



Environmental Statement
to support a deforestation proposal at
7 Newline Road, Cookstown

Dated: May 2020, revised: 17 September 2020

Brian Malcomson, MICFor & Megan Parker, MSc Ecol

Site location

7 Newline Road, Cookstown, BT80 9JN. Mid Ulster, County Tyrone

Description

This Environmental Statement is to support the proposal to carry out a deforestation project in respect of the Environmental Impact Assessment (Forestry) Regulations (Northern Ireland) 2006 (as amended). An existing approved Felling Management Plan under licence (FL2017/18-26) is currently in place and requires amendment. This amendment proposes to fell 11.71ha as per the approved felling license but alters the restocking proposal to include 7.61ha of conversion from forest to agriculture with no restocking (Felled area not to be re-established) and 4.1ha of restocking as planned (Re-establishment) with birch, rowan, oak and common alder at 2,200 trees per hectare.

Total proposal area extends to 11.71ha of mixed conifer forest as shown in the attached supporting map. The project timescale will not change from the approved felling period finishing 11/2021, and restocking period beginning 11/2022 and ending 11/2026. Harvesting will be carried out using mechanised harvester and forwarder. All timber would be felled, cut-to-length and extracted to the roadside stacking area. All timber would be supplied to local sawmill and energy wood markets. Within the deforested area (felled area not to be re-established), brush recovery would take place including roadside chipping of material. Stump removal/de-stumping would then be carried out using excavators, allowing stumps to dry for grinding and recycling.

No additional requirements or alterations of the approved Felling Management Plan are proposed beyond those listed above.

A table of key issues has been added to the Analysis section of this Environmental Statement which includes mitigations to ensure negative impacts of the proposal are not significant. A summary statement has been added at the end of the document.

Current Setting

This existing plantation is composed of mixed conifer including Sitka spruce, hybrid larch and lodgepole pine with a small component of mixed broadleaves along some edges. Planting occurred in the late 1990s and conifer trees have now reached commercial maturity.

Soils are predominantly brown earths and fertile though the lower southeast quarter of the plantation transitions to peaty soils with lower fertility. The site is generally flat with only a slight gradient from the north falling to the south at less than 5% average slope.

The site is surrounded on all sides by agricultural fields with the next nearest isolated shelterbelt being 0.48km away. Two residential homes are present adjacent to the project, and there are two public roads (New Lines Road and Killennan Road) running alongside the forest edge.

There are no watercourses within or adjacent to the site boundary however roadside drains along New Line Road (western project boundary) run parallel to the site.

Though not found to be present currently, past surveys in the wider region have shown presence of otters, badgers, red squirrels, and a variety of breeding waders and raptors. There are no designations within the proposal boundary. The nearest designated site is Lough Doo ASSI 1.6km

west, and at 1.9km to the north and east is the Upper Ballinderry River ASSI/Natura2000 Special Area of Conservation.

Surveys

In order to identify current constraints and key issues a number of field surveys were conducted, desk-based research was carried out and consultations made as listed below.

Field Surveys-

Site walkovers were conducted by Brian Malcomson, Senior Forest Manager for Scottish Woodlands Ltd, on the 5th of February 2020, the 19th of February 2020 and the 13th of May 2020. During these site walkovers, evidence of protected species was investigated including foraging or feeding evidence and droppings as well as surveying for nest sites, dreys, setts or other resting places. Site conditions were verified in terms of operational restrictions, ground conditions and access. The site in its entirety was surveyed during this time. Results of these walkover surveys are included in the Key Issues Table found within the Analysis section.

Desk-Based Surveys-

Aerial photography review, including the wider landscape

National Biodiversity Network review

Landscape Character Assessment review

NIEA Natural Environment Map Viewer review

Topography and hydrology review via digital terrain models and satellite data

ASSI/Natura2000 Site Citation reviews

Consultation-

Department of Agriculture Environment and Rural Affairs (DAERA Forest Service), Northern Ireland Environment Agency (NIEA), Mid Ulster District Council

Key Issues

Based on information obtained during the surveys and consultation, the following list of key issues was developed and further analysis was carried out as noted.

- Size and Design of project
 - The proposal falls above the threshold of 1ha in regards to the Environmental Impact Assessment (Forestry) Regulations (Northern Ireland) 2006 (as amended)
 - The proposal was scaled down and a landscape review carried out
- Water Quality
 - The proposal falls within the catchment of the Upper Ballinderry River ASSI/Natura 2000/SAC which is highly sensitive to changes in water quality, especially sediment loading relating to de-stumping and agricultural restoration proposed as part of this project.

- A drainage assessment was carried out to identify extent of hydrologic connectivity and risk to the catchment.

Analysis

This section evaluates the findings and considers the proposal's impact on the environment. Analysis includes assessment of alternative proposals along with the key issues and overall levels of significance of the proposal. Analysis was carried out by Brian Malcomson and Megan Parker both of Scottish Woodlands Ltd. A description of competency and qualifications for each individual is included in the appendix.

A key issues table has been added starting on page 6 which outlines the overarching results of the analysis. Some analysis has been more detailed such as the Drainage Assessment guiding the key issue findings for Water Quality, this and other detailed assessments have been included in the Appendix in full.

Alternatives

The project, as detailed in the Description section of this Environmental Statement, is the proposed amendment to the existing Felling Management Plan. In order to fully evaluate all options, additional alternatives were considered though only the preferred alternative was carried forward. Alternatives are listed below along with a brief statement as to the rationale for each.

1. 7.61ha of conversion from forest to agriculture with no restocking (Felled area not to be re-established) and 4.1ha of restocking as planned (Re-establishment) with birch, rowan, oak and common alder at 2,200 trees per hectare.
 - a. This is the Preferred Alternative as it takes into account the value of the land for agriculture (which is greater than the value as forest) and preserves a proportion of woodland for environmental benefit. This was driven by a change in landowner objectives to recapture highly productive ground and fertile ground for agricultural purposes. Value as agriculture includes soil productivity, local economic contribution of utilising arable ground, and social value of maintaining agricultural jobs and local traditional land use. There is also a landscape value of reducing linear edges with isolated conifer plantations and an amenity to replanting woodland with broadleaf trees. This alternative represents a good balance between value and land use change.
2. 11.71ha of felling and restocking as approved under licence (FL2017/18-29).
 - a. This is the Default Alternative as it is currently approved under licence. This alternative would fell and replant the site as broadleaf woodland. This alternative does not reflect the landowners new objectives to recapture agricultural value of the site and is heavily weighted only to amenity value. This is why it is no longer the preferred alternative.
3. 11.71ha of conversion from forest to agriculture with no restocking (Felled area not to be re-established).
 - a. This is the Deforestation Alternative as it proposes to maximise agricultural value and de-forest the entire site. This alternative does not represent a fair balance between value and land use change; as the lower quarter of the site becomes less fertile (shallow peat), value as broadleaf woodland in this quarter is higher than value for agriculture.
4. Not carrying out any felling on site.

- a. This is the No Action Alternative as it proposes not to fell the forest. This alternative was not chosen as it does not capture any value of the current plantation and over time would result in environmental degradation associated with windthrow and increased risk of disease as trees senesce (aging and decay).

Significance of Effects

In order to determine the extent and potential significance of effects of this proposal on the environment, the following criteria were applied as part of this assessment:

- The sensitivity of features/issues within the site itself and wider area:
 - Highly sensitive= nationally designated site, rare or distinctive feature in the national context, considered susceptible to small changes
 - Medium sensitivity= valued locally, local designation, rare or distinctive feature regionally, tolerant of moderate change
 - Low sensitivity= commonplace, not designated, potentially tolerant of noticeable change
 - Negligible sensitivity= already fundamentally changed, tolerant of noticeable change, currently characterised by active changes
- Magnitude of change and extent of woodland removal
 - High magnitude= a noticeable change over a wide area or an intensive change over a limited area
 - Medium magnitude= small changes over a wide area, or noticeable change over a limited area
 - Low magnitude= very small changes over a wide area or small changes over a limited area
 - Negligible magnitude= no discernible change
- The overall determination of significance was guided by the chart below.

Magnitude of Change ▼	Sensitivity			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	None
Low	Moderate	Minor	None	None
Imperceptible	Minor	None	None	None

Each feature potentially impacted by the proposal has been included in the Key Issues Table on the following page with details of the assessed levels of significance.

Key Issues Table				
Key Issues/Features	Detail of likely impact	Actions taken to address issues (mitigations)	impact following mitigation	Significance
Water Quality-SAC	Sedimentation of the Upper Ballinderry River SAC and degradation of aquatic habitat for designated features. This feature is Highly Sensitive with a potential Medium Magnitude of change resulting from the proposal.	Carry out drainage assessment (see Appendix 4), maintain existing vegetated buffer around site boundary. Where needed, install drainage leading away from the roadside drain during operations with suitably sized silt traps/settling pools. These will be maintained throughout the de-stumping process to ensure surface flow cannot reach roadside drains.	Risk of surface flow from the site transporting sediment to the Kildress Stream and downstream more than 3.2km to the sensitive aquatic habitat of the SAC is negligible following mitigation.	None, there will be no adverse effect on the integrity of the site following mitigation.
Size/scale and design of project, landscape impact	This site is visible as an isolated conifer anomaly on the landscape from a moderate distance. Removal of the conifer crop will eliminate this anomaly on the landscape by removing linear edges and softening the future canopy with broadleaves. The project is relatively small in the wider landscape scale, which is large with long views in most directions. Sensitivity of the landscape is low	The proposal to de-forest the entire site has been reduced with some replanting of broadleaf trees along the main public road. Stump removal and brush removal will aid in both conversion to agricultural ground, but also reduce the negative visual impact that	Following removal of the conifer and some replanting of broadleaves the site will improve fit within the local setting of lowland farmland and character of the Carrickmore Plateau and Pomeroy Hills.	Minor, there will be a minor positive impact from removal of the conifer plantation on the landscape.

	and the magnitude of change is medium.	forestry residue has over the medium term.		
Soils, agriculture vs forestry, land use change	Current land use for forestry would change for most of the area to agriculture, areas with poorer fertility (shallow peat) will remain for forestry. De-stumping and brash removal would result in ground disturbance. Sensitivity is negligible as it was already fundamentally changed from agriculture to forest and this is the first rotation of non-native tree species. Magnitude of change is medium due to the noticeable change over a limited area.	The proposal originally converted all the land to agriculture however soil fertility was taken into account to identify areas where forest value was greater in terms of environment. The proposal now has a reduced area of conversion targeted at ground that is most suitable for agriculture (brown earths). Mitigations under 'Water Quality' would also apply to this feature/key issue.	Reducing the area of conversion to only those locations where agricultural value is higher than forestry limits the extent of negative impacts from conversion. Though there will still be loss of forest cover, the forest cover lost is not of significant environmental value (non-native even-aged forest) and represents some negative impacts in its current form. On balance the impact of the proposal is low.	None, there will be no net adverse effect from the change in land use.
Designated Sites	There are no designations within the site or within a distance that would be ecologically impacted by the proposal. To the west 1.6km is Lough Doo ASSI, to the north and east 1.9km is the Upper Ballinderry River ASSI, , southwest 2.0km is the Local Wildlife Site of Evishanoran. As such there is no risk of impact related to designated sites. Sensitivity and magnitude of change are negligible.	None required	N/A	None
Badgers	There was no evidence of badger activity during walkover surveys. As such there is no risk of impact related to this feature. Sensitivity	Pre-commencement walkover to be carried out to ensure site conditions have not changed.	N/A	None

	and magnitude of change are negligible.			
Red Squirrels	There was no evidence of red squirrel activity during walkover surveys. As such there is no risk of impact related to this feature. Sensitivity and magnitude of change are negligible.	Pre-commencement walkover to be carried out to ensure site conditions have not changed.	N/A	None
Priority species-waders	Wader breeding sites have been identified in past surveys at 1.4km and 2.8km from the site boundary. As such there is no risk of impact related to this feature. Sensitivity and magnitude of change are negligible.	None required	N/A	None
Priority peatland	The lower quarter of the site has been shown as priority peatland (peat cutting). The site is already heavily modified and there is no risk of impact to this feature. Trees will be felled and replanted with broadleaf woodland. Sensitivity and magnitude of change are negligible.	The original proposal was to convert this area to agriculture. The proposal now includes this area for replanting with broadleaf woodland.	None	None
otter	There was no evidence of otter activity during walkover surveys. As such there is no risk of impact related to this feature.	Pre-commencement walkover to be carried out to ensure site conditions have not changed.	N/A	None

Summary/findings

This project , proposing to fell and partially replant the plantation at 7 Newline Road, Cookstown, BT80 9JN, will result in conversion of productive ground from forestry back into agricultural use and replanting of a small section of broadleaf woodland. The project was not found to be detrimental to the environment over a short or long term period and does not put vulnerable environmental features at risk with the mitigations as proposed. Due to this the proposal is thought to be less than significant.

Appendices

1	Authors Qualification
2	Regulatory and Best Practice References
3	Amended Felling Map
4	Drainage Overview Plan

Appendix 1 Authors Qualifications

Brian Malcomson, *Senior Forest Manager, Scottish Woodlands Ltd*

- Member of the Institute of Chartered Foresters, HND Forestry, Technical Certificate (Arbor A)
- Brian has worked in commercial forestry for 17 years as an operative and forest manager in Northern Ireland. Over that time he has developed experience with operations planning and implementation, working on a variety of projects including large scale deforestation and restructuring involving managing protected and sensitive species and sites. He is a competent work site manager and undergoes continuing professional development in a variety of forestry topics.

Megan Parker, *Forest Planner, Scottish Woodlands Ltd*

- BSc Forestry, MSc Ecology and Environmental Sustainability
- Megan has worked in commercial forestry for 14 years as a forester both in the United States (Pacific Northwest) and in the United Kingdom (Scotland). Over that time she has developed experience with forest planning and mitigation development including managing operations around protected species, habitat restoration, and watershed erosion management. She also works with Scottish Woodlands internal auditing team ensuring statutory and best practice compliance with the UK Woodland Assurance Standard. She is a competent wildlife surveyor, auditor and forest planner and undergoes continuing professional development in a variety of forestry topics.

Appendix 2 Regulatory and Best Practice References

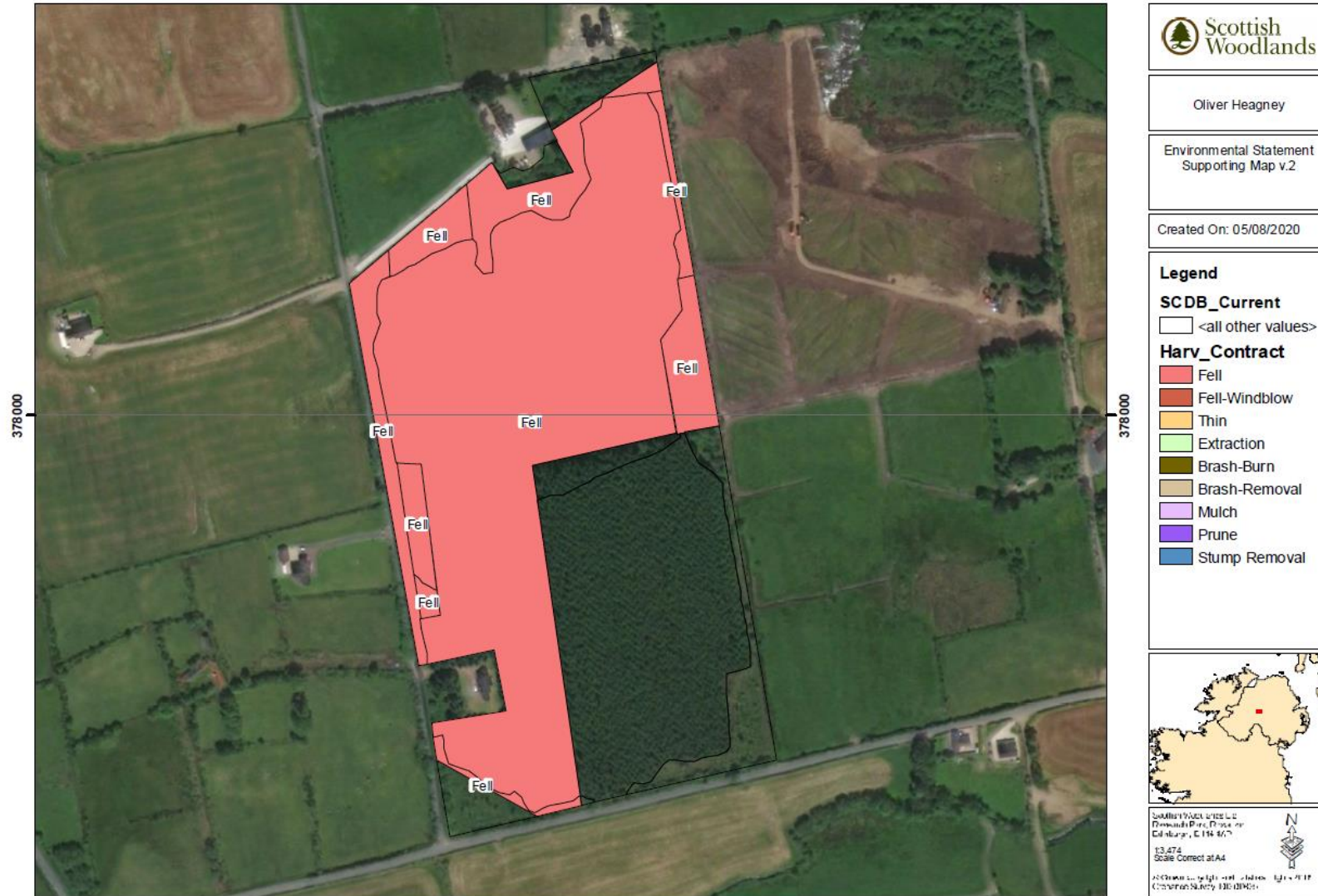
The operations proposed in this Environmental Statement are designed to comply with the following rules, regulations and best practice standards.

UK Forestry Standard

Practice Guide 'Managing forest operations to protect the water environment'

The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)

Appendix 3 Amended Felling Map



Appendix 4 Drainage Overview Plan

Drainage Assessment

A detailed assessment of site topography, vegetation and hydrology was carried out to determine risk of surface flow transporting sediment to a watercourse and downstream to the Upper Ballinderry River ASSI/Natura2000/SAC.

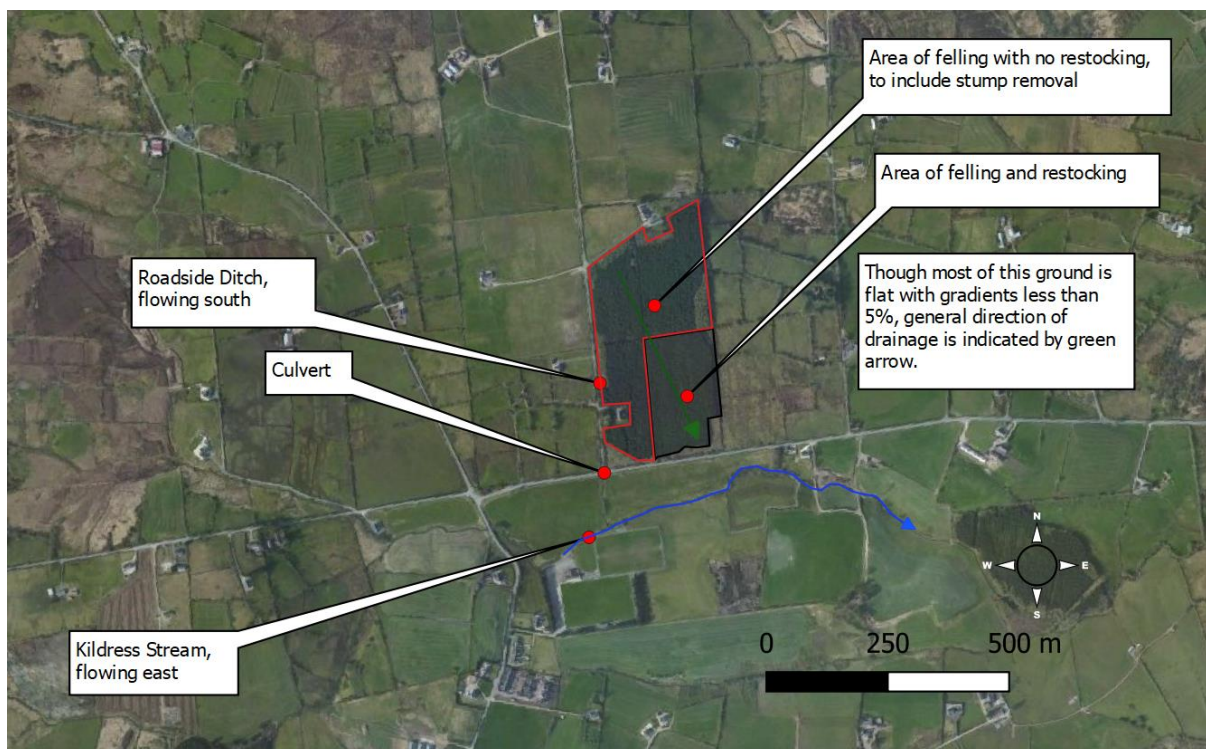
The project falls within the Kildress Stream catchment which is noted as being in moderate condition. Kildress Stream is a tributary to the Ballinderry River leading to the Upper Ballinderry River designated site. The designation is noted for otters and freshwater pearl mussels, which are sensitive to changes in hydrology and sedimentation related to, among other sources, forestry operations.

The project boundary contains no natural watercourses, the nearest aquatic habitat is 51m away. A well vegetated dry roadside ditch with no bank or channel morphology runs along New Line Road with potential for surface flow during periods of flood. Surface flow has a potential to travel a distance of 51m to the nearest watercourse which leads to Kildress Stream then downstream a further 3.2km to the designated watercourse of Upper Ballinderry.

There is no roadside ditch along Killeenan road bounding the southern edge of the forest. Well established grass edges are present around the entire site ranging in width from 3.6m to 5.2m. These grass edges represent a suitable buffer area for surface flow to disperse and filter before leaving the site.

Overall pattern of surface drainage flows north to south with a relatively flat gradient of less than 5% average slope.

The image below shows the general site layout as an annotated aerial photograph.



In general the site is not hydrologically active and could be summarised as relatively flat ground with good capacity for mitigated sediment management on site.

The image below illustrates distances along the southern edge of the proposal to existing watercourses or drainage structures.



Photo Left. Looking uphill (west) toward southeast corner of forest, no roadside ditch leading to the culvert under the Killeenan Rd further 105m east. This field provides approximately 100m of well vegetated flat buffer ground for any potential surface runoff.



Photo Left. On Killeenan Road looking northwest toward forest edge where restocking boundary changes. No roadside ditch, well vegetated flat ground able to filter surface runoff.



Photo Above. Similar to previous photograph, no roadside ditch at southwest corner of forest, well vegetated flat ground able to filter surface runoff.



Photo Left. Junction of New Line Road and Killeenan Road looking southeast. Roadside drain running down New Line Road with culvert under Killeenan Road.

Operational Considerations and Proposed Actions

In order to further reduce risk of surface flow transporting sediment to the roadside ditch at New Line Road both operational timings and site drainage planning has been considered. Timings are as noted below:

- Harvesting will be carried out using mechanised harvester and forwarder during the summer months of 2020
- Once all timber harvesting would be complete, brash recovery would commence. This would involve extracting the brash to the roadside stacking area using forwarder then chipping of all brash at roadside for the local energy wood market. This would require to be completed before the end of September 2020.
- Then de-stumping would commence using excavator diggers. The stumps would be piled to dry out for a period of a few months then during spring 2021 they would be recycled using a tub grinder.
- Though not part of the forestry project proposed, it is anticipated that during the summer of 2021, the ground would then be ploughed, resown and fenced.

During all the scheduled operations existing plough scores/open drains would be identified and seditmenting installed as necessary to ensure no surface flow transports sediment off site.

Prior to and during de-stumping and brash removal, where required, cross drains will be constructed to ensure any surface drainage is directed away from the roadside drain and flows will generally be pushed in a south-eastern direction.

Site will be regularly monitored for ground disturbance and water quality and appropriate mitigation measures applied if required.

The site supervisor shall check the site daily. All observations shall be recorded.

Scottish Woodlands Ltd holds the following accreditations and has prepared and implements a strong suite of best practice operations as part of its QUEST (Quality, Environment and Safety Toolkit) Guides.

- SGS 9001
- SGS 14001
- OHSAS 18001
- Forest Management – SGS FSC
- Forest management – SGS PEFC
- Chain of Custody – FSC
- Chain of Custody – PEFC
- FISA Membership
- ROSPA Membership

Specific QUEST references applicable to this operation are listed below relating to drainage management, these are available upon request:

- Guide 1.01 Worksite First aider and First Aid Kit Content Requirements.
- Guide 3.10 Planning the Safe Stacking of Timber
- Guide 5.01 Planning Work Near Protected Species or Protected Wildlife Sites
- Guide 5.05 Planning Work Near Red squirrels.
- Guide 6.01 Diffuse Pollution
- Guide 6.02 Monitoring Water Quality
- Guide 6.03 Silt Traps, Silt Fence and Filter Zones
- Guide 6.04 River and Drain Crossings
- Guide 6.05 Temporary Log Bridges
- Guide 6.06 Harvesting Ground Damage
- Guide 6.08 Forest Road Works
- Guide 6.09 Forestry Fuel and Oil Storage
- Guide 6.10 Oil Spillage Kits and Incident Response
- Guide 6.11 Measures to Help Prevent Burst Hydraulic Hoses
- Guide 6.14 Contractors Guide to the Appropriate Disposal of Scottish Woodlands' Controlled Waste