



# Forestry Report

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For the Proposed Ballincor Wind Farm,  
County Offaly and County Tipperary

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## Definition of Terms

- **Afforestation:**  
The establishment of a forest in areas where the preceding land use was not forestry. Defined in the Forestry Act 2014 as: *“the conversion of land to a forest with a minimum area of 0.1 hectares and tree crown cover of more than 20 per cent of the total area, or the potential to achieve this cover at maturity”*.
- **Aquatic zone:**  
Any natural river, stream or lake (but not an artificial drain) illustrated on an Ordnance Survey 6-inch map.
- **Brash mat:**  
A protective layer comprised of residual woody debris from harvested trees (i.e. brash and branch wood) that is laid along machinery routes to preserve soil quality and to spread out the weight of harvest machinery.
- **Clear-felling:**  
The final stage in a typical commercial forestry crop cycle, where an entire standing crop of trees is removed from an area - also known as clear-cutting or clearcut logging.
- **Coupe:**  
A designated area of forest (varying in size and shape) where the felling of trees is planned or has occurred.
- **Eutrophication:**  
A process where a high concentration of nutrients has been introduced into a watercourse which promotes excessive growth of algae and can deplete oxygen levels in water and deleteriously affect aquatic life.
- **Exclusion zone:**  
An exclusion zone is a specific area where harvesting machines are precluded for environmental protection.
- **Forest:**  
Defined in the Forestry Act 2014 as *“land under trees with—(a) a minimum area of 0.1 hectare, and (b) tree crown cover of more than 20 per cent of the total area, or the potential to achieve this cover at maturity.”*
- **Hectare:**  
A unit of land area equal to 10,000 square metres, or 2.4711 acres.
- **Infrastructure felling:**  
Relates to trees that are permanently removed from a site in order to make way for infrastructure associated with a wind farm (e.g. turbine bases, hardstands, access roading).
- **Long-Established Woodland (I):**  
Defined as woodland that has remained continuously wooded since the first edition OS maps of 1830-44, but for which no positive evidence of antiquity has been found in older documentation.
- **Mounding:**

A ground cultivation technique where an excavator digs out drains at regular intervals and heaps the spoil in mounds. Trees are then planted into the mounds which provide an elevated, vegetation-free zone.

- **Plantation:**  
A forest stand established by planting or seeding during afforestation or reforestation.
- **Relevant watercourse:**  
Any other watercourse that has the potential to act as a pathway for the movement of significant amounts of sediment and/or nutrients from the site to an aquatic zone. These include existing drains/channels and other potential pathways that may contain flowing water during and immediately after periods of rain.
- **Rotation:**  
The period of years required to establish and grow a timber crop to a specified condition of maturity, when it may be harvested, and a new tree crop started.
- **Stand:**  
An aggregation of trees occupying a specific area and uniform enough in composition (species), age and arrangement to be distinguishable from forestry in adjoining areas.
- **Silviculture:**  
The science of cultivating and managing forests to meet the diverse needs of landowners and society, which incorporates a number of activities that influence the function, structure and growth of forest stands.
- **Top height:**  
The average height of a number of top height trees in a stand, where one top height tree is the tree of largest diameter at breast height (DBH) in a 0.01 ha sample plot.
- **Water hotspot:**  
An area of potential source of sediment or nutrient loss during harvesting and/or afforestation works (e.g. flushes, springs, and areas of soft ground).
- **Windblow (or windthrow):**  
The uprooting or overturning of trees by wind.
- **Windfirm:**  
Describes trees that are unlikely to blow over when exposed to strong winds.
- **Wind snap:**  
The breakage of tree trunks (or stems) above ground by wind.
- **Yield Class (YC):**  
An estimate of the productivity of a forest, expressed as cubic metres per hectare per year (m<sup>3</sup>/ha/year).

# 1. Introduction

## 1.1 Project Overview

This report has been prepared to assess the impact of the Proposed project in Co. Offaly and Co. Tipperary, upon existing forestry within the Proposed wind farm site. The Proposed wind farm site comprises circa 355 hectares, of which approximately 41 hectares is forest. The installation of eleven wind turbines with a blade tip height between 179.5 m and 180 m is planned. The Proposed project will also consist of infrastructure, such as access tracks, GCR, an electricity substation, a Battery Energy Storage System (BESS) and a permanent meteorological mast.

This report provides an assessment of the baseline forest environment contained within the Proposed wind farm site, and the potential impacts of construction of the Proposed project upon existing forest. An overview of forest harvesting operations is also presented, including associated mitigation measures and replanting obligations for felling associated with wind farm development.

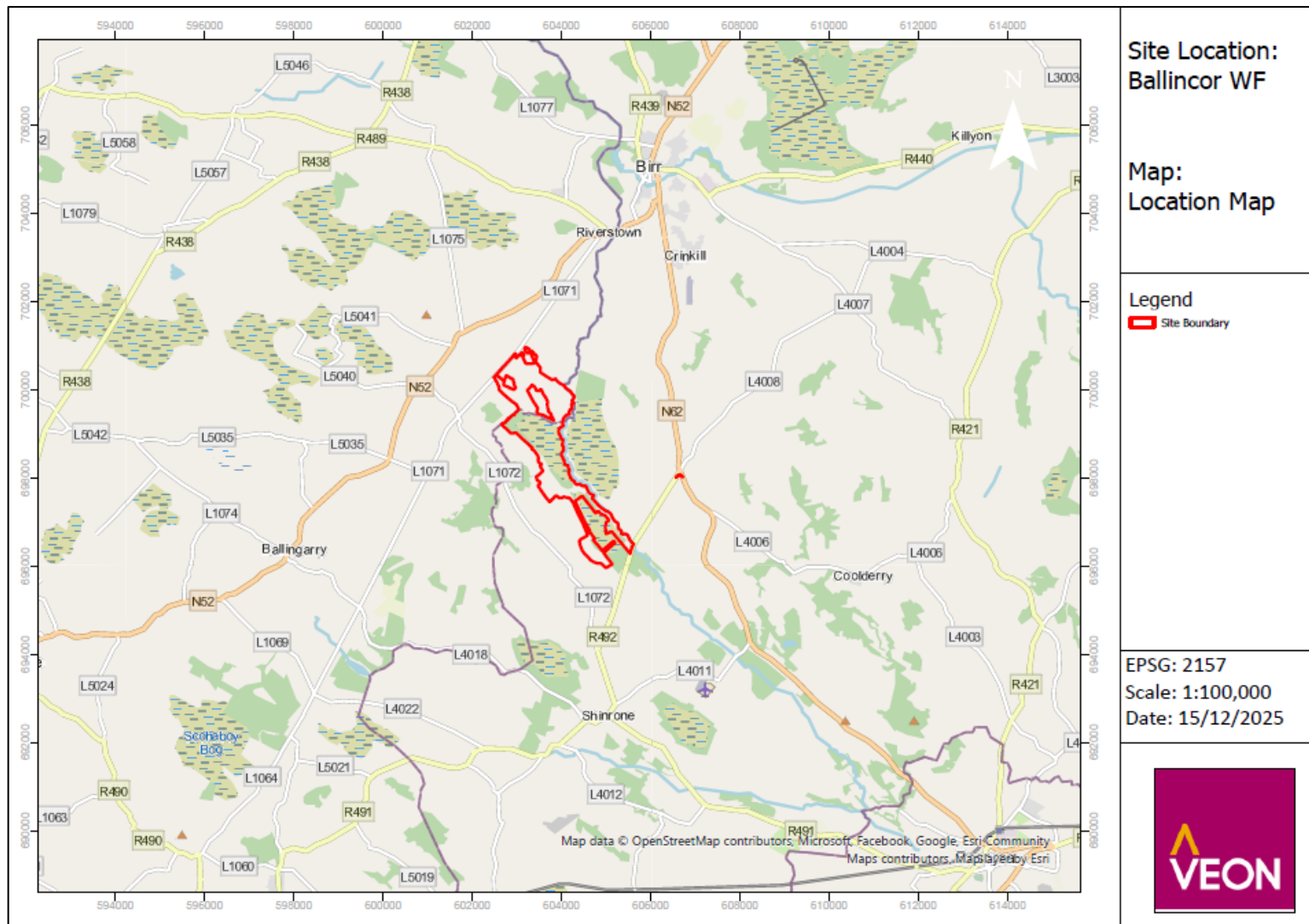


Figure 1.1: Location of the Proposed wind farm site.

## 1.2 Assessment methodology

### 1.2.1 Desk study

A desktop study of the Proposed wind farm site was carried out as part of this report, which involved a review of the relevant policy and guidance documents. These included the *Felling and Reforestation Policy* (DAFM, 2017), *Standards for Felling & Reforestation* (DAFM, 2019) and the *Forestry and Water Quality Guidelines* (Forest Service, 2000c). A number of additional resources were used in the preparation of this report, including:

- iFORIS iNET online mapping system - Department of Agriculture, Food and the Marine (DAFM).
- DAFM Private Forest Estate 2023 dataset - Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.
- GIS spatial datasets: Special Areas of Conservation (SAC); Special Protection Areas (SPA); Natural Heritage Areas (NHAs) – National Parks and Wildlife Service (NPWS).
- EPA Maps application – Environmental Protection Agency (EPA).
- Heritage Maps Viewer – Heritage Council of Ireland.

### 1.2.2 Field Assessment

A field assessment was carried out in March 2025 to assess existing forest overlapping with the infrastructural footprint of the Proposed Development. A number of parameters were assessed during the field visit, including tree species, top height, thinning status, ground conditions and previous cultivation. Photographs were also taken at each survey location.

## 1.3 Site Description

The Proposed project as shown in Figure 1.1 encompasses circa 355 hectares, and is comprises agricultural land, peatland and forest. The nearest settlements to the Proposed project are Shinrone (c. 3.6 km to the south), Crinkill (circa 6.8 km to the north) and Birr (circa 5 km to the north). The main approach road is the N62, which is located approximately 3 km to the east. The Proposed wind farm site will be accessed via the R492, approximately 2.5 km south-east of the Sharavogue Crossroads at the N62.

The elevation of the Proposed wind farm site ranges from 65–44 meters above Ordnance Datum (AOD), and the site is located within the Lower Shannon catchment [ID 25B], and to the west of the Little Brosna River [25L02]. There are other aquatic zones present within the Proposed wind farm site, some of which flow proximate to the existing forest. According to national soil maps, the Proposed wind farm site is predominantly underlain by Basin and Blanket Peat soils.

There are two recorded archaeological features present within the Proposed wind farm site, though these are not found within or contiguous to (i.e.  $\leq 200\text{m}$ ) any forest areas.

**Table 1.1:** Known archaeological features within project redline area<sup>1</sup>

| SMR No.       | Townland   | Class                | ITM Coordinates |
|---------------|------------|----------------------|-----------------|
| TN008-013001- | Castletown | Castle – tower house | 603243, 700899  |
| TN008-013002- | Castletown | Bawn                 | 603252, 700914  |

The Proposed wind farm site (and forest contained therein) does not overlap with any designated national or European conservation areas (i.e. SACs, SPAs or NHAs), though the Sharavogue Bog SAC [000585] borders the Proposed wind farm site to the east.

## 1.4 Baseline Forestry Description

There are approximately 41 hectares of forest within the Proposed wind farm site, which comprises a mixture of commercial forestry and unmanaged native woodland. All of the forestry present is under private ownership, and it exists at varying elevations: circa 53 m–44 m above Ordnance Datum (AOD).

Some of the forestry present is commercial forestry, comprising Norway spruce (*Picea abies*), Alder (*Alnus glutinosa*) and Sycamore (*Acer pseudoplatanus*), which is between 22–29 years old. Other areas of forest encompass oak-birch-holly woodland and non-annex bog woodland, and long-established woodland. Pockets of emergent woodland featuring birch (*Betula spp.*), oak (*Quercus spp.*), ash (*Fraxinus excelsior*), willow (*Salix spp.*) and other individual trees are also found on the site.

### 1.4.1 Forest interacting with the Proposed project

To enable the construction of the Proposed project, areas of existing forest that overlap with the planned infrastructural footprint will first need to be cleared of trees. The planned infrastructural footprint of the Proposed project, including the numbered turbines, and the overlapping existing forest is illustrated in Figure 1.2.

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<sup>1</sup> Data from the [NMS SMR] dataset accessed through the Heritage Maps Viewer at [www.heritagemaps.ie](http://www.heritagemaps.ie)

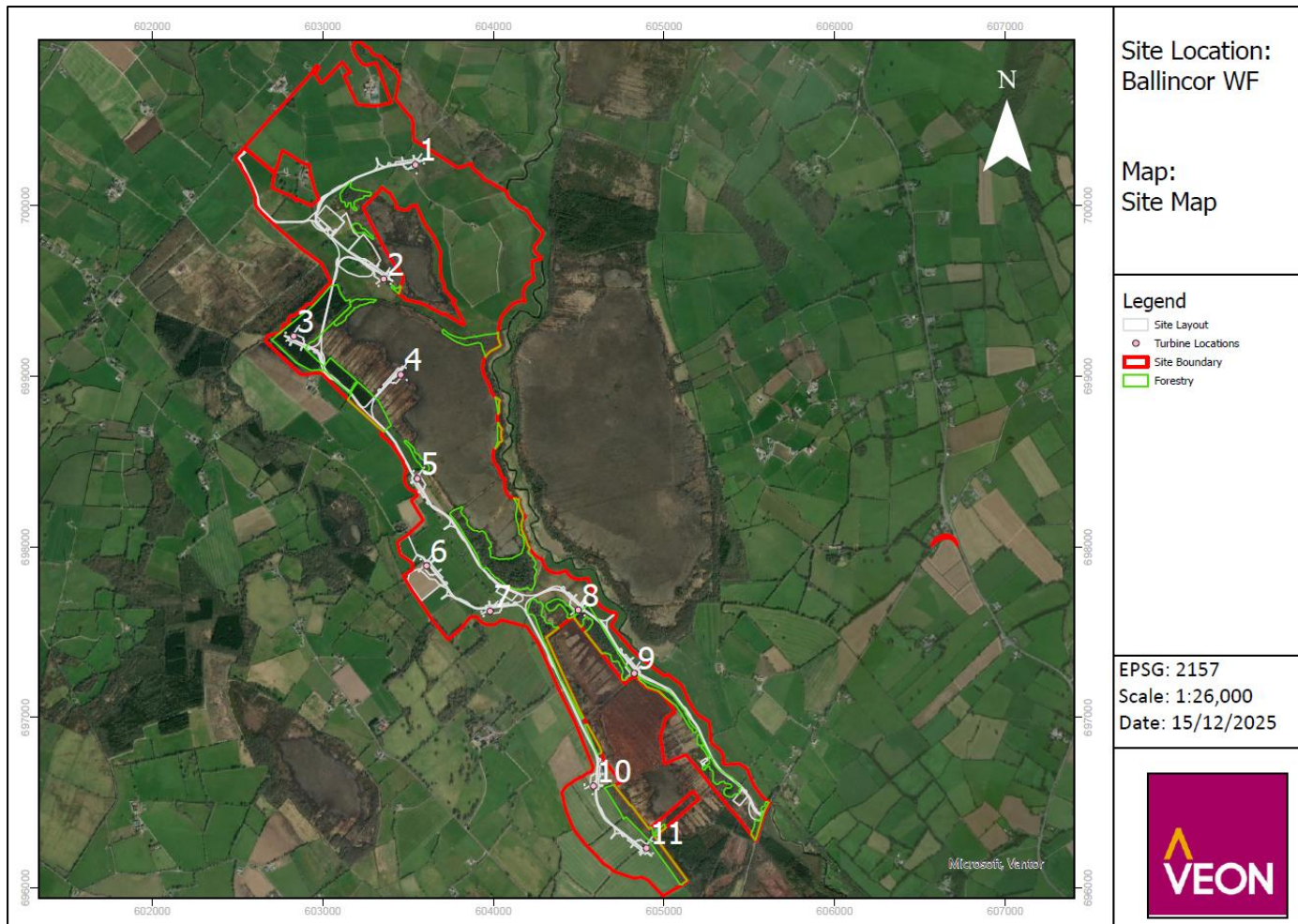


Figure 1.2: Infrastructural footprint of the Proposed project.

The commercial forestry overlapping with the planned location for Turbine No. 3 and the associated access roading is shown in Plate 1. The forestry at this location is underlain by peat soil and was previously mounded prior to planting. The forestry in this area predominantly comprises Norway spruce (*Picea abies*) that has previously been thinned. The trees were observed to be growing well with a top height of 14m. A plot of birch (*Betula pubescens*) also features and is also growing well with a top height of 15m recorded. A group of Lodgepole pine (*Pinus contorta*), with birch and willow (*Salix spp.*) interspersed was also observed within the plot, which is growing poorly.



Plate 1

The forestry where felling for the planned access route to Turbine No. 4 is planned is shown in Plate 2. The trees at this location are underlain by peat soil and the ground was previously mounded prior to planting. The forestry present comprises stands of Norway spruce (*Picea abies*) and Sycamore (*Acer pseudoplatanus*). Both species have been previously thinned and were observed to be growing well. Top heights of 14m (Norway spruce) and 15m (Sycamore) were recorded.



**Plate 2**

The forest present at the planned locations for Turbines No. 8 and No. 9 and the associated access roading is shown in Plate 3, with the Little Brosna River evident to the west. This plot contains unmanaged woodland, dominated by Oak (*Quercus spp.*), with a birch (*Betula pubescens*) and holly (*Ilex aquifolium*) understory. A small open area also features where heather is prevalent. The plot is underlain by peat soil and tree growth is variable, with a top height of 15m recorded.



**Plate 3**

The forestry present where infrastructure felling for Turbine No. 11 is planned is shown in Plate 4. This plot is underlain by peat soil and was also previously mounded. The plot predominantly comprises Sycamore (*Acer pseudoplatanus*), with Larch (*Larix spp.*) and occasional oak trees also present. Ash

(*Fraxinus excelsior*) was also originally planted though this has largely died out. Tree growth in the main was observed to be good with a top height of 14m recorded.



**Plate 4**

The forest where a small area of edge felling for the planned access roading leading to turbine T9 would occur is shown in Plate 5. This forest is underlain by peat soil and contains both open areas

dominated by gorse (*Ulex europaeus*) with sporadic birch trees, and areas of forest including a stand of Scots pine (*Pinus sylvestris*) observed to be growing well, with a holly understorey, bordered by heather, gorse and birch trees.



Plate 5

## 2. Assessment of effects

### 2.1 “Do-Nothing/Future Baseline” Scenario

Some of the affected forestry is plantation forestry, being managed as part of commercial rotations, and would thus be due for harvesting in the future, irrespective of whether the Proposed project is being constructed or not. Other areas of forest are unmanaged and are unlikely to be managed in the future.

### 2.2 Construction Phase Impacts

Mature and semi-mature forestry containing merchantable timber on the Proposed project will be harvested conventionally by a mechanical harvester, and timber will be extracted to the roadside by a specialised wheeled forwarder (Section 3.1). Manual felling by chainsaw may also be required in certain areas.

During the wind farm construction, ‘keyhole’-type felling is planned. This approach describes solely removing trees overlapping with the infrastructural footprint of a wind farm.

While the impacts of the felling activities are considered at this, the application stage, it is noted that the felling of trees for wind farm construction is subject to and can only occur following the grant of a felling licence by the Department of Agriculture, Food and the Marine (DAFM).

#### 2.2.1 Felling and removal of trees

Most of the planned felling for the Proposed project will not incur ancillary effects on the remaining forest, as it involves felling small areas/pockets of unmanaged native forest (e.g. Turbine Nos. 2, 5, 8 and 9), where tree size is variable and open spaces feature. There will however be a loss of biodiversity associated with the removal of sections of this woodland.

The felling required for turbines Turbine Nos. 10 and 11 would occur in a managed plot of Sycamore, which is considered a wind-firm tree (Horgan *et al.* 2003), and which will lose its leaves in the winter months when winds may be more frequent and intense, thereby reducing drag on the tree crown. The remaining trees will have time to stabilise and adapt to the new edge conditions.

Keyhole felling within the commercial forestry at the planned location of Turbine No. 3 and the access roading leading into Turbine No. 4 may incur future wind snap or windblow within the Norway spruce trees at these locations.

#### 2.2.2 Other potential impacts associated with tree felling

Beyond the risk to the remaining forestry, there are a number of other potential impacts associated with the planned tree felling works:

- **Soil quality:** harvesting and extraction of timber could impact soil quality, with the potential for erosion, sedimentation and rutting if works are not carefully managed - this risk is also applicable to a “Do-nothing” scenario where future harvesting of the commercial forestry on the site would occur.

- **Water quality:** tree felling could impact water quality via sediment or nutrient inputs into environmental receptors such as aquatic zones (e.g. eutrophication) - this risk is also applicable to a “Do-nothing” scenario. Mitigation is outlined in the next section.
- **Wildlife habitats:** the harvesting of forestry coupes and the permanent removal of forestry could lead to disturbance or loss of wildlife habitats – this risk is also applicable to harvesting under a “Do-nothing” scenario. However, no permanent felling would occur under a “Do-nothing” scenario. The compensatory afforestation of alternative land will establish an equivalent area of native broadleaf woodland to address the loss of some of the native woodland on the Proposed wind farm Site.
- **Archaeology:** tree harvesting operations involving the movement of heavy machinery could cause structural damage to archaeological sites where felling is not properly managed (Forest Service, 2000d) – this risk is also applicable to harvesting of commercial forestry under a “Do-nothing” scenario. However, as outlined in Section 1.3, no archaeological features exist proximate to forestry on the Proposed wind farm site.
- **Road traffic and noise disturbance:** the felling of merchantable trees will involve mechanised harvesting machinery, and timber lorries will be required to transport logs from the Proposed wind farm site. This will increase road traffic in the locality and could give rise to potential noise disturbance - this risk is also applicable to a “Do-nothing” scenario where harvesting and haulage of will occur as part of normal forest management of some of these forests. However, harvesting and haulage works will occur during daylight hours (as prescribed by the CEMP), and any resulting noise would resemble that of agricultural machinery in the local environs, and would be considered a temporary inconvenience.
- **Carbon sequestration:** following the permanent removal of coupes of trees the carbon sequestration capacity of the remaining forests would be somewhat reduced - this risk is not applicable to a “Do-nothing” scenario, where the felled commercial forestry would be replanted within a period of two years as part of normal forest management. However, the following observation is made: in line with the *Felling and Reforestation Policy* (DAFM, 2017), equivalent areas of alternative land would need to be afforested in lieu of all infrastructure felling areas required for the Proposed Development, where newly planted trees would absorb carbon as they grow. Additionally, the operational wind farm would also assist in the reduction of emissions.

### 2.3 Operational Phase Impacts

All of the planned infrastructure felling areas will remain unplanted throughout the Proposed project operational phase. No operational phase impacts on forestry are thereby predicted.

### 3. Proposed Harvesting Operations

In Ireland, the felling of trees is regulated under the Forestry Act of 2014, and in most instances a tree felling licence will be required. A felling licence is granted by the Minister for Agriculture, Food, and the Marine, and provides authority under the Forestry Act 2014 to fell or otherwise remove a tree, or trees, or to thin a forest for silvicultural purposes. The Forestry Act 2014 prescribes the functions of the Minister and details the requirements, rights, and obligations associated with tree felling licences. The Forestry Regulations 2017 (S.I. No. 191 of 2017) are the principal set of regulations giving further effect to the Forestry Act of 2014.

During the construction phase of the Proposed Development, keyhole felling would be carried out. This describes a targeted approach, where harvesting is confined to trees overlapping with the infrastructural footprint.

#### 3.1 Felling methodology

Merchantable timber on the Proposed wind farm site would be harvested conventionally by a mechanical harvester, and manual felling by chainsaw where appropriate (e.g. to fell trees standing within an exclusion zone where the movement of harvesting machinery is prohibited). Mechanical harvesters are purpose-built, self-propelled machines, fitted with specialised cutting heads that are capable of felling and processing trees down to 7 cm diameter at breast height (DBH). Residual parts of felled trees are placed on the ground in front of the harvester to form a dense protective layer of foliage for the harvester to travel upon, helping to reduce the risk of soil damage. A typical forestry harvester is illustrated in Figure 3.1.



**Figure 3.1:** A typical forest harvester machine.

As a harvester works down a track, the operator will bunch felled logs on the side where they are easily accessed for extraction to the roadside. In conifer stands, as the harvester fells each tree, a urea solution is applied to the surface of the remaining tree stumps. Urea is applied to prevent the potential

colonisation of *Heterobasidion annosum*: this is a serious fungal disease (otherwise known as conifer root and butt rot) that can grow into root stumps and cause extensive decay in the lower stems of conifer trees (Forest Research, 2025). The application of Urea is generally a condition of a felling licence where the soil type is mineral soil or where a peat soil is less than 25cm (excluding the litter layer).

Areas of young or small trees of no merchantable value on the Proposed wind farm site would be removed by the most appropriate method of clearance to be determined at the time of construction: a professional Forester's judgement will determine if harvesting for biomass is feasible. Potential options include an excavator fitted with tree shears or a mulching head, or manual clearance by chainsaws or brush cutters.

### 3.2 Timber extraction

To remove timber from the forests, a specialised wheeled machine called a forwarder would be used. A forwarder consists of a base machine, fitted with a hydraulic crane and a grapple for picking up logs and placing them in an onboard storage bunk. A forwarder operator will generally start to follow a harvester after a couple of weeks of felling has progressed to collect and extract timber to the roadside. Logs are stacked in designated stacking areas/landing bays by the forest road, for subsequent loading onto lorries, before being transported to various timber markets. A forwarder can typically remove circa 9–12 tonnes of timber per journey from the forest (Teagasc, n.d.). A typical forwarder is illustrated in Figure 3.2.



Figure 3.2: A typical wheeled forwarder.

## 4. Mitigation

### 4.1 Construction phase

#### 4.1.1 Felling and removal of trees

An outline of standard mitigation measures for tree harvesting operations is provided below, based on existing standards and guidelines (DAFM, 2019; DAFM 2024) - additional measures may be required as per felling licence conditions:

- Proposed works to be carried out in strict adherence with all relevant standards/guidance:
  - ❖ Forest Biodiversity Guidelines (Forest Service, 2000a)
  - ❖ Forest Harvesting and the Environment Guidelines (Forest Service, 2000b)
  - ❖ Forestry and Water Quality Guidelines, (Forest Service, 2000c)
  - ❖ Forestry and Archaeology Guidelines (Forest Service, 2000d)
  - ❖ Forestry and the Landscape Guidelines (Forest Service, 2000e)
  - ❖ Forest Protection Guidelines (Forest Service, 2002)
  - ❖ Felling and Reforestation Policy (DAFM, 2017)
  - ❖ Standards for Felling & Reforestation (DAFM, 2019)
  - ❖ Environmental Requirements for Afforestation (DAFM, 2025)
  - ❖ Forestry Standards Manual (DAFM, 2024).
- Contingency plan to be designed according to Section 5 of the *Standards for Felling & Reforestation* (DAFM, 2019). This plan will contain all relevant contact details and necessary actions for contractors/operators in case of an unexpected event that poses an environmental risk (e.g. an accidental fuel spillage or the discovery of an unidentified archaeological feature, etc.)
- Responsible forester to erect all relevant safety signage and to walk the harvest site with contractors/operators to highlight any environmental sensitivities or site risks.
- All relevant timber harvesting exclusion zones (DAFM, 2019) to be clearly marked on site maps and on Proposed wind farm site before any works commence:
  - ❖ 10 m-wide exclusion zone to be established from the edges of any aquatic zones or water hotspots.
  - ❖ 5 m-wide exclusion zone to be established from the edges of any relevant watercourses.
  - ❖ Appropriate exclusion zone to be established from the outer edges of any archaeological feature: see *Environmental Requirements for Afforestation* (DAFM, 2025). In the event that an unrecorded archaeological feature is found during tree felling:
    - Report the discovery immediately to the National Museum of Ireland, the National Monuments Service, or the Garda Síochána.
    - Establish a minimum 20 metre exclusion zone around the discovery until the site of the find has been investigated by the appropriate personnel (Forest Service, 2000d).

- ❖ Following consultation with the Environmental Manager/Ecological Clerk of Works an appropriate exclusion zone to be established for any wildlife habitat within the harvesting area, and the location of exclusion zone(s) to be well known by all harvesting operators due to work on the site.
- Prior to harvesting works, silt traps to be installed within existing forest drains that connect with aquatic zones, either directly or indirectly through other relevant watercourses. Silt traps to be constructed along the length of drains and to be monitored and maintained throughout works.
- Temporary bridging points to be used where machinery routes must cross existing water features. Water features to be crossed at a right angle to the flow of water and any crossing to be via an appropriate structure: see *Standards for Felling & Reforestation* (DAFM, 2019).
- Any drains crossed during the timber extraction phase to be kept clear of residues and debris to ensure no drainage issues arise for the remaining trees: this can be a major contributor to windblow.
- Maintenance, refuelling and storage areas to be sited in dry and sheltered locations, at least 50 m from aquatic zones and 20 m from relevant watercourses.
- Stacking areas to be located at least 50 m from aquatic zones, and at least 100 m from dwellings where possible.
- Harvesting machinery to be fitted with up-to-date spill kits to mitigate against an accidental spillage.
- On-site supervision to be present to ensure operations are carried out according to standards, and to confirm mitigation measures are effective.
- Contractors to wear all relevant personal protective equipment (PPE) at all times while on the harvest site.
- Works to occur near overhead electricity lines (OELs) to be conducted according to Section 7 of the *Forestry Standards Manual* (DAFM, 2024) and *Code of Practice for Avoiding Danger from Overhead Electricity Lines* (HSA, 2019).
- No rinsing of fuel, chemical or oil containers to occur on the site.
- Dense mats of brash and branch wood to be laid along all machinery routes. Additional brash to be deployed on any sections of soft ground that are subject to high levels of machinery passage. Brash mats to be replaced as soon as they exhibit signs of wear.
- Contractors to monitor machinery routes and to use extra brash (where available) to pre-empt the risk of soil damage. Where ground conditions begin to visibly deteriorate, a new track to be promptly established containing a new brash mat layer.
- Harvesting machinery must not enter any exclusion zones: trees standing within an exclusion zone outside the reach of the harvester arm to be manually felled by an experienced chainsaw operator and removed by an extended harvester arm for processing and stacking outside of the exclusion zone.

- Trees to be directionally felled away from sensitive features.
- Regular visual monitoring of aquatic zones and relevant watercourses to occur to check for any silt/sediment discharge from harvesting works.
- Felling and extraction to cease during and after periods of rainfall that could result in the surface mobilisation of silt, until conditions improve, and the risk is minimised.
- Harvesting works and haulage to adhere to the designated working hours as specified in the Construction Environmental Management Plan (CEMP).
- Forwarder load sizes to be monitored during timber extraction to ensure no overloading occurs.
- Monitoring of hauliers to occur to ensure timber stacks are left in a safe and stable condition during timber loading.
- Waste or hazardous materials that may accumulate throughout operations to be carefully removed for appropriate off-site disposal once harvesting is complete.
- Temporary bridging points to be removed as no longer required and relevant areas restored to their original condition, with due care afforded to avoid the release of any sediment or harvesting residues.
- Any harvesting debris evident within drains or silt traps to be removed.
- Forest infrastructure to be inspected for signs of damage and to be repaired where necessary.

#### 4.1.2 Residual Forestry

No disturbance will occur to the area of Long-Established Woodland (I) adjacent to planned access roading to the west of the planned locations for Turbines No. 8 and 9 (as illustrated in Figure 4.1).



**Figure 4.1:** Long-Established Woodland (I) on Proposed wind farm site.

Additional felling to windfirm and silviculturally practicable edges may also be required in the forestry at the planned locations of Turbine No. 3 and the access roading leading to Turbine No. 4, to prevent the remaining spruce trees from becoming unstable and blowing over due to wind. It is envisaged this felling would occur following consultation/agreement between the developer and the respective owners. This felling would be subject to a separate felling licence application and would occur outside of the infrastructural footprint, with the affected areas being replanted *in situ*, typically within two years of felling. Consideration could be given to replanting areas that are impracticable for conifer planting with native tree species to help partially offset the planned felling of other areas of native forest.

#### 4.1.3 Compensatory afforestation

The *Felling and Reforestation Policy* (DAFM, 2017) outlines different tree removal scenarios. The six main scenarios where permanent tree removal may be considered is outlined in Table 4.1, and whether alternative afforestation and/or the repayment of grants and premiums is required in each instance if approved.

**Table 4.1:** *Scenarios where the permanent removal of forestry may be considered (DAFM, 2017).*

| Scenarios  | Felling Licence application required? | Alternative afforestation required? | Refunding of grant & premiums required? |
|--|---------------------------------------|-------------------------------------|---|
| <b>1. Overriding environmental considerations</b> (e.g. to protect habitats/species listed as qualifying interests within SPAs and SACs) | Yes                                   | No                                  | No                                      |
| <b>2. Supporting renewable energy and energy security</b> (e.g. wind farm installation)  | Yes                                   | See Table 4.2                       | See Table 4.2                           |
| <b>3. Commercial development</b> (e.g. development of an industrial park)  | Yes                                   | Yes                                 | Yes                                     |
| <b>4. Conversion to agricultural land</b>  | Yes                                   | Yes                                 | Yes                                     |
| <b>5. Public utilities</b> (e.g. erection of an electricity power line)  | No                                    | No                                  | Yes                                     |
| <b>6. Other land use change</b> (may be considered on a case-by-case basis)  | Yes                                   | Case-by-case                        | Case-by-case                            |

*Note:* Adapted from *Felling and Reforestation Policy* (DAFM, 2017), pp. 30. © Forest Service, Department of Agriculture, Food & the Marine.

The felling required for the Proposed project relates to ‘Scenario 2’ in Table 4.1 and would therefore require the submission of a tree felling licence application to the Forest Service (DAFM). The Forest Service may require the developer to report on the reduction in productivity of the forest area associated with different wind farm forest management and landscape plans, and the potential loss of soil and biomass CO<sub>2</sub>, or other potential impacts.

Table 4.2 illustrates the requirements for each category of tree felling associated with wind farm development.

**Table 4.2:** Requirements for each felling category associated with wind farm development (DAFM, 2017).

| Category of tree felling |         | Reforestation of felled area required? | Alternative afforestation required? (See Note 1) | Refunding of grant & premiums required? (See Note 2) |
|--------------------------|---------|--|--|--|
| Infrastructure felling   |         | No                                     | Yes  | Yes  |
| Construction felling     |         | Yes                                    | No   | No   |
| Turbulence felling       | ≤ 20 ha | Yes                                    | No   | No   |
|                          | > 20 ha | Yes                                    | Yes, 10% of turbulence fell area                 | No   |

**Note 1:** If 'YES', the alternative site must be of an area equivalent in size (see Section 5.7 of 'Felling and Reforestation Policy'). If the forest area proposed for permanent removal is still in receipt of premiums and/or is still in contract under the Afforestation Grant & Premium Scheme, the alternative site may be eligible under the Afforestation Grant & Premium Scheme.

**Note 2:** If 'YES', the refunding of any afforestation grants and premiums already paid out by the Forest Service is required if the forest area proposed for permanent removal is still in receipt of premiums and / or is still in contract under the Afforestation Grant & Premium Scheme. Also, if 'YES' or 'NO', if premiums are still being paid, premium payments on the area will cease.

Note: Adapted from *Felling and Reforestation Policy* (DAFM, 2017), pp. 33. © Forest Service, Department of Agriculture, Food & the Marine.

To facilitate the construction of the Proposed Development, approximately 7.2 hectares of forest is planned for infrastructure felling (Table 4.3).

**Table 4.3:** Total areas of forest to be removed for Proposed Development

| Infrastructure type  | Area of forest to be removed (ha) | Felling Type   |
|----------------------|-----------------------------------|----------------|
| T2                   | 0.24                              | Infrastructure |
| T3                   | 3.16                              | Infrastructure |
| T5                   | 0.28                              | Infrastructure |
| T8                   | 1.21                              | Infrastructure |
| T9                   | 0.88                              | Infrastructure |
| T10                  | 0.11                              | Infrastructure |
| T11                  | 0.66                              | Infrastructure |
| Access roads and GCR | 0.66                              | Infrastructure |
| <b>Total:</b>        | <b>7.2</b>                        | -              |

As illustrated in Table 4.2, all forest within the Proposed wind farm site that is planned for infrastructure felling would need to be replaced through the afforestation of an equivalent area (7.12 ha) of alternative land. It is recommended that the associated compensatory afforestation includes an equivalent or greater area of native forest to compensate for the areas of native forest due to be felled for construction of the Proposed project.

In compliance with the *Forestry Regulations 2017 (S.I. No. 191 of 2017)*, the afforestation of any alternative land would first require written 'Technical Approval' from the Department of Agriculture,

Food and the Marine. The developer is fully committed to the sourcing of suitable alternative lands for the purpose of compensatory afforestation to ensure a net loss of forest would not occur as a result of the Proposed project. Technical approval for afforestation will be sought, and a non-grant-aided afforestation licence application will be submitted to the Forest Service (DAFM) for any alternative site where compensatory afforestation is proposed.

An afforestation application seeking technical approval to plant under the *Afforestation Scheme 2023-2027* must be made online by a Registered Forester using DAFM's iFORIS iNET system. Following a detailed ground assessment, a Forester must devise maps, and complete various forms/declarations with the applicant and ensure that the application complies with all silvicultural and environmental requirements as detailed in the *Forestry Standards Manual* (DAFM, 2024) and the *Environmental Requirements for Afforestation* (DAFM, 2025). In compliance with the *Forestry Regulations 2017 (S.I. No. 191/2017)*, a site notice must be erected at the site entrance/boundary adjoining a public road before an afforestation application is submitted and must be maintained *in situ* for a period of at least 5 weeks from the date an application is published online by the Minister.

Where an afforestation licence is granted by DAFM, it will only remain valid up to and including the expiry date specified in the technical approval letter. The granting of an associated felling licence for the Proposed project would not occur until the compensatory afforestation site(s) been evaluated and approved by DAFM. Where a felling licence application is approved, it will be a condition of the licence that all alternative land approved for afforestation is planted and managed as forest land, as per the relevant standards prescribed by the *Forestry Standards Manual* (DAFM, 2024).

## 5. Conclusion

To facilitate the construction of the Proposed project in Co. Offaly/Tipperary, 7.12 hectares of existing forest is planned for infrastructure felling, which, in the absence of mitigation, would result in a net forest loss. However, in keeping with the *Felling and Reforestation Policy* (DAFM, 2017), the developer is fully committed to the compensatory afforestation of an equivalent area of alternative land, in lieu of the planned infrastructure felling areas for the Proposed project. Under the assumption that the proposed mitigation is adopted, no significant forest impacts are thereby expected.

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