



WOODLAND TRUST  
NORTHERN IRELAND

# Annalong Wood, Afforestation Environmental Statement



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## 1) Description of the Project

The Woodland Trust is the largest woodland conservation charity in the United Kingdom and is concerned with the creation, protection, and restoration of native woodland heritage. The Trust has three aims: to protect ancient woodland which is rare, unique and irreplaceable, to promote the restoration of damaged ancient woodland, and to plant native trees and woods to benefit people and wildlife.

Mournes Heritage Trust (MHT) initially brought Annalong Wood to the Woodland Trust's attention looking for a solution to aid in containing and controlling the increasing numbers of fires in the area. We have been working with and fully engaging them in the formation of the project to develop, what both organisations consider, is a woodland creation project that will complement the mosaic of other habitats within the area, blend into and enhance the wider landscape, develop as a natural buffer to fire, act as an environmental filter to improve water quality, and as one of the gateways to the Mourne Mountains will offer an added visitor attraction.

Annalong Wood is owned by Northern Ireland Water and lies within the Silent Valley reservoir catchment area in the south of the Mournes and 4 km north-west of the village of Annalong. The entire 125 hectare Annalong Wood site is situated to the west of the Annalong River rising approximately 135-250 m above sea level. The site is accessed at its most southerly point from the Carrick Little car park where the Oldtown Road joins Head Road or alternatively from the Annalong Forest road in the valley bottom (bridge at the Intercepting Weir). The site was previously stocked in the 1960's with single species stands of commercial conifer, mainly Lodgepole Pine (*Pinus contorta*) and a small stand of European Larch (*Larix decidua*). However, through a series of fire events over the last few decades, the site is now predominantly open space (photos 1 & 2).

Annalong Wood is a reasonably complex mosaic of habitats and soil types (see accompanying photographs below). These range from: Designated wet heath (as above) dominated by Purple Moor Grass (*Molinia caerulea*); undesignated wet heath dominated Molinia, on shallow peat ( $\leq 50$  cm); Drier heath dominated by heather (*Calluna vulgaris*) (photos 3, 4, 5 & 6), on shallow to very shallow peat; areas of gorse (*Ulex spp.*); standing conifer blocks ranging from closed to very open canopy, on shallow peat; Individual native trees / groups, to significant blocks of naturally regenerating native woodland dominated by grey willow (*Salix cinerea*) (photos 7,8,& 9); rough upland grazing, on very shallow to shallow peat ( $\leq c. 20$  cm), over solid geology to a sand/gravel/clay B/C horizon. A small proportion (13%) of the site remains stocked with live trees and an unsightly element of standing dead timber (6%) remains but the site is currently used for rough upland grazing of sheep and ponies. The site also contains a 18 ha section of Special Area of Conservation (SAC ref. UKUK0016615) / Area of Scientific Special Interest (ASSI ref. 095) wet heath, the largest area is in the south-west and a small section in the north-east.

As part of their Re-greening Programme and their Sustainable Catchment Area Management Practice, NI Water wishes to facilitate the establishment of new native woodland at Annalong Wood. This would greatly extend, enhance and protect the existing habitats in the valley; enhance the natural landscape; sequester carbon; control overland flow of water / reduce run-off and conserve water quality; and help to mitigate fire risk. The new native woodland is designed to conserve the range of internal undesignated habitats.

Originally the proposal was for 67 hectares of the 125 hectare site to be developed as a native woodland, but further ground surveys and consultation with stakeholders has reduced the area to a more environmentally sympathetic 30.76 hectares of new native woodland. The proposed new native woodland is divided into two areas (map 1), 11.42 hectare and 19.34 hectare areas, both of which lie outside of the SAC and ASSI designations. They contain significant areas of common gorse (*Ulex europaeus*), bracken, and signs of woodland regeneration with willow species, rowan (photo 10), some holly and lodgepole pine.

Although both these areas are proposed for woodland creation, we want to incorporate 20-30 % open space into the design to protect and compliment other habitats. If approved for woodland creation, the site would be walked and probed in advance of and during planting to ensure that any other sensitive habitats remain unplanted. In addition, we would plant the trees at variable spacing, between 1m to 3m, to ensure that the woodland creation is as natural looking as possible. We want to encourage and utilise the natural regeneration of trees, so unless the planting suffers major losses, the trees that fail to establish will not be replaced, allowing naturally occurring trees to establish, woody glades to develop and contribute to the variable spacing of the trees, establishing a much more natural looking woodland.

The suggested native species mix has been chosen to compliment the natural regeneration, mainly of grey willow (*Salix cinerea subsp. Oleifolia*), rowan (*Sorbus aucuparia*) and lodgepole pine (*Pinus contorta*); suit the site conditions; replicate other native woodlands within the area, in particular ancient semi-natural woods, such as Mourne Park and Kilbroney but additionally small pockets of remnant woodlands within similar valley corridors leading up to the Mournes. The species mix will include Alder (*Alnus glutinosa*), downy birch (*Betula pubescens*), silver birch (*Betula pendula*), hazel (*Corylus avellana*), rowan (*Sorbus aucuparia*), pedunculate oak (*Quercus robur*), sessile oak (*Quercus petraea*), and scots pine (*Pinus sylvestris*). All of the stock will be Irish sourced and grown and because of the sensitive nature of the site and its location, no chemicals or plastic tree shelters will be used in the establishment of the trees.

## **2) Effects on the environment**

As detailed above, the Annalong Wood site is host to a myriad of habitats, including 2 corners of the site lying within the SAC and ASSI (approximately 3 hectares in the northeast corner and 18 hectares in the south west corner). In designing the proposed woodland creation plans the following have been taken into account:

**Designated ground:** The entire site lies within the Mourne AONB and as stated above adjacent to SAC and ASSI designations, with small areas within the site boundary. Although the two proposed planting areas don't lie within the Eastern Mournes ASSI and Special Area of Conservation designated areas they do lie beside them. The native woodland planting proposals will mitigate any negative effects on these areas by choosing the right tree for the right place. Although silver birch (*Betula pendula*) is within the species mix, and is an important component, due to its ability to natural regenerate on upland heath, it will not be planted close to the ASSI or SAC.

**Biodiversity:** The site exhibits a diverse range of species and habitats, including heather (*Calluna vulgaris*), Purple Moor Grass (*Molinia caerulea*), bog myrtle (*Myrica gale*), bilberry (*Vaccinium myrtillus*), peat (varying depths), juniper (*Juniperus communis*), existing coniferous woodland, common gorse (*Ulex europaeus*) and western gorse (*Ulex galli*), and rank bracken (*Pteridium aquilinum*). This project seeks to add further diversity with native woodland creation,

concentrating on the areas with signs of natural tree regeneration, at the expense of the bracken areas (photo 11) and rough hill grasses in the existing open space.

**Historic Environment:** The only significant historical features that the proposed planting area are near to are the entrance of the intercepting weir and tunnel connecting the water catchment of the Annalong Valley and Silent Valley in the north east of the site, and the gauging weir and house to the south east of the site. Planting would be kept back from these features by a minimum of 100m.

**Land & Soil:** The trees will be planted by direct planting with a spade, which will have minimal impact on the soil. No drainage or mounding is proposed even though, from a silvicultural perspective, this would aid establishment. There are pockets of deep peat (>50cm) throughout the site that will be excluded from planting.

**Water:** A few small streams flow through the proposed planting site, but the only significant watercourse is Annalong River. Annalong is one of the main catchment rivers for the Silent Valley Reservoir, the main source of drinking water for the Greater Belfast area. It is hoped that the planting will have a two-fold benefit in terms of water quality. Firstly, in aiding control/lessening risk of wildfires this should reduce the amount of wildfire residue, such as ash, being washed into the tributaries and river and secondly will provide a buffer and filter by slowing the flow of surface water flowing down the slopes into the river, which in turn will reduce the extent that the river spates. The sensitivity of the area and association with drinking water, precludes the use of herbicide. Instead of using chemicals for bracken control, larger trees 90-120 cm will be planted with canes to protect the trees from the bracken collapsing in autumn. In addition, no plastic tree shelters will be used to ensure no plastic particles will make their way into the water.

**Other woodland:** There is no impact due to size as the new woodland would be of landscape scale and fit within the existing pattern of afforestation. Clearance of the existing conifers, and subsequent restocking with native species was considered, but it was felt retention and incorporation into the afforestation plans was more appropriate due to the negative impact harvesting of the site could have on the surrounding habitats and designated areas, including water quality, environment change, reduced age structure and biodiversity.

**Fauna:** No significant impact envisaged due to afforestation, with 75% of the site remaining unplanted and the proposed woodland creation occurring on the slopes up from the river, in areas with significant bracken and gorse (*Ulex europaeus*), and incorporating existing blocks of woodland and natural regeneration.

It is our belief that the native woodland creation being proposed will enrich and enhance the existing mosaic of habitats.

### **3) Adverse effect mitigation on the environment**

As highlighted by surveys, stakeholders and the Environmental Impact Assessment, the main environmental concerns are the Eastern Mourne ASSI and Special Area of Conservation, and deep peat and associated habitats. In order to mitigate against any negative effects on these the following precautions will be taken:

**Designated areas:** The original native woodland creation plans proposed an area of 67 hectares and included an 18 hectare section within the SAC and ASSI in the southwest of the site. These

original plans have been significantly scaled back and both of the proposed woodland areas lie outside of the designated areas (see map 1).

Deep peat: The UK Forestry Standard (UKFS) will be adhered to ensuring no planting will occur on peat areas with a depth greater than 50cm. This will be managed by probing as planting occurs, with peat pockets marked off and excluded.

Western Gorse (*Ulex galli*): All planting will be kept back from any isolated western gorse and the proposed planting areas do not impact on the concentration of western gorse to the north of the dam and turning circle in NE of site.

Open space: In addition to the open space outside of the planting areas, the proposal is to incorporate 20-30% open space into the woodland areas. This open space will mainly be used to retain areas with enhanced environmental value, but also to retain views. It is also our intention not to replace failed trees and allow the creation of natural glades, unless there are significant failures.

#### **4) Description of Alternatives**

Put simply, if this woodland creation project at Annalong Wood was not to proceed, then the only other alternative for the 125 hectares would be for it to remain managed as it currently is - largely left alone with minimal intervention and a significant fire risk. As mentioned previously, the site had been majority conifer plantation, planted in the 1960's, but a series of fire events over the last few decades has meant that it is now largely open space with a mosaic of habitats, used for rough grazing with some livestock (sheep and horses). The fire risk would remain a major concern for the site considering it is one big rectangular block with a considerable fuel load of dead timber, Common gorse (*Ulex europaeus*) and Purple Moor Grass (*Molinia caerulea*) vegetation.

Currently, there are signs of heather (*Calluna vulgaris*) regeneration on the areas of shallower peat, however this is not characteristic of the entire site as it is made up of a complex of other habitat types and soil types. It would be hoped that the heather regeneration would continue and other habitats thrive in the coming years, however these areas will of course be protected and enhanced with the establishment of native broadleaf woodland acting as a natural fire break across the slope and hopefully a reduction in instances of fire events.

#### **5) Summary**

Five years ago, the 67 hectare afforestation proposal for Annalong Wood started as a solution to reducing fire risk in an area that had been highlighted as one of the Mourne's highest risk sites. Through engagement with a multitude of stakeholders, further site surveys and assessments the new 30.76 hectare native woodland creation plan now takes into account all the sites habitats. Although it started as a project to reduce fire risk, it now has protection and enhancement of the environment at its heart, with secondary outcomes of reducing fire risk and improving water quality.

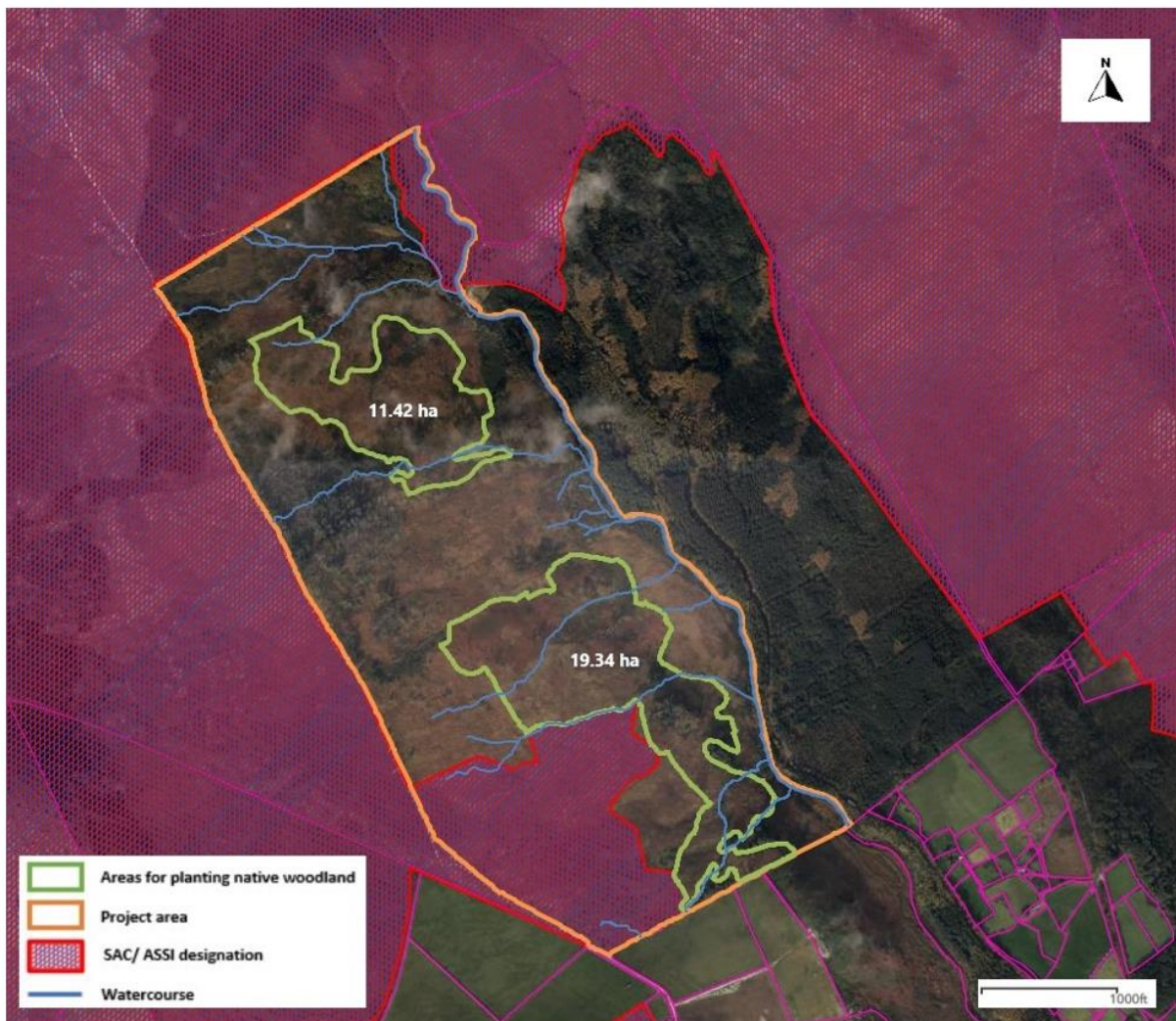
The plan isn't about numbers of trees, but about the right tree in the right place and the two areas proposed for afforestation with native broadleaf will enhance the whole site and its mosaic of habitats. If/when future fires occur on the site the trees, once they have established, will act as a natural fire break and, in addition, the strips of woodland will divide the site into smaller more manageable areas when fires occur. With the trees acting as riparian strips along

the tributaries that run through the site to the Annalong River, they will aid in the reduction of silt and fire residue that would otherwise make it into the Silent Valley reservoir.

Because of the sensitive nature of the site, the adjoining designated areas and mosaic of habitats, it is important that not only is any woodland creation planted in the right place but that it is carried out sensitively and it looks as natural as possible. Therefore the trees will be hand planted at variable spacing (1-3m) with lots of open space, to allow naturally developing woodland glades and encourage natural regeneration of trees. No chemicals or plastic tree shelters will be used to aid the establishment of the trees.

To conclude, the ultimate aim is to develop native woodland, which the Woodland Trust sees as the missing piece within an area that already offers so much for nature.

Map 1: Annalong Wood Boundary and Proposed Planting Areas





## Photographs

Photo 1: Western boundary looking south east over burnt conifer



Photo 2: Western Boundary looking east over burnt conifer





Photos 3 & 4: *Molinia* (golden) – heather regeneration and bog asphodel to remain unplanted



Photo 4:





**Photo 5 & 6 : Heather rejuvenation retained as open space (unplanted)**



**Photo 6**





Photos 7 & 8: Heather regeneration amongst Molinia – remains unplanted



Photo 8:





**Photo 9, 10 & 11: Extensive advance natural regeneration of native trees and pine. These areas are core to the native woodland creation.**



**Photo 10**





**Photo 11**



**Photo 12: Rowan Regeneration**





**Photo 11: Bracken area – proposed for woodland creation**

