

NITH VALLEY LEAF TRUST

Clauchrie Forest Acquisition

Feasibility Study Report

2009

David Dick & Mike Steele



The following document contains an executive summary and full feasibility report reviewing the community acquisition of Clauchrie Forest for the community by the community.

Acknowledgements

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Logo by Jane Chalmers, Rock and Roll Mama Design.

Executive summary

- Forestry Commission Scotland has offered Closeburn Community the chance to apply for the purchase of Clauchrie Forest under the National Forest Land Scheme (NFLS).

Closeburn Community Council formed a steering Group with local membership to look at the feasibility of such an Initiative, to assess the viability of this project to satisfy potential funders and to present Closeburn Community with sufficient independent information to be able to seek community support.

- Community interest in the project is strong as demonstrated at a community meeting on 2nd February 2009. This meeting also revealed that the community's most important objectives were ensuring that the project was financially viable and that it supported local needs for educational, environmental and recreational objectives.

- Clauchrie Forest is a mixed but predominantly coniferous forest of young trees spanning 235 hectares (ha). It can quite easily be split into 2 distinct areas, one being suitable for public access that would satisfy the educational, environmental and recreational objectives while the other the commercial part suitable for training and providing income to satisfy financial viability.

- The local community currently makes relatively little use of the forest and those who do so use it mainly for walking. There is currently a good road network throughout the forest although some work to join up ones that are dead ends would be needed to provide circular routes. The informal recreation and educational potential of the forest is thus likely to be best realised through enhancing existing paths and road networks and features. Total visitor numbers to the site for informal recreation are likely to be enhanced by the close proximity of other high quality recreational facilities for walking, mountain biking and horse riding such as the Buccleuch and Queensberry Estate at Drumlanrig and Ae forest 7Stanes. It is anticipated that links with Drumlanrig will be particularly important as they are currently trying to move their venue towards a 150,000/year visitor centre offering facilities in the area that encourage visitors to stay for longer periods and thus contribute more to the economy. Clauchrie could well be another area the Rangers at Drumlanrig could recommend for '*quite recreation*'. Development of an educational site with a 'classroom' would greatly assist the local schools as they work towards within the Curriculum for Excellence and forest schools.

- The forest has significant commercial value with stands of timber maturing over the next 10 to 15 years and potentially being able to generate a net surplus on felling after accounting for replanting and management cost. However fluctuations in current timber prices make estimating actual surpluses difficult. The current situation would suggest prices are at very low levels. Given the timescale before mature timber becomes available to sell prices are highly likely to increase and thus enhance the viability of the project.

- There are 2 distinct strands to the potential to develop Clauchrie. One is for the public access amenity and the other is as a commercial profit making enterprise. Both of which would benefit the community. Any surpluses would be used to maintain and develop the woodlands or be focused in community activities within the Closeburn Community Council Area.
- The forest has significant conservation value; it contains a number of protected species including red squirrel, (*Sciurus vulgaris*) and Buzzards, (*Buteo buteo*). Goshawks, (*Accipiter gentilis*) are also known to be in the area.

In addition to the above there are clear indications and evidence of singing Great and Coal Tits, Fox droppings, a Roe Deer and Conifer Mazegill fungus

Peter Norman the Biodiversity Officer with Dumfries and Galloway Council described Clauchrie as follows:

“As a conifer plantation, it has a lot more potential than most:

- A diversity of conifers, including pines, spruces and larches, which will always support a greater range of wildlife species than single-species plantations. Also a diversity of tree ages.
- Some good areas of broadleaved planting/regeneration, particularly on the lower slopes. This would give a good start if you decided to convert areas to broadleaves.
- A good network of vegetated forest roads and rides that is currently quite open and likely to receive good sun, giving good potential for butterflies and other wildlife. At some point in the future they will require management to enable them to stay like this.
- A couple of small watercourses, which add diversity. The one in the middle of the site already has areas of broadleaves, but the one on the northern edge would benefit from having the conifers pulled back from the edge of the water.

Although probably just outside of the boundaries of Clauchrie, I noticed a couple of other features that are of very high biodiversity value, though quite small in extent:

- There are 3 old Ash trees in the field on the northern edge of the site. They are approaching the stage where they might be considered 'veteran trees' which are very valuable for invertebrates and lichens. One of them is 'layering' - that is a lower branch is touching the ground and taking root. Such a feature is now very unusual in field trees, where lower branches are often lopped to improve access for farm machinery.
- The Clauchrie Burn has as many natural features as any burn I have seen in the region. Often burns are artificially straightened and deepened, but here the burn meanders, has braided channels and areas of natural erosion and deposition. Furthermore, it flows through small pockets of semi-natural wet Alder woodland, which itself is valuable for many species. There were numerous fresh Otter prints in the sand and a couple of spraints (droppings)”.

Returning to general observations:

- The forest has potential to support a range of social enterprises such as renewable energy production, recreational activities, training & education, and craft & arts as well as producing timber and forest products. The viability of all such enterprises would require considerable further investigation. The main role of the community woodland would be to provide a platform to support education, conservation & biodiversity. A major byproduct could be employment with local entrepreneurs taking on the running of businesses such as firewood that develop.
- Professional management of the forest will be needed to ensure that maximum benefits are delivered for the community in the most cost effective way. Grants would be available for many management activities within the forest under the SRDP. Timber revenues would be the main source of income in the longer term. The structure of the forest means that some timber production in the shape of thinning could start almost immediately. Mature timber will not be ready to be felled for ten to fifteen years. Maximising timber sales either for firewood or for biomass boilers would therefore be essential to provide funds to support ongoing management costs and fund any community developments in the years that followed acquisition. Limited revenues might be available for events held such as festivals or training courses.

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INTRODUCTION

Terms of Reference

Forestry Commission Scotland has offered Closeburn Community the opportunity to purchase Clauchrie Forest under the National Forest Land Scheme (NFLS).

The Community Council wrote formally to the Forestry Commission registering their interest in the acquisition in the spring of 2008. They also successfully applied to The Big Lottery Fund (Investing in Ideas) to seek funding for a feasibility study into the proposal. Closeburn Community Council then formed a Steering Group of local residents to look at the feasibility of such a project including assessing the viability, satisfying potential funders over capability and resources and to present Closeburn Community with sufficient reliable information to be able to seek community support. The steering Group in turn has set up a company limited by guarantee with charitable Status known as Nith Valley LEAF Trust, (NVLT), which will pursue the acquisition and development on behalf of the community.

This report represents the finding of the study.

Report Authors

This report has been prepared by David Dick, a member of the Steering Group with significant help, input and expertise from all other members of that Group who are;

Robert Anderson

Graeme Brown

David Parkin

Mike Steele

Andrew Treadaway

Guy Willoughby

A. Summary

Community Objectives

The main aims: of Nith Valley LEAF Trust are to:

- Strengthen local community facilities and services
- Become more sustainable by having resources to invest in community projects
- Encourage people to become healthier

Forest Environment

Clauchrie Forest is a mixed but predominantly coniferous forest of young trees spanning 235 hectares (ha). It can quite easily be split into 2 distinct areas, one being suitable for public access that would satisfy the educational, environmental and recreational objectives while the other the commercial part suitable for training and providing income to satisfy financial viability.

The main species on site is Sitka spruce followed by Japanese and Hybrid larches, and some other conifers. Broadleaves (beech, birch and oaks are concentrated in 2 main sites designated as ancient woodlands although a number of additional species have been planted in the last 10 years. The site has a productive area of 182 ha with the remaining 53Ha as open space, roads and quarries.

The local community uses the forest mainly for walking, and the forest has roadways running throughout although some will need to be joined up to provide complete circular routes. Boundaries are marked by stock fence.

Social and Visitor Amenities – Forest Recreation

It has become evident during this study that changes to the national educational curriculum in Scotland to embrace the 'Curriculum for Excellence' will have a significant and positive effect on childrens access to the countryside. Schools will need to take children out of the school classroom environment and into the outdoor environment to study a number of subjects. Local schools that have been consulted have all indicated that a resource such as Clauchrie Woodlands would be an excellent local facility that they could to visit on a regular basis to fulfil the requirements of their new curriculum. Letters of support for the project have been received from the schools in the local area (see appendices) to support the educational use of Clauchrie as a forest classroom this project would need to provide a number of facilities and services. These would include provision of a shelter with toilets in the woods for students and teachers/trainers either as a large wooden shed, log cabin or activity barn. Transport is also an issue as not all schools have a vehicle or travel budget. There is need to coordinate a group of volunteer drivers to use the schools buses and those belonging to communities to provide transport for students.

Further interest has been shown by the Barony College, Parkgate, Dumfries, which specialises in forestry, land based and animal care education. They are looking for a base to teach and train forestry skills. They are keen to join the project as they see it would provide access on their doorstep to a commercial & amenity woodland with educational advantages for their students in Forest Based and Land Management Courses. Barony's inclusion would also potentially benefit NVLT for the college's input could provide both expertise in timber management and practical work in thinning, felling and planting as part of training students in Land Management activities. Some students would also be looking for practical placements and could become skilled volunteers working with others to develop and maintain the woodlands. Thus managing an amenity such as Clauchrie would be beneficial to both the college and its students and Clauchrie.

Other groups such as Cubs and Scouts have indicated their welcoming of such an amenity on their doorstep.

Evidence of the support by local groups for the project is included by way of letters as appendices to this report.

Forest recreation is well developed in the wider area, which is popular for activities such as cycling, walking, and horse riding. Examples of nearby locations where recreational facilities have been developed are Drumlanrig Castle, Ae Forest, Dalbeattie Forest, Mabie, Galloway Forest Park, 7stanes and the National Cycle Network cycle routes throughout the region. In addition bird watching is a very popular attraction with the Wildlife and Wetlands Trust and Scottish Natural Heritage sites at Caerlaverock Nr. Dumfries and other R.S.P.B. sites around the Scottish Solway coast. The forest is a section of a much larger forested area which stretches as far as Moffat including Auchencairn Forest and Ae Forest, all effectively running into one and other. The wider area of Dumfries and Galloway enjoys Kites and Osprey nesting sites which attract many visitors. There is potential that Clauchrie could become another such attraction perhaps for the Goshawks that are known to nest nearby

Demand for improved recreational facilities in Clauchrie Forest is therefore likely and supported by local residents who have completed copies of a questionnaire produced by NVLT, (copies and analysis included as appendices). There is potential for such substantial demand from the wider region.

From discussions with local 'experts' in the tourism industry it would appear there is both year round demand and seasonal demand for tourism activities in the area. Some venues such as Drumlanrig Castle in Thornhill, the home of the Duke of Buccleuch, have a well established day visitor tourist following. The Duke has commissioned a feasibility study to raise the visitor numbers to 150,000 annually and to identify activities that would encourage longer stays in the area. Clauchrie could be seen as another arm of potential attraction as Drumlanrig Estate develops a portfolio 'places to visit' for its visitors of. Clauchrie has the potential to become the '*quiet or wild woodland*' to see. Facilities and access needed for the education side of the forest could be utilised without harming this tranquillity.

There are no formal amenity facilities in the forest at this time but options for improvement of recreation include the development of the current road system into circular routes. The roads that are there are comprehensive, in good order but are mainly dead ends. Linking them up for walking through and riding would not be a difficult task. While general vehicular access is not anticipated, nor wanted by the locals, (as ascertained through consultation); it would make sense to join up the short gaps. Minibus access would be restricted to schools and work or disabled groups

A recreational plan would identify more detailed recreational potential of the forest such as the creation of a car park and educational facilities for schools.

After the initial capital outlay for improving recreational facilities, maintenance costs should be budgeted for. Regular inspection and maintenance will be necessary on an ongoing basis to comply with health & safety requirements. Funding streams will need to be identified to allow this as the potential to generate income from recreation in the forest as part of a local business venture is very limited. There is however potential to generate some income from the wood resource although significant incomes from the commercial foresting will be several years ahead. (See below).

Nature Conservation

Ties have already been made between the NVLT and both Scottish Natural Heritage and the Nithsdale Ranger Service. Both organisations are keen to develop the relationship to assist the Trust to create, sustain and enhance the biodiversity within Clauchrie.

Commercial Timber

While full scale production of commercial timber is some 10 to 15 years off some firewood or bio fuel production could start much sooner. The forest needs to be thinned and such thinning will be able to be sold on as simple logs or chipped for bio mass boilers to heat homes or larger buildings. A feasibility study is being undertaken to identify the viability of a project establish and run a biomass district heating system into a proposed new low cost (rented) housing estate planned by Loreburn Housing for Closeburn village. A local contractor has already registered his interest in such wood chip production.

The Forestry Commission has felled and replanted a significant part of the forest in the last 10 years. Much of the new planting is with Sitka spruce and larch but a large number of broadleaves have also gone in and all are growing reasonably well with only a little need for remedial work.

The site is on the side of a steeply sloping valley and drainage is not a problem as long as ditches are maintained. A main watercourse is the Clauchrie Burn which runs through the area and into which all minor streams flow. It runs into the River Nith. In the past this stream has supported European Otters, (*Lutra Lutra*) and

salmon according to the local records held by Dumfries and Galloway Environmental Resources Centre.

Roe deer are present throughout the area although their numbers are not problematic. Culling may be necessary and this could be seen as a potential revenue source for the project as either the shooting rights could be sold annually or the venison meat could itself be sold.

Red squirrels are also prevalent throughout the local area, this being one of the last strongholds for them in the North of England/Southern Scotland area. The local estate at Drumlanrig has rangers who control any attempted invasion by Greys from the south and it would appear sensible to link with them to ensure similar control strategies were in place within the community owned woodland.

Internal roads are to Forestry Commission standards and are suitable for Forestry Lorries. The forest itself is well placed for local timber markets although its maturity is such that major production from the forest is some way off.

Social Enterprise

Options exist to develop opportunities for local businesses and employment in relation to Clauchrie Woodlands and NVLT intends to encourage the development of innovative approaches to use of the forest as a resource for local businesses. NVLT wants to enhance local employment opportunities rather than displace enterprises so would work with local businesses to investigate a number of options that might exist. Any such use should be seen as a funding source for the project and thereby for the Closeburn area.

Renewable energy ventures could focus on, firewood processing or wood energy production. A wood-fuel enterprise would focus on utilising solid timber or chipped timber to produce energy. The option above to provide woodchip to a housing scheme in Closeburn is being investigated as stated above. Some 60ha of the current standing crop needs thinning and this could be used to provide an energy source and an income. The next part of the woodland available for commercial felling will be nature in 2020. It covers 24 ha and is likely to produce around 10,000 cu metres of woods, 1 small area of one ha is currently of an age to fell but is likely to form part of the amenity rear and thus be retained.

Local business opportunities may exist for forest recreation. Options include pony trekking and mountain biking. Other options focus on the development of venues for educational activities or social events. The level of interest for such opportunities needs to be further defined with the local community and fit the local desire to retain the peaceful and tranquil nature the forest currently enjoys.

Sources of Funding

NVLT plans to seek the bulk of funding for the capital cost of purchasing Clauchrie Forest and a proportion of the development costs from The Big Lottery Fund (Investing in Communities) and the remainder from other sources.

The main source of funding for forestry is the Scottish Rural Development Programme (SRDP). The Land Managers Options would entitle the community to an annual sum of £3,518. This non-competitive scheme includes options such as skill development, business audit, modernisation through electronic data management for forestry, access creation for sustainable forest management and improving public access. Funding levels vary, but the scheme will contribute no more than 75% of total costs.

The Rural Priorities options offer support for a range of forest management operations, environmental and habitat enhancement, and public access work. These options are competitive, have a complex structure and may carry penalties for not carrying out agreed work. The following options, including indicative amounts, may be available for Clauchrie

Forest:

Forest plan preparation £3,360

Restructuring/restocking £520/ha – £905/ha

Woodland improvement £variety of capital payments

Sustainable forest management £28/ha/yr

Control of invasive non-native species £annual or capital payments

Area access management 75% of actual costs

The SRDP also offer grants of 40% to 60% of eligible costs for the development or creation of micro-enterprises and the installation of small-scale renewable energy capacity.

B. ASSESSMENT OF THE FOREST SITE

1. GENERAL INFORMATION

1.1 Location and Access

Clauchrie Forest is located south of the village of Park and about 2.5 miles south east of Closeburn, Near Thornhill, Dumfries & Galloway. The OS grid reference at the site is NX925895. OS Map 78.

Road access to the forest can be gained from one point directly off the minor road from Park Village which runs along to the A76 Dumfries to Kilmarnock Trunk road near Auldgirth.

While this is a single track minor with passing places, it is suitable for timber lorries which during timber operations uses the route north towards Park and joining the A76 at Kirkpatrick bridge. The public road is not heavily used only being used by local residents and those visiting the forest. Tracks and paths do allow access for riders and walkers from High Auldgirth and from the adjoining Auchencairn Forest.

The road access point is gated and leads to the internal forest roads as indicated on the stock map in Appendix x. These internal roads are in reasonable order and their network provides adequate access to the entire site for current timber operations. They are composed of aggregate and are to Forestry Commission standards so are likely to stand sustained timber lorry traffic without upgrading. Machinery such as forwarders will be able to travel over these, but repairs to the road surface may be required after operations have completed. The site includes a quarry that would appear to provide suitable aggregate for such road works and to complete short stretches that might be added to join turn dead end tracks and thus allow circular journeys amenity and commercial timber operations.

The gated access runs past an occupied private dwelling, Clauchrie House, and while access cannot be stopped by the occupants NVLT have consulted at length with the occupants to prevent any misunderstanding or upset. An area for parking would be possible just inside the gated entrance for school minibuses near the quarry or outside at the public road for walkers, riders and bikers.

1.2 Topography and Climate

Clauchrie is located 10 miles north of Dumfries and some 20 miles north of the Solway and is thus on the southernmost edge of the Southern Uplands. The forest is situated on the side of a steeply sloping valley. The site rises quickly from the entrance in the valley bottom at 75 m above sea level to a plateau with hill tops reaching 258m (Clauchrie Hill). Being 'inland' the area misses out on the warmer marine influences of the Solway and the Gulf Stream. The climate of the area includes a rainfall of 53 inches annually with relatively mild winter but low summer temperatures (between -6°C in winter and 18°C in summer.) The topography means

the northern part of the woodlands slopes away from the south and thus receives less sunshine and suffers more frosts.

1.3 Landscape

The Forest lies adjacent to rolling farmlands of the Nith Valley which it borders on three sides with its north eastern corner bordering forests. It is an irregular in shape and designated as Foothills with forestry - SNH Landscape Character assessment type 18a. The woodlands are divided in two by the Park/Kirkpatrick Bridge to Blackwood minor road with a smaller block of 14ha to the west currently partly replanted with hybrid larch.

Gales in December 1999 led to large areas of the main block becoming either open space or being planted up and thus now having very young trees. Some of these areas have been planted with broadleaf trees including birch, rowan, hazel, hawthorn and oak. This was designed to link the broadleaf various broadleaf areas which already exist along the valley bottom, eventually forming part of a link between the two Ancient Woodland Sites. The Forestry Commission has aimed to establish native broadleaf areas over at least 9% of this forest.

There are a variety of excellent view points within the woodlands on the northern side that could be designated as part of the public access amenity. With relatively little work these could be enhanced and more created. The other part of the forest which is more suitable for commercial timber is 'over the hill' and has fewer viewpoints so would not attract walkers or riders at present. Although commercial felling is 10 years or so away the NVLT would need to ensure any replanting in this more commercial area was undertaken in a sympathetic way to enhance eco systems and thus boost amenity and biodiversity options.

There are potential dangers to the landscape & environment of the woodlands:

- Fly tipping of industrial or domestic rubbish;
- Damage to stone walls and boundary fences;
- Introduction of new woodland planting; - these would have to be agreed with the FC
- Location and design of tourist and Educational facilities.

Forest management should reflect sensitivity to these issues and to the natural contours and scale of the landscape.

1.4 Vegetation

Land use for the majority of the site is commercial forestry based on Sitka spruce and larch, with native broadleaved species. In general, the ground vegetation reflects conditions such as soil type, which are predominantly Surface Water Gleys, and Upland Brown Earths on the better drained soils. Moisture and nutrient regimes, as well as the condition of the over storey is also relevant.

Many of the woodland compartments are characterised by the presence of bracken, bramble and rosebay willow herb as well as grasses and mosses. Localised areas of abundant common heather also exist.

The following is a list of common flora found on site (restricted due to the timing of the survey):

Guelder rose	<i>Viburnum opulus</i>
Gorse	<i>Ulex europaeus</i>
Broom	<i>Cytisus scoparius</i>
Bramble	<i>Rubus fruticosus</i>
Bracken	<i>Pteridium aquilinum</i>
Rosebay willow herb	<i>Chamerion angustifolium</i>
Common heather	<i>Calluna vulgaris</i>
Honeysuckle	<i>Lonicera</i>
Grasses, e.g. wavy hairgrass	<i>Deschampsia flexuosa, Molinia ssp.</i>
Rushes	<i>Juncus ssp.</i>
Mosses e.g.	<i>Polytrichum commune</i>
Wood sorrel	<i>Oxalis acetosella</i>
Blaeberry	<i>Vaccinium myrtillus</i>
Thistle	<i>Cirsium vulgare</i>
Red campion	<i>Silene dioica</i>
Chickweed wintergreen	<i>Trientalis europaea</i>
Primrose	<i>Primula vulgaris</i>
Rhododendron	<i>Rhododendron ponticum</i>

The abundance of bracken, willow herb and heather on some sites within the forest may pose a problem for restocking. Although not a current problem the presence of rhododendron is one to monitor as this species can easily overrun an area such as Clauchrie and control would then have to be considered.

1.5 Wildlife

Roe deer are present throughout this forest, and there are signs of rabbit activity around the edges. Crows, magpies, wood pigeons, buzzards, sparrow hawks, barn and tawny owls are common in this area along with and smaller common birds such as wrens, finches tits and blackbirds (see appendices) are common around the forest, and both red squirrels and otters have been recorded, albeit otters are many years ago. Goshawks are also recorded in the area and although for security reasons we have been unable to find exactly where, Ospreys are believed to nest somewhere in the surrounding area. Local residents in the Park area, the closed village to the forest, report high number of gold finches, chaffinches and lesser spotted woodpeckers.

The adjacent fields are home to species such as rabbits and brown hares and the area supports a substantial fox population. In addition, grey herons have been recorded in the area.

1.6 Archaeology

There are no known archaeological sites within the forest boundary but the adjoining Auchencairn Forest does have a large number of Bronze Age cairns and the site of a Bronze Age axe.

1.7 Ownership and Rights

Current ownership of Clauchrie forest lies with Forestry Commission Scotland, Ae Forest District, which is seeking to sell the entire forest.

1.8 Utilities

There are no utilities anywhere within this site, the closest being power and water tracks to Clauchrie Cottage on the western edge.

1.9 Boundaries and Adjacent Land Use

The forest boundary is marked by stock fences and stone boundary walls against the farmland on its northern and western sides. The condition of the stock fence is generally good.

This is not providing access to livestock at present, but should be monitored for further damage. Maintenance of boundary fences is the joint responsibility of the forest owner and neighbouring landowners.

The surrounding fields are mainly improved pastures and are grazed by sheep and cattle. The north east boundary is onto Auchencairn Forest and the southern one on to a mainly felled forest area.

There are a few old field boundaries within the forest which might be utilised as part of any arts and crafts initiatives.

2. COMMERCIAL WOODLAND

2.1 Standing Timber

In its last forest design plan of Clauchrie Forest the FC pursued the following long term management objectives:

- Maintaining the economic productivity
- Creating a structurally balanced sustainable crop
- Managing biodiversity by enhancing and linking the Ancient woodland areas with native broadleaf species and a network of stable environments along stream sides.
- Producing an attractive landscape by using a variety of species and shapes to soften the transition from broadleaves on the lower slopes to pure spruce on the top.

The current felling map (appendices x)

Coupe Number	Fell year	Productive area	7-14 cms top diam	14-18 cms top diam	Over 18 cms top diam	Total volume
24001	2040	13	2,045	1,655	677	4,378
24002	2040	1	66	40	204	310
24003	2040	3	88	140	1,606	1,834
24004	2028	4	228	352	749	1,330
24005	2035	15	921	1,572	4,368	6,861
24006	2040	1	31	53	154	238
24007	2030	14	1,369	817	1,075	3,261
24008	2028	18	1,078	1,846	4,870	7,794
24009	2020	24	2,367	3,302	3,699	9,368
24010	2026	13	1,074	1,512	2,874	5,459
24011	2035	4	122	205	2,213	2,540
24012	2060	11	1,462	2,045	2,930	6,437
24013	2035	2	16	17	700	732
24014	2028	25	1,431	2,451	6,480	10,362
24015	2026	26	1,624	2,768	7,332	11,725
24016	2030	19	1,082	1,947	7,770	10,799
24017	2010	1	124	120	144	388

2.2 Felling and Restocking

Table 2 – timber production and value estimates

Year of felling	Area Ha			Estimated Tonnes	Valued @£10/t		Total income £
2020	24			9368			£93680
2026	39			17184			£171840
2028	47			19486			£194860

2.3 Restocking Options

The first significant felling (24ha) is due in 2020 so restocking is not a major consideration at this time unless there is a policy to replace conifers with amenity deciduous trees or earlier harvesting is considered for biomass provision.

2.4 Felling, Regeneration and Forest Age Structure

Mature	51-60	0	8	4	3	1	2
Over mature	60 plus	0	0	0	3	7	4

In general the FC has aimed to restructure the forest by continuing to spread the impact of felling and restocking with the advance or delay of operations. As a general rule a minimum 7-year age gap or a minimum of 2 metre height growth would normally separate adjacent coupes. In Clauchrie the amount of wind blow at the margins of the recently felled coupes meant it was not possible to introduce a 2

	Age	1993 %	2001 %	2006 %	2016 %	2026 %	2036 %
Open space	0	3	9	12	11	27	15
Establishment	0-10	43	28	37	13	10	48
Early thicket	11-20	0	37	43	27	13	10
Thicket	21-30	0	43	0	43	27	13
Pole	31-40	30	0	0	0	16	8
Mature	41-50	24	16	3	0	0	1

metre height difference, in particular between coupes 02, 03, 04 and 07. The structural variation that is needed to produce a more diverse age structure with wind firm edges needs to be further developed in the next rotation. The Table below gives an indication how the age structure will change through the period of 1993 - 2036

One problem that will shape management options is the range of age classes present. Most of the mature timber will not be felled for ten – fifteen years, the exception being 1 coupe falling due in 2010. There will then be a period of ten or more years with no significant income with the exception of a thinning programme and its potential for biomass fuel or firewood.

c) Tree Species Diversification

The FC's general strategy has been to increase the age diversity of forests compared to the original plantings. Increasing biodiversity potential is then achieved by decreasing the proportions of commercial conifers, and increasing the percentage of native broadleaf tree species and by appropriate use of more open space.

Sitka spruce will produce the highest timber return for capital invested over most of Clauchrie forest and is thus the common species. Other 'commercial' tree species in Clauchrie have been used where they:

- Enhance the landscape on public roads and lower slopes.
- Can significantly improve the conservation value of the plan such as on valley sides next to broadleaf areas.

Areas of mixed conifers have been used to soften the transition from broadleaves to conifers. In coupes 24503, 04, 07 and 17 a mixture of Sitka spruce and larch have been used and in coupes 11 and 12 the conifers used in the mixture are larch, Norway and Sitka spruce.

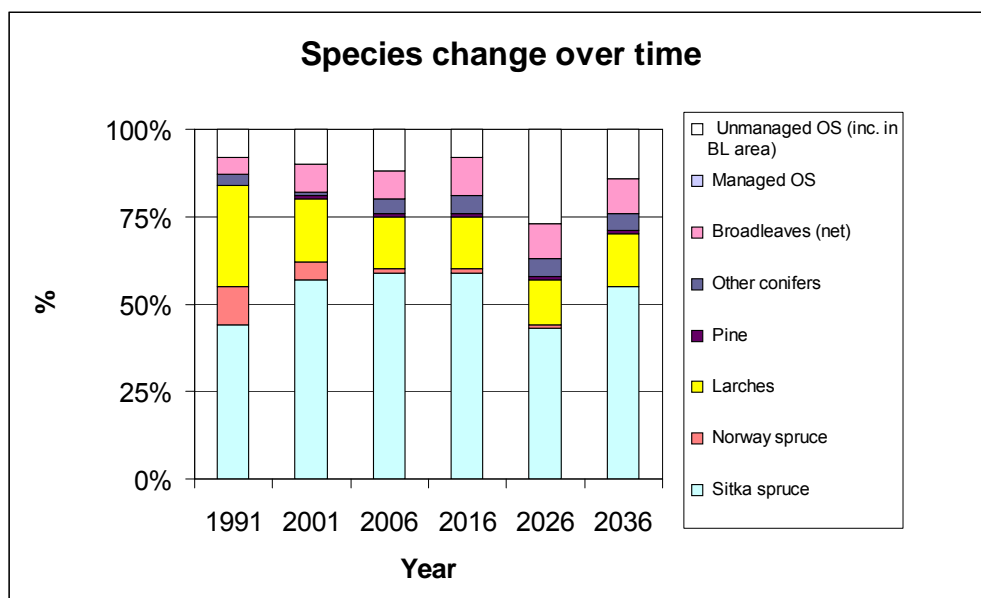
The area of Open Space (OS) was increased in four site types:

- Landscape OS – such as along roadsides.
- Non productive OS – like coupe boundaries and streamsides
- Biodiversity –in and around broadleaf groups, managed and unmanaged areas
- Deer lawns – aids for deer management

The planned change in the species and open space structure for the FDP area over the next 40 years is shown in table 2.

TABLE 2 - Species Distribution

	1991 (Ha)	2001 (Ha)	2006 (Ha)	2016 (Ha)	2026 (Ha)	2036 (Ha)
Sitka spruce	103	134	137.5	138	102	130
Norway spruce	25	11.5	1	1	1	0
Larches	67	42	35	34.5	30.5	35
Pine	0.9	2	2	2	2	2
Other conifers	7.5	3	9.5	11	11	12
Broadleaves (net)	11	19.5	20.5	23.5	24.5	23
Managed OS	0	0	0	0	0	0
Unmanaged OS (inc. in BL area)	20.6	23	29.5	25	64	33



Age diversification will sustain an increasing range of wildlife habitats available in the coniferous forests.

Irregular shaped open space along forest roads, compartment boundaries and operational coupe margins are on average 30m wide to increase internal edge habitat. Open space is also common as irregular shaped zones on either side of watercourses. These zones vary in width from 0-200m depending on shape, size and nature of the site.

The extended open space enhances the provision of hunting areas for the forest's many raptors. The diversity of species, age and permanent and temporary open space will increase the range of flora and fauna, whilst ensuring the future of the conifer dependant species.

Broadleaf policy

The FC has worked towards establishing native broadleaf areas over at least 9% of the forest. These included Oak, Birch, Rowan, Hazel and Hawthorn. The restocking policy in the early parts of this century has thus involved planting broadleaves in line with the figures below.

Soil type	Species	Comment
Brown Earths & Upland Brown Earths Flushed and unflushed Surface Water Gleys 180-250m	Sessile Oak	Main tree species
	Downy Birch	Main tree species
	Silver Birch	Minor tree species
	Pedunculate Oak	Minor tree species
	Rowan	Minor tree species
	Aspen	Minor tree species
	Elder	Shrub species
	Hazel	Shrub species
	Hawthorn	Shrub species

Preferred broadleaf species for planting in Clauchrie – Table 3

Coupe 24501

Broadleaves in this coupe were concentrated alongside the public road at the margins of the forest to soften the edge. A total of 0.5 Ha was planted.

Coupe 24502

This contains one of the AWS so regeneration was allowed to occur and no actual planting of broadleaves was undertaken.

Coupe 24506

Limited broadleaves were planted to augment previous 1999 plantings.

Coupe 24507

Broadleaves were planted to link the broadleaf areas which already exist along the valley bottom, eventually forming part of a link between the two AWS. The area covered 1.06Ha

Coupe 24512

Around 1.3 Ha of broadleaf planting in this coupe is designed to link the broadleaf areas which already exist along the valley bottom as part of a process to link the two AWS.

2.5 Timber Extraction

The internal road system services all areas of the forest which is generally suitable for timber extraction by forwarder. Roads are suitable for timber lorries. No major work would be needed to protect the soil from extensive damage by machinery. The internal roads are likely to require remedial work after operations are complete to maintain their usability for future operations.

2.6 Local Markets

The location of the forest is favourable in term of local markets for timber. FCS has indicated that there are "30 wood processing centres within 60 miles of Dumfries." These markets range from small to large scale wood processors; examples include Howies Forest Products in Dalbeattie, James Jones in Dumfries and the Eon biomass power station at Steven's Croft.

These varied markets require timber for a wide range of products, including construction timber, pallet wood, wood chips etc.

One potential market for the timber harvested is as wood fuel. Under conventional timber harvesting systems, wood fuel energy suppliers are just another market that must compete for supplies. Small round wood for example can be processed for chip board manufacture or chipped for fuel.

As wood fuel markets develop there is the possibility that brash, (tree tops and branches), could be removed from the forest and processed into woodchips.

One suggestion is that the NVLT could develop a wood-fuel enterprise. If so, this would only utilise the solid timber and would not include brash or tree stumps. This option is further expanded in section 5.

2.7 Management of Newly Planted Areas

The areas that were most recently restocked have generally established well and do not require beating up. There is no requirement for application of fertiliser.

Future restocking sites may require ground preparation to ensure successful tree establishment. Since there will be little commercial felling before 2020 this is something that the NVLT has plenty time to plan for.

2.8 Forest Management Costs

Other costs will be incurred over time as part of normal forest management. Not all work requirements can be assessed at this stage and in many cases the NVLT will need to take policy decisions. Costs can vary greatly depending on how the work is organised and no attempt is made to quantify these in detail in this report.

- Fence maintenance.

Costs of stock fencing may be shared with the neighbouring land-owners. This will be specified in the title deeds. A new fence currently costs £3.20- £3.50 per metre.

- Road maintenance.

Repairs may be needed after each harvesting operation. Other routine work might include flailing road-side vegetation or clearing culvert catch pits.

- Drain maintenance

Main arterial drains should be identified and mapped. These may need to be cleaned out occasionally and should be inspected after each harvesting operation.

- Fertilising

Normally only carried out in pole stage crops if they show signs of nutrient deficiency. The normal procedure is to analyse foliage to determine the requirement for treatment. Our observations do not suggest that nutrient deficiency is significant here.

- Insurance

At the very least the business should have Public Liability Insurance for the woodland. It is also possible to insure against fire and windblown. Premiums vary with the level of cover required and the age of the crop. Allow £300 p.a.

- Certification

Woodlands may be certified to show that they meet the standards of the UK Woodland Assurance Scheme – UKWAS. This specifies minimum standards of social and environmental care. This is voluntary but increasingly there is a market demand for certified timber and a lower price is paid for uncertified timber. Costs of certification might be £600 for the first year and £300 annually thereafter.

- Protection

Replanted conifer trees are susceptible to damage by pine weevil – *Hylobius abietis*. This beetle breeds in tree stumps and populations may rise substantially after harvesting. Post planting treatment with insecticide may be required though barrier methods of protection are also under development. One option is to delay restocking for four or five years to allow the weevil population to decline naturally.

- Wildlife control

Deer, rabbits and hares can all damage young trees. Protection methods include fencing, shooting or tree shelters. The NVLT will need to make a policy decision whether to lease the sporting rights or to employ a wildlife controller. Roe deer will be the main damaging species here.

- Control of invasive species

Rhododendron and western hemlock are invasive, non-native species and control may need to be removed to prevent these from becoming dominant. This task could be suitable for volunteer labour.

- General maintenance.

In replanted areas it may be necessary to spot weed around suppressed trees, replace losses and to remove or repair tree shelters. Young woodlands should be inspected routinely to assess the work required.

- General management

This includes routine inspections, organising and supervising contractors, grant claims and applications and general administration of all the activities outlined above. The NVLT will need to decide whether to employ a project officer; manage the wood themselves or to employ a forestry consultant or management company. In aggregate the average cost of general management and maintenance work may be £25-35 per hectare annually but as indicated above there are many variable factors.

3. SOCIAL AND VISITOR AMENITIES

3.1 Existing Recreation in the Area and Demand

Forest recreation is well developed in Dumfries & Galloway, which is a popular holiday destination in Scotland. The main demand for recreational activities in the area as described by VisitScotland is focused on the following activities:

- Cycling and mountain biking
- Walking
- Horse riding
- Fishing
- Golf
- Tracing of Ancestry

Several opportunities exist in the wider area of Clauchrie forest for cycling and mountain biking, walking and horse riding. A number of destinations which supply these recreational facilities can be found within a 30 mile radius, including Screele, Mark Hill, Dalbeattie Forest, Ae Forest, Mabie, Galloway Forest Park and 7Stanes (mountain biking). The National Cycle Network advertises cycle routes throughout the region, as well as the National Byway.

The Buccleuch and Queensberry Estate at Drumlanrig Castle is a well established visitor attraction which has walking and mountain biking facilities. The Estate are currently trying to develop a visitor profile that encourages multi-day visitors as opposed to their single day visitors they have at the moment and Clauchrie would easily add to what is there already and provide the quiet and tranquil but accessible area that could be recommended to visitors by the Drumlanrig Rangers. These may visit the forest if recreational facilities are upgraded and advertised.

If it was felt that the NVLT wished to be able to compete successfully with the existing facilities in the wider region, recreational facilities in Clauchrie would have to offer additional value. This may be achieved in the form one of the ventures such as pony trekking and bike hire, visitor / wildlife centre etc. However the opinions sought during consultation would not support competing to this level as the local demand was for wild and tranquil accessibility so it would be suggested that rather than compete, working alongside what is already available would be the preferred way forward.

Local demand for recreational facilities in the forest is not likely to be substantial. At present the community uses the forest mainly for walking, which is largely restricted to the existing roadways in forest. To contradict this slightly though, there has been an interest from local riding schools and local horse owners as the forest would open up an area unused by them in the past. If that was the case it would be important to learn from other such schemes such as the Borders Forest in Gordon. They find that horses and walkers need separate routes simply due to the damage to the paths/ roadways a horse can cause. That said this would need further consideration

in the case of Clauchrie as much of the road is of hard core construction. It would need to be considered however.

3.2 Existing Recreational Facilities

There are no formal recreational facilities with Clauchrie Forest. The current roads system does provide a marked route through the forest and can be clearly seen in the map within the Appendices. Some areas need to be joined up although even without that walkers can easily traverse the unpaved areas between the paved areas.

The current state of the forest linked to planting data and thus cropping plans clearly identify the area which is suitable for development as an accessible forest those being from the entrance at Clauchrie cottage towards the north and western side of the forest.

Car parking would have to be developed near to the entrance and consultation with the occupiers of Clauchrie Cottage is also very important as most pedestrian and all visitor vehicular traffic would pass by their home.

3.3 Recreation & Access Improvement

Improvements of recreational and access facilities are possible in Clauchrie Forest within the boundaries of the demand from the local community. While the commissioning a specialist recreation report could be considered to optimise these possibilities the public consultation would suggest that local demand is for little more than access to a quiet, wild tranquil forest with development restricted to completing circular routes and to developing the educational needs for the local schools. The latter would be identifying a suitable forest building for a 'classroom' and base for forest based local activities.

The following outlines a number of possible improvements.

3.3.1 Footpaths

Linking of the current footpath/ road network to provide completed loops through the forest and possibly providing signage.

If wildlife supports it consideration might be given to the creation of a hide to view birds and other wildlife which would be an additional interesting focus for walkers, which would also offer additional educational opportunities.

Such provision will need maintenance and have cost implications.

3.3.2 Cycling tracks

The forest is hilly in nature and has a potential for cycle tracks for mountain biking. As mentioned above with regards to horses and walkers, if such tracks were to be considered again separation would also have to be feature.

3.3.3 Horse tracks

Horse riders could gain access to the forest, and may choose to use the internal roadways if and when they are joined up. This could lead to damage to the paths and present hazards to all path users and as previously mentioned separation of horse riding and walking might need to be considered.

3.3.2 Car parking

If recreational and educational facilities in the forest are increased, car parking will be required, although this requirement is likely to be small. This will depend on the type and level of facilities provided, and should be assessed in more detail when deciding on the development of recreational and educational facilities. The latter would be dictated by how many children were to be brought to the site and how they would travel.

3.3.3 Other

Any development of recreational facilities should take into account the associated financial and management implications. Formal recreational facilities require regular inspection and maintenance, and bring access and health & safety considerations.

Access for educational purposes for the Barony Students mentioned earlier would be less problematic as they would, in the main, be using the area to the east of the forest and their purpose would be more towards the management and felling of a forest. Their equipment would therefore be suitable for the forest as it is and would require little of no input from the NVLT, other than ensuring the work being carried out was to the benefit of the forest.

3.4 Management & Costs

Costs for construction of recreational facilities vary considerably, and may depend on factors such as scale, the quality, standard and finish of the facilities and local conditions such as soils. The following costs are indicative and may vary:

Table 5 - estimated costs for recreational facilities

Feature	Cost/ unit
Roadways	£35.00/m
Cycle Track	£50.00/m
Way markers	£25.00/m
Picnic bench	£250.00 each
Stile	£100.00 each
Kissing Gate	£450.00 each
Car Park	£15.00-20.00/ m2
Forest Building/ Classroom	£10,000.00

After the initial capital outlay for improving recreational facilities, maintenance costs should be budgeted for. Regular inspection and maintenance will be necessary on an ongoing basis to comply with health & safety requirements. If there are not sufficient local resources to undertake this, management of recreational facilities could be contracted out.

The following table gives an indication of costs that may be required on a yearly basis.

Table 6 - estimated management costs

Operation	Cost/ Unit	Estimated total cost/ year
Supervision	£150.00/ visit	£1800.00
Litter removal * ₁	£50.00/ visit	£450.00
Removal of dangerous trees * ₂	£200.00/ each	£600.00
Brushing * ₂	£400.00/1000 trees	£1000.00
General maintenance * ₂	£10.00/ha	£2750.00
TOTAL		£6,600.00

**1 May be something that is done by volunteers*

**2 Is something that is likely to be part of the agreement for access with the Barony College Students therefore cost are not relevant.*

The total cost of managing the recreational facilities vary, the Community will need to decide whether to 1) manage these themselves, 2) contract this work out or 3) employ a project officer. Options 2 and 3 are more likely.

Facilities will furthermore require upgrading and major repairs after a number of years. The frequency and cost of this depends on factors such as initial specification, the intensity of use and level of general maintenance.

The existing local demand for extensive facilities and the consultation revealing local desires for a low key project suggest initial development should not be extensive and could focus the following:

- Roadway network completion, (joining up existing roads)
Estimated cost: £10,000
- Creation of a forest building/ classroom
Estimated cost: £70000-£75000
- Provision of ecological toilet facility
Estimated cost: £5,000.

All costs are very provisional and only give an indication of possible funds required. The effective costs of any improvement work will depend on a number of factors, most importantly the final specification of the work. A more detailed recreation plan is recommended to be carried out to identify additional recreational potential within the forest.

Funding of standard costs or up to 75% of the total cost is available for specific activities.

Details of sources of funding for recreation and access are provided in section 5.

4. NATURE CONSERVATION

4.1 Designations

Clauchrie forest is not covered by any conservation designations.

4.2 Protected Species & Habitats

Information is poor regarding animal and plant species that have been recorded on site. Some of species enjoy special protection under National and/or European legislation.

The following species and habitats are protected and have been included in the UK Biodiversity Action Plan (UKBAP), the Local Biodiversity Action Plan (LBAP), or both. The Dumfries & Galloway LBAP is currently under revision, and as a result included species and habitats may change.

Mammals

- Red squirrel

Red squirrels have been recorded in and around Clauchrie Forest. Red squirrels feed on conifer seeds and prefer species such as Norway spruce and Scots pine, although Sitka spruce may also provide suitable habitat.

The forest is connected with Auchencairn forest and therefore there is no barrier to migration. This means that grey squirrels, which pose a threat to red squirrels, are potentially able to invade the forest. The lack of large seeded broadleaves such as oak and beech contributes to the reduced threat of grey squirrels.

The local Drumlanrig Castle Estate Rangers are active in preventing the spread of Grey Squirrels as this area of Scotland is one of the last bastions for the Red Squirrel. It is therefore recommended that NVLT liaise with the Estate Rangers to ensure a co-ordinated approach to prevent the invasion of Greys.

- Otter

Although not documented within the forest boundaries, otters have been recorded in the area albeit many years ago within the Clauchrie Burn, (information from Dumfries and Galloway Environmental Resources Centre). Otters are however present in the River Nith and it is likely that this species could use the larger drains and Clauchrie Burn and travel around the area.

Invertebrates

No information available at this time.

Reptiles

- Adders
- Slow Worms

Both are known to be in the surrounding areas.

4.3 Biodiversity Improvement Opportunities & Constraints

Clauchrie Forest appears a sustainable mixed woodland forest which has been managed by the Forestry Commission Scotland. Being a sloping site water is not a major problem with drainage being sufficient. This would however make it difficult to diversify and create either bogs or ponds. There is limited threat to the forest other than from disease or insect infestation that might arise from climate change.

The limitations to improving biodiversity within the forest are presented by:

- Wind (need to ensure that any improvements do not increase wind blow damage)
- Funding (targeted conservation work requires funds)

However, a number of opportunities exist to improve biodiversity in the forest. Most of these can be achieved without significantly compromising commercial timber production, whereas some would require a more large-scale approach. Conservation opportunities include:

- *Species*

The connectivity to Auchencairn Forest and to the larger Ae Forest beyond makes it possible to try to encourage other species into the Forest.

- *Management of open space*

The more recent focus on inclusion of open space on restocking sites will improve habitat diversity and benefit a number of species. This is a straightforward method to improve biodiversity within the forest and can be incorporated into the planning of sites for new planting. Open space should cover a range of habitats, including woodland edges. These areas could be actively managed as open space by operations such as swiping (e.g. to benefit invertebrates) and removal of invasive species. Alternatively, these could be left to develop 'naturally' through successional processes. Specific sites should be identified at time of restock planning.

- *Increasing tree species diversity*

Although site conditions limit the choice of commercial tree species, opportunities exist to include other species. Where soil conditions are likely to support other conifers, these could be included to benefit key species such as red squirrel. In addition, the inclusion of native broadleaved species (preferably small-seeded) will greatly add to biodiversity in general.

- *Maintaining age class diversity*

Age diversification can be achieved through the careful planning of harvesting and restocking operations, although this is obviously long term in Clauchrie, making sure that a range of trees of different ages (and sizes) is available at all times. This will benefit a larger range of species, by maintaining a larger range of habitats.

- *Clearing invasive species*

Invasive species can provide a serious threat to biodiversity and should be addressed. Species such as rhododendron, bracken and willow herb can quickly overtake a site and should be tackled before this occurs.

The cost of improvement work varies and depends to a great degree on the scale of the project undertaken. Funding for conservation work may be available from a number of sources and these are described later.

5. SOCIAL ENTERPRISE

While Social Enterprise is not one of the aims of the community which are:

- To strengthen local community facilities and services
- Become more sustainable by having resources to invest in community projects
- Encourage people to become healthier

Some examples of Social Enterprise that would benefit the community and suggested by the Community are:

- Renewable energy
- Tourist ventures
- Training & education
- Craft working
- Green burials
- Non-timber forest products

Some of these options are discussed in more detail below, although further research would be required to assess the feasibility of any of such schemes. This report suggests some areas where further investigation may be considered.

5.1 Renewable Energy

5.1.1 Wood Energy

The cost of coal and oil has risen dramatically over the last 5 years (coal locally has risen by 50% in 2 years) and after the current world economic downturn fossil fuels are likely to continue to increase in price. This will mean fire wood will become a very competitive and sustainable product for heating. The energy content of wood is directly related to the moisture content – drier wood has a higher energy value. Using soft wood conifers as a source for fire wood is as good as hard woods as long as it is properly dried below 40%. One tonne of timber at 40% moisture content has an energy value of 9.46 GJ. (1 Gigajoules = 109 Joules). This thus offers a good source of heat energy although 50% more volume is required to produce an equivalent heat output of hard wood. As 81% of Clauchrie woodland is coniferous this would be the main type of wood available. It would provide a better income than selling poor quality timber for pulp such as the timber resulting from thinning operations.

It is important to dry firewood before burning to get the highest heat output. Traditionally Scottish supplies are dried over only one summer season although 2 seasons would give a much better heat value. Seasoning can be carried out by stacking under open cover and allowing air to circulate or using plastic tunnels in sunny locations with good ventilation. It can also be kiln dried although this is energy expensive.

5.1.2 Fire Wood

The potential for production of fire wood is focused on using the thinning mentioned above.

If NVLT undertook the operation itself then income could reach £15000/year if one assumes a modest price of £50/tonne and that 30% of 500 local houses burn wood and consume 2 tonnes a year each. 150 homes might then use Clauchrie Woodland firewood giving a 300 tonne/year market. Costs would however be incurred in cutting, hauling and for capital equipment.

The alternative would be to sell the standing crop to a current supplier. A local firewood supplier living in the village has already expressed an interest in purchasing wood from Clauchrie as he is expanding his business. He already has all the equipment required including an automatic tractor mounted splitter. This would allow NVLT to avoid capital cost and still find a better return for thinnings. If one sold standing timber at £10 /tonne then this would provide some £3000 per year income.

Clauchrie Woodlands has some 60Ha of Sitka Spruce (Compartments 5107A & 5106A) planted in 1990. These standings now require thinning and could thus be appropriate for use as firewood. Thinning can be a loss making activity, as contractors' costs often exceed the income from selling the timber. However, thinning is an operation which has to be carried out to ensure the remaining standing timber grows to its maximum maturity and so achieves good cash returns at clear felling from providing good material for sawn logs. So using these trees as firewood would improve income at thinning time and maximize income at felling time.

A market survey would be needed to assess the potential market for firewood

5.1.3 Christmas Trees

Many local residents still buy real Christmas trees every year. If one assumes this figure as 40% then the 500 households in Closeburn give a potential market of 200 trees selling through the village hall or the village shop. Many others commute to work along the A76 so the potential market from passing traffic is much greater. Locally 6 foot trees cost between £15 - £20 collected. Thus selling direct or via other outlets should enable Clauchrie woodlands to gross around £10 per tree. Whilst £2000 per year does not represent a large income it could become a regular and reliable one.

5.1.4 Biomass

Heating from biomass boilers is an energy efficient green renewable energy source. It is being developed for district housing schemes in Scotland such as Whitegates at Lochgilphead and locally is used to heat Dumfries Infirmary.

Clauchrie woodland has the potential to produce between 2-5 tonnes of biomass/Ha/year. This could be used to supply a biomass boiler to provide district heating to a housing scheme that is planned for Closeburn village. Loreburn Housing are in the process seeking planning permission for a 2 phase low-cost energy efficient housing scheme on an area of land adjacent to the current village. Phase two will contain 28 houses and Loreburn Housing is interested in discussing the provision of a biomass heating system boiler. A feasibility study would be commissioned by NVLT to investigate viability if the woodlands are acquired.

This scheme is likely to need a boiler in the region of 280 kilowatts which would be enough to provide 80% of peak demand during winter periods. Biomass boilers usually run alongside an oil or gas boiler which provides the other 20% of peak demand. This backup system is used in the summer when there is little heating demand or in very cold conditions when demand approaches 100%. Options also exist to use solar panel to provide hot water in the summer when it would not be viable to run the biomass boiler.

Grants are available to organisations like NVLT for up to 60% of the capital cost of biomass heating systems. The systems are best installed in new build schemes although they do have the capacity to be extended to existing housing because they work on an underground insulated hot water system that provides heating to radiators.

Biomass boilers are now fully automated and can be built in such a way that they easily fit into the landscape of a new housing scheme being only the size of a double garage. Boilers have to be serviced to clear waste fortnightly and topped up weekly with fresh chippings.

The possibility exists that NVLT could become the energy company that provides heating to the properties. This would have to be negotiated with Loreburn Housing who will rent the properties to tenants.

Biomass could be provided from Clauchrie woodlands from thinings and so added value to poor quality timber that would normally go to make chippings or pulp. A stockpile of timber that could be chipped would have to be built up over 18 –24 months so that there was then a steady flow of material to a biomass boiler. Either chippings would need to be stored and kept dry prior to use or logs could be stored at roadside and chipped and dried for a shorter period before use. Thinning is

normally undertake on 5 year cycles after year 19 for Sitka spruce but annual thinning might be preferable for a continuous flow of biomass.

Brash, the tops and side branches of trees could also be used in this system. Brash is normally discarded within the forest but could be baled and chipped. Up to 50% brash from a forest could be collected without adversely affecting either biodiversity that comes from natural degeneration or its use as roadways for equipment within the forest.

An alternative option would be to identify a local firewood/ biomass contractor with the expertise and equipment to undertake this operation. This would fit with the ethos of encouraging local enterprise and would avoid capital expenditure for NVLT

5.1.3 Wind power

The site has significant potential for wind power generation as identified by a FCS survey suggesting 18 MW capacity. The site has sufficient elevation and wind speeds to make wind generation economic. Initial assessment using the DTI wind speed database (www.berr.org.uk) show that the site NX295588 has estimated wind speed as follows

45 m 7.6 m/sec

25m 7.0m/sec

10m 6.3m/sec

These wind speeds would be sufficient to power large turbines (up to 850Kw capacity). The 15 turbine windfarm at Dalwsinton is also adjacent.

However there are issues relating to large scale generation. The local population do not wish to see more large turbines in their landscape, connector capacity transfer electricity onto the national grid is limited and the capital costs would probably be beyond the ability of NVLT.

To avoid a huge capital outlay which the community would struggle to raise NVLT could allow a developer to install turbines in exchange for an annual payment £3,000-£10,000/MW. This would also avoid spending monies on feasibility studies and surveys and then not gaining planning permission. A number of community wind farms have been proposed elsewhere in Scotland where the developers provide one turbine within a larger development for community use. Some communities such as the Burray Orkney Project have installed their own single turbine windfarm.

A small scale scheme might be more appropriate and would have less impact on the visual landscape. Small scale could supply electricity to buildings in the woodlands

including any Barony workshop and the activity barn. It is usually easier to get planning approval for small scale projects and the financial risk is lower. Potential profitability is also likely to be lower although current proposals to increase the subsidy for micro generation under the Renewables Obligations could improve the situation. If a connection to the grid is possible then financial returns could be positive.

5.2 Tourist Ventures, Training & Education

The business potential of any ventures that are aimed at attracting a larger number of visitors to Clauchrie Forest depend on the Community's decision to develop recreational facilities within the forest, as discussed in section 3.3. Tourist ventures suggested by the Community were very low key, walking, horse riding and possibly mountain biking.

Suggestions for developing opportunities in training and education to the benefit of the community could be developed while retaining the forests ambiance. Working with partners, such as local schools and the Barony College could be done to the benefit of both Clauchrie Forest and the educational establishments differing requirements. The Curriculum for Excellence being introduced to schools will require visits to areas such as the Forest and therefore its acquisition would be of benefit to schools throughout the Nithsdale area. The Barony College on the other hand need training areas and their partnership could provide much of the woodland maintenance needed while they will achieve the training aims for their students.

Structures that are compatible with the forest environment could be built in the forest to be used for schools as an outdoor classroom and by the NVLT or other community organisations for forest based activities.

Other suggestions include the use of such venues as artists' studios and for workshops, craft-based training facilities etc, (one artist who carves sculptures from timber has already approached the steering Group to register his interest).

Any such buildings would be best placed towards the southwest part of the forest, within walking distance of the entrance.

Further research into the feasibility of any of the above ventures requires a further level of detail, which falls outside the scope of this study.

5.3 Other Opportunities

5.3.1 Craft Working

Willow and birch in Clauchrie Forest presents some opportunities for use of these species for craft working. Examples include the use of willow for basketry, floral decorations and gardening supplies. Birch bark, twigs and roots can be used for decorative purposes. Both species can be harvested for (green) wood working.

Depending on local demand, harvesting opportunities could be investigated further.

5.3.2 Green Burials/ Memorial Trees

One option mentioned by the Community is the management of a green burial site within Clauchrie Forest. Tight criteria exist which are tested by the planning authorities before approval can be granted for burial sites, where planning permission is required. A key factor is the risk of water contamination, and potential sites must meet criteria such as:

- Soils are at least 2.5 m deep;
- Soils are preferably clay, and are not too sandy;
- The ground water table is at least at 5m depth;
- The site is at least at 50m distance from any watercourses;
- The site is at least at 250m distance from a drinking water source;
- The site is at least at 10m distance from any drains or ditches.

Less problematic is the planting of Memorial Trees and there are clearly areas within the part that will be the non commercial or publicly accessible area where such an opportunity could be launched. The site presents some very good quiet areas with outstanding views that would certainly provide the ambiance such a memorial area would require.

5.3.3 Non-timber Forest Products

The current forest species structure of Clauchrie Forest limits the diversity and abundance of non-timber forest products (NTFP) available, but some scope may exist for the small-scale production or collection of NTFP's.

• Food

Berries (blackberry, bramble, wild raspberries) could be harvested from the site for uses such as jam making although inspection of the forest did not reveal an abundance of such species currently.

The diversity and abundance of harvestable fungi on site could not be determined due to the timing of the site inspection, but this could be investigated. The main constraint on site is the restriction of access depending on the location of the 'food'.

The area towards then entrance of the forest is also entirely suitable for planting fruit trees and things such as Crab Apple and general apple trees would be welcome by local residents who use them for Jam making. This is one of the potentials to get school children involved as they could be encouraged to plant such trees as part of their projects.

• Game

Roe deer is present in the forest and could be used to produce (organic) venison as a sustainably harvested product. As some deer control will be necessary, this could be combined with the sale of venison, or the sale of shooting rights. The feasibility of

this depends on factors such as deer numbers present in the forest, the price of venison, larder facilities, available market etc., and falls out with the scope of this study.

- Moss

Certain mosses could be gathered for use in ornamental gardening, flower arranging etc., either for local use or for sale to traders. However, gathering moss can be damaging to the area. This would need to be discussed with ecological experts before it was allowed and in the interim should be discouraged.

6. SOURCES OF FUNDING

6.1 Growing Community Assets (The Big Lottery) Fund

This is the main source of funding for the capital costs of the acquisition of Clauchrie Forest by Closeburn Community through NVLT. The Community Council registered its intent to begin this feasibility study with the Big Lottery and received financial support to do so. It also supplied an outline application under Investing in Communities for acquisition and development costs. The next stage is twofold one is to apply under the National Forest Land Scheme to the Scottish Government and provided they agree to the sale/ purchase an application will go forward to the Big Lottery Fund.

6.2 Scottish Rural Development Programme (SRDP)

This is the main source of support for rural businesses. It supports a wide range of activities, including all aspects of forest management, public access, community development, business diversification, marketing and development of alternative energy schemes. Potential beneficiaries must register the business and the land holding with SGRPID and obtain a Business Reference Number (BRN) and a land holding number.

For forestry/woodlands related work there are three funding streams relevant to the NVLT and therefore Closeburn community:

- Land Managers Options
- Rural Priorities
- Leader

6.2.1 Land Managers Options

The business will have an annual entitlement to a sum of money, calculated on the area of the land holding, which can be spent each year on a choice from a small number of options. For Clauchrie forest, 235 ha, the annual sum would be £3587. This scheme is non-competitive.

Options that may be relevant are:

- Option 1 Skills development – training. 75% of actual cost
- Option 2 Business audit. 50% up to £150 maximum
- Option 6 Modernisation through electronic data management for forestry, e.g. purchase of specialist forestry equipment such as data loggers or electronic callipers. 40% up to a maximum of £1000 per item
- Option 7 Access creation for sustainable forest management (roads and tracks required for forest management within or to provide access to the forest). 50% of actual cost

- Option 20 Improving access. Public access work such as footpaths or way-marking. 75% of actual costs

6.2.2 Rural Priorities

This is the main element of the SRDP. Funding is competitive and there is a two stage application process. It is a new scheme and not all guidance is in place, consequently there are still uncertainties about some of the details.

Support is available for a wide range of forest management operations, environmental and habitat enhancement and public access work. The structure of the scheme is complex and the following is only a brief and simplified description of the work that could be supported. The eligibility criteria are sometimes complex. Penalties, 10% of the value of the work agreed, may be levied if contracted work is not carried out without good reason. Grants may be standard costs, which may cover all of the actual cost in some cases, or a fixed percentage of actual costs incurred.

Forest Plan preparation

Payment rate is under review, expected to be £20/ha for the first 200 ha and £5/ha thereafter.

For Clauchrie the grant would be £4,175

A Forest Plan covers the felling and restocking operations for a ten year period and facilitates access to other RP grants.

Restructuring/restocking

Payments are made under two headings.

- 1 Restructuring felling of areas of even aged plantation - £130/ha/year for four years following the completed felling.
- 2 Restructuring regeneration (Replanting). As per the table below, paid on completion of the planting.

Table 7 – forest restructuring payments under SRDP

Woodland Type	Capital payment £/ha
Mixed broadleaves	planted 300
Native mixed broadleaves	planted 385
Natural regeneration of broadleaves	Nil
Caledonian Scots pine	313
Other conifers (pine, larch, Douglas fir or improved Sitka spruce produced by vegetative propagation)	134
Unimproved Sitka spruce	Nil

Total payment for 'restocking' therefore ranges from £520/ha to £905/ha.

Woodland Improvement Grant

A variety of capital payments for operations under the following headings:

- Deer management;
- Improving woodland habitats and species – non commercial thinning; mulching brush, dead wood management; fence removal;
- Improving non woodland habitats – removal of tree crop to waste, seedling tree removal, felling to allow restoration of blanket bog.

Sustainable Forest Management

An annual payment of £28/ha for:

- Areas of woodland appropriate for using low impact silvicultural systems (LISS) and under active management.
- Areas of woodland that have a high level of access and recreational use that require associated environmental management.

The annual payment is only a contribution towards costs and potential beneficiaries must have a management plan and budget that shows this to be the case.

Control of invasive non-native species

The annual or capital payments for control of grey squirrels or eradication of rhododendron, giant hogweed, Japanese knotweed or Himalayan balsam.

Provision and Upgrading of Infrastructure

Capital payments for construction or improvement of access roads and tracks to forest land.

Grant is 40% of eligible costs.

Area Access Management

Capital grant of 75% of actual costs for access work:

- Path/route construction
- Vegetation reduction
- Provision of amenities
- Provision of safety features
- Monitoring
- Signage
- Information leaflets.

For other social enterprises the SRDP also supports:

Development/creation of micro-enterprises

The objectives are to 'encourage potential entrepreneurs to set up or develop unique businesses which will contribute to the vibrancy of the rural community, create employment opportunities and/or meet market demand for goods and services'. This might include a portable sawmilling or firewood processing business.

Grant is 50% of eligible costs.

Renewable energy

To encourage rural businesses to install small scale renewable energy capacity to 250kw.

(Grants available at 50% of eligible costs).

6.2.3 Leader

LEADER is aimed at promoting economic and community development within rural areas.

LEADER is a bottom-up method of delivering support for rural development through implementing a local rural development strategy. Support will be aimed primarily at small scale, community driven projects that are pilot and innovative in nature.

The aim of LEADER is to increase the capacity of local rural community and business networks to build knowledge and skills, and encourage innovation and co-operation in order to tackle local development.

6.3 Other sources

Windfarm Community Fund
National Lottery
Grant giving Trusts

C. COMMUNITY OBJECTIVES, MANAGEMENT STRUCTURES & FEASIBILITY STUDY

1. COMMUNITY OBJECTIVES

The overall aim of community control of Clauchrie Forest is to bring a variety of benefits to the Closeburn Community, which will not be obtained if the forest is sold on the open market. The following aims for a potential purchase of the Forest by the Community were identified:

- Strengthen local community facilities and services
- Become more sustainable by having resources to invest in community projects
- Encourage people to become healthier and stronger

It was seen that the following were viable visions for the future;

AMENITY

- A natural amenity managed by locals for walking, rambling, biking, riding, orienteering and camping which would become a social and tourist focus.
- Opportunities for volunteers to improve biodiversity - more wildlife, birds, red squirrels, and a wood full of bluebells, primroses and native trees.
- People of all ages and abilities would be able to enjoy the amenity through specially designed trails.
- an environment for outdoor arts and crafts, and a place of tranquillity for remembrance and thought
- Both young and old would have education & training opportunities. Wallace Hall Academy and primary schools at Closeburn, Duncow, Holywood, Thornhill, Penpont, Moniaive and Dunscore would have a permanent educational resource for teaching a range of topics including environmental resources and biological sciences. The Barony College are interested in providing training in forestry for students and adults. We could run a Forest School for all Nithsdale schools in a specially built activity barn and classroom for students, youth groups and adults.

COMMERCIAL

- Besides tourism there may be revenue earning opportunities from providing firewood and brash for Biomass plants. In the longer term timber sales would provide significant income. Any surplus monies could be available for community projects on recreation, sports and social activities.
- The commercial plantation could be used to provide timber for the amenity part of the woodlands for bridges, stiles, seats and the activity barn/classroom, sustaining its community.

2. MANAGEMENT STRUCTURES

The Closeburn Community Council decided from the outset that it needed to set up a Steering Group which in turn set up the Charitable Company, registered both with OSCR and Companies House known as Nith Valley LEAF Trust.

The future management structure depends, to a substantial degree, on the chosen management approach. NVLT wishes to develop the amenity of the woodlands in particular through recreational and environmental improvements. At the same time it needs to manage the timber resource with its thinning, harvesting and marketing operations. This requires input from trained individuals. The required skills may be found amongst the Directors of NVLT or within the community, but may require being brought in from outside.

Most of the Directors are engaged in full time occupations and thus in the first instance the NVLT is likely to hire a project officer to develop and manage the project. In addition it may use a forest management company maintain the timber and use organise contract labour to carry out forestry operations.

Volunteer labour can be used for many operations, but will also require management.

Community ownership of the forest could also provide a platform for social enterprise by supporting local businesses such as contracting with current firewood/biomass suppliers to provide timber for heating and biomass plants. Accessible forest clearings may be identified for use by appropriate local businesses which could also benefit from access to timber or other resources within the forest. Leasing sites or forest resource rights would not be expected to generate significant income for the community in the short term however over time the objective would be to increase economic activity and potentially employment in the local area.

The NVLT would seek to run such business ventures at arm's length for instance by providing suitable sites for business activity but leaving the operation of such businesses to local entrepreneurs. In fact their charitable status would dictate that direction needing to be taken. The second 'aim' above clearly outlines that NVLT has no desire to become a profit making business indeed its charitable status and Memorandum and Articles of Association would prevent it from so being. Any profits realized would be used for the benefit of the community and again some of the visions are included above.

2.1 NVLT Directors

The five members of the trust are currently:

- A local dairy farmer
- A businessman
- The MD of a large de-mining charity
- A retired policeman

- CEO of an educational scientific charity

The Treasurer is a retired ICI accountant but will not be a director. The Company secretary is the Trust's solicitor.

Members

The Trust will recruit residents and visitors to become full, junior and associate members. This will extend skills in:

- arts & crafts
- woodwork
- design
- websites
- teaching
- media
- photography

Networks

NVLT has established contacts with similar projects elsewhere and this study is overseen by both the Community Woodlands Association (CWA) and the Borders Forest Trust (BFT).

Succession planning

NVLT has a system of retiring directors and will actively recruit younger *members* to the Trust. The involvement of schools and starting up subgroups (arts, music, woodworkers, mountain bikers, runners) will gain long term involvement to the woodland.

The purposes as listed in the Memorandum and Articles of Association are as follows;

- To manage community land and associated assets for the benefit of the Community and the public in general following principles of sustainable development, where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
- To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the public at large with the object of improving the conditions of life and health of the Community and following principles of sustainable development, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
- To advance community development, including urban or rural regeneration, following principles of sustainable development, where 'sustainable development'

means development which meets the needs of the present without compromising the ability of future generations to meet their own needs

- To advance the education of the Community about its environment, culture, heritage and/or history.
- To advance environmental protection or improvement including preservation, and conservation of the natural environment, the promotion of sustainable development, the maintenance, improvement or provision of environmental amenities for the community and/or the preservation of buildings or sites of architectural, historic or other importance to the community;

3 FEASIBILITY STUDY

3.1 Timetable to Deliver - Timeline for feasibility study.

Spring 2008	The Forestry Commission wrote to both Auldgirth and Closeburn Community Councils to enquire if they would be interested in acquiring Clauchrie Woodland under the National Forest Land Scheme should it become surplus to requirements. Closeburn responded positively
Spring 2008	Steering group recruited from Closeburn Community Council Bimonthly meeting
August 2008	Successful Application for BIG Lottery Funding (investing in ideas) £9750 awarded for Feasibility Study
Jan 2009	1500 Leaflets about woodlands distributed to householders and networks including schools, local groups, etc Radio and local press publicity
2 Feb 2009	Open meeting 96% of 40 people attending voted to proceed
Jan to May 2009	Wider Consultation
7 April	Valuation - whole block £610,000 of which £570,000 related to the woodlands and the remaining £40,000 to a wind farm element as 'hope value'
21 May 2009	Ballot gave 60% turnout and 92% yes vote
July 2009	Applications to NFLS and Big Lottery

The Forestry Commission wrote to both Auldgirth and Closeburn Community Councils in Spring 2008 to enquire regarding over level of interest in acquiring Clauchrie Woodland under the National Forest Land Scheme should it become surplus to requirements. Closeburn wrote back positively, volunteers were recruited to form a steering group and a formal letter was sent to FCS to give notice to acquire.

Closeburn Community Council then applied for funding from the BIG lottery (Investing in ideas) for a feasibility study of £9750. This was successful and agreed late August 2008. A successful outline proposal for acquiring (£700,000) and developing (£300,000) the woodland was also submitted to the BIG Lottery Investing in Communities.

Local Consultation & Open Meeting

1500 leaflets were distributed in the wider community about the woodlands. This outlined the concept and provided a vision for the woodlands for the community and potential stakeholders and interested parties. It was sent through a variety of networks including Closeburn school, and the Community Councils in Closeburn & Thornhill. It was posted out to potential participants with questionnaires.

An open meeting was held in the Village Hall on 2 February 2009 following extensive local publicity on the BBC and Dumfries & Galloway Standard. Over 40 individuals attended a presentation about the woodland was followed by a question and answer session and a workshop that allowed discussion on potential uses and concerns. The evening was organized and managed by the steering group. The meeting confirmed that the community wished to see the project go ahead with over 96% of those attending voting to proceed.

The meeting wished:

- Retaining the woodland as it is with walking and riding as the main activities.
- To see a network of signed pathways, a picnic place and classroom.
- Enhancement of the wildness, scenic views, wildlife/flora which is highly valued
- The provision of education and training facilities for schools/groups including involvement from Barony College in training and helping in improving the amenity side of the woodlands.

They did not wish:

- Developments like sport shooting or motorbike sports.

Their concerns included:

- Difficult access given the distance from the village and the nature of the single track minor road. They suggested the need for providing transport and car parking.

3.2 Consultation

Besides distributing leaflets to all Closeburn homes the steering group undertook a wide range of consultations with relevant organizations and individuals through telephone and face to face discussions including:

Closeburn Primary School, Closeburn Nursery School, Closeburn Primary Parent Teachers group. Wallace Hall Academy Thornhill.

Closeburn Community Council, Penpont Community Council, Thornhill Community Council.

SNH Dumfries

D&G Council Economic Regeneration Dept, D&G Ranger service, D&G Biodiversity Officer.

Barony College.

Drumlanrig Estates.

David Mundell MP, Elaine Murray MSP, Mike Russell MSP

Councillors Jim Dempster & Andrew Wood, John Chatteris, Alistair Witts, Gordon Bell, Jeff Leaver, Michael Thomson, D McKie, (All other Councillors for Nithsdale were sent letters)

Forestry Contractors & Firewood providers

Outdoor activities groups- Orienteering, British Horse Society, Walking, Mountain biking, Artists.

CWA & Borders Forest Trust, Local Closeburn Businesses.

NWRC Dumfries.

David Rogers FCS Biomass Information Officer, Stephen Fleming AEA Consulting

3.3 Valuation

Under the NFLS scheme the woodland was valued by a District Valuer following a joint instruction from Closeburn Community Council and FCS. A site visit took place on 7th April 2009. VOA valued the whole block at £610,000 of which £570,000 related to the woodlands and the remaining £40,000 to a wind farm element as 'hope value'. The latter was based on a Forestry Commission report suggesting that the woodlands have the potential capacity of 18 megawatts of wind power.

3.4 Ballot

Closeburn Community Council organised a secret postal ballot on 1 May 2009, supervised by the Nithsdale Council of Voluntary Services based in Dumfries.

The question asked was:

'Do you want closeburn community to proceed with a bid to acquire caluchrie woodlands from the forestry commission?'

Ballot papers went to 473 electors. 285 were returned which represented 60.25% of the electors. 265 voted in favour of the question (92.98 voted yes).

D. CONCLUSION

Closeburn is in the attractive Nith Valley 12 miles north of Dumfries and is an agricultural/forestry based community of around 650 people in three village settlements. Many residents have moved into the area and work for themselves or commute and have brought in useful skills suitable for this project. There is still a village shop and primary school but many businesses have been recently lost so threatening the identity and social cohesion of the area which is officially classed as low pay.

Closeburn Community has a very strong link with this 235 Ha FCS Woodland which is just 2.5 from Closeburn Village. The woodland has been in the possession of the Forestry Commission since the mid-1940s as a quiet coniferous plantation and 81% of the timber is still mixed coniferous. However over the last 20 years it has been replanted so most of it is very young and the opportunity has been taken to open up areas and to plant areas of deciduous native species that has set the ground work for this attractive amenity woodland.

This feasibility study involved wide community consultation and identified that the forest be retained as a:

- amenity for walking, riding, and enjoying the biodiversity
- centre for education and training
- venue for running events
- source of revenue from the sale of timber (sawn logs, firewood and biomass).

The community do not wish to develop the woodland as a major tourist centre as this would conflict with other local attractions and counter their vision for the woodland. They do wish to build an activity barn/ classroom so that schools can bring pupils into the woodland as part of the new Scottish *curriculum for excellence* which uses the environment to teach. They also wish to use any future surplus revenues for community projects.

A secret community ballot on 21 May 2009 showed an overwhelming desire to acquire the woodland for community use with a turnout of 60% and a yes vote of 92%.

Following FCS's approach to Closeburn Community Council (CCC) that produced a positive response to proceed to acquire the woodland CCC formed Nith Valley LEAF Trust (NVLT), a company limited by guarantee and recognised as a charity by OSCAR as an 'appropriate' body. NVLT identified key individuals as Directors to develop and manage and the project. It also identified active participants from the wider community with appropriate experience and skills.

The woodland is valued at £610,000 and is to be sold as one unit. NVLT is able to apply to Big Lottery GCA for acquisition and development following a successful outline application. Thus £30,500 will have to be found for acquisition to meet the minimum 5% level. This is a substantial amount but the community is very

determined as underlined by the ballot. They see many benefits from owning the woodland as an amenity, for education & training and as an income source.

Finance is needed for development and whilst GCA can provide significant support in years 1-5 the balance will have to come from a variety of options including grants, running events and from sales of firewood, biomass or Christmas trees.

There is potential to supply biomass to a district heating system in Closeburn, using poor quality timber from thinnings that may come on stream after 2012. Such ventures will be very important during years 6-10 of the project when support from GCA will have finished. Grants will continue still be available from the competitive SRDP schemes and from SNH and LEADER which focus on biodiversity and amenity. NVLT recognises that prudent financial management will be required before significant income appears from mature timber sales after 2020. Scope also exists to develop small scale wind energy. for use in the activity barn.

As most people involved in NVLT are in full-time employment it is envisaged that this project would initially be run by a funded part time project manager who would use voluntary staff, outside contractors and people on community service to develop the amenity side and a forestry company to manage the woodland resource. Contracting out in this way will reduce the need for capital equipment and simplify the management process.

In the first phase NVLT is keen to develop the amenity side of the woodland in line with community aspirations and to attract groups and young people. Much of this work could be undertaken by the community or in liaison with Barony College who are keen to become a full stake holder in the venture and use the woodland for training students and adults. Barony would be prepared to undertake a number of the technical tasks required to build the amenity.

In conclusion this project has the potential to deliver many benefits and have a significant impact upon the social, environmental and economic fabric of Closeburn and the wider Nith Valley community to:

- Strengthen local community facilities & services
- Improve sustainability
- Encouraging people to become healthier

In the long term it could provide significant resources to rebuild and underpin social infrastructure and community activities.

E. APPENDICES

1. Forest Map*
2. Stock Map*
3. Public Information Leaflet
4. Memorandum and Articles of Association
5. Letters of Support
6. Directors' brief Curriculum Vitae

*below

