Date: 11/03/2021
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Legend

-  Completed
-  BnM Boundary



Bord na Móna

Ummeras Bog As Completed Rehab Measures


DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-06-32	1:10,000	BG	29/09/2022
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Plate B16.1: Ummeras Bog rehabilitation measures – November 2021



Plate B16.2: Ummeras Bog rehabilitation measures – November 2021

Appendix B17 - Derrycashel Bog

Table 4.17 Summary of Derrycashel Rehabilitation Measures

Drg. No BNM-DR-18-ER-01: Derrycashel Site Location Plan

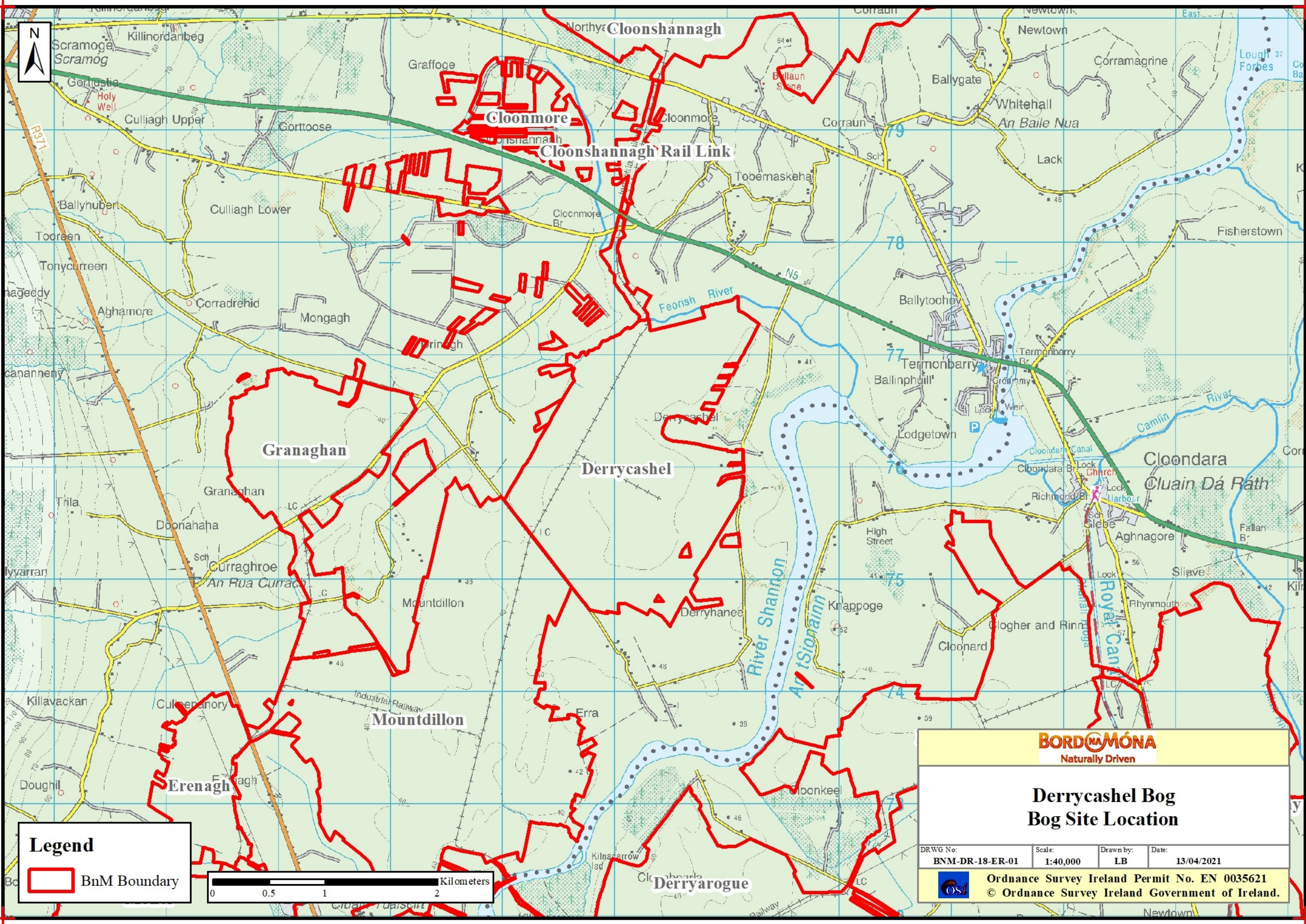
Drg No BNM-DR-18-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-18-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Derrycashel Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derrycashel Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	0.0	0.0	0.0	0.0	73.8	0.0	4.6	188.6	0.0	49.1	0.0	25.1	39.2	0.0	0.0	380.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.0	0.0	0.0	0.0	0.0	73.4	0.0	4.6	189.2	0.0	49.1	0.0	0.0	41.5	0.0	0.0	357.8
Rehab Methodologies Completed at end Mar 2022	0.0	0.0	0.0	0.0	0.0	0.0	70.9	0.0	4.6	189.2	0.0	47.9	0.0	0.0	41.5	0.0	0.0	354.1
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		89%

Table 4.17: Summary of Derrycashel Rehabilitation



Legend

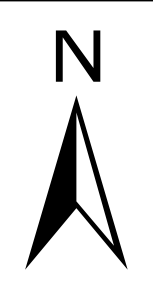
 BnM Boundary

0 0.5 1 2 Kilometers

BORD NA MÓNA
Naturally Driven

Derrycashel Bog Bog Site Location

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-18-ER-01	1:40,000	LB	13/04/2021
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Rehab Measures

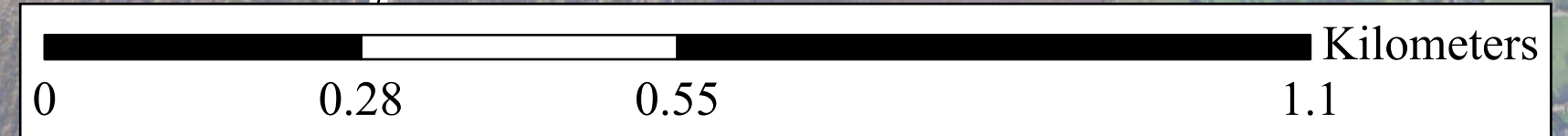
- Proposed Drain Blocks

Rehab Type

- Constraint - Minimal Rehab
- DCT2 - Dry Cutaway 2
- MLT1 - Marginal Land
- MLT2 - Marginal Land
- WLT1 - Wetland 1
- WLT2 - Wetland 2
- WLT4 - Wetland 4

Bog Assets

- Production Centres
- Pump Sites
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- Highfields
- BnM Boundary




Peatlands Climate Action Scheme

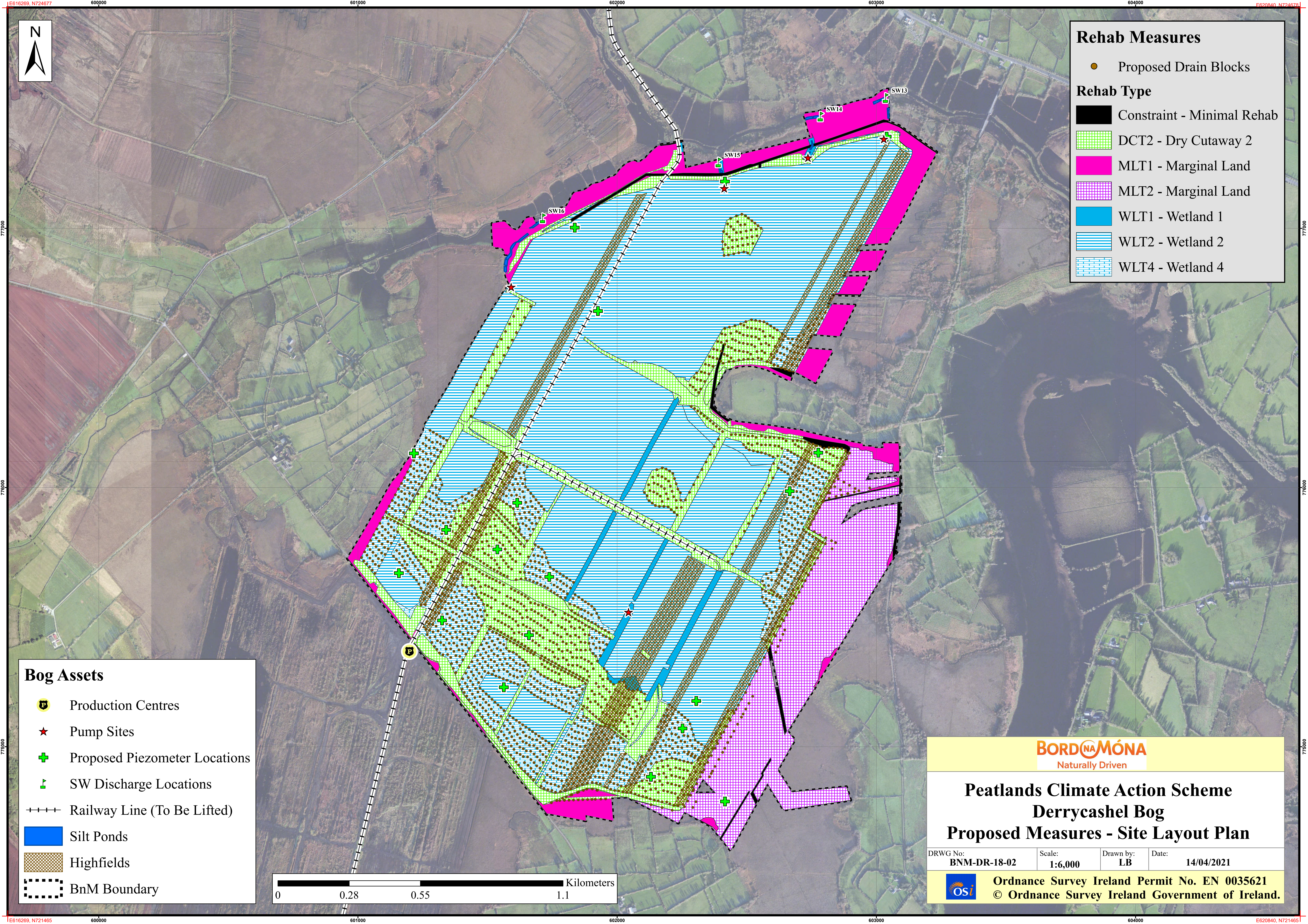
Derrycashel Bog

Proposed Measures - Site Layout Plan

DRWG No: BNM-DR-18-02	Scale: 1:6,000	Drawn by: LB	Date: 14/04/2021
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




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Legend

-  Completed
-  Ongoing
-  Not Started
-  BnM Boundary



Bord na Móna

Derrycashel Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-18-32	1:12,000	BG	29/09/2022



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Plate B17.1: Derrycashel Bog following rehabilitation - November 2021



Plate B.17.2: Derrycashel Bog following rehabilitation - November 2021

Appendix B18 - Derrycolumb Bog

Table 4.18 Summary of Derrycolumb Rehabilitation Measures

Drg. No BNM-DR-22-12-01: Derrycolumb Site Location Plan

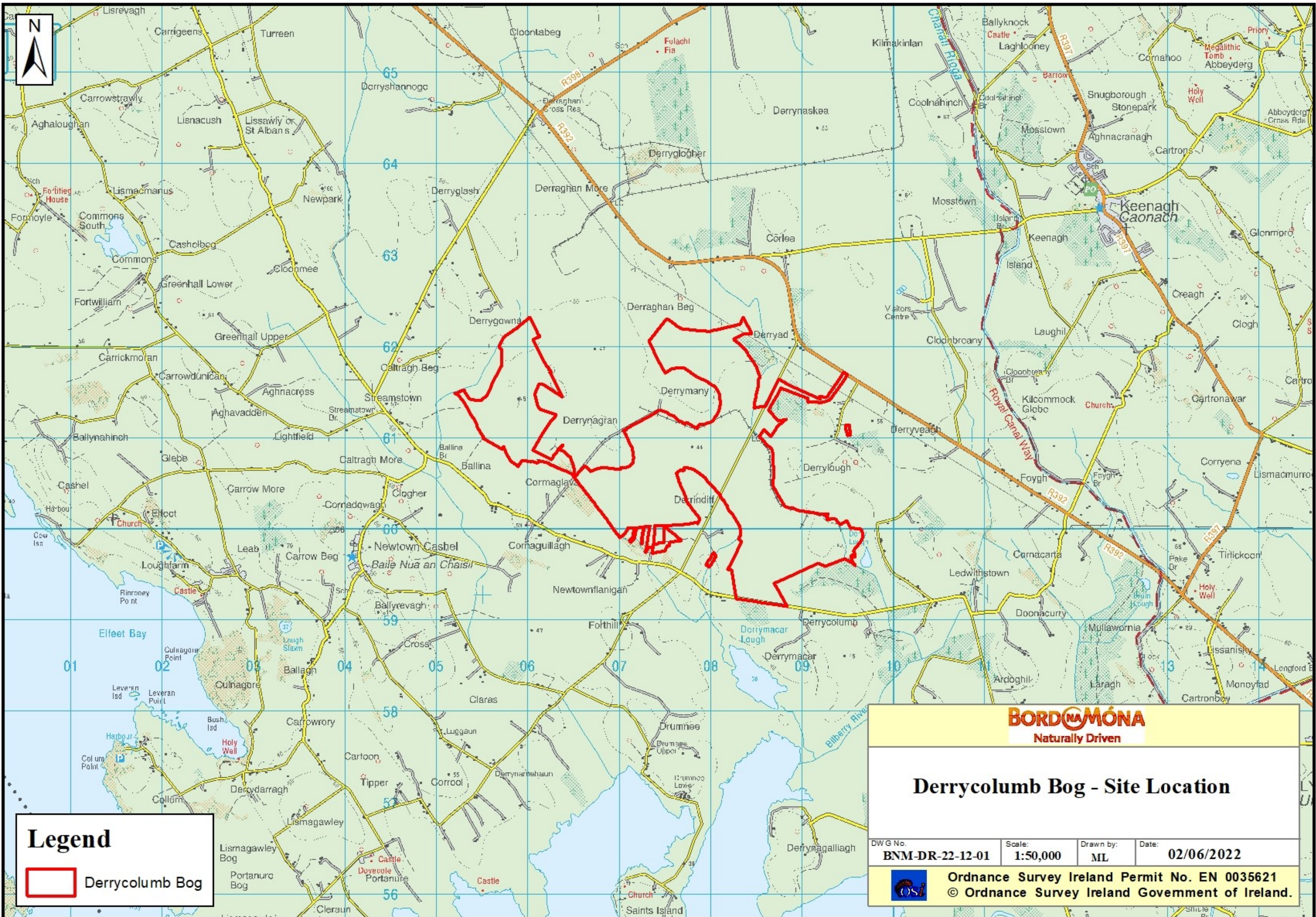
Drg No BNM-DR-12-02: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-12-32: As Completed Rehabilitation Measures (at end Mar 2022)


Sample Photographs of Derrycolumb Rehabilitation Measures


Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Derrycolumb Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	2.9	75.2	40.6	4.4	0.0	77.8	0.0	0.0	43.2	20.1	95.9	0.0	65.7	0.0	0.0	0.0	425.8
Design Rehab Methodologies incorporating amendments post commencement	0.0	9.6	70.9	40.7	4.6	0.0	83.3	0.0	0.0	43.3	19.8	97.0	0.0	40.9	0.0	0.0	0.0	410.0
Rehab Methodologies Completed at end Mar 2022	0.0	9.6	70.9	38.8	4.6	0.0	83.3	0.0	0.0	43.3	19.8	97.0	0.0	40.7	0.0	0.0	0.0	408.0
Percentage area rehabilitated at End March 2022																		99%
Percentage Work Content completed at End March 2022																		92%

Table 4.18: Summary of Derrycolumb Rehabilitation



Legend


 Derrycolumb Bog



BORD na MÓNA
Naturally Driven

Derrycolumb Bog - Site Location

DWG No. BNM-DR-22-12-01	Scale: 1:50,000	Drawn by: ML	Date: 02/06/2022
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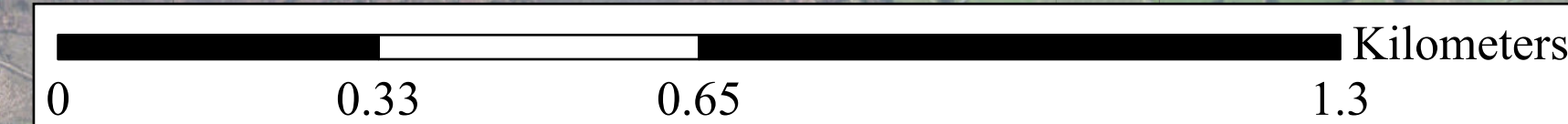


Construct New Drain

Retain Drain

Bog Assets

- Production Centres
- Pump Sites
- Proposed Piezometer Locations
- SW Discharge Locations
- Railway Line (To Be Lifted)
- Silt Ponds
- Highfields
- Stockpiles (To Be Removed)
- BnM Boundary



Rehab Measures


- Proposed Drain Blocks
- Bunded Cells
- Berms

Rehab Type

- Archeology - No Rehab
- Constraint - Minimal Rehab
- DCT2 - Dry Cutaway 2
- DPT2 - Deep Peat Cutaway 2
- DPT3 - Deep Peat Cutaway 3
- DPT4 - Deep Peat Cutaway 4
- DPT5 - Deep Peat Cutaway 5
- MLT1 - Marginal Land
- WLT2 - Wetland 2
- WLT3 - Wetland 3
- WLT4 - Wetland 4



BORD NA MÓNA
Naturally Driven

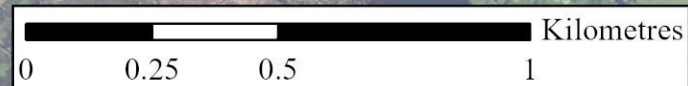
Peatlands Climate Action Scheme Derrycolumb Bog Proposed Measures - Site Layout Plan

DRWG No: BNM-DR-12-02	Scale: 1:7,000	Drawn by: LB	Date: 15/03/2021
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Legend

-  Completed
-  BnM Boundary



Bord na Móna

Derrycolumb Bog As Completed Rehab Measures

DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-12-32	1:15,000	BG	29/09/2022
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Plate B18.1: Derrycolumb Bog rehabilitation measures - November 2021



Plate B18.2: Derrycolumb Bog rehabilitation measures - November 2021

Appendix B19 – Edera Bog

Table 4.19 Summary of Edera Rehabilitation Measures

Drg. No BNM-DR-22-04-01: Edera Site Location Plan

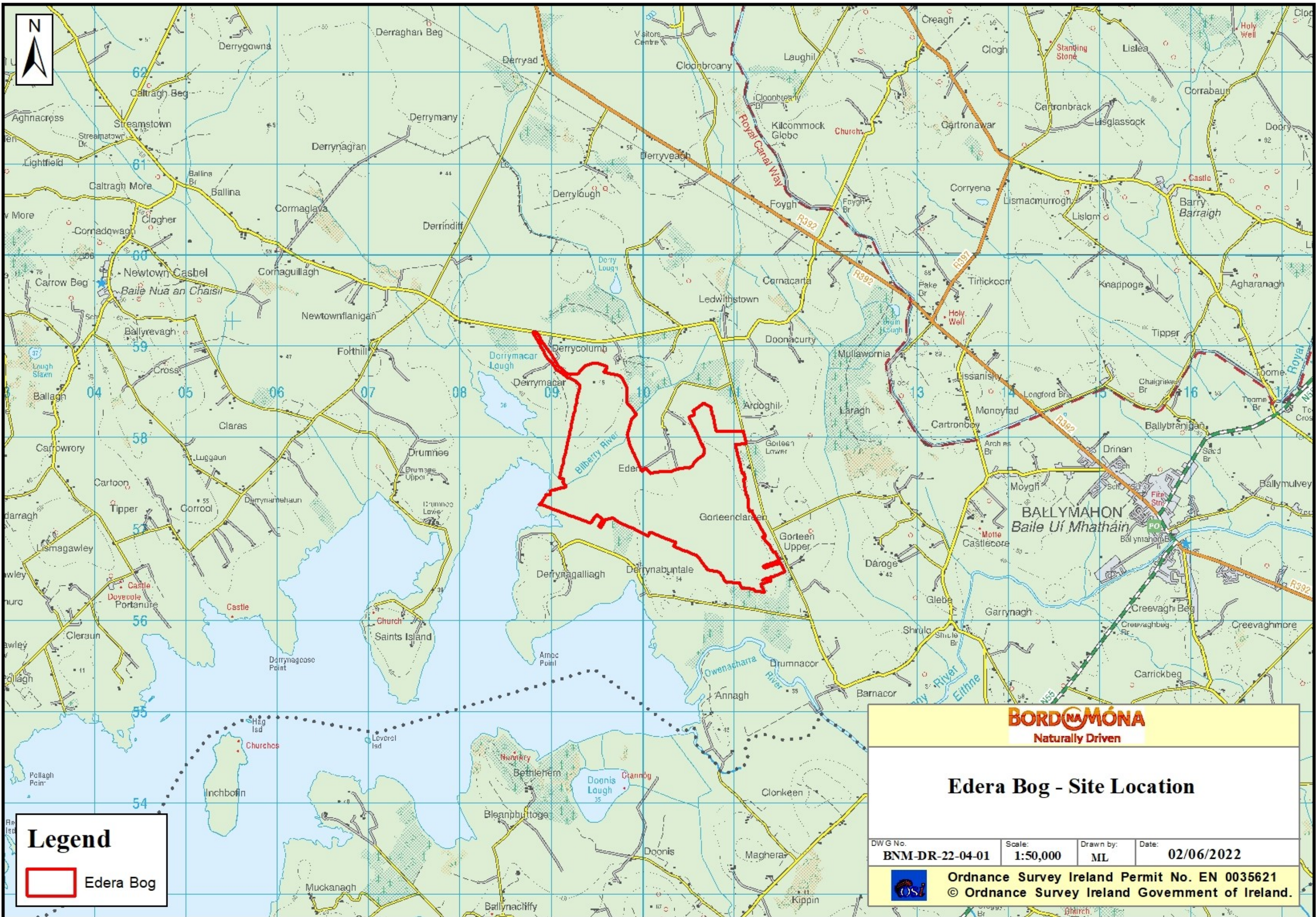
Drg No BNM-DR-09-01-REV B: Proposed Measures (approved prior to rehab commencement)

Drg No BNM-DR-23-04-32: As Completed Rehabilitation Measures (at end Mar 2022)

Sample Photographs of Edera Rehabilitation Measures

Bog	Rehabilitation Methodology (by hectare)																	Total Area (Hectares)
Edera Bog	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Design Rehab Methodologies submitted to and approved by NPWS	0.0	0.0	48.9	60.5	19.7	0.0	10.3	9.7	0.0	0.0	0.0	41.9	7.0	67.4	0.0	0.0	0.0	265.5
Design Rehab Methodologies incorporating amendments post commencement	0.0	0.7	51.1	59.1	18.1	0.0	10.3	9.9	0.0	0.0	0.0	42.4	6.8	51.4	0.0	0.0	0.0	249.8
Rehab Methodologies Completed at end Mar 2022	0.0	0.7	51.1	59.1	18.1	0.0	10.3	9.9	0.0	0.0	0.0	42.4	6.8	51.4	0.0	0.0	0.0	249.8
Percentage area rehabilitated at End March 2022																		100%
Percentage Work Content completed at End March 2022																		94%

Table 4.19: Summary of Edera Rehabilitation




Legend

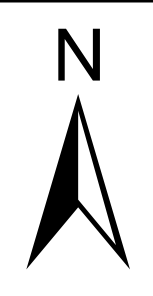
 Edera Bog

BORD na MÓNA
Naturally Driven

Edera Bog - Site Location

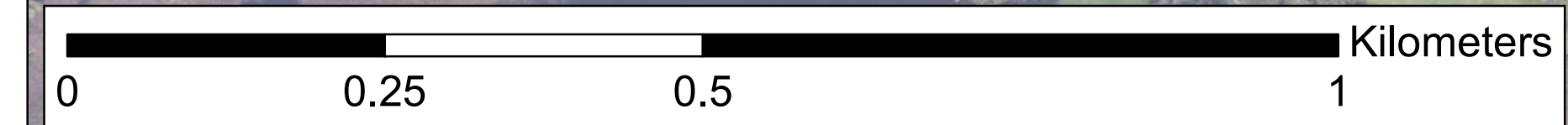
DWG No. BNM-DR-22-04-01	Scale: 1:50,000	Drawn by: ML	Date: 02/06/2022
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Bog Assets

- Production Centres
- Proposed Piezometer Locations
- SW Discharge Locations
- Silt Ponds
- Rail Line (To Be Lifted)
- High Fields
- BnM Boundary



Rehab Measures

- Proposed Drain Blocks
- Berms
- Bunded Cells

Rehab Type

- Archeology
- Constraint - Minimal Rehab
- MLT1 - Marginal Land (No Work Req)
- MLT2 - Marginal Land
- DCT2 - Dry Cutaway 2
- DCT3 - Dry Cutaway 3
- DPT3 - Deep Peat Cutaway
- DPT4 - Deep Peat Cutaway
- DPT5 - Deep Peat Cutaway
- WLT4 - Wetland
- WLT5 - Wetland

Sphagnum Inoculation Areas To Be Confirmed.
Targeted at Rehab Types DPT4 and DPT5.

Fertiliser to be applied to High Field and Headland Areas.

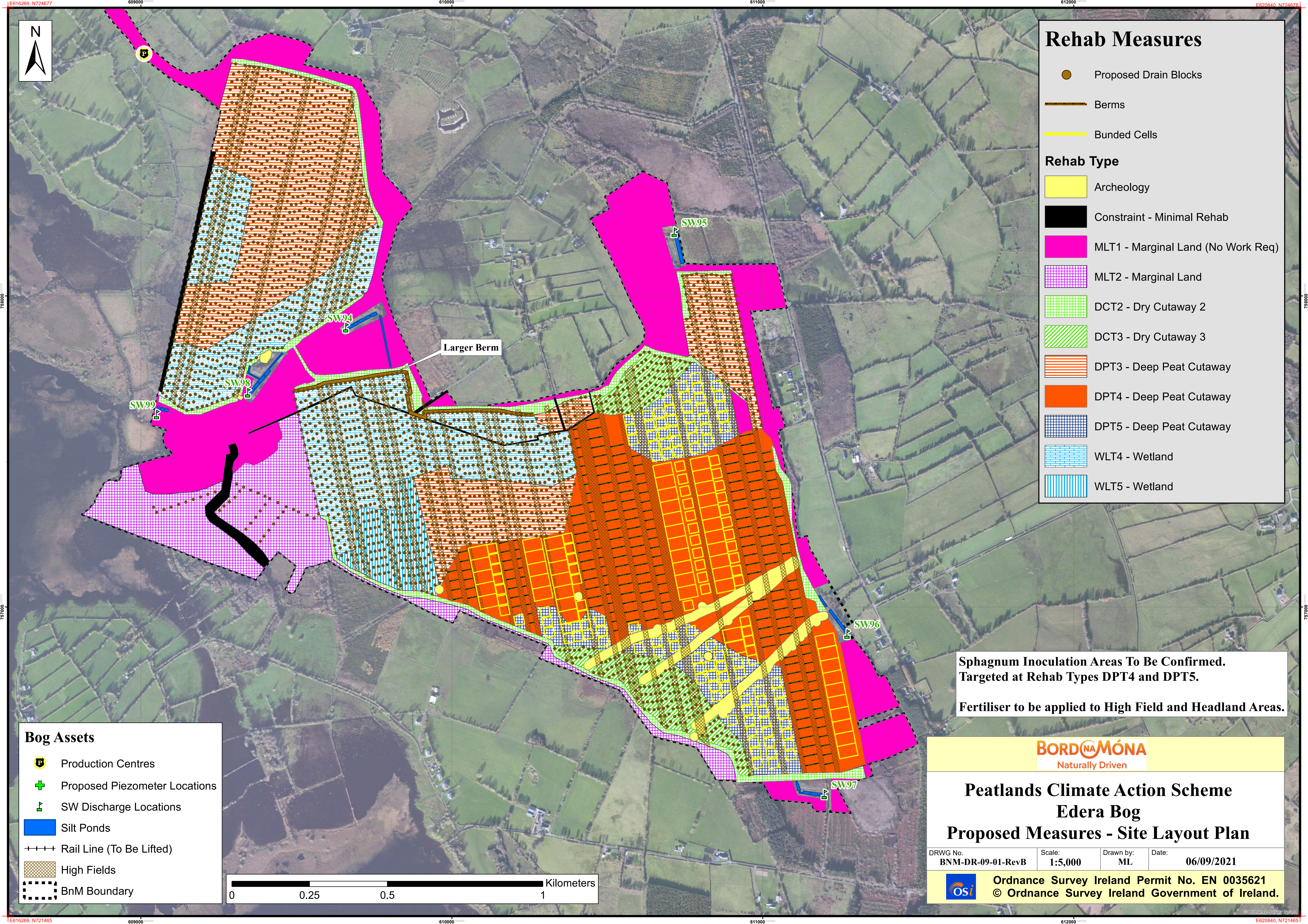
Peatlands Climate Action Scheme

Edera Bog

Proposed Measures - Site Layout Plan



DRWG No. BNM-DR-09-01-RevB	Scale: 1:5,000	Drawn by: ML	Date: 06/09/2021
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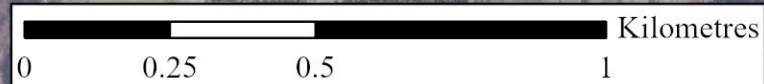
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Legend

-  Completed
-  BnM Boundary



Bord na Móna

Edera Bog As Completed Rehab Measures


DRWG No:	Scale:	Drawn by:	Date:
BNM-DR-23-04-32	1:13,000	BG	29/09/2022
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Plate B19.1: Edera Bog rehabilitation measures - November 2021



Plate B19.2: Edera Bog rehabilitation measures - November 2021

Appendix B20

Summary of Rehabilitation to End March 2022

Summary of Rehabilitation Completed at end March 2022

Bog Name	Rehabilitation Methodologies comple at End March 2022 (Hectares)																	
	DPT1	DPT2	DPT3	DPT4	DPT5	DCT1	DCT2	DCT3	WLT1	WLT2	WLT3	WLT4	WLT5	MLT1	MLT2	AWT1	AWT2	
Belmount	0	5	0	40	4	7	37	0	0	13	8	104	0	26	3	0	1	246
Clooniff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Garryduff	0	13	0	5	27	0	69	0	0	344	46	286	0	64	14	0	0	868
Kellysgrove	0	105	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	132
Kilmacshane	0	37	0	57	0	16	117	0	0	401	158	271	0	107	11	0	0	1173
Boora	0	15	0	51	0	120	14	0	0	0	50	113	0	27	0	111	38	538
Derries	0	4	0	3	3	112	48	0	0	147	5	0	0	30	0	0	5	359
Oughter	0	0	0	0	0	15	36	0	0	14	21	124	0	27	6	0	0	242
Pollagh	0	0	7	72	5	0	42	0	0	2	15	87	0	17	0	0	0	246
Turraun	0	0	0	0	0	0	89	0	0	38	6	185	1	66	0	0	0	385
Castlegar	23	59	100	92	23	0	11	0	0	0	0	0	0	53	0	0	0	361
Cavemount	0	0	0	17	0	5	39	0	0	7	243	43	0	39	0	0	28	420
Clonad	0	0	0	34	0	0	64	0	0	0	2	163	0	26	0	0	0	290
Esker	0	0	157	114	45	11	54	0	0	0	35	54	0	38	3	0	0	509
Mountlucas	0	0	33	25	38	0	64	0	0	4	21	75	0	58	0	0	116	435
Ummeras	0	11	0	113	22	6	29	0	0	6	1	17	0	33	0	0	0	238
Derrycashel	0	0	0	0	0	0	71	0	5	189	0	48	0	0	42	0	0	354
Derrycolumb	0	10	71	39	5	0	83	0	0	43	20	97	0	41	0	0	0	408
Edera	0	1	51	59	18	0	10	10	0	0	0	42	7	51	0	0	0	250
Total (Ha)	23	259	416	722	189	291	878	10	5	1209	630	1708	8	747	78	555	188	7455

Table B20.1: Rehabilitation measures completed at End March 2022