

**Killing by ring-barking (girdling) and felling to waste and snedding of sitka spruce, lodgepole pine (and possible occasional western hemlock) at Moel y Feidiog, Bryn Llin, Ranges, Trawsfynydd (SH7832)**

**Background**

You are invited to provide a written quotation for the above work at Moel y Feidiog, Bryn Llin, Ranges, Trawsfynydd. Moel y Feidiog is a forestry plantation managed by Natural Resources Wales (NRW) on behalf of the Welsh Government. It is located at OS grid reference SH7832, approximately mid-way between the villages of Trawsfynydd and Llanuwchllyn, Gwynedd. Vehicular access to the forest is through the usually locked gate (at SH7862 3315) at the northern entrance to the forest. Please phone Dafydd Roberts, Snowdonia National Park Authority (SNPA) on 01766 772513 or preferably 07900 267515 to discuss or arrange access. A key will be provided to the successful contractor during the work period.

Within Moel y Feidiog, Parcels B & C (marked on the map at the rear of this invitation to quote) have scattered sitka spruce and lodgepole pine trees up to about 30-35ft in height growing on them. The size of each of the areas B & C is given in Table 1 below. The height and density of the trees is variable. The underlying habitat is predominantly blanket bog and dry heath. Parcels A & D (marked on the map, but not part of this work) have previously been awarded to other contractors, with work already having commenced on Parcel D.

Table 1 – sizes of each of Areas B & C.

Area	Size (ha)
B	≈6.246
C	≈7.130
<b>TOTAL</b>	<b>≈13.376</b>

This invitation to quote is for:

- **Areas B & C – Killing all sitka spruce and lodgepole pine trees. This should be done by ring-barking all sitka spruce and lodgepole pine trees over ≥12ft in height. This in order to prevent them seeding further onto the bog and heath. Any trees under 12ft can either be ring-barked, or alternatively felled, snedded and the brash piled - at the contractor's discretion, whichever is quickest.**

This needs to be done in order to kill in-situ the remaining sitka spruce and lodgepole pine trees growing on site and prevent them growing further and setting more seed within the Migneint-Arenig Dduallt Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Areas (SPA). The areas were previously thinned about 15-20 years ago as part of the Wales Black Grouse Recovery Project, but by now, many of the trees are well on the way to approaching maturity. Growth of invasive non-native species on sites designated for nature conservation contribute towards those sites being in unfavourable condition, and contribute to drying of peatlands. NRW have issued SSSI assent for the work to be undertaken, which covers the period up until 31<sup>st</sup> March 2020. No broadleaved trees are to be cut.

The contract will be between the Snowdonia National Park Authority and the successful contractor. The SNPA will pay the contractor directly following the satisfactory completion of the work. You are invited to submit a quote for

the work as detailed below. Quotes should be submitted on the attached form and indicate whether VAT is charged or not.

Compartments B & C are Countryside & Rights of Way Act (CROW) 'Open Access' land. Compartments B & C are near and within the Trawsfynydd Ranges former firing site (please see attached map for an outline of previous Ministry of Defence activities in the area). There is a possibility that unexploded ordnance could be present. Following a site meeting between SNPA and NRW staff on 22<sup>nd</sup> March 2018, it was advised by NRW that to mitigate and minimise this risk, work should be done entirely on foot, and no materials or activities should penetrate into the peat e.g. no digging, no vehicular use off-track.

### **The site and timing of work**

The approximate cumulative size of the area in question for works is ≈13.376 hectares (33 acres). This is based on a two-dimensional mapping projection. The terrain where trees are to be ring-barked is generally moderately flat or gently sloping. The boundaries between Areas A & B, Areas B & C and Areas C & D are de-lined on the ground by recently cut rides whose mid-lines are marked by bamboo canes (with red and white 'incident tape' on their tops) perched in the vegetation. See the Photos at the end of this document to give you a general idea of the work site and terrain.

Access to the site is by walking in off the forestry track running south from the Bronaber – Llanuwchllyn minor road. The forestry track departs from the Bronaber – Llanuwchllyn minor road at OS grid reference SH7862 3315. The trees to be ring-barked can be found within a 0.55km walk of vehicular parking along the forest track. If parking on the side of the forest track, please do not obstruct access to any other vehicles. Please do not attempt to take any vehicles (including quad bikes) off the forest track as they will damage the peatland habitats and pose a risk of penetrating into the peat. There is some limited Vodafone mobile phone coverage at higher parts of the site. It is not known whether there is coverage from other mobile phone providers on parts of the site.

**The work should start after the main bird breeding season has finished (generally 15<sup>th</sup> August onwards) in autumn 2019. The planned work is funded by Welsh Government following a successful funding application by SNPA to Welsh Government through their 'Sustainable Management Scheme' funding round. **In order to fit in with Welsh Government's claim periods, the work must be completed by 31<sup>st</sup> March 2020.** Please feel free to phone to discuss this, or any other aspect of the proposal.**

### **Ring-barking of sitka spruce, lodgepole pine, and occasional western hemlock**

All sitka spruce, lodgepole pine and any occasional western hemlock over 12ft tall will need to be ring-barked within each of Areas B & C. In order to gain access to ring-bark the stems of each of the target conifer trees in Areas B & C with a chainsaw, all the lowest branches up to a height of about 5ft will need to be cut (under-lashed) with a chainsaw at the point where they protrude from the main tree stem. These cut branches must then be placed within the planting furrows that run throughout the site so that they rot in the damp vegetation and do not present a barrier to potential future management across the site. It is important to cut off all the lower branches beneath the point of ring-barking in order to prevent any growth from beneath the point of ring-barking. Once all the lowest branches have been cut, the tree can then be ring-barked.

The term ring-barking refers to more than the removal of just the outermost layer of protective bark. Ring barking will involve removal of all the tissue from the outer bark through to the sapwood (xylem). This includes the outer bark, the inner bark (phloem) and the cambium (see Figure 1 of the enclosed Arboricultural Advisory and Information Service Arboricultural Practice Note). The chainsaw needs to be drawn/shaven continually around the entire circumference of the tree, severing the bark and cutting into the sapwood (xylem) to create a full or complete

ring around the circumference of the tree so that the cut is at least 20-30cm in height (see Figure 2 of the enclosed Arboricultural Advisory and Information Service Arboricultural Practice Note) and **about 3cm in depth**. If natural flutes in a stem are encountered, the cuts will need to extend through these flutes and the furrows between them.

### **Felling to waste and snedding of sitka spruce and lodgepole pines (and possible occasional western hemlock)**

All sitka spruce, lodgepole pine and any occasional western hemlock trees under 12ft tall within each of Areas B & C will either need to be ring-barked, or felled to waste, snedded and the brash piled – at the contractor’s discretion.

Should felling to waste be chosen, in order to gain access to fell the stems of each of the target trees in Areas B & C with a chainsaw, all the lowest branches up to a height of about 5ft will need to be cut (under-lashed) with a chainsaw at the point where they protrude from the main tree stem. These cut branches must then be placed within the planting furrows and drainage ditches that run throughout some of the flatter parts of the site in Areas B & C so that they rot in the damp vegetation and do not present a barrier or constraint to potential future management across the site. It is important to cut off all the lower branches beneath the point of felling in order to prevent any growth from beneath the point of felling. Once all the lowest branches have been cut, the tree can then be felled and snedded. All target trees for felling to waste within Areas B & C should be felled below the lowest whorl of growth and branches on the main trunk, and then snedded (all branches cut off). Once snedded, all cut materials should be placed in the base of the network of planting furrows and drainage ditches that run throughout some of the flatter parts of the site in Areas B & C, in order to quicken decomposition and rot. Sections of heavier trunks (cut up into maximum lengths of 1.5 metres) should be placed on top of lighter branches to weigh them down and facilitate quicker decomposition.

Any snedded trees and branches that are more than 10ft from a planting furrow or drainage ditch should just have the materials piled on the ground to speed up the rotting process. Cut materials should just be piled tidily on the ground and left to rot. All the proposed works are within the Migneint-Arenig Dduallt Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Areas (SPA). NRW have issued SSSI assent to undertake the work. No fuels or oils are to be stored on site, and only biodegradable (chain) oil should be used.

### **Payment**

The payment will be paid to the successful contractor within a month of the satisfactory completion of the ring-barking and felling, snedding and placing of the cut materials into the base of the surrounding furrows and ditches.

### **Quotes**

Please provide the quote in the table overleaf. Please could you indicate whether the prices include VAT or not. All quotes should be sent in a sealed, anonymous envelope marked “Do not open – Moel y Feidiog Quotation Enclosed” to:

Dafydd Roberts  
Snowdonia National Park Authority  
Swyddfa’r Parc Cenedlaethol  
Penrhyndeudraeth  
Gwynedd  
LL48 6LF

**Quotations must be received before 12 noon (mid-day) on Friday 25<sup>th</sup> October 2019.** Quotations received after this time will be rejected. SNPA will endeavour to inform the successful contractor in writing within 5 days of this submission deadline.

If you have any questions regarding this work then please contact me on 01766 772513 or 07900 267515 or [dafydd.roberts@eryri.llyw.cymru](mailto:dafydd.roberts@eryri.llyw.cymru). Successful contractors will need to provide a method statement, risk assessment, a copy of their public liability insurance (to a minimum value of £5 million), and a copy of their Chainsaw Competence and Forestry First Aid certification to SNPA before commencing works.

Yours sincerely,

Dafydd Roberts

27<sup>th</sup> September 2019

Photo 1 – Typical view from near Llanuwchllyn-Trawsfynydd minor road looking south up towards Moel y Feidiog (Compartment D in foreground, and Compartments B & C in middle-distance). Photo taken on 23<sup>rd</sup> April 2015.



Photo 2 – Typical view of relatively mid-sized and sparsely scattered trees at Moel y Feidiog. Photo taken on 23<sup>rd</sup> April 2015.



Photo 3 – Typical view of relatively densely scattered trees at Moel y Feidiog. Photo taken on 26<sup>th</sup> Nov 2018



Photo 4 – Typical view of relatively large, ‘bushy’ and densely scattered trees along the eastern edges of Compartments A, B, C & D at Moel y Feidiog. Photo taken on 26<sup>th</sup> November 2018.



Photo 5 – Typical freshly ring-barked sitka spruce trees at a similar site



**Quotes for killing by ring-barking (girdling) and felling to waste and snedding of sitka spruce, lodgepole pine (and possible occasional western hemlock) at Moel y Feidiog, Bryn Llin, Ranges, Trawsfynydd (SH7832)**

	Area B (≈6.246ha)	Area C (≈7.130ha)
<b>TOTAL</b>		
<b>VAT (@20%)</b>		
<b>TOTAL inc. VAT</b>		

NAME

COMPANY

SIGNED

DATE