


Appropriate Assessment Report

for Native Woodland Conservation project
NWS1186/CN88556, at Ballynavortha, Money Upper
and Moylisha, Co. Wicklow



Map Project area (outlined in red) and surrounds. (Source: IFORIS database)

 <p>An Roinn Talmhaíochta, Bia agus Mara Department of Agriculture, Food and the Marine</p>	<p>Prepared by Department of Agriculture, Food and the Marine Date: 07/09/2022</p>
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Section 1 Introduction

The proposed Native Woodland Conservation project NWS1186 (henceforth referred to in this document as ‘the project’) is not directly connected with or necessary to the management of any European Site. Having arrived at the Appropriate Assessment Screening Determination (see file), it has been determined, on the basis of objective scientific information, that the project, individually or in combination with other plans and projects, is likely to have a significant effect on the following European Site(s), or uncertainty exists in this regard:

- Slaney River Valley SAC IE0000781.

Therefore, an appropriate assessment must be carried out in respect of the project by the Minister for Agriculture, Food and the Marine under the European Communities (Birds & Natural Habitats) Regulations 2011 (S.I. No. 477/2011), as amended, and the Forestry Regulations 2017 (S.I. No. 191 of 2017), as amended.

In relation to key forestry activities, the Habitats Directive (Council Directive 92/43/EEC) is implemented in Ireland by the European Communities (Birds & Natural Habitats) Regulations 2011 (S.I. No.477 of 2011), as amended, and the Forestry Regulations 2017 (S.I. No. 191 of 2017), as amended. The requirement for Appropriate Assessment is set out in Article 6(3) of the Habitats Directive.

In summary, an appropriate assessment is required to be undertaken where a project – either individually or in combination with other plans and projects – is likely to have a significant effect on a European Site (i.e. a Special Area of Conservation (SAC) or a Special Protection Area (SPA)), or where it cannot be ruled out that it will not have a significant effect. The appropriate assessment focuses on the implications that the project may have in the context of the reason for the designation of the European Site for protection. Article 6(3) continues by stating that consent can only be granted if the assessment has shown that there will be no adverse effect on the integrity of any European Site in view of its conservation objectives.

The purpose of this Appropriate Assessment Report is to evaluate whether the project, individually or in combination with other plans and projects, would have an adverse effect on the integrity of any European Site, in view of that European Site’s conservation objective(s) and best scientific knowledge.

Section 2 Information

In undertaking this appropriate assessment of the likely significant implications and effects of the project on European Sites, the following were taken into account:

- the initial NWS1186 application dated 08.03.2021, including all information submitted by the applicant, information available *via* CN88556 Contacts on iFORIS (including its GIS MapViewer) and input from the District Inspector
- The associated felling licence TFL006167818 (approved on 23.08.2018).
- Referrals to Consultation bodies.;
- A Referral letter was sent by DAFM on 22/08/2018 to INLAND FISHERIES IRELAND (IFI) re: TFL00167818. No response was received from IFI.
- A Referral letter to WICKLOW COUNTY COUNCIL was sent by DAFM on 13/06/2018 re: TFL00167818. No response from Wicklow Co. Co. was received
- A referral letter re: NWS1186/CN88556 was sent from DAFM to INLAND FISHERIES IRELAND on 13/04/2021. No response from IFI was received
- NWS1186 notice of application was referred to NPWS and a response from NPWS was received 22.06.2021 which stated ‘The National Parks and Wildlife Service (NPWS) is not in a position to comment

on this application. The attached appendix contains more general points that are of relevance and will hopefully be of assistance to you in your consideration of this matter.'

- Any subsequent supporting documentation received from the applicant; A Further information request was issued from DAFM on to the applicant to provide the following in relation to the associated felling TL00167818: A Harvest Plan, Harvest Plan Map, Replanting Map and Replanting Bio Map. which had been absent from the TFL006167818 licence application (approved on 23.08.2018). The above information was received by e.mail on 11/04/2022 and is uploaded to CN88556 Contacts on iFORIS on ?
- the NWS1186/CN88556 AA Screening Report and Determination (dated 01.09.2022) for this project , which is evidence of the required evaluation of any potential significant effects that may arise as a result of the proposed project on European Sites (at no stage during the screening process were measures intended to avoid or reduce any potential effects to European sites, considered;
- Conservation Objectives, Natura 2000 forms, site synopsis and supporting documents for each relevant European site, available from National Parks & Wildlife Service (www.npws.ie);
- available ecological and environmental information including aerial imagery, historical OS maps, DAFMs iFORIS system, QGIS and ArcGIS applications and data available at [National Parks & Wildlife Service \(npws.ie\)](http://National Parks & Wildlife Service (npws.ie)), EPA Maps, GeoHive, [Data and maps \(gsi.ie\)](http://Data and maps (gsi.ie)), [Biodiversity Maps \(biodiversityireland.ie\)](http://Biodiversity Maps (biodiversityireland.ie));
- relevant publications, scientific papers, guidelines and other information sources, where referenced. See Appendix B. Bibliography and Relevant Literature.
- any other relevant information.

Combined with the site and project details (including maps) contained in the AASD for the NWS1186 project, adequate information was available to undertake an appropriate assessment.

This NWS1186 AA Report only deals with ecological issues relevant to the AA process. If relevant, other ecological issues that are not AA-related are addressed elsewhere on file.

Section 3 Identification and assessment of potential adverse effects arising from the project itself (i.e. individually)

Following the screening of the Native Woodland Conservation project NWS1186 (as recorded in the Appropriate Assessment Screening Report and Determination (AASD) on file) and pursuant to Article 6(3) of the Habitats Directive, the European Communities (Birds & Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended) and the Forestry Regulations 2017 (S.I. No. 191 of 2017), as amended by *inter alia* the Forestry (Amendment) Regulations 2020 (S.I. No. 31 of 2020), DAFM has determined that there is a possibility of the proposed project having a significant effect, on particular European site(s), as set out below.

This section provides an analysis of the potential adverse effects on the integrity of these screened-in European Site(s) arising as a result of the project itself, i.e. *individually*. Potential adverse effects associated with the proposed project on the integrity of the European Site are assessed in view of best scientific knowledge, on the basis of objective information and in light of the sites conservation objectives. Where potential adverse effects on integrity are identified, appropriate measures to avoid and prevent such effects are prescribed through mitigation.

Slaney River Valley SAC IE0000781.

The site-specific threats, pressures and activities with the potential to affect this European Site were reviewed and considered in relation to the proposed project and are presented below.

Qualifying Interests	Detail the components of the corresponding Conservation Objectives (as set out in full at https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf that are relevant to this project.	Considering the nature of the project, this QI & the relevant components of its Conservation Objective(s), including supporting habitats and species, is there potential for adverse impact? If so, describe.	Is mitigation required? If so, describe.
1029 Freshwater Pearl Mussel <i>Margaritifera margaritifera</i>	The status of the freshwater pearl mussel (<i>Margaritifera margaritifera</i>) as a qualifying Annex II species for the Slaney River Valley SAC is currently under review.	The status of the freshwater pearl mussel (<i>Margaritifera margaritifera</i>) as a qualifying Annex II species for the Slaney River Valley SAC is currently under review. The outcome of this review will determine whether a site-specific conservation objective is set for this species (NPWS 000781 Conservation Objectives) The project site is hydrologically linked to a tributary of the Dereen river 7.6km downstream. The Dereen River has a population of Freshwater Pearl Mussel (FPM) upsream of Hacketstown and the confluence with the above tributary. However there is potentially suitable FPM habitat in the Dereen River downstream of the confluence. Status of FPM	Yes See Section 4 for details of mitigation measures to be implemented to avoid adverse impacts on water quality during harvesting and replanting. Ultimately the replanting of this conifer plantation site with

Qualifying Interests	Detail the components of the corresponding Conservation Objectives (as set out in full at https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf that are relevant to this project.	Considering the nature of the project, this QI & the relevant components of its Conservation Objective(s), including supporting habitats and species, is there potential for adverse impact? If so, describe.	Is mitigation required? If so, describe.
		population in the Dereen River is not good with very little recruitment of juvenile mussels recorded in surveys undertaken for the Dereen River Sub Basin Management Plan (2010). Potential impacts in water quality from increased nutrient/sediment loading from the proposed NWS1186 site particularly at the conifer clearfell stage cannot be ruled out. The EPA WFD water quality status (2013-2018) for the Dereen River is moderate, and the water quality status is also moderate for the tributary streams flowing along the boundary of the project site into the Dereen River. Under the WFD Risk 3 rd Cycle, these waterbodies are listed as being 'at risk' See https://gis.epa.ie/EPAMaps/Water	native woodland species, to be managed under continuous cover forestry will be the best form of protection of water quality and biodiversity enhancement.
1099 River Lamprey <i>Lampetra fluviatilis</i>	To restore the favourable conservation condition of River lamprey in the Slaney River Valley SAC No decline in extent and distribution of spawning beds	Juvenile river/brook lamprey were widespread in the Slaney SAC (King et.al.(2004). Significant effects are unlikely given current distribution and range (NPWS 2019a). Potential impacts in water quality from increased nutrient/sediment loading from the proposed NWS1186 site particularly at the conifer clearfell stage although unlikely, cannot be ruled out without mitigation measures in place.	Yes As above
1096 Brook Lamprey <i>Lampetra planeri</i>	To restore the favourable conservation condition of Brook lamprey in the Slaney River Valley SAC No decline in extent and distribution of spawning beds		
1095 Sea Lamprey <i>Petromyzon marinus</i>	To restore the favourable conservation condition of Sea	Spawning of Sea lamprey was observed in the main channel of the SAC mainly below the Bunclody, Clohamon stretches of the Slaney River.	

Qualifying Interests	Detail the components of the corresponding Conservation Objectives (as set out in full at https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf that are relevant to this project.	Considering the nature of the project, this QI & the relevant components of its Conservation Objective(s), including supporting habitats and species, is there potential for adverse impact? If so, describe.	Is mitigation required? If so, describe.
	<p>lamprey in the Slaney River Valley SAC</p> <p>No decline in extent and distribution of spawning beds</p>	<p>The findings provide cause for concern on the status of sea lamprey in the Slaney. (King et.al. (2004). Due to the hydrological distance from the project site, potential adverse impacts are very unlikely, however on a precautionary basis, mitigation measures to avoid adverse impacts arising from the NWS1186 project, on water quality downstream, will be applied.</p>	
1106 Atlantic Salmon <i>Salmo salar</i> (only in fresh water)	<p>To restore the favourable conservation condition of Salmon in the Slaney River Valley SAC</p> <p>No decline in number and distribution of spawning redds due to anthropogenic causes</p> <p>At least Q4 at all sites sampled by EPA.</p>	<p>The Slaney is primarily a spring salmon fishery and is regarded as one of the top rivers in Ireland for early spring fishing. The upper Slaney and tributary headwaters are very important for spawning. (NPWS 000781 Site Synopsis). Water quality target is at least EPA Q4. Potential water quality impacts due to the hydrological link to tributaries of the Dereen River and River Slaney in terms of increased nutrient/sediment loading from the proposed NWS1186, particularly at the conifer clearfell stage cannot be ruled out. See also above Freshwater Pearl Mussel re: potential impacts on water quality). Therefore mitigation is required.</p>	
3260 Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	<p>To maintain the favourable conservation condition of Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>allitricho-Batrachion</i> vegetation in the Slaney River Valley SAC</p> <p>The concentration of nutrients in the water column must be sufficiently low to prevent changes in species composition or habitat condition</p>	<p>Floating river vegetation that may conform to [3260] is found along much of the freshwater stretches within the site (NPWS 000781 Site Synopsis).</p> <p>Potential water quality impacts due to the hydrological link to tributaries of the River Slaney is the same as for the other aquatic species listed above</p>	<p>Yes</p> <p>As above</p>

Qualifying Interests	Detail the components of the corresponding Conservation Objectives (as set out in full at https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf that are relevant to this project.	Considering the nature of the project, this QI & the relevant components of its Conservation Objective(s), including supporting habitats and species, is there potential for adverse impact? If so, describe.	Is mitigation required? If so, describe.
1355 Otter <i>Lutra lutra</i>	To restore the favourable conservation condition of Otter in the Slaney River Valley SAC	According to The Status of EU Protected Habitats and species in Ireland 2019 ¹ Ireland continues to remain a stronghold for the European otter (<i>Lutra lutra</i>). The most recent national survey (2010) and distribution data show that the otter continues to be widespread throughout Ireland in a wide variety of habitat types. Otter may potentially use the tributary streams along the north and west boundaries of the project site for commuting. The existing Sitka Spruce trees on site were planted to within 5m of the Aquatic Zones and the Aquatic Zone is a well vegetated drain. So this is not ideal habitat for Otter foraging or for use as breeding sites. No Annex II species were observed on the site or signs of same during the NWS1186 Ecological Survey for the NWS1186 Plan (08.03.2021). While the habitat of the project site is sub-optimal for Otter, on a precautionary basis, mitigation will be applied during felling and reforestation operations. Ultimately the planting of native woodland on this project site will enhance the habitat for Otter.	Yes As above
91E0 *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i>)	To restore the favourable conservation condition of Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion) in the Slaney River Valley SAC	Good examples of Alluvial woodland [91E0] occur along the Slaney River valley which were surveyed as part of the National Survey of Native Woodlands in Ireland (2003-2008) (Perrin et. al. 2008). Alluvial woodlands are subject to periodic flooding from their associated rivers and therefore there could be at a potential small risk if there is a deterioration in water quality upstream linked to the project.	Yes As above

¹ National Parks & Wildlife Service (NPWS). 2019. The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. Available at www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf

Qualifying Interests	Detail the components of the corresponding Conservation Objectives (as set out in full at https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf that are relevant to this project.	Considering the nature of the project, this QI & the relevant components of its Conservation Objective(s), including supporting habitats and species, is there potential for adverse impact? If so, describe.	Is mitigation required? If so, describe.
91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	To restore the favourable conservation condition of old sessile oakwoods with <i>Ilex</i> and <i>Blechnum</i> in the Slaney River Valley SAC	Old sessile oak woods in this SAC are best represented within this 000781 SAC in Tomnafinnoge, Co. Wicklow. There are other documented examples of [91A0] within the 000781 SAC (Perrin et. al 2008). As [91A0] is a terrestrial habitat there is no pathway for impacts from the proposed NWS1186 project	No
1103 Twaite Shad <i>Alosa fallax</i>	To restore the favourable conservation condition of Twaite shad in the Slaney River Valley SAC	These are species and habitats associated with marine habitats or aquatic habitats with a tidal influence. Twaite Shad Regular breeding has not been confirmed in the River Slaney in recent years (King and Roche, 2008)	No
1365 Harbour Seal <i>Phoca vitulina</i>	To maintain the favourable conservation condition of Harbour Seal in the Slaney River Valley SAC	Any tidal influence is well south of Enniscorthy, which is located > 50km down stream and also due to the dilution factor of tide, no potential impacts from this project is considered likely	
1130 Estuaries	To maintain the favourable conservation condition of Estuaries in the Slaney River Valley SAC		
1140 Mudflats and sandflats not covered by seawater at low tide	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in the Slaney River Valley SAC		

Section 4 NWS1186 Mitigation measures

The potential for the NWS1186 project itself (i.e. alone) to have an adverse effect on the integrity of the screened in European Site, was identified on a precautionary basis.

Site-specific measures identified to prevent or mitigate against such effects are as follows, and will be inserted as conditions of the licence / approval, if subsequently issued:

- In relation to the protection of adjoining / downstream aquatic based species and habitat, the following mitigation is required, presented in the form of conditions to be attached to any licence issued:

At all times the applicant shall implement best practice for environmental management and pollution prevention as set out in Standards for Felling & Reforestation (DAFM, 2019) and Environmental Requirements for Afforestation (DAFM, 2016). **Reason: In the interest of the protection of water quality and to ensure the protection of European Site(s) during replanting operations.**

Measures to include the following:

- Store and prepare all chemicals, fuel and machine oils, and undertake all machine refuelling, maintenance and repair, at a dry, elevated location onsite at least 50 m from the nearest aquatic zone and at least 20m from the nearest relevant watercourse.
- Relevant operations must cease during and after periods of rainfall sufficiently heavy to result in the loss of nutrients and/or the mobilisation of sediment, fine organic matter and debris into receiving waters. Ground conditions must be monitored during rainfall, and records of such monitoring and of any resulting operational adjustments and postponements must be kept for possible inspection. For information, forecast details for the nearest meteorological station can be found on the Met Éireann website www.met.ie
- Machine movement and ground conditions shall be monitored throughout operations and additional measures, such as application of brush or use of alternative routes, shall be implemented as required.
- Temporary crossing areas shall be restored to their original state when all machine operations, including reforestation, are completed (or sooner, if no longer required). These crossings must be carefully removed, to avoid sediment release during the process.

During harvesting, the applicant shall adhere to all water protection measures relating to water exclusion zones, silt and sediment control, temporary water crossings, the use of brush mats along extraction routes, control of operations (including timing), and onsite storage of chemicals, fuels, etc. and disposal of waste, as set out in the *Standards for Felling & Reforestation* (DAFM, 2019). **Reason: In the interest of the protection of water quality and to ensure the protection of European Site(s) during harvesting operations.**

Specific measures detailed in the NWS1186 Harvest Plan and shown on the associated maps;

- Figure 1. NWS1186 Current Habitat Map(08.03.2021)
- Figure 2. NWS1186 Harvest Plan (07.04.2022)
- Figure 3. NWS1186 Operations Map (08.03.2021)
- Figure 4. NWS1186 Replanting Map(07.04.2022)
- Figure 5. NWS1186 Replanting Bio Map (08.03.2021)

(which are copied into Appendix 2 of this AAR) are to be implemented as follows:

- Prior to harvesting, all aquatic zones, water related hotspots as shown on the following maps in Appendix A: **NWSNWS1186 Current Habitat Map (08.03.2021) and NWS1186 Harvest Plan Map (07.04.2022)** (as defined in Circular 12/2017 submitted for this NWS1186 file) shall be identified on the ground and a clearly marked machinery exclusion zone of 10 metres shall be established around them.

- The 10m exclusion zone precludes all forwarding, processing and stacking operations. Machines that are exclusively harvesters whose maximum reach is less than 10m, may enter the 10m aquatic exclusion zone to harvest trees adjoining the aquatic zone but the harvester must use its maximum reach and it must always be 5m or greater from the aquatic zone. The harvester must move all trees outside of the 10m exclusion zone for subsequent processing and stacking.
- Prior to the commencement of operations, install silt traps at the locations marked on the **NWS1186 Operations Map (08.03.2021) and the NWS1186 Replanting Bio Map (08.03.2021)**. Additional silt traps shall be installed, where required, in all relevant watercourses that are connected, directly or indirectly, to any aquatic zone, locating these 10 – 15 m back from the exit point of the relevant watercourse to the aquatic zone. Silt traps must be of sufficient number and size to provide adequate retention time for rainfall in the area.
- Silt traps to adhere to the specifications set out in the *Interim Standards for Felling & Reforestation* (see Section 7 (or similar), are to be installed before operations commence onsite, and are to be monitored and maintained throughout operations. Any build-up of captured sediment is to be removed and deposited on the forest floor at least 5m from the relevant watercourse.
- Area of existing broadleaved woodland (WD1) at the northern end of Plot 1 as shown on the Harvest Plan Map in appendix A, is to be retained. Retain existing native broadleaves present within the water exclusion zone, where safe to do so.
- Watercourse crossings are to adhere to the requirements set out under Section 8 of the *Interim Standards for Felling & Reforestation*. There shall be no direct crossing of aquatic zones. Any necessary temporary crossing of relevant watercourses as shown on the NWS1186 Harvest Plan Map shall comprise a free-standing structure (e.g. timber lengths) arranged to span over the watercourse as described in the Harvest Plan .

At reforestation, water setbacks are to be applied to aquatic zones, relevant watercourses and water hotspots; due to the sensitivity of the site (hydrological link to Slaney River Valley SAC 7.7km downstream and the presence of two Hot Spots/seepage areas on the project site), the width of setbacks are to adhere to the standards set out in the *Environmental Requirements for Afforestation* and the DAFM Native Woodland Scheme (2015) and .

Reason: In the interest of the protection of water quality and to ensure the protection of European Site(s) during future operations.

- Refer to Appendix 2.the following maps: **NWS1186 Operations Map (08.03.2021), NWS1186 Replanting Map and NWS1186 Replanting Bio Map (08.03.2021)**. Reflecting: (i) the slope leading to the **aquatic zone**; (ii) the project area is on podzol soils with two hotspots,, the required width of the **water setback**, to be applied and maintained at reforestation is **10 metres**. These setbacks are to remain undisturbed during establishment and throughout the forest rotation (apart from fencing, if required).
- With regard to **relevant watercourses and hotspots**, a **5m setback** shall be applied.

For all other reforestation activities, the applicant shall adhere to all water protection measures relating to drainage and cultivation methods, fertiliser and pesticide use as set out in the *Standards for Felling & Reforestation* (DAFM, 2019). Adhere to the DAFM Native Woodland Scheme (2015) document and the DAFM Native Woodland Scheme Framework (Vers. 09/April18/see Cir.05/18)

. Reason: In the interest of the protection of water quality and to ensure the protection of the Slaney River Valley (000781) European Site during replanting operations.

- In relation to **Otter**, the following mitigation is required, presented in the form of conditions to be attached to any licence issued:
- Adhere to the *Forestry and Otter Guidelines* (DAFM 2009)

- During felling, extraction and reforestation Apply a 10 m wide water exclusion zone along the edge of any aquatic zone on or adjoining the site. All machine traffic and timber stacking are not permitted within this zone. Trees within the reach of the harvester arm are to be felled by harvester, and snedded and bunched outside the exclusion zone. Trees outside machine reach to be felled manually by chainsaw operators. Felled trees to be winched out of the exclusion zone where appropriate and safe to do so, or removed by extended harvester arm, for subsequent snedding and processing outside the exclusion zone. For other requirements relating to this exclusion zone, see Section 6.1 of the Standards for Felling & Reforestation (DAFM, 2019).
- There will be no clearance of vegetation within the existing vegetated site drains including Aquatic Zones and Relevant Watercourses.
- There will be removal of scrub/no woody weed removal within 50m of an aquatic zone or within 20m of a relevant watercourse. Do not remove or disturb any areas of wet woodland, carr (woodland growing on wet ground or waterlogged soil usually dominated by alder or willow species) or thick scrub on the site within 50m of an aquatic zone or 20m of a relevant watercourse.
- Adhere to all water protection measures relating to water exclusion zones, silt and sediment control, temporary water crossings, extraction, timing of operations, and onsite storage and disposal of waste, as set out in Standards for Felling & Reforestation (DAFM, 2019).
- Forestry operations will be completed during daylight hours, (i.e. no lighting, and no machinery operations during night/works will cease prior to dusk).

Aquatic Zone within or adjoining.

- During felling, extraction and reforestation, apply a 10m exclusion zone from any aquatic zone on or adjoining site. Machine traffic and timber stacking are not permitted within this zone. Trees within the reach of the harvester arm to be felled by harvester, and snedded and bunched outside the exclusion zone. Trees outside machine reach to be felled manually. Felled/ fallen trees to be winched out of the exclusion zone where appropriate and safe to do so, or removed by extended harvester arm, for subsequent snedding and processing outside the exclusion zone avoiding mobilisation of soils. For other requirements relating to this exclusion zone, see Section 6.1 of the Standards for Felling & Reforestation (DAFM, 2019).
- There will be no woody weed removal within 50m of an aquatic zone or 20m of a relevant watercourse. Do not remove or disturb any areas of wet woodland, carr (woodland growing on wet ground or waterlogged soil usually dominated by alder or willow species) or thick scrub on the site within 50m of an aquatic zone or 20m of a relevant watercourse.
- Sediment trapping measures both during and post operations should be installed to provide sufficient buffering before reaching setback area. Geotextile silt traps should be installed in new and existing drains. Silt traps should be staggered along the length of the drain, and not only at the lower reaches towards its outflow.

Section 5 In-combination effects

The potential for the project to contribute to an in-combination effect on European sites was considered by the Department of Agriculture, Food & the Marine (DAFM).

Various online planning systems and datasets (including DAFM's Forest Licence Viewer) were consulted in order to identify other plans and projects, focusing on the general vicinity of the project area.

Appendix A details the plans and projects identified.

As set out in Appendix A, it is deemed that this project, when considered in combination with other plans and projects, will not give rise to any adverse effect on the integrity of any European Site.

Section 6 Assessment of potential residual impacts

The NWS1186 project design, together with adherence to the relevant site-specific mitigation measures set out in Section 4 above, ensure that potential residual impacts do not arise and that the NWS1186 project itself (i.e. individually) will not prevent or obstruct the Qualifying Interests / Special Conservation Interests of the screened in European Site (Slaney River Valley SAC 000781) individually assessed above, from reaching or maintaining favourable conservation status, defined as follows:

Favourable conservation status of a habitat is achieved when:	<i>“its natural range, and area it covers within that range, are stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.”</i>
The favourable conservation status of a species is achieved when:	<i>“population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.”</i>

Based on the above, it can be concluded, in view of best scientific knowledge and based on objective information, that the proposed NWS1186 project, alone or in-combination with other plans and projects, will have no adverse effect on the integrity of any European Site(s), in view of its corresponding conservation objectives.

Section 7 AA Determination

It is concluded that the proposed Native Woodland Conservation project under NWS1186, with mitigation measures identified, will itself (i.e. individually) not result in any adverse effect or residual adverse effects on the integrity of the European site(s) listed above. The project was also considered in combination with other plans in the area that could result in potential significant cumulative effects on these European site(s). No potential significant cumulative effects are predicted with the plans and projects listed in Appendix A.

Therefore, it is deemed that this project, when considered in combination with other plans and projects, will not give rise to any adverse effect on the integrity of any European Site. This relates to the proposed activities under this project only. Any subsequent forestry-related activity requiring consent/grant aid shall be subjected to the DAFM Appropriate Assessment Procedure, including an in-combination assessment with the current proposal, prior to any future consent being granted.

<p>NWS1186 AA Report compiled by: Katharine Duff, Ecologist, Forestry Inspectorate, Department of Agriculture, Food and the Marine: Date 07/09/2022</p>
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Bibliography and Relevant Literature

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- DAFM. 2019.** Appropriate Assessment Procedure: Guidance Note & iFORIS SOP for DAFM Forestry Inspectors (v.05Nov19) (DAFM, 2019).
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**Appendix A: In-combination Assessment for Native Woodland Conservation Scheme project
NWS1186**

1. Other Plans and Projects

The potential for the proposed Native Woodland Conservation Scheme project NWS1186 to contribute to an in-combination impact on European sites was considered by the Department of Agriculture, Food & the Marine (DAFM).

As detailed below, various online planning systems and datasets (including DAFM’s Forest Licence Viewer) were consulted on the 18/08/2022 in order to identify other plans and projects, focusing on the general vicinity of the project area in the River Sub-Basin Adhacashlaun_030 (100%).

The following details those plans and projects identified.

2. Local Authority

The Department of Housing, Planning and Local Government’s website <https://www.housing.gov.ie> was examined on the above date. It identified the following projects as having been (within the last five years), or in the process of being, granted planning permission by County Wicklow County Council and located within the vicinity of the project area.

Planning Authority	Application Number	Development Description	Application Status	Application Type	Decision	Decision Date
Carlow County Council	17290	Planning permission for the erection of a fully serviced dwelling house with domestic garage, septic tank, percolation area, site entrance, bored well and all other associated site works.	APPLICATION FINALISED	PERMISSION	CONDITIONAL	29/11/2017
Carlow County Council	17302	The demolition of an existing Sow house building and the erection of a replacement Modern Sow house building in its place, along with the erection of a second weaner house building and all associated site works. the application is accompanied by an Environmental Impact Statement (EIS) All works and associated site works take place within the curtilage of an existing Pig unit.	APPLICATION FINALISED	PERMISSION	CONDITIONAL	12/04/2018
Carlow County Council	18114	A Dwelling House, garage, septic tank and all associated site works.	APPLICATION FINALISED	PERMISSION	CONDITIONAL	28/06/2018
Carlow County Council	1956	revisions to previously granted planning reference number 17/290, which will consist of the following: (a) internal and external alterations to previous dwelling design, (b)	APPLICATION FINALISED	PERMISSION	CONDITIONAL	30/05/2019

		alterations to previous garage design, (c) planning permission will also consist of an appropriate waste water treatment system and percolation area, bored well, new entrance and all ancillary site works				
Carlow County Council	1968	to construct a slatted beef shed and all associated site works	APPLICATION FINALISED	PERMISSION	CONDITIONAL	15/04/2019
Carlow County Council	19366	as constructed portal frame building and all associated site development works	APPLICATION FINALISED	RETENTION	CONDITIONAL	05/08/2020
Wicklow County Council	17285	dwelling and domestic garage as constructed and positions of dwelling and existing bored well on site and all associated site works, all from that previously granted under Planning Reg Number 98/8103	APPLICATION FINALISED	RETENTION	CONDITIONAL	08/06/2017
Wicklow County Council	17342	conservatory to side of dwelling	APPLICATION FINALISED	RETENTION	CONDITIONAL	16/05/2017
Wicklow County Council	21434	existing front boundary wall constructed on our site and all associated works	APPLICATION FINALISED	RETENTION	CONDITIONAL	04/06/2021
Wicklow County Council	211093	construction of a part two storey , part single storey dwelling, new site entrance, wastewater treatment system to current EPA standards, private well and all ancillary site works	APPLICATION FINALISED	PERMISSION	CONDITIONAL	27/10/2021
Carlow County Council	16297	permission to erect a lean-to shed extension, consisting of slatted tank and robotic milking units, to existing dairy, concrete aprons and all associated site works in our farmyard	APPLICATION FINALISED	PERMISSION	CONDITIONAL	06/01/2017

3. *An Bord Pleanála*

An Bord Pleanála website www.pleanala.ie/index.htm was examined on the above date. It identified the following projects located within the vicinity of the project area:

No projects identified

4. *Environmental Protection Agency*

The Environmental Protect Agency website gis.epa.ie/EPAMaps/AAGeoTool was examined on the above date. It identified the following projects located within the vicinity of the project area:

No projects identified

5. *County Development Plan*

The current County Wicklow County Development Plan was examined and the following objectives relating to European Sites were identified:

Objectives relating to Natura 2000 sites set out within Wicklow County Development Plan 2016-2022 were consulted and are as follows:

Wicklow-County-Development-Plan-2016-2022

CHAPTER 10 – HERITAGE PAGE 200

10.1 Introduction The purpose of this chapter is to set out strategies and objectives with regard to the heritage of the County. The chapter is divided into the two main areas of built heritage and natural heritage (including landscape). The maps and schedules associated with this chapter are presented at the end of the chapter.

10.3 Natural Heritage and Landscape PAGE 208

Natural heritage includes the variety of life, often referred to as biodiversity, its physical or geological foundation, and the landscapes which form the surrounding environment. Wicklow supports a good diversity of natural and semi natural habitats such as marine, coastal, wetland, woodland, lake, river and uplands that in turn support a wide range of associated wild plant and animal species. There are also many geological heritage sites of interest in the County which are an important element of the natural heritage. The conservation and management of the natural environment must be viewed as a central element in the longterm economic and social development of the County. Protecting and enhancing biodiversity and landscapes is vital for the health, well-being and quality of life of communities today and will also be vitally important in the future in adapting to climate change.

The Council has an important role to play when it comes to promoting a reasonable balance between conservation measures and development needs, in order to avoid negative impacts upon the natural environment, mitigate the effects of harm where it cannot be avoided, and to promote the appropriate enhancement of the natural environment as an integral part of any development. The County Wicklow Heritage Plan provides one framework through which the Council works actively with other partner organisations on initiatives to further our understanding, protection and appreciation of Wicklow's natural heritage resource.

This part of the plan will also address landscape issues not solely related to nature conservation, such as landscape characterisation and identification of views and prospects worthy of protection. The recreational use of the natural environment will also be addressed.

Natural Heritage Strategy

- To conserve and enhance biodiversity in recognition of the many ecosystem services provided to society;
- to promote an integrated approach to landscape planning and management in order to protect the County's unique landscape character;
- to conserve and enhance the County's geological heritage;
- to avoid negative impacts upon the natural environment and promote appropriate enhancement of the natural environment as an integral part of any development; and
- to support the actions in the County Wicklow Heritage Plan which seek to enhance the understanding, appreciation and protection of Wicklow's biodiversity including the County Wicklow Biodiversity Action Plan.

10.3.1 Context

EU Directives

The Habitats Directive and the Birds Directive are the principle source of legislation for nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. The Directives protects over 1,000 animals and plant species and over 200 "habitat types" (e.g. special types of forests, meadows, wetlands, etc.) which are of European importance.

The Planning & Development Act, 2000 sets out the role of appropriate assessment (AA) in planning and development. It requires that an appropriate assessment screening is carried out, as part of the process of drafting

the development plan, on the impacts of the policies and objectives of the plan on Natura 2000 Sites. The screening assesses if the plan, individually or in combination with another plan or project is likely to have a significant effect on the integrity of any Natura 2000 site/s and that the requirements of the directives have been satisfied. If the plan is likely to have a significant effect on a Natura 2000 site, or there is uncertainty of the effects, it shall be subject to AA. The AA of this plan is a separate document contained in appendix 10.

Water Framework Directive and Groundwater Directive

The EU Water Framework Directive (WFD) is an important piece of EU environmental legislation which aims at improving our aquatic environment. It requires governments to take a holistic approach to managing their waters. It applies to rivers, lakes, groundwater, estuaries and coastal waters. The Groundwater Directive complements the WFD by establishing environmental objectives for groundwater chemical status and ensuring continuity with previous Groundwater Directives. These directives aim to achieve 'good' ecological status in all waters, protect high ecological status in our pristine waters and must ensure that status does not deteriorate in any waters. Local Authorities are charged with implementing the Water Framework and Groundwater Directive objectives.

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. The management of water resources will be on these river basin districts. The plan area is located in both the Eastern River Basin District (ERBD) and South Eastern River Basin District (SERBD). Within each River Basin District - for the purpose of assessment, reporting and management - water has been divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined water bodies. River Basin Management Plans list the current status of our waters and detail the measures required to bring those failing back to 'good' status and maintain the high status of our pristine sites.

Twenty-seven Management Plans for the Freshwater Pearl Mussel have been published, the objective of which is to restore the freshwater pearl mussel populations in 27 rivers, or stretches of rivers that are within the boundaries of Special Areas of Conservation. The Derreen Sub-Basin Management Plan is partially located in County Wicklow, the Derreen being a tributary of the River Slaney.

Planning and Development Act 2000 (as amended)

The Planning & Development Act requires that a development plan includes objectives for:

"The preservation of the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest", and

"The conservation and protection of the environment including, in particular the archaeological and natural heritage and the conservation of European sites and any other sites which may be prescribed for the purposes of this paragraph;

(a) the encouragement, pursuant to Article 10 of the Habitats Directive, of the management of features of the landscape, such as traditional field boundaries, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species;

(b) the promotion of compliance with environmental standards and objectives established- (i) for bodies of surface water, by the European Communities (Surface Waters) Regulations 2009; (ii) for groundwater, by the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in river basin management plans (within the meaning of Regulation 13 of the European Communities (Water Policy) Regulations 2003)."

"The preservation of public rights of way which give access to seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility, which public rights of way shall be identified both by marking them on at least one of the maps forming part of the development plan and by indicating their location on a list appended to the development plan."

“Landscape, in accordance with relevant policies or objectives for the time being of the Government or any Minister of the Government relating to providing a framework for identification, assessment, protection, management and planning of landscapes and developed having regard to the European Landscape Convention done at Florence on 20 October 2000.”

Biodiversity Plans and Actions

Ireland's national policy is set out in the National Biodiversity Plan. The current plan, 2011 - 2016 contains 102 actions aimed towards understanding and protecting biodiversity in Ireland and overseas. The current County Wicklow Biodiversity Action Plan 2010 – 2015 sets out a strategy for increasing our understanding and appreciation of biodiversity in the County along with measures for enhancing the protection of this valuable resource. The County Wicklow Biodiversity Action Plan, an action of the County Wicklow Heritage Plan, contains 30 actions that ensure the conservation and enhancement of biodiversity.

10.3.2 Biodiversity

Biodiversity refers to the variety of life on earth. It includes the habitats and ecosystems, which support this life and how life-forms interact with each other and the rest of the environment. Biodiversity covers plants, animals and micro-organisms both on land and in water. It relates to both wildlife and domesticated crops and animals. The biological diversity we see today is the result of millions of years of evolution. The conservation and enhancement of biodiversity will require the suitable and sustainable protection of designated habitats, the linkages between natural sites (whether they are natural or man-made) and the range of species in the ecosystem.

Wicklow hosts a wealth of wildlife including a range of threatened habitats and species which are protected by law and are recognised as being of local, national and EU importance. Many habitats and species are designated for protection / preservation under national and/or EU legislation⁴. County Wicklow has one National Park, 17 Special Areas of Conservation⁵ (SAC), 35 (proposed) Natural Heritage Areas (NHAs), 4 Special Protection Areas (SPA), and 6 Nature Reserves (as set out in Schedules 10.04, 10.05, 10.06 & 10.07 and Maps 10.04, 10.05, 10.06 & 10.07 of this plan).

⁴ SPAs are designated under EU birds Directive (79/409/EEC), SACs are designated under EU Habitats Directive (92/43/EEC), transposed into Irish Law by the EU (Natural Habitats) regulations, 1997. SACs and SPAs are collectively now known as ‘Natura 2000’ sites. NHAs are legally protected under The Wildlife (Amendment) Act 2000.

⁵ Within or in proximity to County Wicklow.

The occurrence of protected flora and fauna species is not confined to protected sites. Protected birds, bats, otters and badgers for example are frequently found in the wider countryside, together with a wide range of common plants and animals which are all part of the interrelated natural fabric of the landscape. Rivers and streams and their associated riparian wetlands and habitats are home to a variety of habitats and species. Collectively, these various natural landscape features function as ecological “corridors” and “stepping stones” which enable wildlife to exist, move and flourish.

Biodiversity Objectives

NH1 To ensure that the impact of new developments on biodiversity is minimised and to require measures for the protection and enhancement of biodiversity in all proposals for large developments.

NH2 No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this plan (either individually or in combination with other plans or projects⁶).

NH3 To contribute, as appropriate, towards the protection of designated ecological sites including candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979);

Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs). To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended)⁷, the Birds Directive (2009/147/EC)⁸, the Environmental Liability Directive (2004/35/EC)⁹, the Environmental Impact Assessment Directive (85/337/EEC, as amended), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).
- National legislation, including the Wildlife Act 1976¹⁰, the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011) and the European Communities (Environmental Liability) Regulations 2008¹¹.
- National policy guidelines (including any clarifying Circulars or superseding versions of same), including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010.
- Catchment and water resource management Plans, including Eastern and South Eastern River Basin Management Plan 2009-2015 (including any superseding versions of same).
- Biodiversity Plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's 2nd National Biodiversity Plan (including any superseding version of same).
- Ireland's Environment 2014 (EPA, 2014, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.

⁶ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place.

⁷ Including Annex I habitats, Annex II species and their habitats and Annex IV species and their breeding sites and resting places (wherever they occur).

⁸ Including Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur).

⁹ Including protected species and natural habitats.

¹⁰ Including species of flora and fauna and their key habitats. ¹¹ Including protected species and natural habitats.

NH4 All projects and plans arising from this plan¹² (including any associated improvement works or associated infrastructure) will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment where necessary, that:

- 1) The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or
- 2) The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type and / or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set

out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

3) The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

NH5 To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites¹³ in Wicklow.

NH6 Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

NH7 The Council recognises the natural heritage and amenity value of the Wicklow Mountains National Park and shall consult at all times with National Park management regarding any developments likely to impact upon the conservation value of the park, or on issues regarding visitor areas.

NH8 To protect non-designated sites from inappropriate development, ensuring that ecological impact assessment is carried out for any proposed development likely to have a significant impact on locally important natural habitats or wildlife corridors. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

¹² Such projects include but are not limited to those relating to: agriculture; amenity and recreation; contaminated sites; electricity transmission; flood alleviation and prevention; forestry; mineral extraction; renewable energy projects; roads; telecommunications; tourism; wastewater and discharges; and water supply and abstraction.

¹³ Along with cSACs, SPAs and pNHA these include Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).

NH9 To support, as appropriate, relevant public bodies (such as the National Parks and Wildlife Service), efforts to seek to control and manage alien / invasive species within the County.

NH10 To facilitate, in co-operation with the relevant statutory authorities and other groups, the identification of valuable or vulnerable habitats of local or regional importance, not otherwise protected by legislation.

NH11 To support the Department of the Arts, Heritage, Regional, Rural and Gaeltacht Affairs and the National Parks and Wildlife Service in the development of site specific conservation objectives (SSCOs).

NH12 To support the protection and enhancement of biodiversity and ecological connectivity within the plan area in accordance with Article 10 of the Habitats Directive, including linear landscape features like watercourses (rivers, streams, canals, ponds, drainage channels, etc), woodlands, trees, hedgerows, road and railway margins, semi-natural grasslands, natural springs, wetlands, stonewalls, geological and geo-morphological systems, features which act as stepping stones, such as marshes and woodlands, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones that taken as a whole help to improve the coherence of the Natura 2000 network in Wicklow.

NH13 To preserve lands at 'The Rocks', Kilcoole (as shown on Map 10.16) in its existing state; to allow no development of these lands; to protect the lands as a natural habitat and biodiversity area; to protect the open nature and landscape quality of the lands.

10.3.3 Woodlands, Trees and Hedgerows

Woodlands, trees and hedgerows are important natural habitats and groups and lines of trees/hedgerows are important wildlife corridors. Trees, individually or in groups, make a valuable contribution to the biodiversity and amenities of the town. Groups of trees in urban areas can act as an attractive visual relief to the built environment and as an absorber of carbon emissions.

The Council aims to protect an individual tree, trees, a group of trees or woodland which are of environmental and/or amenity value. This can be done so with a Tree Preservation Order (TPO) that can be made through the development plan process or a separate TPO process under Section 205 of the Planning and Development Act (The existing TPOs are set out in Schedule 10.08 and Maps 10.08 A, B & C). A TPO is subject to any conditions or exemptions for which provision may be made in the order, preserved from any cutting down, topping, lopping or willful destruction pending the final decision of the Council. Mature trees situated elsewhere in the County, whether in groups or individually, should be preserved where possible. Any interference to hedges/trees during the breeding season (March 1st - August 31st) is now an offence under the Wildlife Act 2000.

Woodlands and trees also have an amenity function, providing not only important recreational areas but also adding to the overall beauty of the County. A sizeable proportion of the forestry estate in Wicklow consists of the remains of old demesne planting. In addition to being an environmental and forestry resource, these areas are also of significant amenity value.

Woodlands, Trees and Hedgerows Objectives

NH14 To promote the preservation of trees, groups of trees or woodlands in particular native tree species, and those trees associated with demesne planting, in the interest of amenity or the environmental, as set out in Schedule 10.08 and Map 10.08 A, B & C of this plan.

NH15 To consider the making of Tree Preservation Orders (TPOs) to protect trees and woodlands of high value, where it appears that they are in danger of being felled.

NH16 Development that requires the felling of mature trees of environmental and/or amenity value, even though they may not have a TPO in place, will be discouraged.

NH17 To discourage the felling of mature trees to facilitate development and encourage tree surgery rather than felling where possible.

NH18 To encourage the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees, as part of the development management process, and require the planting of native, and appropriate local characteristic species, in all new developments.

NH19 To encourage the retention, wherever possible, of hedgerows and other distinctive boundary treatment in the County. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, provision of the same type of boundary will be required of similar length and set back within the site in advance of the commencement of construction works on the site (unless otherwise agreed by the Planning Authority).

10.3.4 Water Systems

Chapter 9 of this plan specifically deals with the infrastructural issue of the County's water resources as an input into our water supply system. Our natural water systems are also fundamental to the survival of our natural habitats and the species therein. Wicklow's water systems contain such features as rivers, lakes, ponds, aquifers, bogs, springs, coastal waters, wetlands some of which are recognised as being of local, national and EU importance, and many are designated for preservation under national and/or EU legislation. The County Wicklow Wetlands Surveys¹⁴ provide information on the ecological status, of all known and potential freshwater wetlands in the County.

Water Systems Objectives

NH20 To facilitate the implementation of the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and the EU Groundwater Directive to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality.

NH21 To resist development that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of natural habitats.

NH22 To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent disposal systems in the vicinity of water bodies that provide drinking water or development that would exacerbate existing underlying water contamination

¹⁴ The County Wicklow Wetlands Surveys were published in 2011 and 2012. It project was an action of the County Wicklow Heritage Plan.

NH23 To minimise alterations or interference with river / stream beds, banks and channels, except for reasons of overriding public health and safety (e.g. to reduce risk of flooding); a buffer of generally 10m along watercourses should be provided (or other width, as determined by the Planning Authority) free from inappropriate development, with undeveloped riparian vegetation strips, wetlands and floodplains generally being retained in as natural a state as possible. In all cases where works are being carried out, to have regard to Regional Fisheries Board “Requirements for the protection of fisheries habitat during the construction and development works at river sites”

NH24 To ensure that any development or activity with the potential to impact on ground water has regard to the GSI Groundwater Protection Scheme (as shown on Map 10.09).

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10.3.6 Green Infrastructure

Green Infrastructure (GI) can be broadly defined as ‘an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations. Green Infrastructure is the ecological framework needed for environmental, social and economic sustainability – in short it is a nation’s natural life sustaining system’¹⁵. Green infrastructure can include varying land uses - pasture lands, croplands, woodlands, heath, bog, scrubland, quarries, parks, formal and informal green spaces, active and passive spaces, areas around domestic and non-domestic buildings, brownfield areas, waterways, waterbodies, waterway corridors, wetlands, coastal areas, and community/institutional lands such as hospitals, schools, graveyards, allotments and community gardens. Heritage sites, Natura 2000 sites and NHAs are also important GI sites. (Refer to the Appendix for the Green Infrastructure Strategy)

The purpose of this section is to highlight the function of GI in land use planning. In general the section provides an overview of natural and cultural resources with emphasis on the identification, protection, management and development of priority GI elements and routes within the County. The key benefits of green infrastructure elements are as follows:

- recreation & health, • biodiversity & natural resources, • coast, water resource and flood management, • sense of place – appreciation of landscapes and cultural heritage, • climate change adaptation and mitigation, • economic development, • social inclusion, and • productive environments – food, fibre, energy.

Strategic Green Infrastructure Network in Wicklow

County Wicklow has a widespread and prosperous GI network with the key strategic resources of the uplands, rural, urban and coastal areas linked by key strategic ecological and green routes throughout the County. It is an objective that local GI networks will be considered for identification at the local plan level. Table 10.2 shows the regional classifications of GI resources and routes¹⁶ alongside an example of the County’s strategic resources and routes:

¹⁵ Source Comhar Sustainable Development Council ‘Creating Green Infrastructure for Ireland’, August 2010

¹⁶ Source Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022

Table 10.2 Green Infrastructure Classifications

Green Infrastructure Classifications
Regional GI Resources County Wicklow GI Strategic Resources (examples)
UNESCO World heritage sites Glendalough Monastic Settlement (tentative list)
Natura 2000 sites Deputy's Pass, Vale of Clara
Environmental designated areas Vartry Reservoir
Specific County level designations Newcastle Nature Reserve, Bray Head SAO
Architectural heritage Structures on the RPS, NIAH, within ACAs, graveyards
Cultural sites Holy wells
Archaeological Sites National Monuments, Baltinglass hills
Coastal zones Brittas Bay
Estuaries Broadlough Estuary
Regional Scale Managed Parks The Wicklow Mountains National Park, forestry lands
Strategic green belts Bray / Greystones agricultural green belt buffer
Regional GI Routes County Wicklow Strategic GI routes
River corridors, Waterways All waterways within County – e.g. Slaney River and its tributaries, Avoca River.
Transport corridors, Roads and Rail All roadways within County – e.g. N81, R750, existing railway lines, disused railway line in from Woodenbridge to Shillelagh.
Regional cycle / walkways Wicklow Way, Blessington Greenway Walk

Green Infrastructure and Land Use Planning

The Development Plan's role in Green Infrastructure is to facilitate the protection, management and enhancement of urban, peri-urban and rural environmental resources through the identification and provision of multi-functional and interconnected green spaces and networks which in turn enhances the overall benefit. It is also important to recognise the economic, social, environmental and physical benefit of green spaces and networks through the development of and integration of GI planning and development in the development management process.

Local Green Infrastructure Strategy Approach

Green Infrastructure planning at a local level involves the development of proposals to identify existing green infrastructure resources and identify areas where improvements and new green infrastructure resources should be provided in the future. It is an objective of this plan to consider incorporating local level Green Infrastructure proposals into local plans during their review process. The local plans should consider, where feasible, the incorporation of the following local GI proposals:

- Identify the key Green Infrastructure resources of the plan area;
- identify potential sites for the development of new Green Infrastructure elements and routes;
- identify and facilitate the provision of important linkages between urban and rural areas;
- identify areas of deficiency in active open space areas based on spatial distribution and population needs;
- identify important landscape corridors and green areas, including hedgerows, treelines and pockets of tree cover, streams and roadside verges and to encourage their protection and enhancement;
- seek the provision of green spaces in association with all major new developments;
- to facilitate the development of targeted walkway and cycle ways, integrated as part of opportunities for other projects such as river restoration, biodiversity enhancement as part of process of strengthening connectivity between green spaces and strategic linkages between urban settlements and countryside; and
- to identify, where feasible, existing trees/ hedgerows/ woodlands on lands zoned for development within the plan area that are worthy of retention and/or enhancement.

Green Infrastructure and Development Management

All planning applications for development should seek to ensure that development proposals provide for the protection of existing on site green infrastructure resources and, where appropriate, the enhancement of existing and provision of new green infrastructure resources in tandem with new development. All proposed development should have regard to relevant green infrastructure proposals in place and to any Green Infrastructure objectives at

local plan level. All new proposals seeking planning permission should address, as much as is reasonably possible, best practice sustainable solutions and a sustainable site design, with emphasis on the following:

- The proposal should address how existing natural features of the site will inform sustainable design, by exploring the potential for the integration of existing natural features of merit such as watercourses, mature planting and topography. Such an approach ensures that the landscape character of the area is maintained whilst also assisting biodiversity maintenance and more natural forms of surface water drainage.
- The layout of the proposed development should be informed by the inherent natural characteristics of the site. Connectivity between proposed open spaces and adjoining existing open space or natural features should also be considered in the site design.
- Proposals in relation to larger sites should be cognisant of any ecologically sensitive areas where it may be appropriate to retain or integrate into a landscape plan.

General Green Infrastructure Objectives

NH31 To recognise the importance and contribution of Green Infrastructure throughout the region for the maintenance of biodiversity and ensuring that the region will be able to, or be ecologically robust enough to, adapt and respond to climate change issues.

NH32 To protect existing green infrastructure resources and to facilitate, in consultation with relevant stakeholders, the development of green infrastructure that recognises the benefits that can be achieved with regard to the following:

- Provision of open space amenities,
- sustainable management of water,
- protection and management of biodiversity,
- protection of cultural heritage, and
- protection of protected landscape sensitivities.

NH33 During the review process of the existing local plans, to consider identifying Green Infrastructure resources within and on the edge of the settlement boundary and to consider the inclusion of local green infrastructure proposals in each plan in line with the Green Infrastructure proposals and objectives set out in this section.

NH34 New development and redevelopment proposals, where considered appropriate, are required to contribute towards the protection, management and enhancement of the existing green infrastructure of the local area in terms of the design, layout and landscaping of development proposals.

NH35 To facilitate the development and enhancement of suitable access to and connectivity between areas of interest for residents, wildlife and biodiversity, with focus on promoting river corridors, Natura 2000 sites, nature reserves and other distinctive landscapes as focal features for linkages between natural, semi natural and formalised green spaces where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.

NH36 To identify and facilitate the provision of linkages along and between river corridors within the county and adjoining counties to create inter connected routes and develop riverside parks and create linkages between them to form 'necklace' effect routes including development of walkways, cycleways and wildlife corridors where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.

NH37 To promote and facilitate the development of coastal paths linking up with existing recreational paths/strategic walkways/cycleways, creating new linkages between coastal sites and inward linkages to settlements and green spaces in built up areas and extensions to existing facilities where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.

NH38 To facilitate the development of green bridges / wildlife crossings over existing physical transport barriers to repair fragmentation of the green infrastructure network caused by such grey infrastructure developments.

10.3.7 Recreational Use of Natural Resources

The Council is committed to ensuring sustainable recreational use of the outdoors in County Wicklow in accordance with the objectives of the current County Wicklow Outdoor Recreational Strategy and in consultation with the

Wicklow Uplands Council. Natural areas provide opportunities for passive and active activities such as picnicking, walking, mountain biking, swimming, fishing and sailing / canoeing / windsurfing.

Recreational Use of Natural Resources Objectives

NH39 To facilitate the use of natural areas for active outdoor pursuits, subject to the highest standards of habitat protection and management and all other normal planning controls.

NH40 To facilitate access to amenity areas in the County for the benefit of all, on the basis of cooperation with landowners, recreational users and other relevant stakeholder groups to promote "agreed access" on public and privately owned land in the County on the basis of sustainability, consultation and consensus.

NH41 To protect and facilitate The Wicklow Way and St. Kevin's Way as permissive waymarked routes in the County. The Council shall work in partnership with relevant stakeholders in relation to management of these routes, and will protect them from inappropriate development, which would negatively infringe upon their use.

NH42 To preserve the open character of commonage land and similar hill land and secure access over paths and tracks through consensus with local landowners, particularly in mountain areas.

NH43 To facilitate the development of the coastal walking and cycling route between Bray and Arklow, as well as links between this route and the coast road, in consultation with landowners.

NH44 To implement the measures set out in the Bray Head SAO (Special Amenity Area Order) (See Map 10.11).

NH45 To protect the quality of bathing waters and to endeavour to ensure that bathing waters achieve "sufficient or better status by 2015" and increase the number of bathing waters classified as "good" or "excellent", in accordance with the Bathing Water Directive (Directive 2006/7/EC).



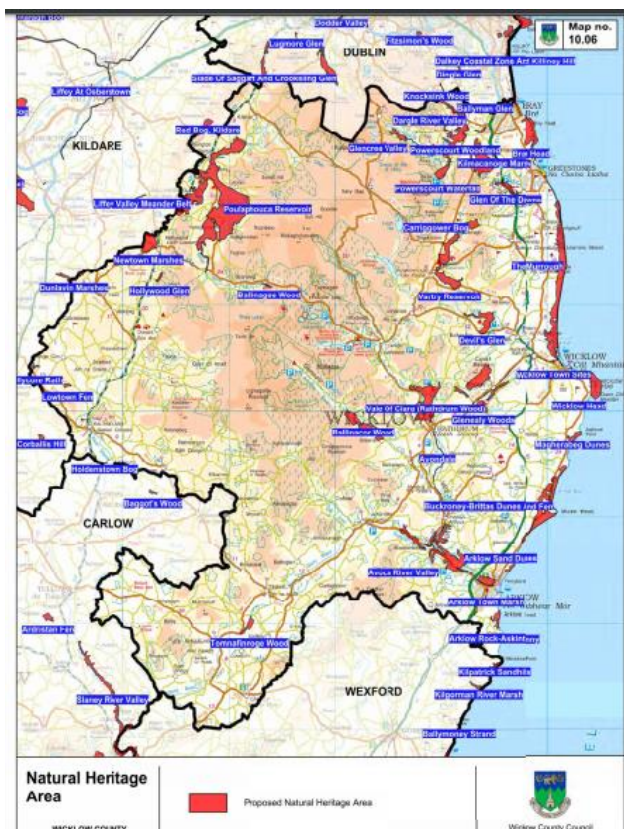
Schedule 10.04 Special Areas of Conservation (within and in proximity to County Wicklow)

No.	Name
1	Red Bog, Kildare SAC
2	Ballyman Glen SAC
3	Bray Head SAC
4	Carriggower Bog SAC
5	Deputy's Pass Nature Reserve SAC
6	Glen Of The Downs SAC
7	Knocksink Wood SAC
8	Buckronev-Brittis Dunes And Fen SAC
9	Vale Of Clara (Rathdrum Wood) SAC
10	Slaney River Valley SAC
11	Glenasmole Valley SAC
12	Kilpatrick Sandhills SAC
13	Holdenstown Bog SAC
14	Magherabeg Dunes SAC
15	Wicklow Mountains SAC
16	The Murrough Wetlands SAC
17	Wicklow Reef SAC



Schedule 10.05 Special Protection Areas

No.	Name
1	Wicklow Mountains National Park SPA
2	Poulaphuca Reservoir SPA
3	The Murrough Wetlands (including Kilcoole Marshes & Broadlough) SPA
4	Wicklow Head SPA



Schedule 10.06 Proposed Natural Heritage Areas in County Wicklow

NPWS Site no. pNHA

713 Ballyman Glen

714 Bray Head

716 Carriggower Bog

718 Devil's Glen

719 Glen Of The Downs

724 Kilmacanoge Marsh

725 Knocksink Wood

729 Buckronev-Brittis Dunes And Fen

730 The Murrough

731 Poulaphouca Reservoir

733 Vale Of Clara (Rathdrum Wood)

734 Wicklow Head

1745 Arklow Rock-Askintinny

1746 Arklow Sand Dunes

1748 Avoca River Valley

1749 Ballinacor Wood

1750 Ballinagee Wood

1751 Ballycore Rath

1754 Dargle River Valley

1755 Glenree Valley

1756 Glenealy Woods

1757 Holdenstown Bog

1759 Newtown Marshes

1764 Lowtown Fen

1766 Magherabeg Dunes

1767 Powerscourt Waterfall

1768 Powerscourt Woodland

1769 Great Sugar Loaf

- 1771 Vartry Reservoir
- 1772 Dunlavin Marshes
- 1852 Tomnafinnoge Wood
- 1929 Wicklow Town Sites
- 1931 Arklow Town Marsh
- 2053 Hollywood Glen
- 2093 Avondale



Schedule 10.07 Nature Reserves

- No. Name Habitat
- 1 Glen of the Downs Woodland
 - 2 Deputy’s Pass, Glenealy Woodland
 - 3 Vale of Clara Woodland
 - 4 Glendalough Woodland
 - 5 Glenealo Valley Blanket bog, heath
 - 6 Knocksink Wood Woodland

6. *Forestry Plans and Projects*

DAFM’s Forest Licence Viewer was examined on the above date. It identified the following forestry-related projects located within the vicinity of the project area, that were (i) submitted and still under evaluation; (ii) with valid licences / approval in place; or (iii) completed and approved, over the past five years.

Licence	Scheme	Date Approved	Status	Area(ha)
TFL00105118	Private Felling	10/04/2018	Approved	0.50
TFL00105218	Private Felling	31/08/2018	Approved	11.83
TFL00167818	Private Felling		Approved	6.96
WW11-FL0087	Coillte Thinning	11/04/2019	Approved	0.07
WW11-FL0049	Coillte Thinning	10/04/2018	Approved	0.56
WW11-FL0050	Coillte Thinning	31/08/2018	Approved	11.74
WW11-FL0092	Coillte Thinning	05/07/2022	Approved	1.90

*Multiple entries for the same reference indicate more than one land parcel make up that particular property and or multiple sub-basin intersection.

Forestry Programme 2014-2020

The project is in line with the Forestry Programme 2014-2020, as set out in the 2015 DAFM document *Forestry Programme 2014 – 2020: IRELAND* Submitted in accordance with European Union Guidelines on State aid for agriculture and forestry and in rural areas 2014 to 2020.

7. In-Combination Statement

The proposed Native Woodland Conservation Scheme project NWS1186 lies in a rural landscape in the townland of Moylisha, County Wicklow. It is within the River Sub-Basin Adhacashlaun_030 (100%), approximately 5% of which is under forest cover, which is less than the national average of 11%. At 6.79ha, the proposed project is considered small in scale. The review of the DAFM Forestry Licence Viewer identified a number of forestry projects within the vicinity. These projects undergo environmental assessment, including AA screening and appropriate assessment (if necessary). As can be seen from the ortho photo, this forest adjoins an existing forest.

In the River Sub-Basin Adhacashlaun_030 (100%) over the last 5 years a number of developments have been or were in the process of being granted planning permission. These too undergo environmental assessment, including AA screening and appropriate assessment, if necessary.

It is concluded that there is no possibility that the proposed Native Woodland Conservation Scheme project NWS1186, with mitigation measures set out in Section 4, will itself, i.e. *individually*, giving rise to an adverse effect on the integrity of the following European Sites and their associated Qualifying Interests / Special Conservation Interests and Conservation Objectives:

☒ **Slaney River Valley SAC 000781.**

Therefore, there is no potential for the proposed project to contribute to any cumulative adverse effect on the integrity of the above European Site, when considered *in-combination* with other plans and projects.

Furthermore, it is considered that the regulatory systems in place for the approval, operation (including any permitted emissions) and monitoring of the effects of these other plans and projects are such that they will ensure that they too do not give rise to any adverse effect on the integrity of these European Sites.

Therefore, it is deemed that this project, when considered in combination with other plans and projects, will not give rise to any adverse effect on the integrity of the above European Site(s).

Note that this relates to the proposed activities under NWS1186 only. Any subsequent forestry-related activity shall be subject to the DAFM Appropriate Assessment Procedure, including an in-combination assessment, prior to any future consent being granted.

In-Combination Statement completed on the: 18/08/2022

Appendix 2.: NWS1186 Harvest plan and maps

Harvest Plan Submitted in Support of Felling Licence Application – TFL00167818

Proposed Felling & Reforestation Methods	
Thinning (incl. CCF)	<input type="checkbox"/> N/A <input type="checkbox"/> Harvester <input type="checkbox"/> Chainsaw <input type="checkbox"/> Forwarder <input type="checkbox"/> Tractor/Quad <input type="checkbox"/> Skyline <input type="checkbox"/> Other (specify):
Clearfelling	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Harvester <input checked="" type="checkbox"/> Chainsaw <input checked="" type="checkbox"/> Forwarder <input type="checkbox"/> Tractor/Quad <input type="checkbox"/> Skyline <input type="checkbox"/> Other (specify):
Reforestation	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Windrowing <input checked="" type="checkbox"/> Pit planting <input type="checkbox"/> Mounding <input type="checkbox"/> Scrap mounding <input type="checkbox"/> Scarification <input type="checkbox"/> Other (specify):
Site access (i.e. via forest road)	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Planned <input type="checkbox"/> Not required <input type="checkbox"/> Other (e.g. temporary roading/forest track):

Social & Environmental Features & Considerations		
Social	Habitat & Biodiversity	Soil & Water
<input type="checkbox"/> Recreational usage	<input type="checkbox"/> Designated area (SAC, SPA, etc.)	<input checked="" type="checkbox"/> Aquatic zone(s) on/adjoining site
<input checked="" type="checkbox"/> Adjoining dwelling(s)	<input type="checkbox"/> Broadleaves/diverse conifers	<input checked="" type="checkbox"/> Relevant watercourse(s)
<input type="checkbox"/> Right(s)-of-way present	<input type="checkbox"/> Hedgerows	<input type="checkbox"/> Water-related 'hotspots'
<input checked="" type="checkbox"/> Utilities (power lines/water main)	<input type="checkbox"/> Old/veteran trees	<input type="checkbox"/> Water abstraction point
<input type="checkbox"/> Sensitive landscape	<input type="checkbox"/> Large scale deadwood	<input type="checkbox"/> Peaty or peaty/gley
<input type="checkbox"/> Important viewpoint(s)	<input type="checkbox"/> Badger sett, rookery, etc.	<input type="checkbox"/> Steep slope(s)
<input type="checkbox"/> Archaeological site(s) & feature(s)	<input type="checkbox"/> Protected fauna	<input type="checkbox"/> Water setback(s) present & intact
<input type="checkbox"/> Cultural feature(s)	<input type="checkbox"/> Protected flora	<input type="checkbox"/> Supply of brash limited
<input type="checkbox"/> Anti-social (dumping, fire, etc.)	<input checked="" type="checkbox"/> Wetland habitat	<input type="checkbox"/> Other:
<input type="checkbox"/> Other (specify):	<input type="checkbox"/> Other (specify):	<input type="checkbox"/> Other:

Proposed Measures to Protect Social & Environmental Features & Considerations	
<input checked="" type="checkbox"/> Consult with local residents	<input type="checkbox"/> Establish excl. zones around arch. sites/features
<input checked="" type="checkbox"/> Erect safety signage	<input checked="" type="checkbox"/> Temporary bridging points (TBPs) required
<input checked="" type="checkbox"/> Onsite briefing of all operators, pre-commencement	<input checked="" type="checkbox"/> Install water setback at refor.
<input checked="" type="checkbox"/> Carefully selected refuelling/repair/storage depot	<input type="checkbox"/> Install dwelling setback at refor.
<input checked="" type="checkbox"/> Measures to protect right(s)-of-way	<input type="checkbox"/> Install public road setback at refor.
<input type="checkbox"/> Measures to protect service features	<input type="checkbox"/> Install archaeological setback at refor.
<input checked="" type="checkbox"/> Measures to protect habitats & biodiversity features	<input type="checkbox"/> Install biodiversity setback at refor.

X Limit operations to dry weather	<input type="checkbox"/> Install landscape setback at refor.
X Daily visual monitoring of ground conditions	X Inclusion of Refor. Objective 'CCF'
X Daily visual monitoring of water	X Inclusion of Refor. Objective 'BIO'

Proposed Measures to Protect Social & Environmental Features & Considerations (Cont..)	
<input type="checkbox"/> Water sampling	<input type="checkbox"/> Forest edge planting
X Install silt traps/barriers	<input type="checkbox"/> Environmental setback planting
X Drain blocking/slow-water dams	<input type="checkbox"/> Other (specify)
X Utilise brash mats along extraction routes	<input type="checkbox"/> Other (specify)
X Exclude machinery in areas adjoining aquatic zones, water abstraction points & water-related 'hotspots'	<input type="checkbox"/> Other (specify)

Ancillary Information (include relevant information to expand on above & to detail important aspects such as the sequencing of operations, the width of environmental setbacks & contingency planning. Ensure accurate cross-referencing and consistency with maps) *
<p>The forest property at Moylisha is scheduled for clearfell. The site is proposed for replanting with a native woodland mixture due to it being hydrologically linked to the Slaney River Valley SAC (000781) 7.7km downstream (via relevant watercourses (RW) and an aquatic zone (AZ) within and adjoining the site. The SAC is designated for a number of habitats and species including the following aquatic species:</p> <p><i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355]</p> <p>The predominant soil type at the forest is a podzol, with some marginal peaty area's in plot one, the cultivation technique was drain mounding at establishment. The site falls generally in a westerly direction towards the AZ. An AZ flows along the westerly boundary of plot one in a southerly direction, where it deposits within the River Slaney SAC (Site code 000781) after approx. 7.7km. The AZ is a well vegetated drain with the Sitka spruce having been planted to within 5m of the boundary. The north east corner of plot one has a substantial scrub woodland area of birch, holly and hazel which will be retained as a buffer zone for any siltation from the easterly side of plot one and plot two. Silt fences will be required along this AZ where deemed necessary to help prevent any sedimentation of the AZ (approximate locations are outlined on the harvest plan map). There is no connectivity of mound drains directly into the AZ. Silt fences will be installed as outlined in the below description.</p> <p>A 10 m wide ABZ exclusion zone will be installed along all watercourses. No forwarding, processing or stacking is permitted within these exclusion zones. Machines that are exclusively harvesters and whose maximum reach is less than 10 m may enter the 10 m exclusion zone to harvest trees adjoining the water feature, but the harvester must use its maximum reach and must always be 5m or greater from the water feature. The harvester must move all trees to a point outside of the 10 m exclusion zone, for subsequent processing and stacking.</p> <p>A log bridge will be required to cross over the RW in plot one, specifications of the construction of log bridges can be found below. A stable area with good depth of bank to facilitate the log bridge will be chosen ahead of operations. An approximate location is identified on the harvest plan map.</p>

Silt fences will be installed in artificial drains (approximately 1-5m before feeding into main drains, watercourses, or buffer zones). Silt fences will comprise of geotextile membrane (Terram T1000 or similar pore size & strength), inserted into a slot in the ground made with a spade, which is then secured to a minimum of three small (5-8 cm Ø) posts (e.g. using wooden lats and roofing nails with geotextile wrapped around end posts). The posts should be arranged in an arc with the centre post set slightly further back, to encourage flow towards the centre of the silt fence and prevent flow by-passing. Height of geotextile membrane should be approximately 0.5m – 0.75m above ground. Silt fences will be installed before harvesting commences along mound drains, approx. locations are marked on the map. Further silt fences will be added as required during harvesting operations as the site reveals itself during clearfell.

In addition to the introduction of silt fences slow-water log-dams will also be utilised. Slow-water log-dams will be placed at regular intervals (60 m to 80 m) throughout all forest drains onsite. Slow-water dams to comprise logs approximately 1 m in length and laid into the drain parallel to the direction of flow, with additional lengths added on top to ensure the dam is flush with the top of the drain. These will help reduce the velocity of any potential sediment mobilisation in the drains.

Specification for log bridge as follows: Log bridges will be constructed in such a way that the logs will not impede the flow within the channel. The bridge should be constructed at a right angle to the watercourse using large diameter saw logs for the main beams. These should extend beyond the drain by at least 2 m on either side and rest on secure, firm footings, taking particular care to avoid wet/soft areas. Smaller diameter logs should then be used as cross beams, before a layer of geotextile membrane (e.g. Terram T1000 or similar pore size & strength) is placed over the cross beams and covered with brush. The machine track leading to the bridge must be very well brashed and tracks should not be allowed to develop that can act as water channels down to the stream. Following the operation, the log bridges should only be removed if they are likely to impede flow in the main channel which would lead to erosion.

On site supervision will be present during operations to ensure that felling and extraction operations are carried out appropriately, and that soil and water protection measures are adequate and remain effective throughout. Harvesting and extraction to be carried out in late spring or during the summer/autumn period or during a prolonged dry period.

Operations to cease during and after periods of heavy rainfall, due to the potential for loss of nutrients and/or mobilisation of sediment, fine organic matter and debris into receiving waters. Heavy rain is defined by Met Éireann as a precipitation rate that exceeds 2 mm per hour averaged over 3 or 6 hours. Consult the Met Éireann website www.met.ie and review the forecast details for the meteorological station nearest to the site.

Reforestation

Both plots one and two are scheduled for clearfell. These area's will be windrowed with no mounding or additional ground cultivation required for reforestation. A 10m wide uncultivated and unplanted water setback along the aquatic zone will be created, along with a 5m setback from the RW's. All existing vegetation (woodland and scrub) within these zones are to be retained. These setbacks are to remain undisturbed during reforestation and throughout the forest rotation. These buffer zones will be reinforced by the restructuring of the forest to a native woodland through grant aid funding under the Native Woodland Conservation Scheme. The replanting of the native woodland will protect and enhance the water protection of the site and downstream species.

The native woodland area within plot one will be retained and protected as an important biodiversity feature for the next rotation. Overall biodiversity area created will not exceed 15% of total productive area for the plot. See reforestation biodiversity map for illustration of features outlined above.

***See also Forest Harvesting and the Environment Guidelines for further information**

Figure 1, NWS1186 Current Habitat Map

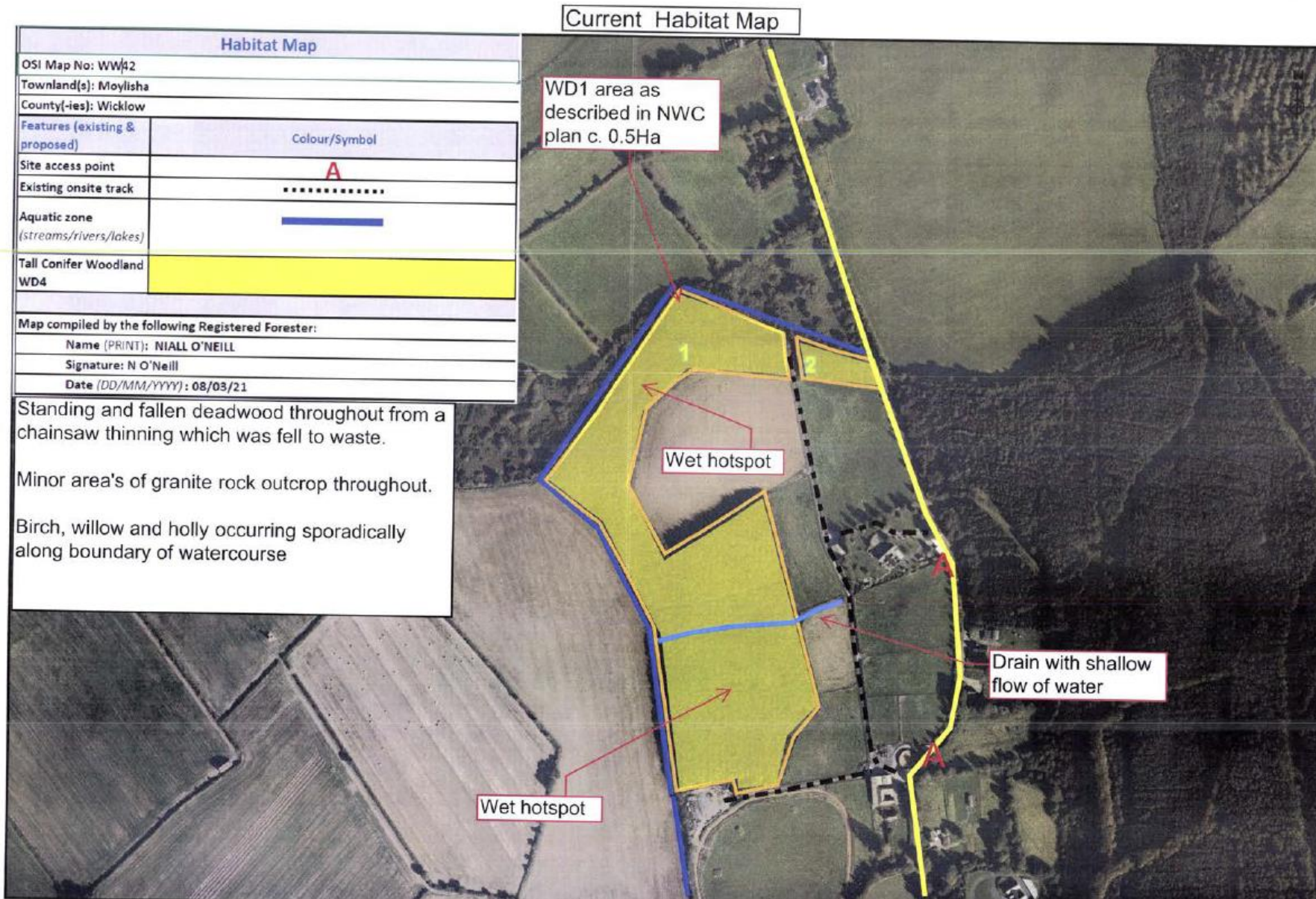


Figure 2. NWS1186 Harvest Plan Map

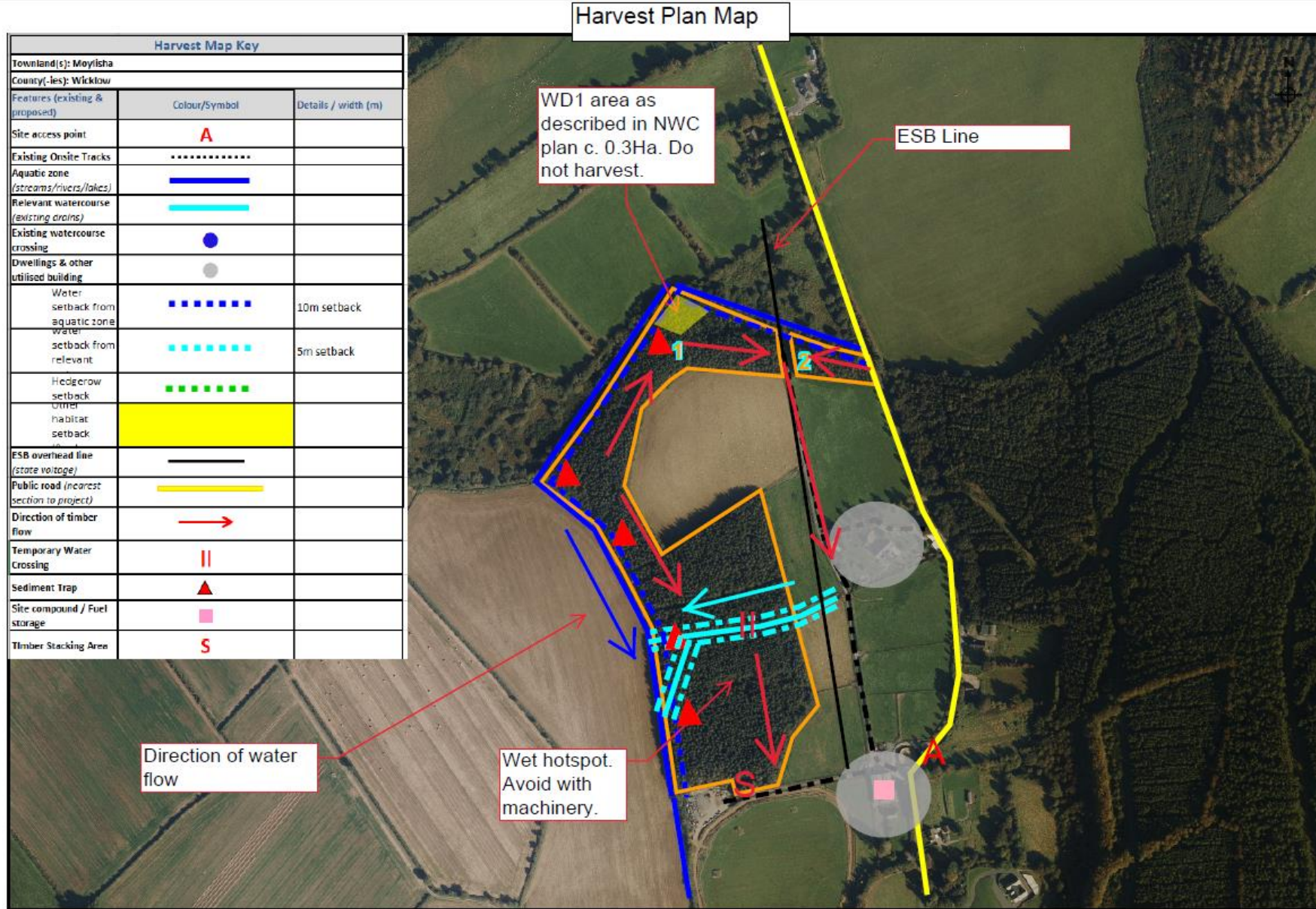


Figure 3. NWS1186 Operations Map

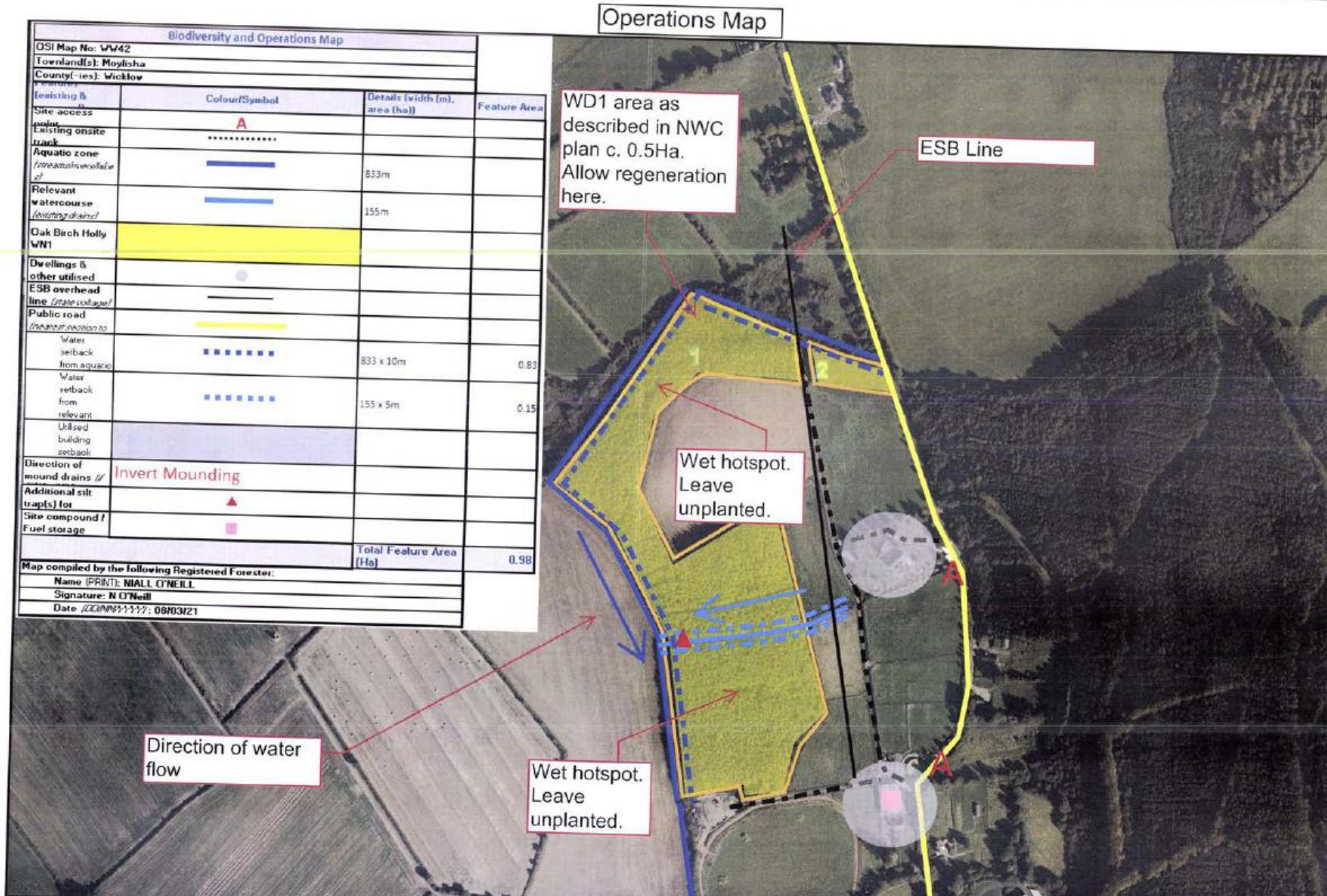


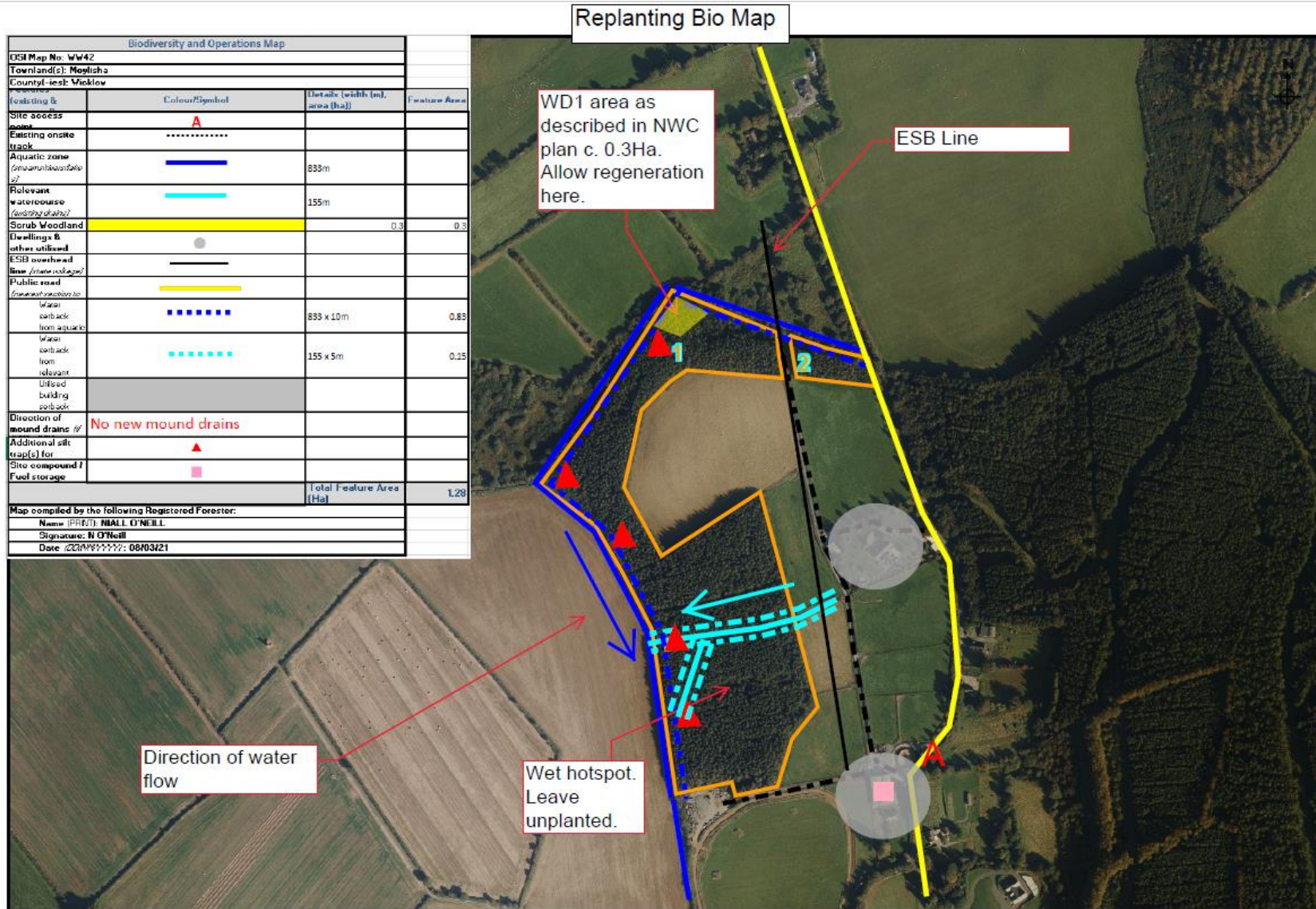
Figure 4. NWS1186 Replanting Map

Replanting Map

Applicant:		Mary Kenny					OS Sheet:		WW42			
County:		Wicklow					Contract No:		NWS1186			
Townland:		Moylisha										
Plot No	Area (ha)	GPC	LUT	Sp.	No. of Trees (000s)	Spp. %	Mix. Type	P/Yr	Est. YC	Excl. Area (ha)	Excl. Type	
1	6.49	9	BHF	SO	NA	30	G	2022	6	0.05	ESB	
1	0.00	9	BHF	SP	NA	30	G	2022	12	0.00	NA	
1	0.00	9	BHF	BI	NA	15	G	2022	8	0.00	NA	
1	0.00	9	BHF	RWN	NA	15	G	2022	6	0.00	NA	
1	0.00	9	BHF	Holly	NA	10	G	2022	6	0.00	NA	
2	0.30	9	BHF	SO	NA	30	G	2022	6	0.05	ESB	
2	0.00	9	BHF	SP	NA	30	G	2022	12	0.00	NA	
2	0.00	9	BHF	BI	NA	15	G	2022	8	0.00	NA	
2	0.00	9	BHF	RWN	NA	15	G	2022	6	0.00	NA	
2	0.00	9	BHF	Holly	NA	10	G	2022	6	0.00	NA	
Tot:		6.79								0.10		
Remarks: (Silvicultural & Mapping)												
Scale 1:5000												
Area Surveyed By:		Niall O'Neill					Date:		07/04/2022			
Name/Contact No:		Niall O'Neill Pursers Tarleton Russell Ltd. 087 718 2270										
Species Certified By:		Niall O'Neill					Date:		07/04/2022			
Name/Contact No:		Niall O'Neill Pursers Tarleton Russell Ltd. 087 718 2270										



Figure 5. NWS1186 Replanting Bio Map



AAR End. 07.09.2022

