

Appendix 3.3 Forestry

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Appendix 3.3 Forestry

Executive Summary

The extent of woodland within the Proposed Development boundary is limited to parts of the two access routes to the site (northern and western). The woodland consists of a mixture of commercial forests and broadleaf woodlands of various ages. There will be a small loss of woodland area from utilising either of the proposed access routes. The extent of woodland loss would depend on the selection of the preferred route and the final route alignment. The Applicant is committed to providing compensatory planting to mitigate against this woodland loss.

Introduction

This Technical Appendix has been prepared to accompany Chapter 3 in Volume 1 of the Knockcronal Wind Farm (hereafter the Proposed Development) Environmental Impact Assessment Report (EIA Report). It evaluates the potential effects of the Proposed Development on the woodland resource. The only forestry affected by the Proposed Development is on the two access routes (northern and western) which have been identified and assessed within this EIA. However, only one route to site will be progressed and utilised. This will be decided prior to construction. There is no other forestry or woodland within the site which would be affected by the Proposed Development.

This assessment was undertaken by Alexander Anderson BSc (Hons), MBA, MICFor, a member of DGA Forestry LLP. Alexander Anderson has over 45 years' experience in forestry management and consultancy and who has worked on over 100 development projects within forests and woodlands.

Forestry is not being regarded as a receptor for EIA purposes. Commercial forests are dynamic and their structure continually undergoes change due to normal felling and restocking by the landowner; natural events, such as windblow, pests or diseases; or external factors, such as a wind farm development.

This Technical Appendix therefore describes the plans resulting from the Proposed Development for any felling, restocking and forest management practices. It describes the process by which these were derived; and the changes to the physical structure of the forests. It further discusses the issue of forestry waste arising from the Proposed Development.

The Proposed Development forestry proposals are interrelated with environmental effects, which are assessed separately. This Technical Appendix should be read in conjunction with the EIA Report Chapters as they are interrelated to the changes in the forest structure.

This Technical Appendix identifies areas of forest to be removed for the construction and operation of the Proposed Development. The responsibility for the management of the remainder of the forest outwith the Proposed Development lies with the landowners and would not be affected by the Proposed Development. Therefore, the wider felling operations, restocking, and aftercare operations do not form part of the Proposed Development for which consent is sought.

As discussed above, the only forestry affected by the Proposed Development is on the two proposed access options (northern and western) (as shown in EIA Report Figure 1.1). The forestry proposals have been developed to:

- identify areas of forest to be removed for the construction and operation of the Proposed Development;
- identify those areas which may or may not be replanted as part of the Proposed Development; and
- describe management practices for the forestry works

In general, throughout this Technical Appendix data labelled "baseline" refers to the current crops and any existing plans without any modification as a result of the Proposed Development. Data labelled "wind farm" refers to the forestry plans incorporating the Proposed Development.

The terms "forests" and "woodlands" are used interchangeably within the Technical Appendix depending on the context. Similarly, the terms "replanting" and "restocking" are used interchangeably depending on the context.

Legislation, Policy and Guidelines

Relevant overarching planning policies for the Proposed Development are detailed within Chapter 5. A desk study was undertaken drawing upon published National, Regional and local level legislation, policy and guidance to establish the broad planning and forestry context within which the Proposed Development is located.

The following section provides an outline of the legislation, policies and guidance which are considered relevant to the Proposed Development with respect to forestry.

Legislation

Forestry and Land Management (Scotland) Act 2018

Until 1 April 2019, the Scottish Ministers owned the National Forest Estate (NFE), provided funding and had responsibility for forestry strategy and policy, but the management of the NFE and delivery of forestry functions had been the responsibility of the Forestry Commissioners. The Forestry Commission was a cross-border public authority and a UK non-ministerial department with a statutory Board of Commissioners. The Commission was made up of a number of parts, including in Scotland:

- Forest Enterprise Scotland (FES), which carried out forestry operations and managed the NFE on Scottish Ministers' behalf; and
- Forestry Commission Scotland (FCS), which was responsible for the other forestry functions in Scotland.

When full devolution of forestry to the Scottish Government was completed on 1 April 2019, FCS and FES became two new agencies of the Scottish Government:

- Scottish Forestry (SF), responsible for regulatory, policy and support functions; and
- Forestry and Land Scotland (FLS), responsible for the management of the NFE and any other land managed for the purposes of the Forestry and Land Management (Scotland) Act 2018.

With the introduction of the Forestry and Land Management (Scotland) Act 2018 (Scottish Government, 2018) and its associated Regulations on 1 April 2019, the old regulatory regime of felling control under the Forestry Act 1967 (UK Government, 1967) was repealed in Scotland. From 1 April 2019, anyone wishing to fell trees in Scotland requires a Felling Permission issued by SF, unless an exemption applies or another form of felling approval, such as a felling licence (including a forest plan).

Under the new regulations, felling, which is authorised by planning consent, continues to be exempt from the Regulations and does not require a Felling Permission issued by SF.

Policies

Scotland's Forestry Strategy 2019 - 2029

Scotland's Forestry Strategy 2019 – 2029 (Scottish Government, 2019), was published in 2019 after a consultation period. The strategy provides an overview of contemporary Scottish forestry; presents the Scottish Government's 50-year vision for Scotland's forests and woodlands; and sets out a 10-year framework for action.

The vision is that:

“...in 2070, Scotland will have more forests and woodlands, sustainably managed and better integrated with other land uses. These will provide a more resilient, adaptable resource, with greater natural capital value, that supports a strong economy, a thriving environment, and healthy and flourishing communities.”

It lists a number of objectives summarised below:

- *“increase the contribution of forests and woodlands to Scotland’s sustainable and inclusive economic growth;*
- *improve the resilience of Scotland’s forests and woodlands and increase their contribution to a healthy and high quality environment; and*
- *increase the use of Scotland’s forest and woodland resources to enable more people to improve their health, well-being and life chances.”*

It further describes the priorities as:

- *“ensuring forests and woodlands are sustainably managed;*
- *expanding the area of forests and woodlands, recognising wider land-use objectives;*
- *improving efficiency and productivity, and developing markets;*
- *increasing the adaptability and resilience of forests and woodlands;*
- *enhancing the environmental benefits provided by forests and woodlands; and*
- *engaging more people, communities and businesses in the creation, management and use of forests and woodlands.”*

There are ambitious targets included within the strategy for new woodland creation:

- 12,000ha per year from 2020/21;
- 14,000ha per year from 2022/23; and
- 15,000ha per year from 2024/25.

The stated objective is to increase Scotland’s woodland cover from the current 18.5% to 21% by 2032.

The Land Use Strategy for Scotland 2016 - 2021

The Land Use Strategy for Scotland 2016 - 2021 (Scottish Government, 2016) sets out a strategic framework for getting the best out of Scotland's land resources. It looks at the potential of the land and the ways in which it is used, both now and in the future. Principles of sustainable land use are central to its vision for the future. With specific reference to forestry, the strategy acknowledges forestry’s role as a key multipurpose land use and the role it must play in terms of delivering the Vision, Objectives and Principles of the Land Use Strategy in rural and urban Scotland. It comments that the sustainable management of Scotland’s woodlands and forests makes an important contribution to Scotland’s economy; it delivers health and wellbeing benefits for people and a range of other critical ecosystem services including climate change mitigation and adaptation.

To increase its role in addressing the challenge Scotland faces from climate change, a target of 100,000ha of new woodland creation between 2012-2022 was established. Within the UK, Scotland is leading the way in terms of areas of new woodland creation, however it is recognised that more needs to be done to achieve the planting target. To support this, Scotland’s Forestry Strategy 2019 – 2029 emphasises the continued protection of Scotland’s forest resource.

National Planning Framework 3

Scotland's Third National Planning Framework (NPF3) (Scottish Government, 2014) recognises that woodlands and forestry are an economic resource, as well as an environmental asset (NPF3 Paragraph 4.2). It further supports the continued expansion of Scotland's woodland and forestry resource (NPF3 Paragraph 4.23). A key action of NPF3 (NPF3 Paragraph 6.10) is a commitment to create on average 10,000ha per annum of new woodland from 2015 onwards, a target which has been superseded by the Scottish Forestry Strategy (SFS).

National Planning Framework 4

The Scottish Government issued a position statement regarding the Fourth National Planning Framework in November 2020 (Scottish Government, 2020).. The key opportunities relating to wind energy and forestry identified in the statement contain the following:

- 8. Supporting renewable energy developments, including the re-powering and extension of existing wind farms, new and replacement grid infrastructure, carbon capture and storage and hydrogen networks.
- 9. Harnessing the potential for rural development to act as a lever to facilitate woodland creation and expansion.
- 11. Restricting peat extraction and development on peatland and facilitating restoration through permitted development rights.

The position statement goes onto discuss the role new woodland creation can play in meeting the objectives and opportunities, including strengthening the policy on woodland protection and creation in association with development.

The National Planning Framework 4 (NPF4) consultation draft was released following the completion of this assessment.

Scottish Planning Policy

The Scottish Planning Policy (SPP) (Scottish Government, 2014) includes a section on woodlands (SPP Paragraphs 216 - 218). This refers to the Scottish Government's Control of Woodland Removal Policy (Forestry Commission Scotland, 2009) which is discussed in more detail below. The SPP states that woodland removal should only be permitted where it would achieve significant and clearly defined additional public benefits. It further states that where woodland is removed in association with development proposals, developers will generally be expected to provide compensatory planting and that the acceptability of woodland removal, in the context of the Control of Woodland Removal Policy, should be taken into account in determining applications.

Scottish Government's Control of Woodland Removal Policy

In parallel with the SFS and other national policies on woodland expansion, there is a strong presumption against permanent deforestation unless it addresses other environmental concerns. In Scotland, such deforestation is dealt with under the Scottish Government's Control of Woodland Removal Policy (Forestry Commission Scotland, 2009). The guidance relating to the implementation of the policy was revised and updated in 2019 (Forestry Commission Scotland, 2019).

The purpose of the policy is to provide direction for decisions on woodland removal in Scotland. The policy document lays out the background to the policy, places it into the current policy and regulatory context, and discusses the principles, criteria and process for managing the policy implementation. The following paragraphs summarise the policy relevant to the Proposed Development.

The principal aims of the policy include:

- *“to provide a strategic framework for appropriate woodland removal; and*
- *to support climate change mitigation and adaptation in Scotland.”*

The guiding principles behind the policy include:

- *“there is a strong presumption in favour of protecting Scotland's woodland resources; and*
- *woodland removal should be allowed only where it would achieve significant and clearly defined additional public benefits. In appropriate cases a proposal for compensatory planting may form part of this balance.”*

Woodland removal, without a requirement for compensatory planting, is most likely to be appropriate where it would contribute significantly to:

- enhancing priority habitats and their connectivity;
- enhancing populations of priority species;
- enhancing nationally important landscapes, designated historic environments and geological Sites of Special Scientific Interest (SSSI);
- improving conservation of water or soil resources; or
- public safety.

Woodland removal, with compensatory planting, is most likely to be appropriate where it would contribute significantly to:

- helping Scotland mitigate and adapt to climate change;
- enhancing sustainable economic growth or rural/community development;
- supporting Scotland as a tourist destination;
- encouraging recreational activities and public enjoyment of the outdoor environment;
- reducing natural threats to forests or other land; or
- increasing the social, economic or environmental quality of Scotland's woodland cover.

The consequences of the policy are stated as:

- minimising the inappropriate loss of woodland cover in Scotland;
- enabling appropriate woodland removal to proceed with no net loss of woodland -related public benefits other than in those circumstances detailed in the policy; and
- facilitating achievement of the Scottish Government's woodland expansion ambition in a way that integrates with other policy drivers (such as increasing sustainable economic growth, tackling climate change, rural/community development, renewable energy and biodiversity objectives).

Addressing the policy requirements can be met through changes to forest design, increasing designed open space, changing the woodland type, changing the management intensity, or completing off-site compensation planting.

Guidance

The Ayrshire and Arran Forestry and Woodland Strategy

The approved Ayrshire and Arran Forestry and Woodland Strategy (AAFWS) was published in October 2014 (Ayrshire Joint Planning Unit, 2014). It supports national policies whilst integrating with other Ayrshire Councils' strategies and plans. The strategy is intended to guide woodland management and expansion in Ayrshire and Arran, providing a policy and a spatial framework to maximise the contribution of woodland and forestry to the people, environment and economy of the region.

The strategy forms statutory Supplementary Guidance to the three Ayrshire Local Development Plans. It is therefore a material consideration in planning decisions involving proposed development proposals affecting woodland. The strategy supports Scottish Ministers' desire to see an expansion in woodland cover, delivering multiple benefits across the country.

In parallel with national policies, there is a presumption against woodland loss. It is recognised that there has been pressure on woodland cover in the regions due to proposed developments, principally wind farms. Under the theme of "Climate Change" the strategy states that one of the key priorities is to ensure that reductions in woodland cover resulting from restructuring and proposed development are more than compensated by new woodland creation elsewhere within Ayrshire and Arran. This in turn leads to a number of Priority Key Actions including:

- CC1: Implement the woodland removal policy, with compensation planting required within Ayrshire and Arran; and
- CC5: Facilitate renewable energy proposed development.

The strategy also recognises the importance of peatlands in the region many of which were planted with conifer forests . This results in a further Priority Key Action:

- CC7: Encourage the restoration of peatlands during forest redesign and restructuring in locations with suitable hydrological and soil and vegetation conditions.

The strategy sets out regional priorities for woodland expansion and management by broad landscape zones. The Proposed Development falls within the Southern Uplands and Galloway Hills zone. The zone is currently heavily wooded, with 44% of the land area currently under woodland, the vast majority of which is softwood. Within this zone, one of the key issues identified is the pressure for wind farm development and the importance of securing appropriate compensatory planting where net woodland removal takes place.

Consultation

The following consultation responses were received with reference to the forestry assessment.

Table 3.2.1 – Consultation Responses

| Consultee | Issue raised | Applicant Action |
|-------------------|---|--|
| NatureScot | Welcome the approach outlined in the scoping report with respect to the preparation of the Wind Farm Forest Plan. | Noted. |
| NatureScot | The requirement to keyhole turbines into existing forestry should be assessed in relation to bats and bird. | There are no turbines in forestry. |
| NatureScot | Recommend consultation with Scottish Forestry | Scottish Forestry have been consulted and will be consulted in relation to compensatory planting requirements. |
| Scottish Forestry | Content with the proposed actions for forestry consultation as described in the scoping report. | Noted. |

| | | |
|---|--|---|
| Crosshill, Straiton and Kirkmichael Community Council | Forestry should have its own chapter and not be a Technical Appendix | It is a factual report rather than an environmental assessment. The content of the report will be the same whether it is Chapter or a Technical Appendix. |
|---|--|---|

Forest Plans

An original key objective of the Forestry Commission was forest expansion, in both state and private forests, to produce a strategic reserve of timber, and consequently, a limited range of species was planted. More recently, greater emphasis has been placed on developing multi-purpose forests, which require a restructuring of age and species in existing woodlands. Restructuring is achieved through the forest planning process.

A Forest Plan relates to individual forests or groups of woodlands. It describes the woodlands, places them in context with the surrounding area, and identifies issues that are relevant to the woodland or forest. Forest Plans describe how the long-term strategy would meet the management objectives of the owner, the criteria of the UK Forestry Standard (UKFS) and the UK Woodland Assurance Standard 4th Edition (UKWAS), under which the woodlands would be managed if certificated.

Of the four forests included within the Forestry Study Area (FSA) only one, Glenalla Forest, has an active Forest Plan. Further details on the FSA are noted below.

Development of the Wind Farm Forest Plan

Forestry Study Area

Due to the small quantity of woodland within the Proposed Development boundary, the site boundary was adopted as the FSA, as shown on Figure 3.3.1. There are four separate woodlands within the FSA. These are:

- Glenalla Forest;
- Dalmorton Forest;
- The Dyke Forest; and
- Dalmorton Farm Woodlands.

The forests comprise a range of woodland types and age classes due to the original planting year and ongoing felling and replanting, together with areas of unplanted land and open ground. The forests are largely commercial conifers with areas of native broadleaves and open ground. Further information on the composition of the woodlands in the FSA is provided in the baseline description below.

Proposed Development Forestry Plans

Existing crop information was collated from the landowners' baseline data, where made available; aerial photographs; and walkover surveys.

It is proposed to utilise existing forestry access tracks to deliver turbine components for the construction of the Proposed Development where possible. Both of the proposed access route options largely follow existing roads and tracks, or roads under construction. Details of the oversail requirements for each route to enable delivery of turbine components to site were provided by other technical leads within the EIA project team. This data was amalgamated with the forestry data to construct the Proposed Development forestry proposals.

Areas of forestry may require felling during the construction and operation phases of a wind development. In this specific case, only the proposed access route options were assessed for areas of track alteration, overrun and oversail. These areas were applied to the forestry data to assess the

extent of woodland removal required to construct each route. The final extent of woodland removal will be reviewed at the detailed design stage prior to construction.

Felling required for a development can be divided into two categories: Firstly, that required during the construction phase of the Proposed Development; and secondly, felling required during the operational phase of the Proposed Development. In this case no felling is required during the operational phase.

Due to the discrete nature of the intervention required in the woodlands, it is envisaged that the felling required to facilitate access for the Proposed Development would be “keyholed” into the existing crop i.e. only those areas required for the infrastructure and its associated oversail requirements and buffers would be felled. There would be no replanting within the felled areas.

The forestry proposals have been assessed by the relevant environmental and technical disciplines as part of the EIA process and the effects are reported in relevant chapters of this EIA Report and their supporting Technical Appendices.

Baseline Conditions

Baseline Crop Description

There are two access routes being assessed for the Proposed Development. The “northern” route passes across Dalmorton Farm and The Dyke Forest. The “western” route passes through Dalmorton and Glenalla Forests.

Northern Route

The northern route across Dalmorton Farm passes through a small section of new native broadleaf woodland. No baseline data was available, but it has been established from publicly available SF websites that it was planted in approximately 2006/2007.

Within The Dyke Forest the northern access largely follows the alignment of a new forest road currently under construction. No baseline data was available for The Dyke, but it has been established from publicly available SF websites that it was planted under a Woodland Grant Scheme between 2002 and 2005. The crops are comprised of commercial conifers with areas of broadleaves and open ground.

Western Route

Within Dalmorton Forest the western route largely follows an existing forest road and partially along the route of an unplanted management boundary. Full baseline data was available. The crops within the FSA in Dalmorton Forest were planted in 2011 and are largely comprised of commercial conifers with a small area of broadleaves.

Within Glenalla Forest the western route partially follows an existing track created for the extraction of timber, which then connects with a forest road leading to the public road. Glenalla Forest was planted in the early 1970s and has been in the production phase for the last 20 years with ongoing felling and replanting being carried under an approved Forest Plan. The crops within the FSA were planted between 2002 and 2016 and are comprised largely of commercial conifers with small areas of native broadleaves.

Baseline Felling Plans

Northern Route

There are no baseline felling plans for either Dalmorton Farm Woodlands or The Dyke Forest. Small areas within The Dyke Forest are covered by Felling Permissions for the clearance of infected larch crops and thinning other parts of the forest.

Western Route

As discussed above, there is an approved Forest Plan for Glenalla Forest. All the crops which fall within the FSA are classed as “Outside Plan Period”. These areas are young second rotation crops replanted after felling of the first rotation and whose prospective felling year lies outside of the current forest plan period.

There is no baseline felling plan for Dalmorton Forest. Part of the crops within the FSA have Felling Permission for thinning only.

Baseline Restocking Plans

In the absence of any felling plans, there are no restocking plans for any of the woodlands within the FSA on either the northern or western routes.

Proposed Development Forestry Plan

The effect of the Proposed Development on the structure of the woodlands within the FSA has been compared against the baseline species.

As the area required for the works is small in the context of the overall forests, this Technical Appendix will only concentrate on the immediate areas affected by the Proposed Development. It is not deemed necessary to analyse the impact of the works on the wider baseline felling or restocking plans as there will be no material impact to either.

Proposed Development Felling Plan

The Proposed Development Felling Plans are shown in Figure 3.3.1 to Figure 3.3.9. Figure 3.2.1 provides an overview while the remaining figures are detailed maps of sections of the routes.

Northern Route

No baseline forest maps or databases were available and therefore the additional areas to be felled were estimated by overlaying the access route oversail plan over a current aerial photograph to identify any crops which would need to be felled to provide the required clearance. Given the accuracy of current aerial photographs this is deemed to be an appropriate approach to identify the extent of forestry which would require to be felled along the northern route. The consultants used their experience and information from the site visit to identify the woodland types.

Table 3.3.2 – Northern Route Felling Plan

| The Dyke Forest | Area (Ha) |
|---------------------------------|------------------|
| Sitka spruce | 1.60 |
| Mixed broadleaves | 1.00 |
| Mixed woodland | 0.81 |
| Sub Total | 3.41 |
| Dalmorton Farm Woodlands | |
| Mixed broadleaves | 0.24 |
| Grand Total | 3.65 |

The total area of woodland which it is estimated will require to be felled to provide the required oversail clearance is 3.65 ha.

Western Route

The forest databases were available for Dalmorton and Glenalla Forests on the western route. The oversail plan was overlaid on the forest maps to identify the areas of crop which would be required to be felled to provide the required clearance. The data is summarised in the table below.

Table 3.3.3 – Western Route Felling Plan

| Planting Year of Crops to be Felled | 2001 | 2002 | 2009 | 2011 | 2013 | 2016 | Total |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Glenalla Forest | | | | | | | |
| NBL | 0.00 | 0.02 | 0.17 | 0.08 | 0.04 | 0.09 | 0.40 |
| Sitka spruce | 0.00 | 0.61 | 0.11 | 0.10 | 0.87 | 0.70 | 2.39 |
| Glenalla Sub Total | 0 | 0.63 | 0.28 | 0.18 | 0.91 | 0.79 | 2.79 |
| Dalmorton Forest | | | | | | | |
| Sitka spruce | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.54 |
| Mixed broadleaves | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 |
| Dalmorton Sub Total | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.67 |
| Grand Total | 0.67 | 0.63 | 0.28 | 0.18 | 0.91 | 0.79 | 3.46 |

The total area of woodland which it is estimated will need to be cleared to provide the required oversail clearance is 3.46 ha.

Proposed Development Restocking Plan

None of the areas felled to facilitate access will be restocked.

Requirement for Compensatory Planting

As a result of the construction of the Proposed Development, there would be a net loss of woodland area. The extent of woodland loss would depend on which route was selected as the preferred route and taken through to construction. The areas are summarised below:

- Northern route – 3.65 ha; and
- Western route – 3.46 ha.

The compensatory planting requirement for the Proposed Development will therefore also depend on the preferred access route.

In order to comply with the criteria of the Scottish Government's Control of Woodland Removal Policy, on-site or off-site compensatory planting would be required. The Applicant is committed to providing appropriate compensatory planting. The extent, location and composition of such planting is to be agreed with SF, taking into account any revision to the felling and restocking plans prior to the commencement of operation of the Proposed Development.

Forestry Management Practices

Crop Clearance

Areas of crops of sufficient tree size and standing volume will be harvested conventionally. Timber operations would be undertaken with conventional harvesting and forwarding equipment utilising flotation tracks as required. The flotation devices are fitted to each machine wheel which gives the machines very low ground pressure and minimises the ground disturbance during the forestry operations.

Stemwood down to 7 centimetres (cm) or below will be felled and sold into the timber markets. The harvester will maximise timber recovery wherever possible, this will result in the maximum timber volume being recovered to ensure the volume used in the brash mats is kept to a minimum. On wetter ground the harvester will build stronger brash mats to ensure there would be minimal damage to the soil structure by the forwarder during extraction.

In areas of young or lower yield class crops, where little or no merchantable timber would be recovered, a number of options could be utilised depending on the factors prevailing at the time of clearance. The methodology used will depend on tree size; site conditions; the availability of suitable equipment; and the markets prevailing at the time of the works being carried out.

Where trees are very small due to age or poor growth it may be more viable to fell the crop manually using scrub cutters or chainsaws. The end use of the material will depend on the factors mentioned above, but in some cases, there will be no recoverable material. Where material is recoverable it could potentially be used on-site in the base of floating roads; extracted and processed for biomass; or used for ecological enhancement if applicable.

Stumps will be left in situ as per the guidance contained in the Forestry Commission Research Note 'Environmental effects of stump and root harvesting' (Forestry Commission, 2011) except where they are removed for borrow pits, excavated roads, and other infrastructure requiring excavation. Such material would be treated as described below.

Forestry Waste

The Scottish Environment Protection Agency (SEPA) guidance document WST-G-027, 'Management of Forestry Waste' (SEPA, 2017) highlights that all waste producers have a statutory duty to adopt the waste hierarchy as per the Waste (Scotland) Regulations 2012 (Scottish Government, 2012), which amended Section 34 of the Environmental Protection Act (EPA) 1990 (duty of care) (UK Government, 1990). This places a specific duty on any person who produces, keeps or manages (controlled) waste to take all such measures available to them to apply the waste hierarchy, which is:

- prevention;
- preparing for re-use;
- recycling;
- other recovery, including energy recovery; and
- disposal, in a way which delivers the best overall environmental outcome.

Further guidance is contained in the document LUPS-GU27, 'Use of Trees Clear Felled to Facilitate Proposed Development on Afforested Land' (SEPA, 2014).

A hierarchy of uses for forestry materials is proposed, derived from the waste hierarchy contained within the Regulations, summarised as follows:

- prevention via the production of timber products and associated materials for use in timber and other markets;

- the re-use of materials on site for a valid purpose, where such a use exists e.g. road construction, including floating roads;
- there is no valid re-cycling use for forestry residues other than detailed under the other bullet points;
- other recovery via collection and use as biomass for energy recovery or other markets, where not included above; and
- where no valid on or off-site use can be found for the material, disposal would be in a way that is considered to deliver the best overall environmental outcome.

Where no valid on-site or off-site use or other disposal method can be found for the material, it should be regarded as waste and handled accordingly. Disposal of timber residues as waste in or on land requires a landfill permit or a waste exemption licence and will be considered the option of last resort.

If felled areas were to be replanted, brash would be left in situ to provide nutrients for the next rotation as per standard forestry practice. Where crops are not being replanted, brash would be removed and treated in line with the proposed hierarchy described above.

Stumps would be left in situ as per good practice guidance, except where excavated as part of the construction activities. Excavated stumps would be treated in line with the proposed hierarchy described above.

In areas of lower yielding crops into which the Proposed Development infrastructure would be keyed, the objective would be to recover as much merchantable timber as possible and failing that to treat it in line with the hierarchy outlined above. Where suitable, whole trees would be extracted and used in the biomass market. As a result, it is anticipated that the forestry waste arising from the works will be minimal.

It is proposed that full consideration on this issue would be included in a Forestry Waste Management Plan to form part of the Construction Environmental Management Plan (CEMP) during the detailed planning phase following receipt of planning consent and prior to commencement of construction.

Standards and Guidelines

All forestry operations will be carried out in strict accordance with current good practice and guidelines. This would include, but not be limited to:

- UK Forestry Standard (Forestry Commission 2017);
- Forest Industry Safety Accord Guides (or equivalent) (FISA, 2014); and
- current relevant legislation including, but not limited to, Health and Safety at Work Act 1974 (UK Government, 2014).

Summary

The loss of woodland area associated with the Proposed Development will depend on the selection of the preferred permanent access route as summarised below:

- Northern route – 3.65 ha; and
- Western route – 3.46 ha.

The composition of the woodlands which will be removed also depends on the selection of the preferred access route.

In order to comply with the Scottish Government's Control of Woodland Removal Policy, compensation planting will be required to mitigate for the loss of woodland area. The Applicant is committed to providing appropriate compensatory planting. The extent, location and composition

of such planting will be agreed with SF, taking into account any revision to the felling and restocking plans prior to the commencement of operation.

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