

Appendix 2-6 - Recreation Development Plan



Cloghercor Wind Farm Recreational Trails Plan



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EXECUTIVE SUMMARY

This report builds on the Frame of Reference (FOR) initially developed regarding the recreation development approach for the proposed windfarm at Cloghercor.

The proposed Cloghercor wind farm site is bounded by the West of Ardara/Maas Road Special Area of Conservation (SAC) 000197 along its north-eastern boundary and some adjoining proposed Natural Heritage Areas. There are also some nearby heritage and archaeological sites, and a small number of old abandoned buildings that are visually appealing, within the site and along its boundary. While there are some nearby heritage and archaeological sites, there are no apparent protected structures, burial grounds, archaeological excavations, national monuments, or heritage features within the proposed windfarm site. However, trail development must take into account the presence of eagles on the upper slopes.

While the sloped land, ranging in elevation of 20 meters to 140 meters, may limit some trail use by children, the less mobile and make the site unsuitable for family recreational cycling, due to the consequences of the trail gradients. However, the elevated areas of the site will provide viewing points of the estuary and the surrounding landscapes. Recreation development on the site is likely to add value to the emerging tourism base within the area. In particular, the provision of a series of two walking trails and a viewing point at an elevated area of the site is likely to provide a focal point.

Consultation and feedback regarding the location was limited apparently due to limited local awareness and use of the existing site, with most walking and cycling activity in the area taking place at other locations. While Cloghercor is not used currently for significant recreational walking and recreational cycling, the development of recreation facilities here are likely to be relevant to both residents and incoming tourism.

Recreational trail development in Cloghercor is best suited to recreational walking using the existing forest road network, see figure 8 on page 11. The proposed windfarm roads and some short sections of additional walking trails to connect these roads into a two-trail network to be constructed to a classification 2 or 3 standard:

- Trail 1: a looped 8 km walking trail (80 meters gradient) from P1 of a, b, f, g, h, a. This trail includes the public road section from h to a.
- Trail 2: a looped walking trail from P1 of a, b, c, d, e, d, f, g, h, a circa 10 km, and 200 meters elevation. This route includes an out and back section (d, e, d) to the viewing point at A.

Note that both of these trails will use the installation of a short section of additional walking trail and the use of the public road on the north-western boundary of the site.

A small-scale car park on the north-western boundary of the site (P1 on page 13), is proposed. This car park will greatly facilitate access to the trails from the surrounding villages.

An additional walking trail location along the north-western coastal area of the site the has also been identified and might be realised through a subsequent development phase.

The future management of the site is to be undertaken through a blend of Coillte and windfarm staff as part of the general forest and windfarm maintenance process. Any recreation events at the site will be developed and delivered under a licence agreement with Coillte, they will be self-contained and will not require the input of Coillte and landowners or wind-farm staff.

INTRODUCTION

Irish Leisure Consultants (ILC) have been tasked by Future Energy Ireland to investigate the suitability of the proposed wind farm on lands at Cloghercor, County Donegal, for the development of outdoor recreation infrastructure, recreational initiatives, and tourism opportunities. The following document indicates the proposed outdoor recreation developments for this site.

In particular this plan identifies:

- **Context:** location, environmental, heritage and historical assets as well as social, tourism and economic.
- The **scope and scale** of the potential development: target markets, recreation significance (local, regional, national, comparison of the site within the area, desired economic and social impact)
- **Trail Model, and trail types:** Category 2, Category 3 trails. The site footprint, landownership, the operating structure, the recreation/trail provider, method of development, trail management and maintenance (facility inspections maintenance, vegetation clearing).

CONTEXT

The site is on a northwest facing slope backed to the southeast by Croaghleheen, Gafarretmoyle, Gaffaretcor and Derkbeg Hill mountains. These slopes are steepest close to the mountains however there is a significant slope across most of the remainder of the site except for the Aneane Beg area, a quasi-plateau in the centre of the site.

Most of the site is forested with the exception of the slopes leading down from Gafarretmoyle and Gaffaretcor to the public road (Doocharry to Derryloaghan). Three public roads, that service a small number of outlying houses and farms in the area, transect the site, none of these roads have any significant levels of traffic. The southern boundary of the site is paralleled by the relatively busy Fintown to Glenties main road (R253).

The main body of the site has three existing internal forest roads two of which begin at the northern boundary and travel southeast while the third extends in a southerly direction as a spur from one of the other forest roads. The south-western edge of the site includes a small network of forest roads that parallel the Gwebarra River two thirds of the way to the Gwebarra bridge.

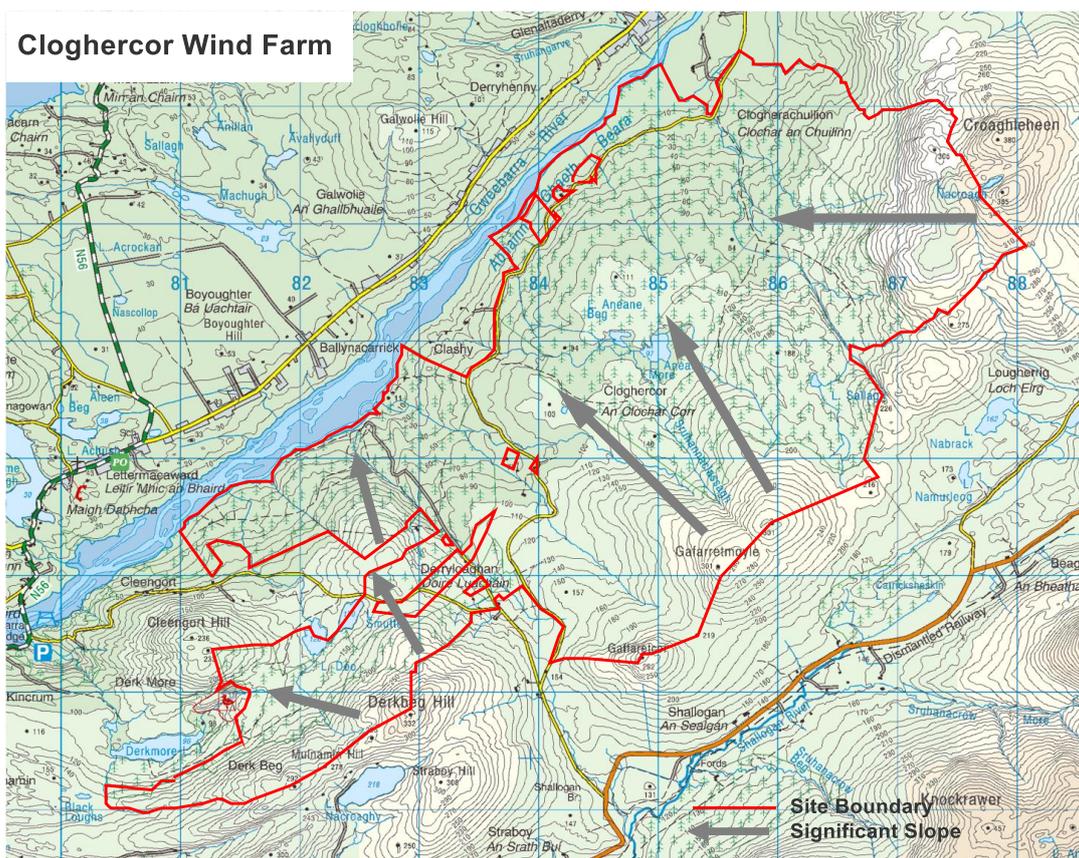


Figure 1: Site Boundary and Topography

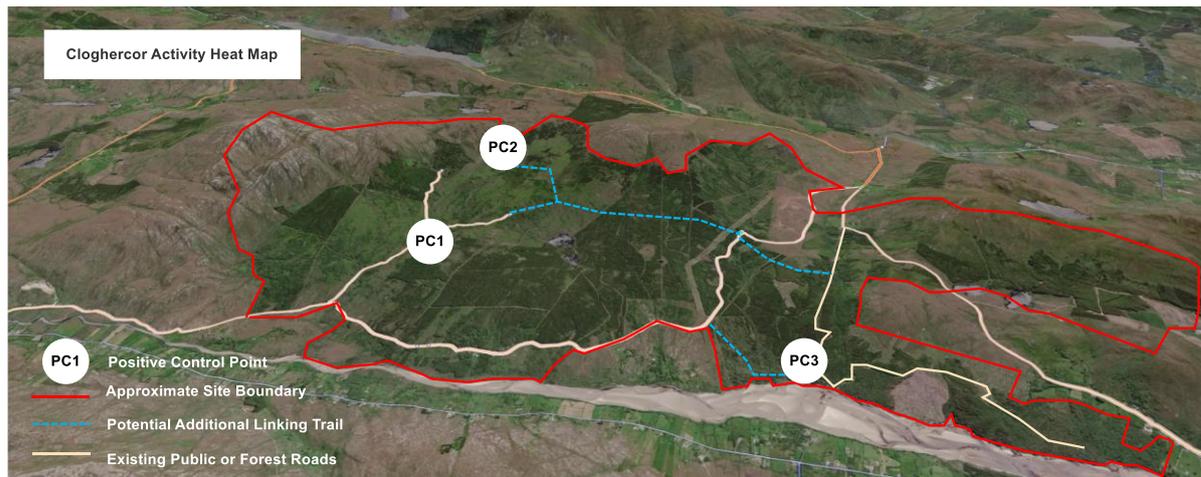


Figure 2: Activity Heatmap and Control Points

There are at least three positive control points (PC) within the site:

- PC1: Old farmstead, open ground and plateau type area, adjacent to the current met mast.
- PC2: Potential viewing area.
- PC3: Existing road/trail route to and adjacent to the estuary.

HERITAGE AND ENVIRONMENT

The site is bounded by the West of Ardara/Maas Road Special Area of Conservation (SAC) 000197 along its north-eastern boundary. This SAC relates to the tidal zone outside of the site. However, a 15-kilometre buffer zone extends from this SAC onto the site.

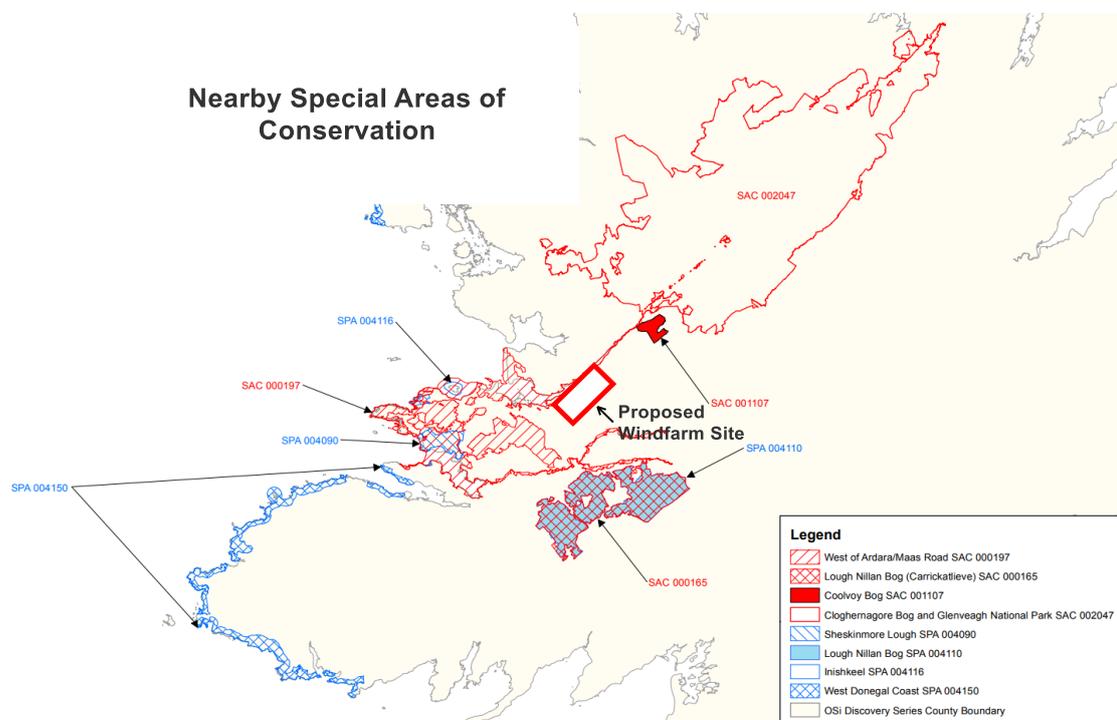


Figure 3: Site Heritage and Environment

ECONOMY

The local economy is a mix of farming, fishing, tourism with little manufacturing industry. The main local centres of population and tourism are in Gweedore, Dungloe Fintown, Glenties, Glencolmcille and Ardra. Letterkenny and Donegal are the principal towns in the wider area.

Most of the tourism is cross border with local second homes and holiday home ownership and renting by Northern Ireland residents. Donegal Airport is an important connection with daily flights from Dublin. Glenveagh National Park is the largest tourism attraction in the area while the western coast is a popular seaside and driving route.

The proposed recreation amenities at the windfarm site at Cloghercor will provide an additional tourism venue as part of the cluster of Fintown, Dungloe, and Glenties. It is noteworthy that the bridge at Lettermacaward is identified as a scenic viewing point with views extending along the estuary.

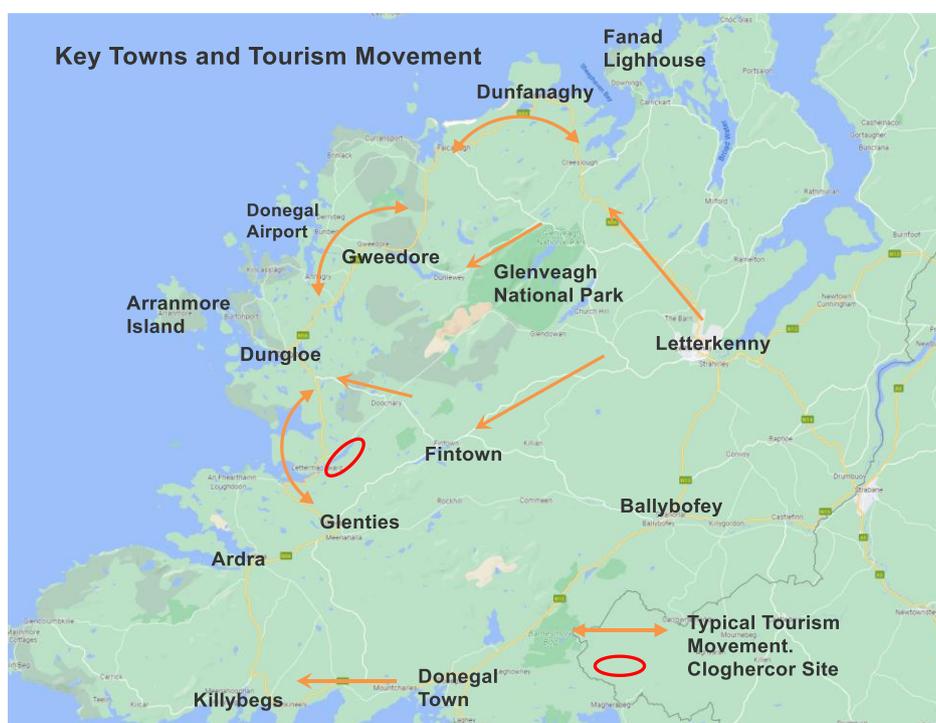


Figure 6: Local Tourism Movement

SYNOPSIS

While the sloped land of the site may limit some trail use amongst children and the less mobile due to the effort of the height gain. Conversely such elevated trails can provide viewing points of the estuary and the surrounding landscapes, including the Fintown area.

There are no apparent significant heritage limitations on the site, however there are a small number of old abandoned buildings that are visually appealing, within the site and along its boundary.

There is a growing tourism base within the area that recreation development on the site is likely to support or add value to. In particular, the provision of a viewing point at the elevated areas of the site is likely to provide a focal point for local tourism orientation.

SCOPE AND SCALE

The recreation value of the site is relevant to residents, in Doochry, Ardra, Dungloe, Glenties and Fintown, and incoming tourism. There is however, a relatively low population density in the area.

The following outdoor recreation activity heatmaps, where the brightness and thickness of the lines represent areas of high activity, indicate that while walking and cycling is popular in the Lettermacaward area and on nearby roads there is relatively little cycling or walking within the footprint of the proposed windfarm site. The consultation process strongly indicates that there is limited awareness of and use of the site currently for outdoor recreation activities such as walking and recreational cycling. However, local cycling clubs and participants note the value of the location as a venue for cycle tourism and training primarily on the adjacent and traversing public roads and not within the footprint of the proposed windfarm.

An analysis of the recreational walking activities from the following heatmaps and the consultation process suggests that:

- The Cloghercor is not typically used for recreational walking and recreational cycling.
- The adjacent and traversing public roads are used for competitive and some recreational cycling. See recreational cycling heatmap below.
- The gradient across the site ranges from sea level to approximately 300 meters with the existing road network within the site ranging from an elevation of 20 meters to 140 meters. Such a gradient is generally unsuitable for family type cycling activities.
- There is a strong local angling community, some of whom use the site for this activity.
- There are no apparent equestrian activities on the site.
- The public road to the North of the site is both picturesque and has low volumes of traffic and is suitable as a recreational walking route.
- Beaches and rural roads provide the main outdoor recreation resources in the surrounding area. Specifically, Dooey Beach and Tramore Beach as well as some trails at Fintown and the on-road trail that extends from Doochary to the site. There are some off-road and mountain walking trails in Glencolmcille as well.

Currently recreational cycling is primarily on-road and less popular compared to recreational walking. Cyclists frequently use the two public roads that traverse the site and these form part of a series of cycling loops in the wider area. There has been a recent development of a Greenway that transits through Lettermacaward en-route to Dungloe. This Greenway is likely to support cycling tourism in the area and it is located circa 2.2 km from the edge of Cloghercor forest.



Figure 7: Recreational Walking and Cycling Heatmaps

The population density in the immediate area of the site is very low and includes a high number of seasonal holiday homes. Most walking and cycling activity in the area appears to emanate from and take place in the nearby villages.

There is no expressed demand for outdoor gym type facilities in the forest.

SCOPE

Given the low population density in the immediate area, recreational users will drive to the forest, rather than walk or cycle, to use its recreation facilities. The potential for elevated viewing points of the surrounding area and especially of the estuary, suggests that the site has a tourism potential both for trail use and for presenting the area's vistas.

PROPOSED ROAD AND TRAIL DEVELOPMENT

The following maps indicate the existing and the proposed new forest road development envisioned as part of the windfarm development.

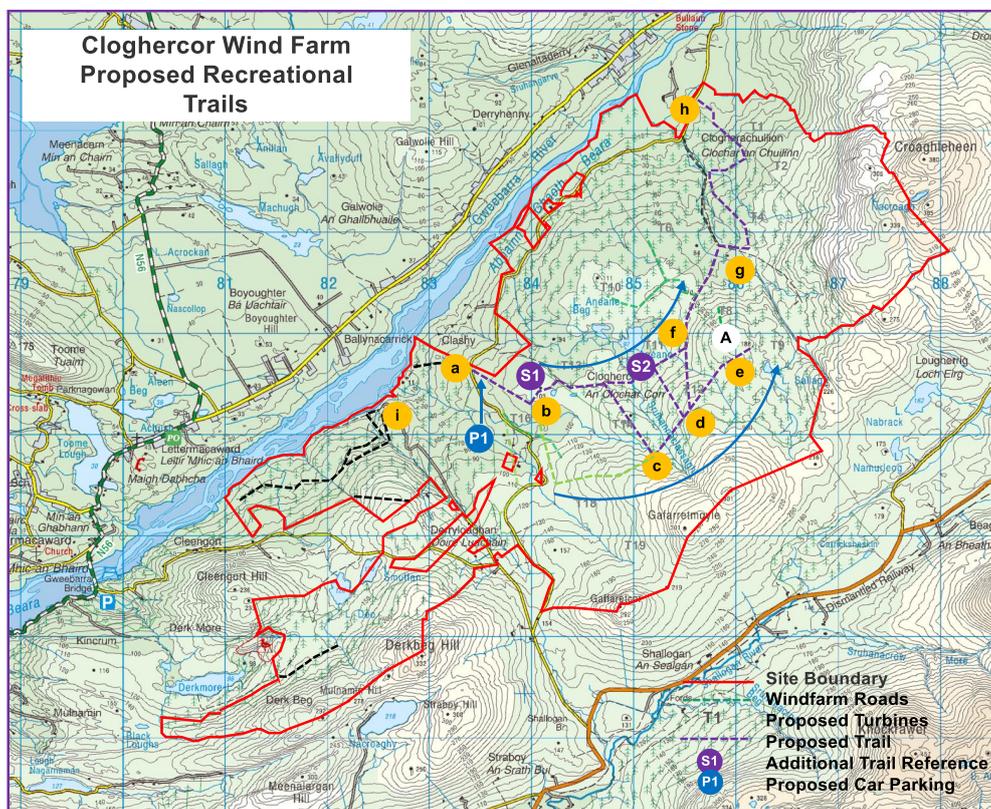


Figure 8: Recreational Trails.

OBSERVATIONS

- The proposed windfarm road network will substantially increase the recreational trail distances and choices that are available.
- P1 is the proposed location of the recreational trailhead for the site.
- To provide walking trail connections and loops the proposed linking new trail sections S1 T13 to T16, and S2 Circa T13 are in addition to the proposed windfarm road network.
- The very quiet public road (a – h), can be used as a return route for Trail 1.
- Location A has potential as a panorama viewing area for the site.
- The elevated topography of the site means that trails at this location will be challenging for the young and infirm given the gradients. However, a ‘Challenging Access Route¹’ is possible

¹ Two levels of accessibility for trails are Multi Access (a fully accessible route with little gradient), a Challenging Access Route (significant gradients in some sections). Ref Great Outdoors A guide for accessibility, Sport Ireland.

from P1 (a to b and f). With an initial gradient of 7%, over an approximate 400-meter distance, this trail can be suitable for powered wheelchairs but will require assistance for manual wheelchairs.

- The route to g and h is not recommended as a Challenging Access Route given the 9% plus gradient in some sections of this trail.
- The elevated nature of the site and the resultant gradients makes it unsuited for family type cycling, although, a small number of adults may use the new forest road network as an off-road recreational cycling venue. However, given the very short distance of the routes, for cycling, and the steepness of terrain it should not be promoted as a cycling venue.

RECOMMENDATIONS

- The recreation area should be promoted for recreation walking and in particular as a site to view the Gweebarra vista.
- The addition of a simple trailhead at P1 (a) opens the recreation site to the western area this is preferable to a car park at h, as this latter site would increase traffic volumes along the narrow Gweebarra River road.
- Develop an additional recreational trail section at S1 connecting Turbine 16 and 13, and S2, circa 1 km long with two short footbridge spans.
- Develop Trail 1: a looped 8 km walking trail (80 meters height gain) from P1 extending along a, b, f, g, h, a with the potential to be extended by participants (see Trail 2 below). This Trail 1 includes a public road section from h to a. This latter public road has very low levels of traffic and is very scenic.
- Trail 1 to also be positioned as a Challenging Access Route for individuals with a disability and appropriate symbols for this classification should be used in promotional materials and local trail signage.
- Develop Trail 2: a looped walking trail from P1 of a, b, c, d, e, d, f, g, h, circa 10 km, and 200 meters height gain. This route includes an out and back section (d, e, d) to the viewing point at A.
- Develop a viewing area at A with supporting panorama locating photograph, information panel and seating etc.
- Direction road signage to P1 and an information panel at this location.
- Appropriate directional signage and way marking along trails 1 and 2.
- Circa 5 bench seats to the side of the trail in the areas of b, c and f and between g and h.
- Appropriate names should be identified for the two trails in consultation with the community and ideally with reference to the heritage of the area.
- Consider later, in response to demand, if Trail 3 should be signposted. This is an existing circa 4 km 'lollypop loop' type trail (40 meter height gain) at i.

TRAIL MODEL, AND TRAIL TYPES:

The sustainable operation, management and maintenance of the recreation facilities at this site, is dependent on these recreation components being low maintenance. Hence, robust trail surfaces, small sections of post and rail fencing in areas such as the viewing platform A and other infrastructure are required. The installation of litter bins and toilet facilities is to be avoided due to their ongoing management costs.

The future management of the site is likely to be undertaken through a blend of Coillte and the wind farm staff as part of the general forest and wind farm maintenance process.

Any recreation events at the site, organised by community or commercial bodies, will be developed and delivered under a licence agreement with the landowners (Coillte, or the private landowners). Recreation events will be self-contained and will not require the input of wind farm staff or landowners.

Trail Classification and Grading

The proposed windfarm trails will adhere to classification 2 standards except for some limited sections having steeper gradients, wider routes and limited seating. Sections of walking trail construction in addition to any windfarm trail development, will be Category 2 or Category 3. For example location S1.

The following indicates the National Trails Office requirements regarding these walking trail classifications and grading.

Trail Classification

A Trail Classification system provides a means of classifying a trail based on its physical attributes and needs to be taken into consideration when planning trails. The class is determined by:

- the type of trail surface,
- the width of the trail and
- the gradient (steepness) on the trail.

Trail classes range from Class 1 to Class 5. Trail planners should aim to provide a trail class (or classes) which correspond with the intended user's needs and expectations.

| Land Type | Description | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 |
|--------------------------------------|---|---------|---------|---------|---------|---------|
| Urban/ Urban Fringe | Cities, towns and villages and in urban and suburban parks | | | | | |
| Core Recreation Areas | Established recreational areas e.g. central areas of forest parks or national parks, near beach car-parks, etc. | | | | | |
| Rural landscapes/ forest areas | Countryside areas away from communities, villages; farmland and forest areas away from core recreation areas | | | | | |
| Upland or Remote area | Open mountain area, remote landscapes, areas far away from any habitation | | | | | |

Table 4.1

| CLASS 1 - WALKING TRAIL | |
|----------------------------|--|
| GENERAL DESCRIPTION | <ul style="list-style-type: none"> Specifically multi-access trails² which can accommodate users with reduced mobility. Will be serviced by a vehicle parking area. Can readily facilitate frequent two-way traffic. Will have minimal cross slopes and gradient Will have a firm surface. No steps, waterbars, stiles, barriers or trip hazards of any kind. Should have resting places with seating approximately every 100m. <p>Further detailed requirements for multi-access trails are provided Appendix 2.</p> |
| SITE SUITABILITY | Urban/ Urban Fringe or Core Recreation Areas (see table 2.1) but some trails providing access to reduced mobility users may also be appropriate in other areas. |
| TRAIL SURFACE | Sealed non-slip surfaces, non-slip timber boardwalk, tarmac or compacted surface with no loose stone or gravel greater than 5mm. |
| TRAIL WIDTH | Range: 1800mm to 3000mm |
| TRAIL GRADIENT | Range: Flat to 5% (Up to 8% allowed for ramps where required) Desirable: Flat |

Table 4.2

| CLASS 2 - WALKING TRAIL | |
|----------------------------|---|
| GENERAL DESCRIPTION | <ul style="list-style-type: none"> Essentially trails for casual use, by people of all ages. Serviced by a vehicle parking area if appropriate. Reasonably flat and wide enough to accommodate two-way traffic. Will have a relatively smooth surface with minimal loose material. No waterbars or climb over stiles should be used. Steps should be minimal and if used should be limited. May use bridges and boardwalks. Should have resting places with seating approximately every 500m. May have lighting where provided in an urban area |
| SITE SUITABILITY | Urban/ Urban Fringe or Core Recreation Areas or Rural landscapes/ forests (see table 2.1) |
| TRAIL SURFACE | Consistent sealed surfaces, non-slip timber boardwalk or compacted aggregate - 20mm to dust stone. |
| TRAIL WIDTH | Range: 1200mm to 3000mm |
| TRAIL GRADIENT | Range Flat to 8% Desirable: 5% average |

Table 4.3

| CLASS 3 - WALKING TRAIL | |
|----------------------------|---|
| GENERAL DESCRIPTION | <ul style="list-style-type: none"> Typically relatively narrow undulating trails Will have moderate gradients. Surface may be variable including loose material and can be uneven in places. May include steps, protruding roots and rocks, water bars, stiles and gates. May include bridges, bog bridges and boardwalks. |
| SITE SUITABILITY | Core Recreation Areas or Rural landscapes/ forests (see table 2.1) |
| TRAIL SURFACE | Variable surfaces including some loose material not greater than 50mm in size |
| TRAIL WIDTH | Range: 600mm to 1200mm |
| TRAIL GRADIENT | Range: Flat to 12% Desirable: 5% average |

Table 4.4

| CLASS 4 - WALKING TRAIL | |
|----------------------------|---|
| GENERAL DESCRIPTION | <ul style="list-style-type: none"> Typically challenging, single file walking trails over mixed terrain. Will have steep gradients. Surface will be very variable and may include loose material, steps, protruding roots and rocks, water bars, stiles and gates. |
| SITE SUITABILITY | Rural landscapes/ forests or Upland and Remote (see table 2.1) |
| TRAIL SURFACE | Very variable and uneven surfaces including loose material up to 100mm in size; protruding roots and rocks. |
| TRAIL WIDTH | Range: 500mm to 1000mm |
| TRAIL GRADIENT | Range: Flat to 30% Desirable: 10% average |

Table 4.5

| CLASS 5 - WALKING TRAIL | |
|----------------------------|--|
| GENERAL DESCRIPTION | <ul style="list-style-type: none"> Challenging trails, surfaced or unsurfaced over variable ground, may be in exposed areas. Can include rough steps, stiles, water-bars, side drains simple bridges or river crossings. |
| SITE SUITABILITY | Upland or Remote areas (see table 2.1) |
| TRAIL SURFACE | Extremely variable and uneven surfaces with large rocks, roots and other obstacles offering a challenging hike. |
| TRAIL WIDTH | Range: 500mm to 1000mm |
| TRAIL GRADIENT | No gradient constraints Desirable: Maximum 40% requiring steps |