Carron Valley Woodland Feasibility Appendices

Contents

Appendix 1 Woodland and Volunteer Manager Job Description DRAFT

Salary:	Up to £32K per annum pro rata
Duration:	3 days per week for fixed term 2 years initially
Reporting to:	VRG Board – dedicated Line Manager to be named.
The role:	This role will plan, manage and carry out the day to day activities required to deliver the Carron Valley Woodland Management Plan together with volunteer and community engagement.
Location:	Carron Valley and District, working from home and at the Carron Valley Woodland

Key Responsibilities

1. Develop an annual work programme for delivery of the Woodland Management Plan and community events and activities
2. Plan and manage all work required within the time available
3. Delivery of the Woodland Management Plan:
    - Tree felling, thinning, restocking, management and maintenance
    - Habitat management and diversification
    - Establishing additional access paths and trails
    - Management of contractors as required
4. Development and management of the community wood fuel scheme
5. Volunteer recruitment, training and management
6. Facilitation and organisation of community events and activities, based upon the draft activities plan
7. Responsibility for putting in place all relevant policies and procedures related to volunteer and community activities
8. Work with local community organisations to raise awareness and increase use of the Carron Valley Woodland for recreation and learning
9. Monitor and report back to VRG Board against work programme on a monthly basis
10. Facilitate knowledge transfer between individuals and communities who have previously delivered successful woodland schemes
11. Responsibility for access to and security of the Carron Valley Woodland
12. Responsibility for obtaining all required FES licences
13. Responsibility for all Health and safety and first aid.

Qualities / Skills / Experience Required

- Relevant degree, HND or equivalent experience in forestry / woodland management with a minimum of 5 years' practical experience.
- Experience of delivering woodland management plans, with particular emphasis on woodland management for multiple benefits.
- Experience of working with contractors.
- Experience of planning and carrying out practical forestry tasks including surveys, planting and felling.
- Knowledge and understanding of the key environmental & socioeconomic issues affecting woodland creation & management in Scotland.

- Experience of recruiting and managing volunteers effectively, providing a supportive environment and enabling people to maximise their skills and abilities
- Experience of community event and activity organisation and delivery
- Excellent communication skills, both verbal and written
- Willingness to develop your own skills through training as appropriate
- Ability to work on your own and with teams to deliver projects effectively
- IT competency in MS Office, especially Word, Excel and Outlook
- Ability and willingness to work from home and travel to the Carron Valley Woodland site regularly.

Appendix 2 Valley Renewables Group

The Organisation 'Valley Renewables Group' (VRG) is the Development Trust for the Carron Valley and District Area. It was set up as a Company Limited by Guarantee (SC33821) with Charitable status (SC03944) in 2008. It currently has eight Directors and 190 members, from a total population of 322 people in the area. Membership is open to anyone aged 16 or over who is resident in the area covered by VRG and who supports the objects of VRG as stated in the Memorandum.

VRG is a Community led trust, originally set up to administer the Community Benefit Funds arising from Craigengelt Wind Farm. This money is used to benefit the whole Community in a variety of different ways, maximising the community benefit and striking a balance between short term needs and long term investment.

VRG has achieved a number of key successes since 2008, as detailed in the 2015-18 Development Strategy. These include:

- Small grants scheme to benefit local residents
- Introduction of cost effective bulk buying of oil for local residents
- Greatly improving broadband access and provision
- Access to energy audits for local people
- Increased membership to 60% of the population

The 2015-18 Development Strategy also highlights priorities for the future including:

- Increased community engagement
- Expanded membership and reach
- Support for new activities and groups in the area
- Improved community broadband
- Expanded small grants scheme

After research, community engagement and discussion with potential partners, VRG believes that an effective way to deliver against these priorities, whilst also providing a sustainable footing from which the community can develop in the future, is to create a Community Base. It has therefore commissioned this Feasibility Study to test the proposal.

Appendix 3 The Area and demographics

Carron Valley and District Area has a population of 322 people. Although it is a relatively affluent area with low unemployment and a high number of self employed people, it is a dispersed community with a sparse population, which gives rise to issues of isolation and lack of a cohesive community.

The number of people per square kilometre is 5, illustrating the sparse population compared with Stirling Council area, which has a density of 42 people per square kilometre. However, only two of the 130 houses are second homes and only one house is currently vacant, giving a strong local community presence.

The percentage of under 25 year olds in the area is similar to that of Stirling and Scotland as a whole, equating to 80 young people living in the area. 12% of the population is over 65, and 1.2 % over 85, compared with 15% and 2% respectively across Stirling and Scotland as a whole, so there is a slightly lower percentage of older people in the area than average. 41% of the community are aged 45-64 which is significantly higher than other areas when compared with 27% in Stirling and in Scotland. The Carron Valley and District population is therefore predominantly of working age with no significant skew towards younger or older residents. The area has slightly better health than the average population, 74% of people have no long term condition as compared with 72% in Stirling and 70% in Scotland.

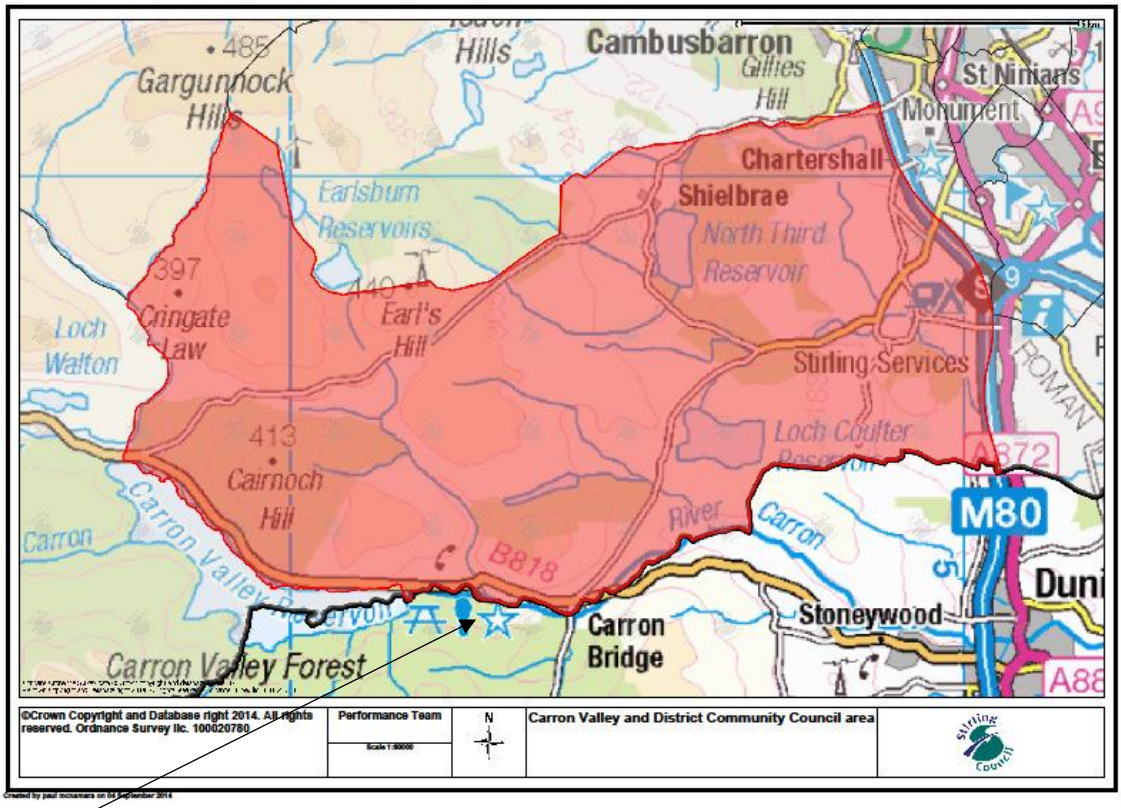
Key employment industries are agriculture, forestry, wholesale and retail, health and social work, with a high percentage of people in skilled and professional trades. Full time employment levels are 35.5%, which is slightly lower than Stirling at 36.7% and Scotland 39.6% and it has low unemployment at 2.9% (Stirling 3.9%and Scotland 4.8%). There is also a high percentage of self employed people: 22% (Stirling 9.3%, Scotland 7.5%).

Carron Bridge Hotel used to be popular meeting place for locals, but this closed and recently became a guesthouse providing bed and breakfast accommodation, so there is no bar or pub in the vicinity.

Carron Valley is situated 20 minutes drive from the M8 and M80, between Denny and Fintry (approximately 6 miles from each) on the B818 and a significant number of households in the area have more than one car. The area is easily accessible for the main populations of Stirling, Falkirk and Glasgow.

Carron Valley and District has a relatively small immediate population, primarily concentrated in the houses within the valley itself and the village of Fintry to the west. Several larger population centres are situated within relatively close proximity (including Denny and Kilsyth), and it is estimated that approximately 13,000 people live within a 15 minute drive of the forest.

The geographic area covered by the Valley Renewables Group is rural, encompassing a number of farms and small groups of houses, and is shown in the map below.



Carron Valley and District Area

Proposed position of Carron Valley and District Community Base

Denny has a resident population of 7,933 (2011 census). Falkirk Council is currently delivering a £7.8 million regeneration scheme in Denny town centre; phase one includes a new library with community space. Current community space includes the Denny Community Education Centre, which has 3 meeting rooms, an IT suite, café area and public internet access.

The **Dennyloanhead** area is served by the Archibald Russell Centre, a community centre that provides activities for local people including classes for babies and toddlers, Scouts, Martial Arts, dance, keep fit etc. The Centre has a large main hall, a smaller meeting space, a kitchen, toilets and a car park with 30 spaces.

Fintry and the surrounding rural area has a resident population of 717 (2011 census). The spaces available to the community include the Fintry Sports Club, with 4 rink indoor bowling hall, bar and shop, a hotel; Culcreuch Castle, with rooms for hire; The Fintry Inn, village pub and a village hall, The Menzies Hall, used by the drama club and for kids parties and events.

Fankerton has a resident population of 214 (2001 census). The Fankerton Hut is a hall used by the community for exercise classes, kid's parties, puppy training classes, council meetings and events. The hall has recently been refurbished and is the nearest meeting space to Carron Valley, however, it is still over 5 miles away from most of the population served by VRG.

A proportion of the Carron Valley and District population in the Sauchieburn / Auchenbowie area live closer to Stirling than the proposed Carron Valley site, (Sauchieburn 3 miles, Auchenbowie 4 miles to Stirling). They would therefore be unlikely to travel to the Base regularly, choosing to socialise in Stirling due to ease of access and greater opportunities. This reduces the proportion of the population of 322 likely to access the proposed facilities.

Stirling City has a population of 41,000 (2011 Census and data zone estimates), the wider Stirling council area has a population of 92,830 (2015 Mid-Year Estimate of Population, NRS 2016). This population is projected to increase by 14% by 2037 (2012-Based Population Projections, NRS 2014) which will have the effect of bringing more people into the catchment area for Carron Valley as a recreational destination. (Source of data: Stirling Council Key Statistics PDF Jun 2016).

Appendix 4 Strategic Context

National – Scottish Government

The Scottish Government has made it easier for communities to take on public sector land and buildings through the Community Empowerment Bill and in response to this, Forestry Commission Scotland has developed a process through which it can transfer assets to communities.

Scotland's Economic Strategy (March 2015, Communities, local assets and housing) illustrates Scottish Government's support for projects such as VRG's purchase of land at Carron Valley and the benefits it recognises can be achieved through activity such as this.

'There is a vibrant and diverse range of community-led initiatives, including managing renewable energy projects, running childcare services, preserving the local heritage, and managing forestry enterprises. The work of these groups is having an impact from our islands and remotest rural villages to the hearts of our cities and towns……

When people feel they can influence what happens in their community, and can contribute to delivering change, there can be many benefits, and our aim is to support approaches that can contribute to a growing sense of democratic renewal and change.'

Community Land Scotland clearly articulates the rationale for communities purchasing land on its website, as do several pre-purchase communities that are striving for similar outcomes to VRG:

'Community land purchase is the start of a long journey, often to reverse many years of decline. The purchase quickly stimulates the feeling of confidence which empowers communities to develop economic opportunities, enable the development of vital housing, build on a growing awareness of environment and heritage to enliven the social life of its people.' CLS.

"Community land ownership would offer self-determination and autonomy in an area that is lacking both." Pre-purchase community.

"Community land ownership would act as a catalyst to regenerate enthusiasm & a sense of pride, create potential for new opportunities in jobs & prospects for young people to stay in our community" Pre-purchase community.

"Owning our local assets and managing them will create more opportunities for people to work together and develop a sense of local ownership and responsibility. A stronger and more sustainable future is a key driver behind our buyout aspirations." Pre-purchase community.

Local - Council Priorities

This project directly addresses one of the seven outcomes in Stirling Council's Single Outcome Agreement which strives to ensure that vulnerable people are less isolated; communities are supported to make best use of their assets and skills, are resilient to climate change and are involved in the planning and delivery of services. The Single Outcome Agreement for North Lanarkshire (the potential site at Carron Valley sits within the North Lanarkshire Planning area) highlights the need for an enhanced network of greenspace and woodland for local communities and wildlife as one aspect of its Regeneration outcomes.

Sectoral - Tourism Outcomes

The Community Base will have a positive impact upon the visitor experience at Carron Valley, so delivering directly against the Tourism Strategy 2020. The strategy states that key to achieving our growth ambitions will be turning Scotland's tourism assets into the more rounded, added value experiences that today's visitors want. One area of focus is nature-based tourism which is estimated to be worth £1.4bn (Scottish Natural Heritage, 2010) to the Scottish economy.

Health and well being

The **Wildlife Trust** state that 'Building nature into your everyday life can improve your mental and physical health'. A report by Essex University, commissioned by The Wildlife Trusts, adds to the ever-growing body of research which shows that Nature is good for you.

The key finding is that wildlife-rich environments don't just keep you physically healthy. They also reduce stress, improve mood, and reduce social isolation. The report includes work by the New Economics Foundation which is based on the work of 400 scientists around the world. It proposes five evidence-based 'Ways to Wellbeing'. If you practice them in natural settings, you will improve your physical and mental health.

Be Active – go outside for a walk or explore your nearest nature reserve

Connect – with the people around you, share your wildlife experiences

Give – do something to help your local place and the people that live there

Take Notice - of the everyday wildness on your doorstep

Learn – let nature be your teacher, try something new outside

These five activities will all be facilitated and encouraged by VRG through Carron Valley Woodland development, providing the conditions for improved mental and physical health for the local community.

Woodland

The **Community Woodland Association** states that Scotland's community woodlands are:

- providing wide-ranging opportunities for outdoor recreation, from informal paths and 'all ability' facilities to mountain bike trails and orienteering courses;
- restoring native woodlands, and improving woodland habitats, to conserve and enhance Scotland's biodiversity and help mitigate climate change;
- increasing the economic value of forestry to local communities, creating jobs, developing local processing and building markets for forest products;
- developing local supply chains and markets for woodfuel, to help reduce our dependence on fossil fuels and support sustainable forest management;
- involving all sections of the community in planning and decision-making, and ensuring that the benefits of community woodlands are available to all.

http://www.communitywoods.org/index.php

The Carron Valley Woodland will adhere to all these outcomes to some extent, with a focus upon effective woodland and habitat management, volunteer and community engagement, increased access and local wood fuel production in the first instance.

Community

Benefits of community ownership in tackling needs

The quotes from the Community Land Scotland website above help to illustrate the widespread belief that community ownership enables a sense of belonging and develops the cohesive nature of a community. The purchase of land is the first step in a journey which will lead VRG towards achieving the delivery of a Community Base which will be a platform from which other projects and activities can develop – a catalyst for further community growth and resilience.

Community Support – previous consultation

The Community Council carried out a Community needs survey in in 2009, which was revisited and expanded upon by VRG in 2012. These surveys addressed a wide variety of topics and issues which were subsequently used by VRG to provide community focussed projects to address specific needs including a successful group buying scheme for heating oil and detailed energy assessments for individual properties.

A specific question related to the need for a locally sited community facility which was addressing the fact that the only facility previously had been in poor condition and not well used, so had been closed down. In response, 38% of the community felt that a Community Base was either very important or fairly important to them, although 56% stated it was not important. The development of the Community Base was therefore not prioritised as a result of the 2012 survey, although a significant minority were clearly supportive.

Appendix 5 Carron Valley Woodland Activity Plan

Carron Valley Woodland Activity Plan **Woodland Management Plan delivery (WMP)**					
Activity	**Who for?**	**When?**	**Organised / Led by**	**Outputs and Outcomes / benefits to local people**	**Measurement**
Volunteer woodland management and skills training workshops	Volunteers	Monthly	Woodland Manager	Increased skills, group activity, Cohesion.	Number of volunteers engaged Volunteer hours
Volunteer woodland management activities	Volunteers / woodland	weekly	Woodland Manager	Woodland maintenance activities achieved (sitka removal, weeding, tree planting)	Progress towards WMP actions. Improved habitat diversity
Sustainable firewood harvesting	Local community members	Monthly	Woodland Manager	Affordable firewood source for local people. Group activity, cohesion	Number of community members engaged
Path creation, nature trail and waymarking in mature woodland	Local community, visitors	Year 1	Woodland Manager	Increased access to habitats Increased environmental education Increased engagement of children	Number of people accessing facilities
Carron Valley Woodland Activity Plan **Regular events and activities**					
Activity	**Who for?**	**When?**	**Organised / Led by**	**Outputs and Outcomes / benefits to local people**	**Measurement**
Forest Schools activities	Local schools and nurseries	Weekly	FCS Forest Ranger	Environmental education Health and well being, fitness, mindfulness Group outdoor activities for children	Number of children attending
Trim trail guided exercise	Local people	Weekly	Local volunteer / leader	Increased health and well being	Numbers attending
Green woodworking days – bird and bat box making. Bird tables, other wood products. Willow weaving hazel for walking sticks, hurdles etc. Craft based activities.	Local people	Monthly	Woodland Manager	Increased skills and confidence Environmental education Health and well being, mindfulness Group outdoor activities for adults	Number of people attending. Feedback from participants
Guided walks – flora / fauna / mushroom identification	Local people	Monthly	Woodland Manager / local volunteers	Increased knowledge and engagement	Numbers attending
Heritage walks	Local people	Monthly	Local volunteers	Increased knowledge and engagement	Numbers attending
BarBQ and adventure trail games / teddy bear's picnic	Local people - children	Monthly	Local volunteers	Health and well being Social gathering for families	
Woodland activity days for children (kite making, creative nature, pond dipping, treasure hunts)	Local people - children	Monthly	Local volunteers	Health and well being Social gathering for families	
Stirling Cycle Club competitions, Clanranald Centre events, Cani Sports	Wider reach specialist events	Occasional		Increased skills and social activity	Numbers attending and participating

Scotland, Landrover rallies Horseriding competitions, Carron Valley Trail runners					
Duke of Edinburgh training	Young People	Occasional		Increased skills and social activity	Numbers participating
VRG Annual Open Day	Local People	Occasional	VRG / local volunteers	Increased social activity and cohesion	Numbers attending
Easter Event	Local People	Occasional	VRG / local volunteers	Increased social activity and cohesion	Numbers attending
Autumn Event	Local People	Occasional	VRG / local volunteers	Increased social activity and cohesion	Numbers attending

Carron Valley Woodland Activity Plan

Small capital project delivery

Activity	Who for?	When?	Organised / Led by	Outputs and Outcomes / benefits to local people	Measurement
Bird hide installation	Local community, visitors	Year 1	Woodland Manager	Education and learning about habitats and species	Number of people accessing hide
Interpretation board	Local community, visitors	Year 1	Woodland Manager	Education and learning about habitats	Number of people accessing information
Metal storage box, tools and first aid	Local community, visitors	Year 1	Woodland Manager	Health and safety and storage	Effective working practices
Wet weather shelter	Local community, visitors	Year 1	Woodland Manager	Increasing volunteer and group use of the site Health and safety	Number of groups and volunteers accessing
Adventure trail	2-12 year olds	Year 1	Woodland Manager	Outdoor activity for children Increasing family use of site	Number of children accessing facilities
Install counter system	Local community, visitors	Year 2	Woodland Manager	Effective monitoring of use	Regular user numbers available
Increased access to river, boardwalk	Local community, visitors	Year 2	Woodland Manager	Improved access for all, and for disabled people Increased habitat awareness wellbeing	Number of people accessing

Examples of the type of Woodland Activities expected to take place during a one month period during the summer. Activities likely to be reduced during winter months. (colour coded to match activity plan above, darker colours are weekly activities, lighter are monthly)

	Activity	**Day am/pm**	**Numbers of people**
Week 1	Volunteer woodland management and skills training workshops	Sat am	10
	Volunteer woodland management activities (sitka removal, weeding, path maintenance)	Sat pm	6
	Forest school nursery visit	Mon am	12
	Small capital project delivery, with volunteer input	Tues pm	4
	Bird watching group meet at bird hide	Wed pm	6
Week 2	Volunteer woodland management activities (sitka removal, weeding, path maintenance)	Sat pm	6
	Green woodworking day – bat box making	Sun am/p	10

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	Forest school nursery visit	Mon am	12
	Small capital project delivery, with volunteer in put	Tues pm	4
	Evening guided walk – flora and fauna identification	Thurs pm	10
Week 3	Volunteer woodland management activities (sitka removal, weeding, path maintenance)	Sat pm	6
	BBQ and adventure trail games	Sun pm	10
	Forest school nursery visit	Mon am	12
	Small capital project delivery, with volunteer input	Tues pm	4
Week 4	Woodland activity days for children (kite making, creative nature, pond dipping, treasure hunts)	Sat am	10
	Volunteer woodland management activities (sitka removal, weeding, path maintenance)	Sat pm	6
	Firewood harvesting with Woodland Manager	Sun am/pm	6
	Heritage walk	Wed pm	10
	Trim trail group – e.g. jog Scotland	Thurs pm	6
	Total expected participants during Summer months		**150**

NB activities and participant attendance are expected to be significantly lower during winter months.

Average participant projections for a 12 month period are given below:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
10	10	10	50	50	100	150	150	100	50	10	10	**700**

CARRON VALLEY

WOODLAND MANAGEMENT PLAN
2017- 2026

Victor Clements: Native Woodland Advice
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PH15 2BS
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The Native Woods Co-operative (Scotland) Ltd is a non profit distributing organisation dedicated to managing and expanding Scotland's native woodlands. We offer specialist advice and management services to landowners and agents throughout the country.

This plan has been funded by the Woodland Trust Scotland, the Breadalbane Initiative for Farm Forestry, and the Scottish Land Fund.

WOODLAND TRUST SCOTLAND

PART A PROPERTY DETAILS

Introduction

This plan has been commissioned by Valley Renewablels Group (VRG), a community group in the Carron Valley who are looking to purchase the area of woodland in this plan from Forest Enterprise Scotland (FES). The plan is designed to set out the priority management considerations, to scope out opportunities and potential problems, and to provide advice on how community aspirations for the area might best be delivered.

Name of Property Carron Valley Woodlands (part of what is currently known as the Carron Valley Forest)

Location The site lies just to the east of the Carron Valley reservoir, to the west of Stirling and north from Kilsyth.

Area Total area in this Management Plan is approx 21.3 ha.

OS Grid Ref. Access to the site is via the bridge over the River Carron at NS 722 838

Land Tenure The land is currently publicly owned and managed by Forest Enterprise Scotland (FES).

The contact for Valley Renewables Group (VRG) is Mr Robert Ferguson. Ferguson.middlethird@gmail.com

Description FES currently manage a very extensive holding in Stirlingshire, and the woodland area known as the Carron Valley Forest lies predominantly to the south of the reservoir. The woodland is largely planted with Sitka Spruce and other mixed conifers, and productivity in the area appears to be fairly high. There is a good road and path network, including for mountain bikers and walkers, and the current carpark on the site is always busy and well used.

The local community wish to purchase just over 20 ha of the FES woodland so that they can develop a better gateway to the wider area, and help make the most of recreational opportunities in the area.

Designation Types There are no designated sites on the property, and none of the woodland area is listed as ancient. None of the woodland area was surveyed on the Native Woods of Scotland Survey (NWSS).

Grant Schemes As a public owned forest, the area is not subject to any grant schemes. However, part of the site was restocked in 2014, and there will be an obligation to secure that restocking.

2. SITE DESCRIPTION

Compartments Eleven compartments have been identified as part of this Management Plan process. A number of these areas are very small, but each is a distinct feature within the overall area. Cpt numbers reflect the varying tree species present on the site.

Access Most of the woodland area is relatively easy to access, with good quality forest roads running through the property, and easy access to the main road eastwards to Stirling and the A9.

Hydrology The River Carron forms the northern boundary of the site. One watercourse flows down through the middle of the restocked ground, and these could become a feature of the property going forwards.

Topography The farm slopes gently to the north. Much of the restocked area lies in a hollow and is flat and wet, and the ground immediately adjacent to the river is quite steep. Otherwise, all of the site can be accessed easily by machinery.

Wayleaves There are no wayleaves affecting the woodland areas.

Footpaths There is a good network of footpaths and trails within the wider forest area, and this is one of the main reasons why visitors come to the area.

Flora There is little in the way of characteristic woodland flora on the site, although ferns and some wood sorrel can be found within the mature timber area. The restocked area is very fertile and dominated by rushes and grasses. In the mature woodland area, the ground vegetation is controlled by shading, with the ground being bare over a relatively high proportion of the site.

Fauna Red and roe deer are both present in significant numbers in the surrounding forest area, although the growth of restocked trees suggests that good control measures are in place. It is not known whether red squirrels use the area, although this is certainly possible.

Livestock No livestock use the area.

Archaeology There is no obvious archaeological interest on the site itself, although Duncarron fort does exist on adjacent ground just to the west.

Landscape There is no formal landscape designation covering the area. The woods are not especially prominent in the local landscape, but they do soften the edge of the conifer forest behind, and therefore sensitive management of these is important.

Public/ Educational Interest The area is potentially an excellent venue for educational visits, and the purchase is being organized with that end in mind.

3 SURVEY DATA

The following information is provided for the eleven compartments identified during the survey process, set out on the Carron valley Compartment Map.

Cpt 1 13.1 ha

This cpt covers the greater part of the site. It was restocked in 2014, mostly with Sitka Spruce, but with a band of Norway spruce to the west, and some veins of native broadleaves.

Much of the site, perhaps two thirds, is low lying and wet, and it has been ditched and mounded. This area is dominated by rushes and other wetland vegetation, but the ground preparations have worked well, and all trees are a good colour. The higher ground to the south of the cpt is more fertile and dominated by mineral soils. Tree growth is good, but the ground vegetation is relatively aggressive.

There is a significant level of native species regeneration within the cpt, mostly to the north and west. This is discussed later, as will the inputs required to secure this area. Part of the area (Cpt 1e) was planted at an earlier time (2008), and the trees there are correspondingly bigger, although the stocking density is not very good. Looking forwards, this will at least give a more feathered edge to the younger plantation behind.

Cpt 2 0.5 ha
This is the open area on which VRG wish to erect a community hub with associated infra structure. The area is fringed with birch and other native broadleaves, and these can be retained or removed as required under the terms of any planning agreement sought.

Cpt 3 0.3 ha
This is an area of very tall, mature Norway spruce, which is starting to become windblown. The area would be better removed and planted with native broadleaves.

Cpt 4 0.3 ha
This is an area of open ground, largely wet and difficult to walk through, and probably inappropriate for planting. The area is obviously prone to flooding. There are occasional native trees and self seeded conifers within the area. The proposal going forwards would be just to retain this area as open space.

Cpt 5 1.3 ha
This cpt is probably the most diverse and interesting on the site. It is a mixture of conifers and broadleaves of different ages, most planted, some naturally regenerated. The broadleaves include beech, sycamore and birch, and the conifers Norway Spruce and larch. The cpt is well drained with all trees growing in mineral soil. The area has significant amenity, landscape and conservation interest. Going forwards, it should be possible to thin this area lightly on a regular basis, concentrating on individual trees or groups of trees, with a view to retaining the diversity of species already present.

Cpt 6 1.1 ha
This is a long strip next to the river which is largely open and prone to flooding, although there are some slightly higher knolls where planting could be contemplated. For example, if part of cpt 1 were to be de- forested for reed beds or open community space, then there is room within Cpt 6 for some compensatory planting if required.

Cpt 7 0.1 ha
This is a small walled enclosure with largely sycamore planted within. It would benefit from some light thinning just to make sure that the trees do not become too tall and thin.

Cpt 8 0.5 ha
This is another area dominated by Norway spruce. Like Cpt 3, it is starting to become wind blown, and ground conditions are wet. The spruce should be removed and replanted with native broadleaves.

Cpt 9 1.6 ha
This area is dominated by Norway Spruce, but there is a significant component of beech and larch within the area, adding to the amenity of the whole. The cpt is relatively dry, with some good, valuable trees.

Cpt 10 1.5 ha
This area is very similar to Cpt 9, but without the beech and larch. It is almost 100% Norway spruce, with some good timber present.

Cpt 11 1.0 ha
As cpt 10. However, ground conditions are wetter in places, and the cpt is partially windblown. However, it now appears to be relatively stable.

4 ANALYSIS

Seven areas of interest will now be discussed:

1. Given that VRG are looking to purchase the area, the relative priority of different operations is discussed, and the obligations that arise from that.
2. Management of the newly restocked area
3. Deer management
4. Management of the mature timber area
5. Access provision
6. The potential need for some compensatory planting
7. Adding value to the current woodland resource

Priorities
The woodland area can roughly be split in two: the newly restocked area, and the area of more mature timber.

In terms of priority, and despite some limited windblow, the area of mature timber is relatively stable, and no significant interventions are required there within the first five year period. In addition, with the restocked area behind only three years old, it would be better from a landscape perspective if the trees on that area where to become more established before the mature timber was to be considered for felling. Because of these two points, work within the mature timber should not be considered a priority within the first five years.

The newly restocked area is only three years old, and there will be an obligation to see that this is properly established. That will require attention to both weeding and deer control, and these will need to be delivered from 2017 onwards, and will incur some expenditure in doing so. The management of this area is therefore the priority in the early years, requiring input from Day One. This is discussed below.

The newly restocked area, Cpt 1
This area was restocked in 2014, mostly with Sitka Spruce, but with a proportion of Norway Spruce and native broadleaves. The conifers were planted at relatively high density, 2700/ ha. Records and field survey suggest that the site has been beaten up in the years since as well, so stocking levels are currently good. In addition, FES stocking surveys show a presence of native broadleaf regeneration on the site, up to 1900 trees per ha, at least over part of the site. The native broadleaves planted to the north of the cpt have not done very well, but regeneration there is more than adequate to fill in any gaps.

Restructuring the regeneration
There would be little value to a community group of having a solid block of Sitka Spruce sitting at the heart of this property, especially as a back drop to a new community hub.

Such a woodland would be overly dominant and tend to constrain and constrict the main community area. VRG have asked whether a proportion of the restocked cpt could be converted in to native woodland?

Luckily, there is already quite a considerable area on which downy birch and willow is already growing, established through site survey and confirmed by FES establishment records. Rowan is also present.

In the past, spruce plantings have often been "cleaned", with broadleaved regeneration removed so as not to compete with the planted conifer trees.

In this situation, what is being proposed is a kind of "reverse cleaning". Where broadleaved regeneration exists, it is proposed that any conifers within two metres of this are removed, simply by cutting them below ground level with a sharp spade. The trees are still small enough to do this. Broadleaved regeneration is particularly dense towards the north of the cpt, and it is estimated that a 3.4 ha area (Cpt 1c) of nearly native woodland could be created by removing any conifers that were competing with existing regen. Such an area would include a proportion of conifers where no regen existed, but the whole would be dominated by birch and willow, and this would be a more appropriate type of woodland to have next to the community hub.

It is recommended that such an operation is carried out in two stages, once in the first 1-2 years after purchase, and again about three years after this to remove any conifers competing with trees that might only then be becoming apparent. Long handled secateurs may be required at that point, and the trees cut off below the bottom live whorl of branches. Beyond five years, it is then likely that access to the stand will be more difficult, and no further opportunity to remove conifers will be possible.

Beyond this area, a roughly 2.7 ha zone (Cpt 1b) can be defined where broadleaved regen exists, but where it is unlikely to become the dominant woodland type. It is recommended that conifers are removed within this area as well, as per Cpt 1c, but the expectation here will be of a more mixed conifer/ broadleaved stand. Beyond this area, the remainder of the cpt (Cpt 1a) is likely to remain as Sitka spruce.

The overall effect would be to have broadleaved woodland next to the community hub, merging in to a more conifer dominated woodland as you progress up the hill.

The necessary effort would probably be in the region of 30-40 volunteer days, both at the outset, and again after 3 years or so. If such an input is available, then no external costs should be required.

The Forestry Commission should be notified of this intention, but it is likely to be an acceptable practice to them in that it diversifies habitat and improves amenity in the immediate vicinity of the proposed community hub and existing car park area.

Weeding

FES records suggest that the area was weeded in 2015 but not in 2016. It is likely that the top portion of the site would benefit from being weeded in 2017 as grasses are more aggressive there. It is likely that the area required would be slightly smaller than cpt 1a, perhaps 4 ha or so. Cpt 1e should also be considered for additional weeding. It is recommended that a budget of £1000 is retained for doing this in 2017, and possibly also 2018. While it may not strictly be required, it is important that this area gets away quickly, so that VRG do not have to incur any beating up costs in future. Experience would suggest that where stocking rates are good, that input at the outset to secure this quickly is always worthwhile. This situation can be reviewed as required at the end of 2017.

Deer management
This large restock area will still be vulnerable to deer pressure. Damage to leader growth is noticeable on parts of the site, so this is an issue that should not be under-estimated, especially if more broadleaved regeneration is ought.

From a practical perspective, FES deer control on the wider area is likely to benefit the proposed purchase area, and may well be sufficient to set the right overall density across the whole. It is possible that no special provision needs to be made for this area.

The most practical proposal is that VRG allow FES permission to shoot deer within this area as is necessary, perhaps on a year to year basis. Access to this area is likely to be beneficial to them as well, and continuity of deer control effort will be important to both parties. VRG should approach FES about retaining deer control responsibility on a year to year basis.

It may be that there are community members who might wish to cull deer within the area. This could run parallel to overall FES control, perhaps by dividing responsibility at different times of the day. At 20 ha, the proposed VRG area is small by deer standards, but it is quite fertile, and it may well attract a disproportionate number of deer.

After 5 years or so, Cpt 1 will have become a thicket, holding deer, but providing little opportunity to cull them. At this point, deer control will become much more difficult, and it might then be confined to community members only.

Local stalking interest should be asked to show evidence of competence and training, typically DMQ levels 1 & 2, with good references. This is particularly important in an area of high public usage.

Management of the mature timber area

Cpt 5 is varied in terms of structure and species, and is also growing on a well drained knoll where tree stability is good. The area is also prominent in the landscape and has high amenity value. This area should be managed as continuous cover, thinning out individual trees and groups of trees as required.

It is suggested that 30- 35 tonnes per ha could be thinned from this area in each of the next two 5- year periods, equivalent to approx 8- 10 tonnes of timber annually. This is a relatively small amount of timber, but it may be useful for 3-4 local households, probably under some sort of agreed licence with VRG. A thinning licence from FCS would be required, but at this low level of thinning, no restocking obligation would be required.

The remaining timber would have to be clear felled and restocked. The urgency to do this is not high, and it is recommended that this be put back until the second 5- year period. This should all be done in one operation.

Cpts 3 & 8 would be best felled and replaced with native broadleaves as they are areas likely to be flooded. Strong willow whips are likely to grow well in this area and should be able to withstand deer pressure outwith fences. There is a risk with this, but the broadleaved regeneration across the wider site suggests that this is a risk worth taking.

The remaining cpts 9- 11 contain the bulk of the good timber, although Cpt 11 is partially windblown.
It is estimated that 0.3 ha of Cpt 9 is comprised of beech and larch, and these trees should be retained for amenity and landscape reasons.

It would be possible to restock this area cheaply without fences by planting Sitka Spruce, but on this better ground, there is the opportunity to re-introduce a range of native

species that are under represented in the area, and diversify the overall woodland resource. Oak, hazel, aspen, wild cherry, hawthorn, blackthorn etc. It is likely that such species would need to be protected by deer fencing, although this would add significantly to the overall restocking cost. The recommendation would be to restock these cpts in this way, as this is an obvious opportunity to diversify and improve what is available within the area.

A separate spreadsheet is included, showing the approx costs and income derived from restocking this area. No accurate estimate for timber value is yet available, but this can be added in to the spreadsheet once available. The provisional figures suggest that the area can be felled and restocked as described at a small profit in Year 1, but ongoing weeding and beating up will reduce this to a small loss over 3 years or so.

It should also be noted that grant schemes and timber prices may look very different in 5 years time.

There is likely to be 1300- 1800 tonnes of timber within these cpts.

In the first 5 year period, if more timber is required for local use, it could be that a proportion of the smaller and sub- dominant trees could be thinned out of Cpts 9 & 10 under thinning licence, perhaps 50 tonnes per ha or 150 tonnes in total, 30 tonnes annually. This could be done without destabilizing the stands as these two areas are fairly firm and ground conditions are dry. The stands could then be clear felled after 5 years, as appropriate.

Timber harvesting & Future potential
The following table gives a rough indication of what a felling/ thinning programme might deliver:

Period of Plan	Tonnes of conifers	Tonnes of broadleaves
0- 5 years	180	27
6- 10 years	1405	28
11- 20 years*	50	56
20 yrs +	255	128
Total:	**1890**	**239**

* 2 X cycles
Of the big felling operation, it is likely that a % of the smaller diameter timber could be retained in stacks for community use.

Access provision

The area already is well set out with paths and trails, and it is not clear how much benefit could be gained by installing further paths within the proposed community area.

If additional shorts walks are required close to the community hub, then the obvious place for these are within the area of mature timber, notably cpts 5, 9 & 10. As ground conditions there are dry and relatively free of dense vegetation, then paths could be defined by way markers alone, and done quite cheaply. If cpts 9- 11 are felled and restocked, then there is an obvious line for a path along the internal wall, perhaps looping round to the forest road again. Two gates would then facilitate access to this area. Although some way marking and perhaps some boardwalk may be required in this area, the cost is likely to be very modest, and could be installed by community volunteer effort.

It would be possible to install a more formal path around the boundary of Cpt 1 to tie in with other existing trails, but it is not clear what additional benefit cold be achieved from this in the short term, especially as the southern part of that area is likely to be dominated by Sitka Spruce for another rotation, and the amenity value of such a route would be low. A trail that cuts Cpt 1 in half could also be contemplated, but that area is very wet, and construction costs could be high.

It is also the case that SRDP funding for such works is now coming under increasing pressure, and the potential for funding such a project would appear to be low.

Looking critically at the overall context, I would suggest that the priority for such trails is low in the short to medium term, and emphasis should be placed on defining informal trails by way markers within the mature timber area using volunteer effort only.

The trails marked on the Carron Valley Planting Area Detail map extend to 1100 m. The grant rate for suitable trails is 18.20 per sq m under SRDP.

Assuming the path is 1.8 metres wide, the grant funding possible for such a project would be approx £36,000. If VRG wanted to contemplate such trails in the short term, then 3 X tenders should be sought to determine the likely price.

Details of necessary prescriptions can be found at:
https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/forestry-grant-scheme/forestry-grant-scheme-capital-items/new-path-unbound-surface--fgs-/

Such grant funding is for Woods In and Around Towns (WIAT) and the chances of obtaining funding for this area would be low. However, it may be that funding could be obtained from local windfarm community benefit schemes if they are available in the Carron Valley area.

The potential need for some compensatory planting

VRG indicated at the outset that an open area for camping etc may be required within Cpt 1, as may space for reed beds and a fire pond.

If part of this area is to be deforested, then some compensatory planting may be required. The best option for this appears to be within Cpt 6, along the river, where groups of willows could be planted on the slightly drier knolls. There should be plenty to space there to provide for a compensatory planting area, if that is required. If so, it should be planted at the same time as restocking cpts 3 & 8.

It is understood that the camping around might now be within Cpt 2. However, if it were to be within Cpt 1, then area B is likely to be better than area A as it is

situated on higher ground and would be easier to consolidate, if slightly further away.

Adding Community Value
VRG asked how community ownership could add value to the site.

The obvious value comes from using community volunteers to convert the newly planted spruce plantation in to a nearly native woodland at no public cost. The input required to do this would be 30-40 volunteer days in both years 1-2 and three years afterwards.

At a value of £120 per volunteer per day, this would amount to £9600 to convert approx 6.1 ha, or £1600 per ha.

It is likely that short community trails could be established within Cpts 5, 9 & 10 simply by way marking and some limited vegetation control, again using volunteer effort. The value of this is likely to be c £1000 or so on an annual basis.

Finally, VRG could administer a simple firewood permit system for local community members, perhaps delivering 30-40 tonnes per year. It is not known what value should be put on this.

Planning Ahead
Based on the above assessments, it is suggested that the following operations be contemplated to secure the woodland areas referred to in this plan.

0- 5 years
Ensure continuity of deer control across the site, probably in collaboration with FES.

Ensure weeding of approx 4 ha of Cpt 1 in 2017, and possibly 2018.

Install informal paths in Cpts 5, 9 & 10.

Clear out conifers from approx 6.1 ha of Cpt 1, where they compete with establishing native woodland regeneration.

Obtain thinning licence to thin cpts 5, 9 & 10.

5-10 years
Complete clearing out conifers that compete with native woodland regeneration in Cpt 1.

Look to carry out felling and restocking programme within the mature timber area.

Continue light, modest thinning within Cpt 5.

10-20 years
Ensure establishment of any planted trees within the mature timber area.

Continue light thinning within Cpt 5.

Beyond 20 years
Continue with Cpt 5 as above. By this time, it is likely that some regeneration will be occurring is small gaps in canopy.

Consider firewood thinning within Cpt 1. Although not listed above, there may then be potential for thinning out 50 tonnes a year from this area.

Overall, the standard of the woodlands is very good.

It is likely that grant funding is going to become increasingly difficult to source for sites like this, so an ethos focused on low input/ low output is required, but using community effort to deliver priority projects.

Obligations

The main obligation in the short term will be to ensure that Cpt 1 is properly stocked. Once any felling takes place elsewhere, then VRG will have an obligation to properly restock that area.

Resources

Resources for access projects in the short term via SRDP are likely to be constricted, but they may be available through local windfarm community benefit schemes.

It is not known what felling/ restocking grants will look like in five years time.

Restructuring the spruce planting and waymarking walks are tasks that can easily be carried out by community volunteer effort.

Appendix 1 Photographs

Cpts 3 & 4


(Left)In the foreground here is Cpt 4, which is a relatively open area of ground, wet, and liable to flooding. The tall spruce trees at the back, next to the river, are starting to blow down, although the area is small. When an opportunity arises, they should be removed and replaced with native species. (Right) This area of open ground next to the Carron could be partially replanted if there was a need to do that, although it does create some diversity within the wider holding. In the distance is Cpt 8, again dominated by Norway spruce and partly blown. It should be removed when an opportunity arises.

Cpts 5 & 9


Cpt 5 has a very high amenity value, is stable, younger than most of the rest of the woodland, and comprises a nice mix of different broadleaved and conifer species. Right: Conifers in cpt 9. You can see individual beech trees within this area.

Cpts 10 & 11


Left: Some large conifers on the boundary wall between cpts 9 & 10. Right, there is significant windblow within Cpt 11, defined for this reason.

Around the boundaries


This cycle track on the eastern side of Cpt 1 is obviously well used by mountain bikers and walkers. Right, this fence along the southern side of Cpt 1 marks the property boundary. It would be possible to construct a walking path along the edge of this.

Restock site

Left: view across the large restock site (Cpt 1) with the area of mature timber beyond. Right, windblow along the edge of Cpt 11.

Restocked trees

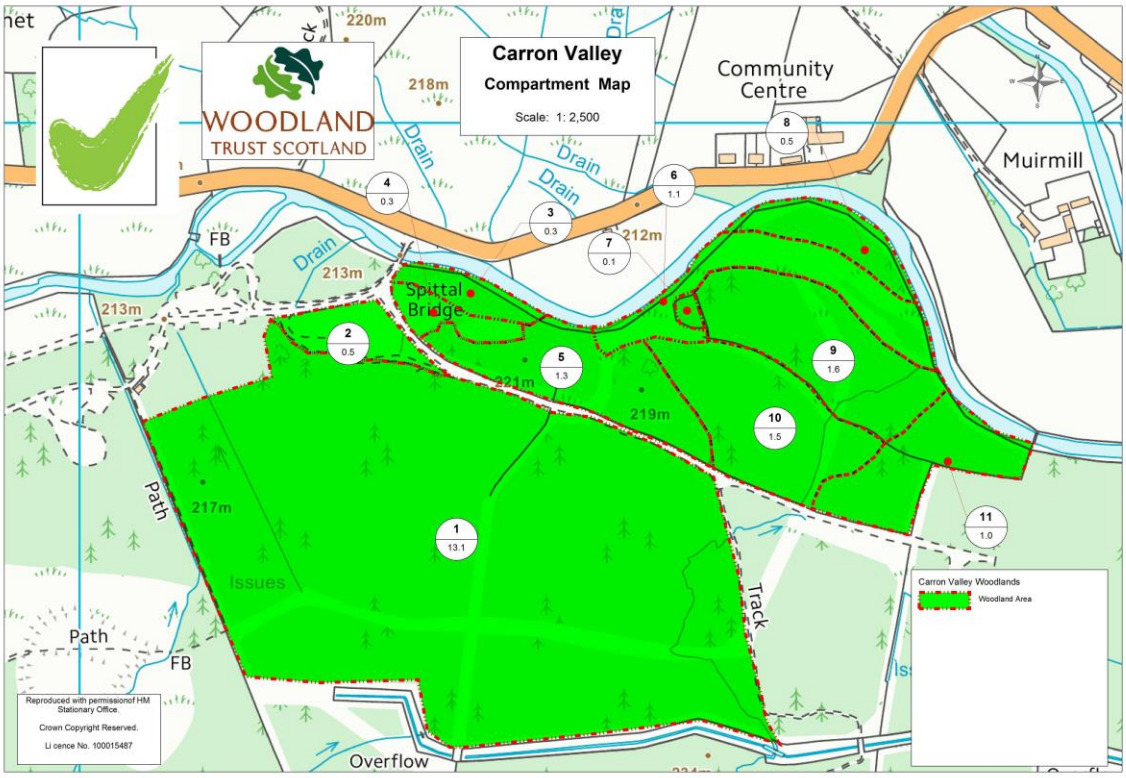
The restocking on the site seems to be doing relatively well, with good survival, growth and colour. There is obviously some deer pressure on the site, and damage to a less resilient species than Sitka Spruce may be more considerable. The majority of the site is wet and dominated by juncus, but approx one third of the site is fertile and dominated by grasses. Attention will need to be paid to this in 2017.

Appendix 7 Carron Valley Felling & restocking costs

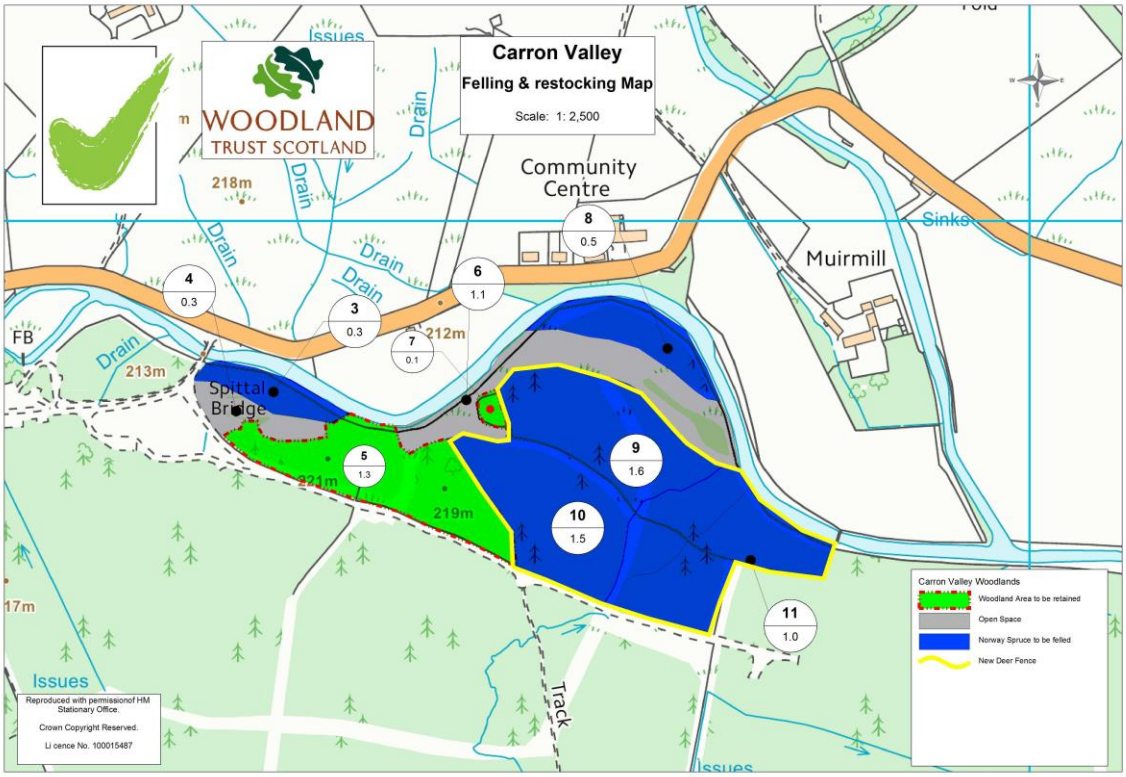
Carron Valley Felling & restocking or use for community wood fuel	***Year 1***	***2***	***3***	***4***	**TOTAL**
Fell 4.6 ha of Norway spruce, restock with 3.8 ha within fence, -					
0.8 ha outwith, 20% open space in each. 0.3 ha retained in Cpt 9					
Restocking Costs					
Area broadleaves (ha)	***4.6***				
Length of new deer Fence	***950***				
Length of self funded deer fence	***0***				
Upgrade stock fence to deer fence	***0***				
New stock fence	***0***				
Stock Gates	***0***				
Deer gates	***2***				
Ground to be mounded	***3.04***				
Ground to be scarified	***0***				
Fencing and Gates (Deer fence)	*8575*				
Ground Preparation	*1167*				
Trees- broadleaves	*1295*				
Trees- Conifers	*0*				
Shelters & Stakes (vole guards)	*810*				
Planting Costs- broadleaves	*607*				
Planting Costs- conifers	*0*				
Weeding	*0*	*883*	*883*	*883*	**2650**
Beating up			*1150*		**1150**
Roads/ access					
Protection					
Rental	*0*	*0*	*0*	*0*	
Sundries/ Contingency					
Supervision	*0*	*0*	*0*	*0*	
EIA	*0*				
Grant Application (dependant on what actually is required by FCS)	*600*				**600**
Total Costs	**13055**	**883**	**2033**	**883**	**16854**
Cost per ha	2838				
Grant Income					
Capital Grant payments- planting grant	2530				**2530**
Capital Grant payments- fencing grant	0				
Annual Maintenance Payments					
Net timber income (Est 300 tonnes/ ha @ £10 net profit)*	13800				

Needs proper evaluation					
** Tonnes per ha is likely to be closer to 400, net profit is likely to be more as well.*					
Total:	16330	0	0	0	**16330**
Net Income/ Expenditure	3275	-883	-2033	-883	**-524**

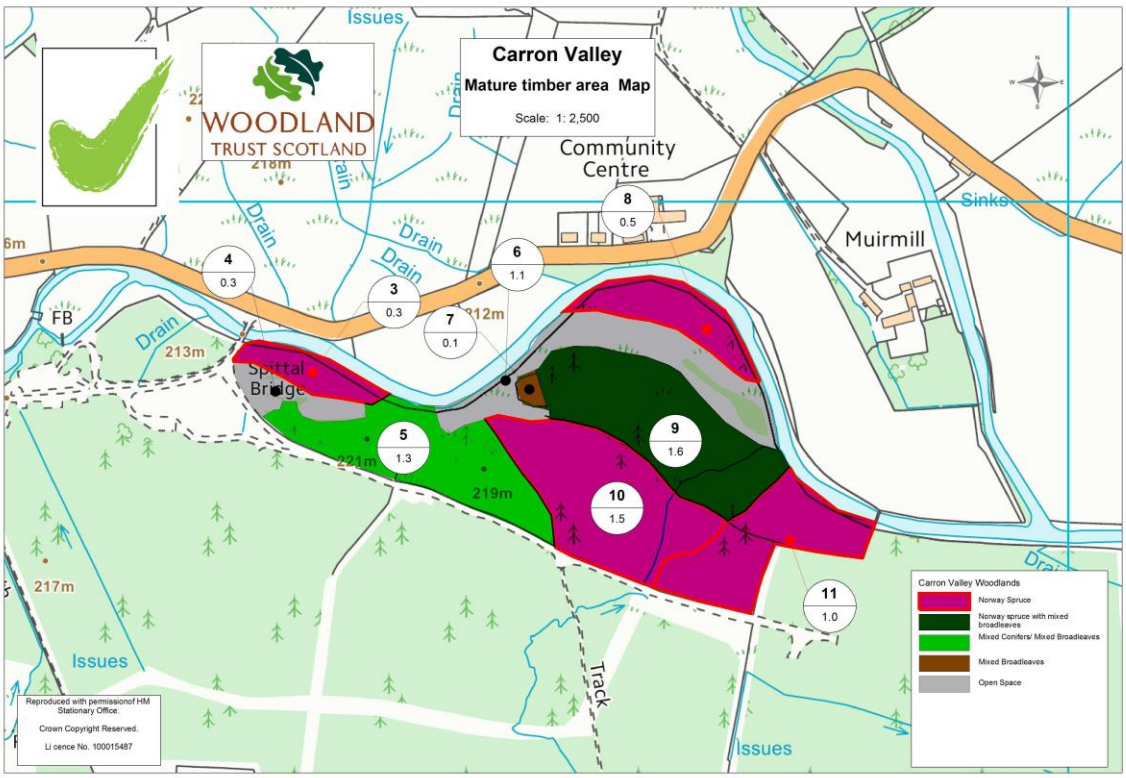
Carron Valley Compartment Map:



Carron Valley Felling Map:



Carron Valley Mature Timber Map:



Appendix 8 2016 Community Consultation Survey Results

The Carron Valley and District community was surveyed specifically for the Carron Valley Base Feasibility Study in October 2016, to establish the need for a Community Base at Carron Valley. Within the survey there were several questions relevant to the use of the surrounding land and woodland which provide information about the community's views on VRG's potential woodland purchase and management. These have been summarised in the main document, with the full survey results being provided for reference below.

Results:

The community survey was distributed to all households in Carron Valley and District (covering 322 residents) and was made available online. Surveys were returned by 62 households, equating to approximately 159 local people including children, which represents almost 50 % of the population of the area. Figures indicate that half of the responses were from couples who do not have children living at home, with a smaller number of family groups responding. A minority of returned surveys did not support the proposal, with 11 responses opposed to using community benefit money for this purpose.

Although the survey did not provide a clear mandate for VRG to proceed, the responses illustrate that there are at least 50 local households that are keen to support and use a Community Base if it were created, which is significant in the small population of Carron Valley and District. Attendance of 200 people at the VRG Summer Open Day also illustrates good community support. The following graphs and diagrams reflect the answers received from the 62 survey responses.

Support for a community base (Question 9):

- 75% agreed with the statement "It would be good to have a community Base that welcomes visitors to Carron Valley and District"
- 11 people expressed an interest in helping on a voluntary basis
- 73% agreed with the statement "It would be good to have a café where visitors can spend money in the area"

Figure 1:

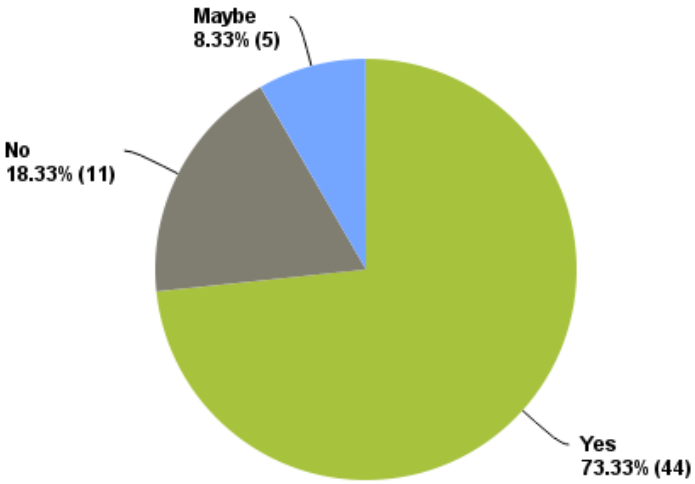


Figure 1. Q4: Support for wind-farm income being used to pay capital cost of a new building.

The majority of people surveyed agreed with wind-farm community benefit money being spent on a new building. However, there were 19 comments made in relation to this question (Q4). Seven were strongly opposed to using community benefit money for this purpose. Concerns raised about the project included:

- 20% of people left negative comments which included comments on:

- Sustainability
- Vandalism / Security
- Increase in traffic
- Increase in number of people / reduction of peace and quiet
- Use of wind farm money
- Money not being spent on locals
- Elderly people accessing the building
- The forestry commission provide access to the land, why do we need to buy it?

Support for developing a café:

- 50% would use a café monthly or more
- takeaway was less popular indicating people would like to sit inside
- 3 people expressed an interest in running a café on the site

- Support for a meeting room:
- 40% of respondents would use a larger meeting room at least once a year
- the smaller meeting room was less popular
- 20% interested in groups for elderly
- 27% interested in groups for younger people
- Very low level interest for preschool groups

People also supported the idea that information on the local environment and heritage could be provided.

Overall these figures show that the building would need to develop a customer base outside the community to be viable.

Figure 2: Q3. Support for the listed services and facilities

Use of the land if it is purchased:
Respondents would like to see the land used for woodland walks, environmental education and improved walking paths. There were several comments that indicated the forestry commission should be supplying all of the above and the community should not have to pay for it.

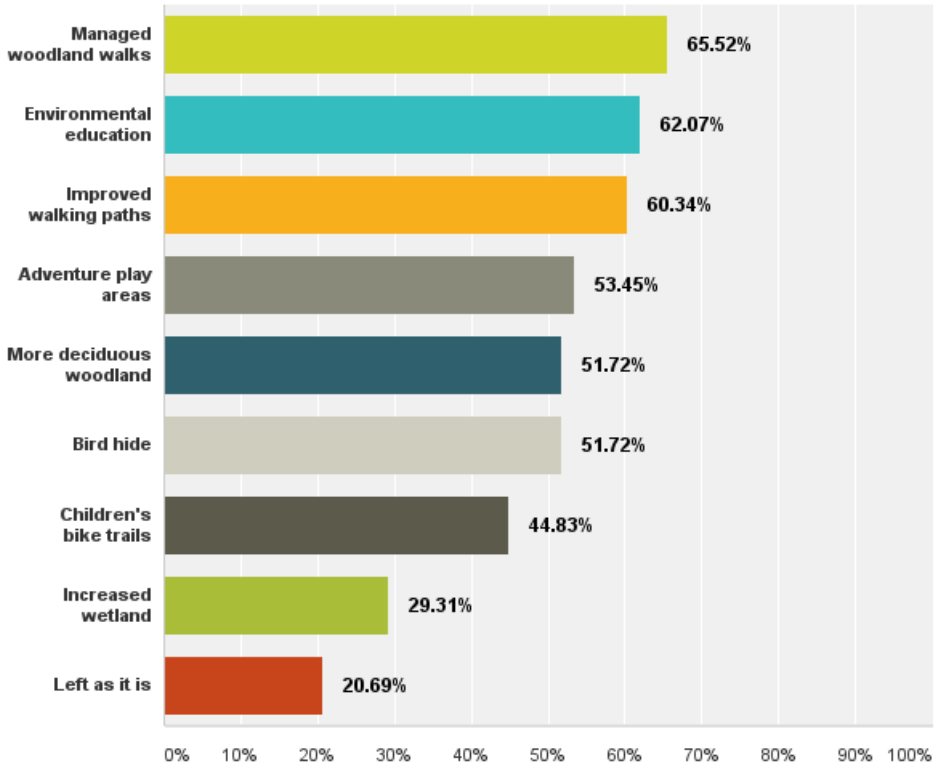


Figure 3: Q5. How would you like to see the woodland used?

Summary

Although the survey did not provide a clear mandate for VRG to proceed, the responses illustrate that there are at least 50 local households that are keen to support and use a Community Base if it were created, which is significant in the small population of Carron Valley and District. Attendance of 200 people at the VRG Summer Open Day also illustrates good community support.

Levels of support for a community base among those returning the survey (Qu 9):

- 75% agreed with the statement "It would be good to have a community Base that welcomes visitors to Carron Valley and District"
- 73% agreed with the statement "It would be good to have a café where visitors can spend money in the area"
- 11 people expressed an interest in helping on a voluntary basis.

The majority of households returning the survey agreed with wind-farm community benefit money being spent on the project. However, 11 were strongly opposed to using community benefit money for this purpose.

Twelve households expressed concerns about the project which included sustainability, vandalism / security, increase in traffic, increase in number of people / reduction of peace and quiet, wind farm money not being spent on locals, difficulty for elderly people accessing the building and the rationale for purchasing FCS woodland.

Appendix 9 Evidence of Need

Scottish Indices of Deprivation (SIMD) for the Carron Valley and District area (SO1013025) highlights the area's lack of geographic access, placing it in the most deprived decile (most deprived 10% in Scotland). Carron Valley and District is therefore recognised as an isolated and dispersed community which faces a number of challenges. The landscape is rural and provides access to the natural environment, making it a popular visitor destination, particularly for cyclists and walkers. There is however no central focus for the community as there are no local facilities. The population lacks a shop, school, community hall, church, pub or playing fields, making any community gathering very difficult, leading to isolation and a lack of connectivity. There is no provision for younger or older people to meet and socialise locally, or opportunity for communal activities.

The majority of activities undertaken by residents, whether work or pleasure, require a car journey. Stirling is 10 miles by car and there is no bus or other public transport service. A taxi into Stirling costs approximately £25. The nearest shop is a Co-op in Denny. In addition to the isolation issues communications, both mobile and internet, are poor to non-existent and the population also suffers from the majority of homes being older and of traditional construction, making heating expensive.

Fuel poverty
A person is living in fuel poverty if, in order to maintain a satisfactory heating regime, they would need to spend more than 10 per cent of their household income. In 2014 the estimated rate of fuel poverty remained similar to the previous year: 34.9% or around 845,000 households were fuel poor. This compares to 35.8%, or around 860,000 households, in 2013. Levels of fuel poverty are broadly the outcome of three drivers - the energy efficiency of the housing stock, fuel prices and household income. Fuel prices have risen significantly in the last few years, so that by 2014 they were nearly three times (185%) their level in 2002/3. The increase in fuel poverty has broadly mirrored the growth in fuel prices for most part of this period.
http://www.gov.scot/Topics/Statistics/Browse/Housing-Regeneration/TrendFuelPoverty

The Scottish House Condition Survey, Fuel Poverty Evidence Review Aug 2012 (http://www.gov.scot/Resource/0039/00398798.pdf) shows North Lanarkshire as having 35-39% of households in fuel poverty in 2011. This is backed up by anecdotal evidence locally, stating that the community of Carron valley is predominantly house in older properties which are difficult and expensive to heat.

Appendix 10 Audience and Market

Analysis of existing markets and assumptions
The key activities that people travel to Carron Valley to participate in are mountain biking, walking and fly fishing. The Carron Valley carpark has an estimated 43,000 visitors per year (FCS 2016) who are predominantly walking and cycling.

The two **mountain biking** trails were set up in 2006 and attract 18,000 people a year. There are 6½ miles (10.5km) of red-grade trails and ¾ mile (1.2km) of orange extreme freeride, both of which are suitable for an expert / adult market.

Walking trails include the family friendly Loch Shores Trail (4.5km), which starts from the Carron Valley car park and the Meikle Bin Trail, a strenuous 10.2km which starts from the Todholes car park at the opposite end of the loch.

Cultural and natural history are additional reasons to visit Carron Valley. The area is rich in wildlife and is promoted in the FCS website as such: *'A host of iconic Scottish species make their home in this forest, including Scottish crossbills, red deer and red squirrels, as well as elusive pine martens and wildcats. In summer, watch out for butterflies in woodland glades, dragonflies near the water's edge and ospreys fishing for trout and powan in the reservoir. Greylag geese can be seen here year-round and, if you are very lucky, you might spot a hen harrier overhead or glimpse a black grouse in a grassy clearing. There are hides along the reservoir ideal for bird watching.'*
The forest also contains standing stones, old cattle drove roads and fisher paths and, near the western end of the reservoir, the remains of the 13th century fort of John de Graham of Dundaff, who fought alongside William Wallace.

Fly fishing is provided by Carron Valley Fishery Ltd which is based on the banks of the reservoir close to the Carron Valley carpark, but with its own parking provision. Rainbow trout and wild and stocked brown trout are fished from the shore and boats to hire. The business is seasonal and basic drinks and refreshments are provided on site, so there is unlikely to be significant trade from this market.

Community use of the building
Although the population of Carron Valley and District is around 300, about 50% are 'Stirling facing' i.e. they can get to Stirling easily and will choose to go there for community activities. The Denny side of the population is more likely to access the Base for community social and evening activities. This indicates that the number of people using the Base on a regular (daily/weekly) basis is likely to be limited, although their ability to access services will be greatly improved by the Base, so have a high social impact.

Hall rental (groups, classes, events)
The nearest community spaces are the Fankerton Hut which is 5 miles away and the Fintry Sports and Recreation Club which is 8 miles away. The map below shows that other local villages have a Community Base which acts as a social space and a place for meetings and events. Carron Valley has a larger population than the village of Fankerton, which is less than 2 miles from Denny, yet still supports its own community space.

The community of Carron Valley and District does not use the surrounding halls for events or gatherings, as they do not provide a focal point or sense of belonging for the local community. The disparate nature of the population is exacerbated by the lack of a central meeting point, with Stirling often being the chosen site of community meetings etc.

It is proposed that the cost for local people to use the space is kept minimal to encourage use and realise the key desired outcome of social cohesion.

Leases for office/ workshop space

FCS does not have any plans to have an office in the area or to rent a permanent space, and no obvious takers were identified through discussions locally. Well serviced and connected offices are available to let in Glasgow, Stirling and Falkirk. With no interest from FCS or local people, it is unlikely that an office space to let within the Base will have a secure market and income stream.

FCS forest activity programme

Environmental education for local schools with an FCS Ranger is a low level market with little growth or spending potential. Nursery groups currently use the site once a week with the local ranger.

Forest Schools

The local Forestry Commission Ranger is a forest School tutor and recognises that Carron Valley could provide a suitable venue for a private Forest School delivery company.

Map showing the location of nearby halls/rooms for hire.

Café lease or manage (take away or sit in)

There are no cafes or takeaways within a five mile radius of the site, with the nearest food outlets in Fintry or Denny. Anecdotally, a café-van sold basic drinks and food from the car park a couple of years ago, but did not make sufficient sales. However, the provision of good quality food at affordable prices, with a sit down area for customers is recognised as a more appropriate offer that could attract a good market at weekends and during holidays. Cyclists in particular have cited a warm indoor seating space is important for the café provision to be attractive. Contact has been made with individuals that could be interested in leasing a café facility, and early stage figures illustrate that the income could make it a viable lease option. Visit Scotland's map showing accom/food/activities illustrates a large geographical gap surrounding Carron Valley with no facilities marked (other than mountain biking).

https://www.visitscotland.com/info/see-do/carron-valley-p330841

Cycle hire and repair

Anecdotally, Forestry Commission worked with a provider of cycle repair services from the carpark for one season. This was found to be unviable and the business was altered to provide travelling bike maintenance which was more successful. However, sales of bike repair kits on site, through a future café could provide an alternative income stream and be of value to visitors.

Appendix 11 Future Market Opportunities

The **Clanranald Centre** is situated a short distance from the Carron Valley car park and although not promoted currently, has the potential to attract visitors to activities and events in the future. Run by volunteers, this charity has reconstructed a fortified village, Duncarron, based on 11th-century motte and bailey design, and holds re-enactments, living history events, music evenings and festivals. The group is dedicated to promoting increased awareness of Scottish culture and heritage through interactive education and entertainment and is commissioned to take part in films and events. See Partnerships section for further information. http://www.duncarron.com/

Adventure Trail
The area has benefited from a few small areas developed for children to play by the Glasgow Art School. Research into expanding the offering for children and families shows that play areas act as a gateway to areas of accessible green space. They become a social hub for families, providing a meeting place for children and parents alike. In an age where the number of youth clubs and associations is decreasing, whilst online social interaction increases, playgrounds offer an opportunity to bring people together in an active way.
"Every time we build a play area, we build a community." Clive Bramble of Adur District Council
Source:http://www.apiplay.org/upload/public/documents/webpage/Community%20benefits%20of%20childens%20play%20areas%20-%20web.pdf

There are opportunities to improve the environment immediately around the car parking and Community Base area, with future projects to provide a children's adventure trail, wildlife ponds and improved woodland in the pipeline. Improving the offer to local families with these additions, together with providing facilities including indoor seating, toilets and local information, is likely to make Carron Valley a more attractive proposition for day visitors looking for low key family activities.

New Groups - VRG runs two small grant schemes funded by the Craigengelt and Earlsburn windfarms, making funding available to individuals and organisations for energy, environmental, recreational and general community projects, together with educational bursaries. To date, the only local community organisation to apply for funding has been the History and Heritage Society. However, VRG is keen to use the grant funding to support newly constituted local organisations to develop activities within the Community Base, particularly those addressing identified needs of younger and older members of the community. This will increase the potential for local people to implement new ideas and groups, so providing new markets for the Base, likely to include young parent's and nursery groups, youth groups and older people's activities.

Camping/ motorhome hook up / accommodation options
Visitors to Carron Valley are predominantly day visitors and there are not currently sufficient facilities to retain visitors longer than a day. Overnight camping has therefore not been highlighted as a potential market. However, camping and motorhome hook up options could be considered as an additional income stream if space and future markets allowed.

The nearest accommodation to Carron Valley Reservoir is B&B at Lochend Farm, Drum Farm and Rockfoot. The average accommodation costs in the area for family (4 people) accommodation is £120 per night. The nearest two lodge and caravan sites are: Wellsfield Farm, 7 miles from Carron Valley. Four purpose built holiday lodges that accommodate 4 people in two rooms. Each lodge has car parking space and a barbeque area. Guests get free access to the Park Farm and Health Club. £100-£120 per lodge per night.

Campsie Glen Holiday Park is 10 miles from Carron Valley. They have 7 static caravans to rent and space for motor homes and tents. There is a swimming pool and bar. From £130 per night for a 2 berth caravan. Both of these sites offer added value with extra facilities onsite. They are booked up in the peak holiday season, so there is potentially room in the market for more providers. The market is seasonal with Nov-March marking the low season where many accommodation providers are empty or close.

There is ample accommodation in nearby towns and the provision of a bunk house was not considered to be a priority in the area.

Farmers' market

The nearest farmer's market is 10 miles away in Stirling. There are also farmers' markets in Falkirk (12 miles away) and Killearn (14 miles away). They run monthly on Friday, Saturdays or Sundays, from 10-4pm, with roughly 25 stalls of local suppliers. The markets are run by the producers themselves and licensed by the Council. Several of the stall holders attend all of these markets e.g. Different Breid. To set up a farmers' market at Carron Valley, you would need to comply with Food Safety and Trading Standards from Stirling council as well as having all the correct insurance policies. If this is something Carron Valley would like to consider, we would suggest talking to some of the stall holders from Stirling and Killearn to gauge interest.

Appendix 12 Comparators

The Scottish Woodland Skills centre is part of Community treeCycle Community Interest Company, a social enterprise that works with young unemployed and special needs individuals to offer a professional tree and woodland management service and the supply of woodfuel and charcoal to the general public. It also offers volunteering opportunities for locals, community groups and businesses. www.communitytreecycle.co.uk

The **Community Woodland Association** provides a number of case studies illustrating activities and income streams delivered through community owned woodlands, one of which is summarised below. www.communitywoods.org/index.php

South West Community Woodlands Trust, Dumfries and Galloway Case Study (CWA)

The woodland at Taliesin is owned by South West Community Woodlands Trust (SWCWT). Responsible public access (by foot, bicycle, horse or canoe) is guaranteed by the Land Reform Act. Taliesin can be accessed directly from the public road. SWCWT allows sleepovers in their buildings and wild camping in tents pitched on site. Taliesin is situated close to a popular Sustrans cycling route and therefore it is a popular sleepover destination for cyclists.

SWCWT maintains all rights to woodland products. SWCWT currently has about 200 members of which about 75 percent are paying their annual membership contributions of £5. Membership is open to all, regardless of residential location. Most members are from the nearby villages of Auchencairn, Palnackie and Castle Douglas, but the group also has members from further afield such as Glasgow and Edinburgh.

Day-to-day decision-making is done by the group of 12 Trustees running SWCWT.

Direct communications with the membership are mainly done through the mailing list and concern information on events and the AGM. A newsletter is distributed annually by email and by post.

Events, as well as background information on both the woodland and group, are also being communicated on the SWCWT website and via a Facebook Group (https://www.facebook.com/groups/261560733936150/)

The group advertises many of its events through the Community Woodland Association (CWA) website. As a result, it has attracted visitors from across the country.

South West Community Woodlands Trust is constituted as a company limited by guarantee (SC171277) with charitable status (SC025438).

SWCWT makes use of a public liability insurance from the British Trust for Conservation Volunteers (BTCV). This brings about a statutory responsibility to prepare a risk assessment for all woodland-related events.

The group does not have a formal management plan and operates on the basis of shared consensus. A draft management plan for the coppice work is available online (http://tipiglen.co.uk/Draft_Management.pdf).

According to their website South West Community Woodlands Trust and the Orchard and Wild Harvest Project aim to inspire, educate, provide courses and fun events, all in the spirit of living at one with our natural environment. The key aim is to educate children and adults to respect, understand and enjoy the countryside and their natural heritage.

In addition, the group aims to restore native woodland and enhance biodiversity.

A specific aim of the Orchard and Wild Harvest Project is to reduce carbon emissions and improve health and well-being through planting and promoting locally grown fruit (trees).

SWCWT undertakes their activities at Taliesin on a voluntary basis. It does not own any equipment and woodland management therefore fully relies on member contributions.

The Orchard and Wild Harvest Project is managed by one member of SWCWT, who is involved in outreach and tree planting. She receives a small compensation to cover expenses, which is funded through donations in return for activities undertaken under the banner of this project.
Currently, the main income stream for Taliesin is donations. All training and events organized at Taliesin are free of charge but a donation of £10 per day (£5 for children) is suggested. In addition, the charity receives occasional pledges and subsidy from other charities for organizing certain events. Finally, some income is generated through membership fees. There is no need or desire to develop social enterprise. SWCWT is sustainable and almost entirely self-supportive.
A total of £10,000 from the Big Lottery Awards for All fund was used towards woodland purchase, which was supplemented by additional fundraising (amounting to up to more than half of the purchase price). The Awards for All fund was also used towards funding materials for a children's play in the woodland including and a forest xylophone. Furthermore, the group relied on a FCS grant for the purchase of woodland trees.

Comparator with building
Laggan Wolftrax Centre, Newton Moor

The Laggan Wolftrax Centre is located in the Cairngorms National Park; it has a cafe, toilets, showers and a learning space. It also houses the Laggan Forest Trust office and Bothy Bikes. It was built with funds from the Cairngorm National Park Authority, opening in 2015 and is run and owned by the Laggan Forest Trust. It replaced temporary buildings on the site that had been built in 2004 and fallen into disrepair. The Trust manager stated the main challenge was to convince the local community the project was a good idea.

Figure 4 Laggan Wolftrax Centre

They estimate 15-20,000 visitors in their first year (figures from FCS carpark readers, assuming 2.1 person per car). These visitors were mainly from England and the Southern Scotland cities. These are very important markets for them. The locals do use the centre, but the population is small.

The 17 km of purpose-built mountain biking trails are owned and maintained by Forestry Commission Scotland. Parking is £3 and is used to maintain the trails. They do have to keep negotiating with the FCS regarding the maintenance of the trails. The FCS is not interested in updating or creating new trails, they have suggested the Trust buys or leases the trails if they want to change them at all. It is in a rural setting, they reported no problems with security.

Café:

This was set up to be a leased business, but the Trust has ended up running it themselves. It has 30 covers and outside seating. They have a Trust manager who has experience in café management. The café has produced a small profit in its


Figure 5. Laggan Wolftrax Cafe Counter

first year. The manager thought this could be improved upon now they have more experience. Tripadvisor reviews for the café were mixed, with a few negative comments about being "too busy" or poor service.

The café area is also the "learning space". It is used as a learning space when it's not operating as a café. This was a compromise in the build to reduce costs. The manager felt this wasn't too much of a problem as the demand was not great, but he did state it would have been nice to have a separate room if it had been affordable.
The café is open Monday to Sunday in the winter (Nov-March), and 7 days a week in the summer. It holds evening events a few times a year, such as a music and dining evening.

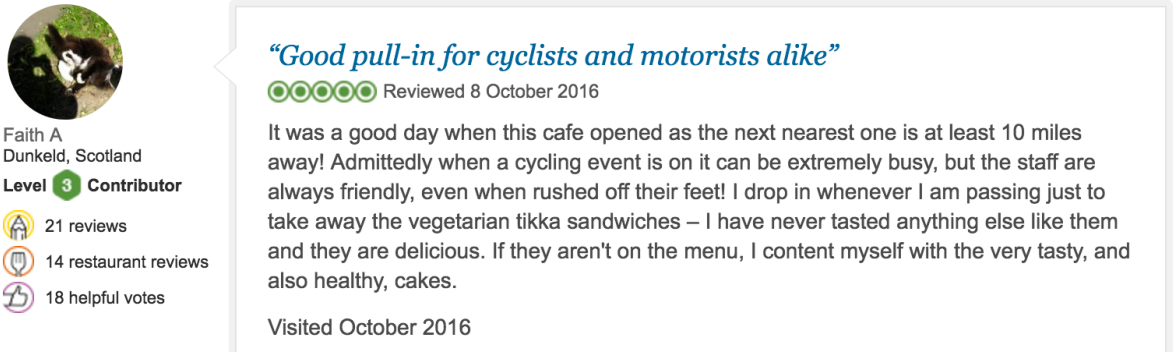


Figure 6 Laggan Wolftrax cafe review on Tripadvisor

Facilities and Activities:

- Winter opening hours: Toilets and showers are open 7 days a week between 10:30am – 4pm. Showers cost 60p but they are hoping to increase this to £1.
- The bike shop offering bike hire, equipment and provides a maintenance service. Open 0900 – 1730 every day
- Orienteering for all ages – maps are available at the café.
- 2-day first aid courses
- Cross country races
- Cairngorms Nature Festival
- Walking trails and horse trails
- Available for private hire

Laggan information:
Laggan is a small community (approx. 125 people) surrounded by mountains and consisting of a number dispersed of settlements at Laggan Bridge, Strathmashie, Kinlochlaggan and Cat Lodge. Laggan is 52 miles from Inverness, 65 miles from Perth and 40 miles from Fort William. The nearest town and railway station is Newtonmore (8 Miles). The population of Laggan has been declining since 1801 (1,333 population), the latest figure found was 125 people in 1986.

Laggan summary:
This project was not initially popular with the whole community. It relies on visitors to the mountain biking centre to bring in enough visitors to make the project commercially viable. The café is the main income source, and this space has to be a dual use as a meeting space. They rely on the FCS to maintain the bike trails, if these were not maintained and fell into disrepair, the Trust would have to consider buying or leasing the trails in order to keep attracting their main source of visitors. Source: Christian, Centre Manager. (Business@lagganforest.com 01528 544366). He would welcome further contact and offered help with this project.

Callendar Park:

Greenrig Cycles is based at Canada Wood in Falkirk and hires mountain bikes for adults and children to use to explore the Callendar Estate and surrounding area. They also have a workshop for bike repairs and servicing onsite. Callendar park has several cycle trails and recently the Bespoke Community Development Company (not-for-profit group) has created a new 450-metre Red Trail south of Callendar Park. Bespoke also hold cycle events in the area.
Adult bikes - £8/Hr or £25/Day. Children's Bikes - £5/Hr or £15/Day
Opposite the new hire shop is Canada Wood Kitchen and Bar which serves food from 9am-9pm daily. Latte - £2.70 Hot Chocolate - £2.90 Cake- £2.50 Sandwich - £8-£10
Both the cycle facility and café are new and represent a development on the back of Falkirk's growing tourist and leisure facilities. The John Muir trail crosses this area as well as being close to the Helix Park and Falkirk Wheel. Approximately 15 local jobs have been created. Falkirk's population is estimated at 158,460 (Falkirk Council, 2016). The 45-59 age group has the highest population amongst both males and females in the area. However, the catchment area for the park stretches far wider. Edinburgh and Glasgow are less than an hour away by car, stretching the catchment area to well over 1 million people.
Source: Falkirk Herald, Bespoke Bikes, Greenrig Cycles

Wheels Cycling Centre in Callander offer cycle hire, sales and servicing. It is an out of town facility, on the road to Loch Venachar. They also have Katrine Wheelz a bike hire centre on Loch Katrine and provide bike hire for cycling events through the UK.
Adult bikes - £8/Hr or £20/Day. Children's Bikes - £5/Hr or £15/Day
Both these examples show the bike hire and servicing facilities don't have to be based on a busy high street. These examples show businesses thriving in areas which attract cycle enthusiasts for their bike trails and nature beauty. Both businesses also offer a cycle guiding service.

Blair Drummond Community Hall

Located on the A84, 5 miles north-east of Stirling, the Blair Drummond Hall is owned and run by the Blair Drummond Community Hall Association. The main hall holds up to 150 people and there is a smaller meeting room for 15-20 people. Facilities include a stage, kitchen, store rooms and toilets. Events include Committee Meetings, Youth Club evenings, "Blethers" afternoon group. Viewing the online calendar, the main hall had one booking per month (ladies lunch) and a weekly youth club (Tuesday evening). The Thornhill and Blair Drummond Community population is 1,109 (2001 census) but is within an hour of Stirling, Glasgow and Edinburgh populations.

Appendix 13 Partnerships - current and potential

Forestry Commission Scotland
The Forestry Commission is in favour of the community asset transfer proposal and supportive of the development and is keen to work closely with VRG to enable the use of the site as a Community Base. A study was commissioned by FCS from the Tourism Resources Company in Jan 2015 to establish the visitor destination potential and resulting priority areas for FCS development over the coming years (FCS Lowlands Development Strategy). FCS recognised the opportunity to further develop the site for recreation and tourism in 2005, and highlighted the remote, highland atmosphere with hills surrounding the large reservoir (Scottish Water) and river, together with the presence of nationally important upland species including the red squirrel, black grouse and mountain hare. Recent discussions with FCS, and the Lowlands Development Strategy Jan 2015, illustrate the FCS priorities for the development of the Carron Valley area.

Carron Valley was scored in the bottom 3 of the six Lowland Forest areas included in the study and despite being recognised as having a number of key strengths, also has a number of weaknesses that preclude it from further FCS investment. FCS engagement with future physical development at the site is therefore limited, as it is not a priority for FCS budget spend. In summary FCS will focus upon the family day visitor market with little or no further development to mountain bike trails in the area. As a rural site, Carron Valley is not a priority for FCS development funding at this time, so is unlikely to secure any FCS investment in the short to medium term.

Stirling Cycle Club – Richard Barton
The local cycle clubs are clearly interested in the potential to develop further cycle trails and access within the Carron valley area. This will not however happen through the Forestry Commission, which has not prioritised the area for development. The cycle clubs are likely to use the site more frequently if a wider range of trails were available (currently only difficult and extreme level). Richard Barton from the Stirling Cycle Club said the members would use a café, but it would be individual members rather than the club itself. "The idea is fantastic, but it needs more than just a café and building to draw people to the area". Richard indicated the area was busy with cyclists in the winter as Carron Valley's official trails get less muddy and churned up in the winter so they attract more bikers. They meet informally; a member posts on a forum that they are meeting there and people join them. There are night rides. This is useful information to direct the café business model.

Bikers would like a covered area to store their bikes. Richard thought this would attract more cyclists to the café. They will be muddy, so the café would need to be able to deal with this. Other facilities they would have in an ideal world – showers, changing rooms, bike wash, availability of spares and basic bike repairs.

Road bikers would use a café infrequently. The Carron Valley Loop they ride isn't a stopping area, but they might alter the stops on occasion. They would want a smooth surface to be able to ride to the outside of the café. Richard referred to the study the Carron Valley Group carried out when worked started on the bike trails, that showed there were roughly 5 million people an hour or less drive from the area. This is a large catchment area.

Bespoke Bikes – John Ferguson
John Ferguson owns and runs two bike shops in the area, Bespoke Bikes in Denny and the recently opened Greenrig Cycles in Falkirk. Due to their recent expansion, they aren't currently looking for more space, but could foresee this happening in the future.
Mr Ferguson commented that Carron Valley would be a good location for a training, repair facility and hire facility. They would need a room with space for a large table, people, a store facility, and potentially some workshop space.
As a local businessman, Mr Fergus stated the idea of creating a community space was good and thought it would be well used by the community.

Clanranald Centre - Malin
The Duncarron group would "fully support" a Community Base. They have their own small log cabin building on the site and are planning further building projects, however, they would be interested in using the Community Base space occasionally. The Centre holds events throughout the year and is currently filming scenes for Outlander. When they have people onsite, they use outside catering. In the future they would like to build a café, but there is no timescale for these plans.

Our interviewee, Malin, has been on the site for the last 16 years and seen it develop from a run-down area with burnt out cars, to a place that's attracting more families and young people to the area. She mentioned that the pub used to be where everyone met, but she can't see that ever opening again. Overall she was very positive, "we would certainly welcome it".
The Clanranald Centre has ambitious development plans but they are hampered by lack of funding. This project would likely bring more people to the area which would benefit any commercial operations at the Community Base.

Annual Events and Competitions
There are several groups that regularly use Carron Valley for events and will provide opportunities to partner for the Base and cafe:
Cani Sports Scotland – hold an annual event at Carron Valley on a Fri-Sun in April where people run the trails with their dogs. It attracts 70-80 people, but if the facilities were nicer, they can take up to 150 people. They use the Clanranald Hut currently, but they'd like nicer facilities. They are looking for an event site in November 2017 and would be keen to hold it at Carron Valley if the building was ready. They run 3 x 5k trails and would love a café facility and some space to hold prize giving and for event organisers. (The dogs don't go inside!)

Fishing events and international competitions
There are 9 national and club competitions held in April to October by Carron Valley Fishery Ltd on the reservoir. When they are holding a competition, they can have all 30 of their boats on the water. The competitors stay in local hotels and tend to be out on the water from 9am-5pm. The clubs may be looking for space for events and prize giving; there is minimal space and facilities at the boat house.

Landrover rallies, cycling competitions and horse riding competitions have also been held at the site previously, providing potential to further develop these events if a Community Base was available.

Scottish Water
VRG has had conversations with Scottish Water as owner of the reservoir regarding a potential partnership. To date, the organisation has not indicated that it would be willing to work with the community towards a project of this type.

Office Space

The survey showed interest in using the hub for office space was weak. One respondent we contacted was looking for flexible hot-desk space that could be hired by the day. He thought there were quite a few freelances in the area who would welcome the opportunity to have a "change of scene" from working from home. An onsite café would be a pull. There is low potential for an office being rented long term. Short term or daily rental of a small office may be possible, with the space being used by the Facilitator and Board at other times.

Appendix 14 Extract from the FCS Lowlands Development Strategy Jan 2015

Carron Valley Assessment Summary - Carron Valley Strengths and Weaknesses as identified in the FCS Lowlands Development Strategy

Strengths

- The forest attracts around 43,000 visits per annum to the 'main block' and more visitors climb Meikle Bin from the Todholes Car Park;

- Meikle Bin is a good asset, which keen walkers want to 'bag';

- The large dam is impressive and the loch offers a number of attractive views for short walks;

- There are panoramic views over the reservoir, the Campsie Fells and on a clear day, the Glasgow cityscape;

- There are existing Mountain bike (MTB) trails and a MTB user base. The facilities are well known in mountain biking circles;

- Duncarron Medieval Village is an impressive and intriguing structure situated in the Forest that attracts visitors particularly when events are staged;

- We understand there to be good levels of demand from visiting fishermen;

- The low-level walking trail is popular with local users and families. Use has been boosted by the introduction of visual art;

- Children's forest play facilities have been added that increase appeal for families; and

- Onsite toilets are available for the visitor.

Weaknesses

- Compared with the other forests in this study, Carron Valley has the smallest local population immediately on its doorstep. There is only a very modest immediate local resident population within the 15 minute drive-time zone (13,000) and even at the 30 minute drive-time zone there are only around 320,000 residents. This is one of the smallest population catchments of the forests under study;

There is no core settlement close by that would be a focus or a magnet for visitors;

- There are no catering or overnight visitor accommodation facilities available either on site or in the immediate vicinity, limiting the appeal of the forest as a destination and also limiting visitor spending opportunities;

- Access to the site is difficult from all directions due to the single track nature of the immediate road network;

- Carron Valley is not on any direct bus route nor does it have a train station nearby;

- It is difficult to build robust trails in the forest due to poor ground conditions and lack of natural mineral suitable for trail surfacing. The forest floor is covered in a deep layer of peat;

- The consultants feel the forest is unremarkable / lacks interest with its uniform look and feel throughout, mainly Sitka Spruce for cropping. The forest appears to have less species diversity than some of the other destination forests under consideration in this study; and

- Duncarron Medieval Village has not yet been fully completed and it is unclear to the visitor when it is open. It is understood that so far the facility has only opened for events once or twice a year staffed by clan volunteers.

Appendix 15 Carron Valley Woodland Potential annual earned income Estimates

Monthly Activities	Cost	people	July 100%	Aug 100%	May 50%	June 50%	Sept 50%	Oct 50%	Annual £
Guided walks	£2	32	£64	£64	£32	£32	£32	£32	
Green woodworking / training	£20	10	£200	£200	£100	£100	£100	£100	
Children's activities	£5	20	£100	£100	£50	£50	£50	£50	
Total Activities			**£364**	**£364**	**£182**	**£182**	**£182**	**£182**	**£1,456**
Community wood fuel harvest estimate									**£1,800**
Total estimated earned income									**£3,256**

Appendix 16 Grant Funding Opportunities

Summary of grant prospects

- Large capital - very few sources; highly competitive; general focus of funders on large numbers of beneficiaries and areas of high deprivation. There are one or two prospects for capital grants in the £20k-£40k range e.g. Trusthouse, Robertson.
- Small grants, £5k - £15k for running costs, equipment, minor works. More of a choice of funds but each application would need to be carefully researched and planned with clear outcomes defined in order to attract funder attention.
- For all grant applications, a freelance bid writer may need to be used to achieve the quality standard required, given the current group capacity.

Omitted from list of grants below: small funds, closed funds, funds that don't fit with VRG / Community Base, funds that specialise e.g., poverty, disability, young people.

Directories / sources of funding information:
Monthly grants bulletin – can subscribe to email alert. Also access online searches for grants via GRANT net. Not all councils have these directories but groups can usually access the directories of councils outside their own area. Example:
http://www.argyll-bute.gov.uk/community-life-and-leisure/grants-and-funding

Children and young people now resources:
http://www.cypnow.co.uk/funding-scotland

Youthlink Scotland:
http://www.youthlinkscotland.org/Index.asp?MainID=8063

Searchable database:
http://www.fundingscotland.com/
UK searchable database:
http://www.fundingcentral.org.uk/default.aspx
Scottish Grantmakers:
http://www.scottishgrantmakers.org/

Development / early stage grants

VRG runs two small grant schemes funded by the Craigengelt and Earlsburn windfarms, making funding available to individuals and organisations for energy, environmental, recreational and general community projects, together with educational bursaries. To date, the only local community organisation to apply for funding has been the History and Heritage Society. However, VRG is keen to use the grant funding to support newly constituted local organisations to develop activities within the Community Base, particularly those addressing identified needs of younger and older members of the community. This will increase the potential for local people to implement new ideas and groups, so providing new markets for the Base, likely to include young parent's and nursery groups, youth groups and older people's activities.

Big Lottery Fund (Scotland) - Awards For All: Awards for All Scotland is an easy way for smaller organisations to get small amounts of funding. The programme is a partnership between the Big Lottery Fund Scotland, sportscotland and Creative Scotland. Projects should aim to help improve

local communities and the lives of people most in need. They will fund a range of projects which involve bringing local people together, helping people learn, improving local spaces and getting people more active. Success rate is currently around 66%. Max £10k.

Foundation Scotland – Stirling focussed community grants up to £3000 – employability and training.https://www.foundationscotland.org.uk/media/549224/Stirling-wide-guidance2016.pdf

The Aviva Community Fund offers support and funding to causes that make a real difference to local communities. Projects can receive funding of up to £25,000. (Competition – need to get votes – any community project).

Capital

Big Lottery Scotland Community Assets - up to £1m. Open programme. Highly competitive with stated focus on areas of deprivation. Reduction in BL funding means that the number of awards in the coming year will be very low. No application forms. Initial interview by BL. Then process is 2 stage: strategic plan and then detailed business plan. Very strong focus on financial sustainability.

Big Lottery Through Community Assets are looking for strong applications which:

- *Are rooted in the community, are genuinely community-led and give the community a stake in local decision-making*
- *Are connected to other organisations and services in the community*
- *Show clearly the changes that will take place and why this is the best way to deliver these changes*
- *Show the developments will be economically sustainable once our grant has ended.*

We want to focus our funding where it will have the most impact so we will prioritise applications that address disadvantage and inequality. (from the Big Lottery web site)

This is a highly competitive source of grant funding. Applications are initiated through a conversation with a Big Lottery officer, so VRG could test the likelihood of progression by requesting an initial interview.

Trusthouse Charitable Foundation - Community Centres and Village Halls: Trusthouse is interested in applications for capital projects at community centres in the most deprived urban areas and village halls in remote and economically deprived rural areas. They expect that you will be providing a range of activities for all ages and abilities which help to promote community cohesion and address local problems of isolation, poverty, lack of local facilities, transport and other issues of relevance to your area. They will consider applications for new buildings; upgrading, renovating or extending buildings; improving or creating outside space (but not car parks). You will need to have secured a minimum of 50% of the costs of the project before you start an application. Max £40k. Rolling programme.

Central Scotland Green Network - funds currently closed. When funds are available, covers woodland management for community use. Subscribe to newsletter to be notified when funds are open.

Running costs / activities / equipment

Big Lottery Community Led Medium Grant: up to £150k over 3-5 years (can include up to £50k capital). Rolling programme, one stage application, high success rate. Needs to focus on community activities / engagement. Not appropriate for the building itself but could include loose fittings or improvements to the surrounding woodlands for public access.

Plunkett Foundation - Making Local Woods Work - currently closed.

Forestry Commission Scotland - Forestry Grant Scheme - Forest Infrastructure: provides support for new access infrastructure (e.g. roads) that will bring small scale, undermanaged woodlands or inaccessible woodlands back into active management with the following aims: to improve the economic value of forest and woodland through timber production; to increase the area of woodland in Scotland that is in sustainable management; to improve the environmental and social benefits of woodland. Rolling programme. Max £10k.

Stirling Council - Community Pride Fund. Funds projects delivered for the benefit of single geographic communities in the Stirling Council area. Projects can include physical infrastructure and environmental improvements as well as activity promoting community spirit. Max £1,500.

North Lanarkshire Council - Community Grants: This grant scheme exists to provide small amounts of funding, within a short timescale, to promote projects or activities which bring community benefit. To apply you must be a voluntary organisation or community group operating in North Lanarkshire. Grants may be used for various purposes including equipment, accommodation, catering, running costs, transport, publicity, tutors and building repairs. Max £1k. Open, rolling.

Voluntary Action Fund - Volunteering Support Grant (VSG) - the purpose of the grant is to create new or enhanced volunteering projects, increasing the diversity of volunteers, especially those from disadvantaged groups and improving opportunities, skills and personal development through volunteering. Voluntary and community organisations with an annual income of less than £250,000 can apply (priority will be given to organisations with an annual income of less than £100,000). Max £10k.

Russell Trust - The Trust usually supports specific services or projects and prefers to give start-up grants for new initiatives. Grants are usually one-off and average £1,000. £10k max.

Capital or running costs

The Robertson Trust - Open Grants: The Trust provides funding to third sector organisations to deliver positive outcomes for the individuals and communities that they work with through three funding strands: Care and Wellbeing seeks to improve people's physical and mental health: Realising Potential addresses social and educational inequalities in children and young people: Strengthening Communities looks for solutions which address local need. The Trust will fund revenue grants for core or project funding for a maximum initial period of 3 years. Capital funding is normally up to 10% of costs and can include requests relating to community facilities and village hall and transport (minibuses and community vehicles). Max £20k. Open rolling programme. Usually a “last brick” funder when the rest of a capital funding package is in place.

Garfield Weston Foundation - Major Grants: The Foundation supports a broad range of organisations and activities that share a commitment to making a positive impact to the lives of the communities in which they work, and that are driven by a desire to achieve excellence. They make grants across the UK to organisations in the following categories: Arts; Education; Youth; Health; Community; Environment; Religion and Welfare. Up to £100k. Rolling programmes. Requires a very high quality submission to secure large grants.

Prince's Countryside Fund - reopened February 2017. Up to £50k in total over 3 years. Over-subscribed. Themes include: To sustain rural communities and drive economic vibrancy. Need to demonstrate significant public benefit.

Central Scotland Green Network - funds currently closed. When funds are available, covers woodland management for community use. Subscribe to newsletter to be notified when funds are open.

Stafford Trust - based in Stirling. Grants vary, but most lie between £500 and £5,000. Will fund community projects.

LEADER – Lanarkshire. Aims to create a strong and viable community sector capable of delivering a range of priority services, https://www.ruralnetwork.scot/funding/leader/local-action-groups/lanarkshire-leader.

Appendix 17 Original Recommendations for Capital Project - now Stage 3

This appendix refers only to what is now known as Stage 3 - Community Building.

Within this stage, there are options to build smaller or larger structures summarised as follows:

- Option 1 - smaller footprint, subdivided into Option 1 Phase 1 (initial development) and Option 1 Phase 2 (extension).

- Option 2 - larger footprint, subdivided into Option 2 Phase 1 (initial development) and Option 2 Phase 2 (extension).

It is our view that **Option 1 Phase 1** is the only build option that has the potential to be viable.

The estimated costs of all proposed build options are high, but Option 1 Phase 1 is the lowest by some margin. The financial tables illustrate that with a combination of wind farm funds, a loan, and capital grant funding of approximately £340K, VRG could deliver Option 1 Phase 1. This assumes a successful Scottish Land Fund 2 application, including award of additional development funding to purchase the land.

Option 1 Phase 1 creates a relatively small initial building and provides flexible space for the community and visitors in the form of a café, which can be used as a meeting space when the café is not in use. The size of this build is commensurate with the quantity of evidence for community support and potential use. Dual use of the meeting room / café will limit some activities, but with careful planning will enable the space to be used to maximum capacity for as much of the time as possible, making the building better value for money. It is our view that this building will deliver the majority of the community's requirements within a budget that is more likely to be achieved.

No other option is considered to be viable at this point in time due to the greater level of grant funding required. Option 2 provides a larger amount of space and a separate community room and café allowing dual use. It is however significantly more expensive to deliver from the outset, requiring a much higher level of capital grant income (£793K) which is unlikely to be achieved given the relatively low level of community interest and potential beneficiaries.

Option 1 Phase 1 would still require a significant amount of grant funding to be raised. Viability of the project is therefore dependent upon:

- VRG gaining a mandate from the community to use the majority of future windfarm funding to support this project
- VRG having the capacity and time available to raise approximately £340K of additional capital funding
- VRG being successful with a BL med grant application of up to £150k revenue funding
- VRG being satisfied that the Option 1 Phase 1 build will provide sufficient benefits to the community despite being a compromise.

If any one of these factors is in doubt, then our assessment must be that the project, in its current form, is not viable.

There is potential to carry out a cost saving exercise by revisiting the building specifications and assessing associated costs to identify areas where savings could be made. This could potentially reduce the capital and on costs, meaning that less grant funding would need to be secured to enable the project to be implemented. However, it should be noted that potential capital grant and loan funders will require a minimum level of specification for any building in terms of general quality, accessibility / facilities for users, building longevity, building security and environmental performance (including materials and operational performance). It should be noted that funders will only consider grant / loan applications for Total Project Costs (not just QS estimates of Total Works Costs). Total Project Costs include all capital related costs such as professional fees, surveys, VAT if applicable, contingency, inflation, legal costs and any additional client costs to hire necessary project management.

Should VRG proceed, we have made a number of further recommendations:

Base Facilitator
It is recommended that a part time Base Facilitator post should be employed by VRG to carry out the day to day duties required to maintain a community building, manage bookings, support groups / users, develop volunteers, and oversee the general use of the site. This post would provide an onsite presence in conjunction with the café staff, ensuring that the building can be kept open for regular hours. This post is included in the financial tables with potential Big Lottery medium grant and windfarm funding used to cover costs.

Surrounding Woodland
Purchase of the surrounding woodland has been proposed by VRG to give the community the ability to increase access and maximise use. This purchase comes with formal ownership responsibilities and an associated management and maintenance cost. The benefits of community ownership would predominantly result from investment in new tracks and paths and there is little evidence from the consultation that the community support the purchase of the wider woodland area unless action is taken to increase access. A Woodland Management Plan detailing proposed actions has been produced and VRG should only proceed with the purchase of the surrounding woodland if it is committed to, and can afford to, deliver this plan. Implementation of this plan has been incorporated into the financial tables.

Community Engagement
Further engagement with local community members is required to maximise interest and potential activity at the Base, increasing engagement and volunteer capacity over the coming months.

Original Conclusions

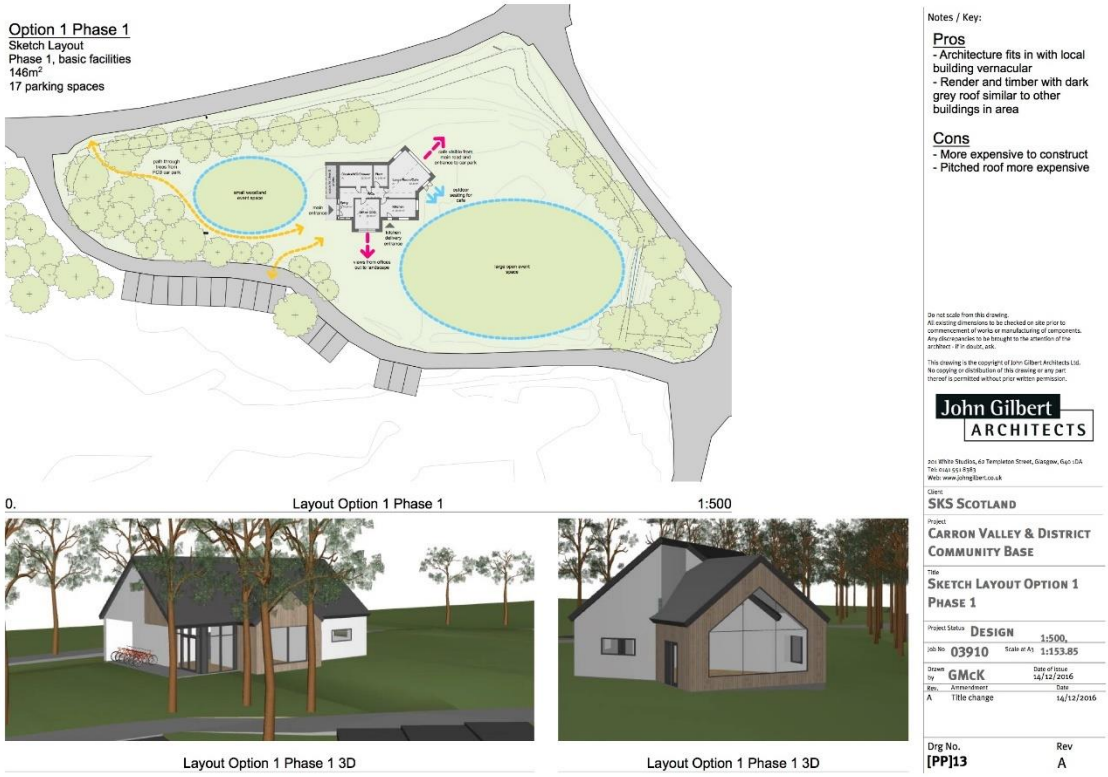
It is our view that by implementing Option 1 Phase 1 capital build, VRG could deliver a viable Community Base at Carron Valley. However, this project carries significant risk in several key areas:

- High build costs
- Significant grant funding requirement which is likely to be difficult to secure
- Compromises required to attain an affordable build, potentially leading to community dissatisfaction
- Relatively low community engagement and interest in the project
- Community concerns regarding security and increased traffic.

These risks should be addressed as part of the ongoing project planning and development if VRG proceeds with the creation of Carron Valley Community Base.

Appendix 18 Options Appraisal for build options at Carron Valley

The initial options appraisal considered a series of options that would enable VRG to deliver the aims and objectives identified above, taking into account the information gathered from research and survey work. The options ranged from taking no action, to planning to deliver a large community facility. The option to consider the viability of a two phased build was taken forward.



Building Options

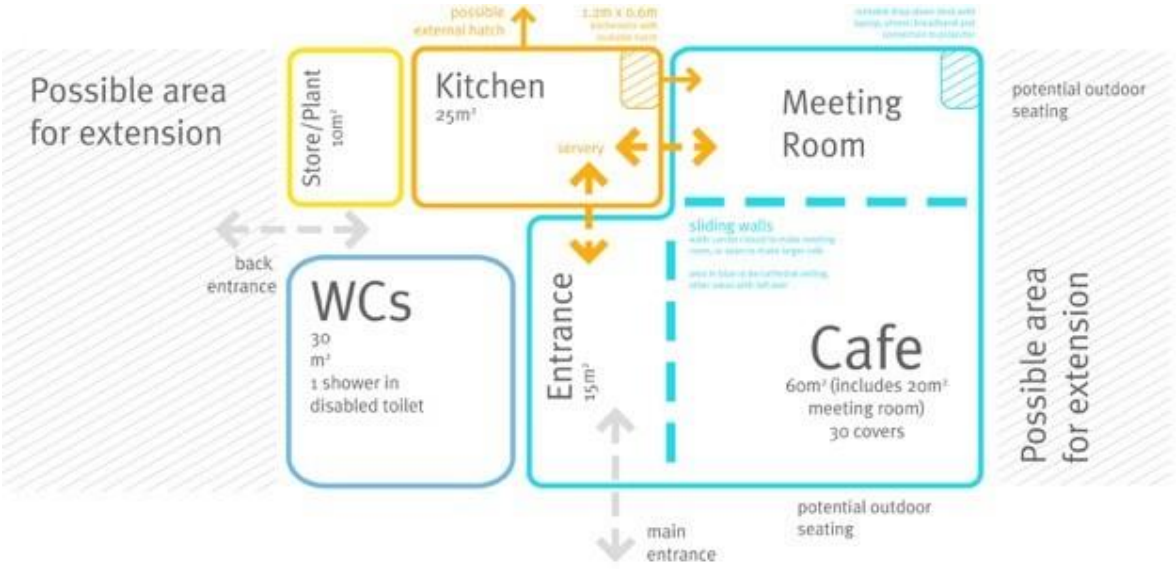
Two potential build options were proposed (Option 1 and Option 2), each with two Phases, taking account of the community needs, markets, potential income streams and potential level of use:

Option 1 Phase 1 = 140 sqm

Option 1 Phase 2 could then add 105 sqm to become 245 sqm in total.

Description - Community building on a single level with 140 square metres of floor space, incorporating:

- Indoor Meeting space to seat 30 people, used as café seating when open
- Small meeting space to be partitioned off when required
- Toilets and showers
- Kitchen facilities with a hatch for takeaway and counter service inside.



CARRON VALLEY & DISTRICT COMMUNITY BASE
Building Layout Diagram - Phase 1 / 140m² GIFA

A4 - Not to scale
18th November 2016
Rev B

John Gilbert ARCHITECTS

Option 2 Phase 1 = 225 sqm

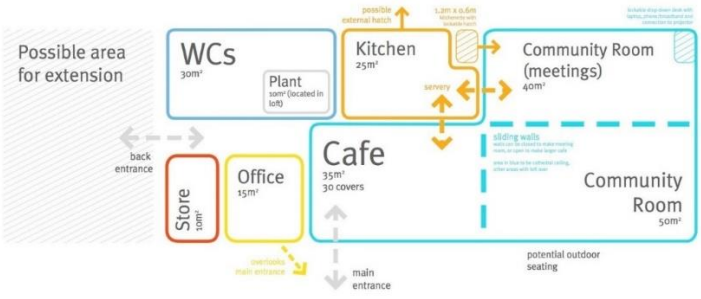
Option 2 Phase 2 could then add 65 sqm to total 290 sqm.

Description - A larger Phase 1 building, providing more space in the first phase to incorporate:

- a larger community room (90m2 total) which can be divided in two
- a small office
- no showers
- a cathedral ceiling over the community rooms and cafe, and a loft over the remaining areas of the building which houses the plant room.

Option 2 Phase 1

Note: Cathedral ceiling over cafe and community rooms, loft over kitchen, WCs, office and store.



CARRON VALLEY & DISTRICT COMMUNITY BASE
Diagram Requested by Client
Building Layout Diagram - Phase 1 / 225m² GIFA

A4 - Not to scale
29th November 2016

John Gilbert ARCHITECTS

Assessment of Building Options

Option 1 Phase 1 creates a smaller initial building reducing the amount of grant funding required to deliver the project. It provides flexible space for the community and visitors in the form of a café which can be used as a meeting space when the café is not in use. It also provides an opportunity to generate interest and increase community use of space and markets. The size of the build is commensurate with the community support and evidence for potential use. Option 1 provides limited internal space for larger events, although there is little evidence that these would be frequent. Dual use of large room / café will limit some activities and would require careful planning, but will enable the space to be used to maximum capacity for as much of the time as possible, making the building better value for money.

The café is a vital aspect of the project, being a regular income generator through a lease agreement, covering a proportion of running costs, and providing local jobs. The café is projected to break even at a conservative level of trade and would provide two part time seasonal jobs.

Option 2 Phase 1 provides a larger amount of space and a separate community room and café allowing simultaneous use. It is however significantly more expensive to deliver from the outset, requiring increased grant income which may be very difficult to secure given the relatively low level of community interest, potential beneficiaries, and social impact.

Appendix 19 Capital Project Costs for Stage 3 (Options 1 and 2, Phases 1 and 2)

VRG - Community base - capital summary	**Option 1 Phase 1**	**Option 1 Phase 2**	**Option 2 Phase 1**	**Option 2 Phase 2**
QS estimate ref	1127 indicativecost2	1127 indicativecost2	1127 workcostrevA	1127 workcostrevA
Sq m - QS	140	245	225	290
Total works cost £ - QS	499,000	802,000	796,000	979,000
Loose fittings £ - QS	20,000	28,000	30,000	38,000
Capital summary	£	£	£	£
Construction costs including preliminaries	499,000	802,000	796,000	979,000
Furniture and equipment	20,000	28,000	30,000	38,000
Professional fees	54,890	88,220	87,560	107,690
Other Costs	20,250	20,250	20,250	20,250
Inflation	35,648	56,308	56,029	68,696
Contingency	31,489	49,739	49,492	60,682
Non recoverable VAT	131,256	207,903	206,866	253,864
Total Capital Cost	**792,533**	**1,252,421**	**1,246,197**	**1,528,182**
Capital financing options	£	£	£	£
Capital cost	**792,533**	**1,252,421**	**1,246,197**	**1,528,182**
VRG cash contribution	320,000	320,000	320,000	320,000
Capital grants needed (or other fundraising) - balance	**339,533**	**799,421**	**793,197**	**1,075,182**
Grant (if exempt from VAT)	239,733	639,021	633,997	879,382
Loan needed (max affordable)	133,000	133,000	133,000	133,000
Annual repayment, term 7 years, 5%	22,558	22,558	22,558	22,558

Notes:

These figures are based upon the QS report prepared against the specifications provided in

conjunction with VRG and include a catering kitchen, security and fire protection installations and tarmac carparking (QS reports and specifications in appendix of Full Feasibility Document).

Assumes VAT must be paid on construction costs. However, in practice, village hall exemption may be available. However the village hall exemption is complex and quite tightly constrained, for example operating a café for the general public or lease of the café to a private operator may count as business uses invalidating the VH exemption. VAT notices 708 and 701/1 are relevant.

A specialist view is essential.

Costs above EXCLUDE the costs of a project manager for the build phase.

Appendix 20 Income and Expenditure (Revenue) - Stage 3 community building

Years in table are from the opening of the community building (not from start of project).

	Year 0 - pre-ops Q1	Year 0 - pre-ops Q2	Year 0 - pre-ops Q3	Year 0 - pre-ops Q4	Trading year 1	Trading year 2	Trading year 3	Trading year 4	Trading year 5	Trading year 6	Trading year 7
Trading income community building											
Forest activities for children					1,500	1,500	1,500	1,500	1,500	1,500	1,500
Room hire					8,850	8,850	8,850	8,850	8,850	8,850	8,850
Café lease					3,000	3,000	3,000	3,000	3,000	3,000	3,000
Timber sales				-	-	-	-	-	-	-	-
Total income	-	-	-	-	**13,350**	**13,350**	**13,350**	**13,350**	**13,350**	**13,350**	**13,350**
	Year 0 - pre-ops Q1	**Year 0 - pre-ops Q2**	**Year 0 - pre-ops Q3**	**Year 0 - pre-ops Q4**	**Trading year 1**	**Trading year 2**	**Trading year 3**	**Trading year 4**	**Trading year 5**	**Trading year 6**	**Trading year 7**
Construction project management (acting on behalf of VRG)	9,375	9,375	9,375	9,375							
Trading expenditure											
Base expenditure:											
Part time coordinator staffing including oncosts (drops in year 4)					20,000	20,400	20,808	10,000	10,200	10,404	10,612
Building repairs and maintenance					1,000	1,000	1,000	1,000	1,000	1,000	1,000
Exterior amenities - repairs					1,000	1,000	1,000	1,000	1,000	1,000	1,000
Electricity and gas					4,000	4,120	4,244	4,371	4,502	4,637	4,776
Water					600	618	637	656	675	696	716
Waste removal					800	824	849	874	900	927	955
Insurance					2,500	2,575	2,652	2,732	2,814	2,898	2,985
BB / phone / IT					1,000	1,030	1,061	1,093	1,126	1,159	1,194
Volunteer costs/training	750	750	750	750	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Job or role adverts	800				800						
Marketing			1,500	1,500	500	500	500	500	500	500	500
Licences					-	-	-	-	-	-	-
Materials for base / forest activities (included in stages 1 and 2)	0	0	0	0	-	-	-	-	-	-	-
Capex loan repay					22,558	22,558	22,558	22,558	22,558	22,558	22,558
Land management expenditure:	Included in stages 1 and 2										
Total expenditure (inc loan)	**10,925**	**10,125**	**11,625**	**11,625**	**55,758**	**55,625**	**56,308**	**45,783**	**46,275**	**46,779**	**47,297**
Total expenditure (excl loan)	10,925	10,125	11,625	11,625	33,200	33,067	33,750	23,225	23,717	24,222	24,739
	Year 0 - pre-ops Q1	**Year 0 - pre-ops Q2**	**Year 0 - pre-ops Q3**	**Year 0 - pre-ops Q4**	**Trading year 1**	**Trading year 2**	**Trading year 3**	**Trading year 4**	**Trading year 5**	**Trading year 6**	**Trading year 7**
Surplus or deficit after loan	**-10,925**	**-10,125**	**-11,625**	**-11,625**	**-42,408**	**-42,275**	**-42,958**	**-32,433**	**-32,925**	**-33,429**	**-33,947**
Funded by:											
BL medium grant UNSECURED	11,075	11,075	11,075	11,075	26,000	26,000	26,000	25,500			
Contribution from wind farms - cover capex loan -					22,558	22,558	22,558	22,558	22,558	22,558	22,558
Contribution from windfarms - general base running cost					-	-	-	-	20,000	20,000	20,000
Closing balance	**150**	**1,100**	**550**	**0**	**6,150**	**12,433**	**18,033**	**33,658**	**43,291**	**52,419**	**61,030**
Analysis:											
Total grant contribution from windfarms assumed	-	-	-	-	22,558	22,558	22,558	22,558	42,558	42,558	42,558

Appendix 21 Sustainable Design Rationale - Stage 3 building

VRG recognises the importance of environmental sustainability both in the design and towards the longer term sustainability of the properties and will act as a demonstration project promoting energy efficiency.

Energy conservation is the key to creating a sustainable building as this is where the greatest and most cost effective gains can be made. After this, the use of passive (free) energy sources, followed by energy recovery and finally renewable supplies can all contribute to offsetting remaining fossil fuel use and improve fuel security in the medium term. Savings in energy are reflected in reduced running costs which is helpful for long term financial sustainability. A range of energy consumption savings can be delivered before considering renewable technologies. Whilst renewables are a fundamentally beneficial option, in practice, there are numerous drawbacks to their use, not least significant capital and additional running costs, complexity and maintenance.

Sustainability Measures in the Proposed Building design (full detail in appendix):

- A compact form orientated to optimise the benefits of passive solar gains, with the majority of glazing is located to the South
- High levels of blown insulation, the use of 'rainscreen' cladding materials to reduce evaporative losses from walls and roof, and an insulated slab
- Heat recovery ventilation, which recovers almost all of the heat lost in ventilating the building while ensuring high levels of fresh air at all times.
- Best practice levels of airtightness for the building
- An underfloor heating system, which represents the most energy efficient form of space heating for a well insulated and airtight building
- As there is no mains gas, an air source heat pump has been specified. As the building is well insulated and airtight, heat pumps represent a reasonable, if not ideal heat source
- Instantaneous hot water to minimise heat loss from storage and pipes
- Conservation fittings which reduce the amount of (warm) water used without reducing the effect of the fitting
- Waste heat recovery technologies in the showers, which, in combination with aerated shower heads, represents approximately 70% reduction in energy demand
- Low energy lighting
- Most materials have been chosen to be renewable in origin, and are 'natural', ie relatively unprocessed so containing relatively little embodied energy
- Where possible materials will be sourced locally reducing pollution and energy associated with transportation. Use of 'Breathing Walls' (and ceilings) ensures that timber elements are free from risk of decay ensuring greater durability and better investment in resources
- The building is designed to be flexible in function, with relatively high ceilings, some flexible partitions and service voids for simple / inexpensive and non-disruptive services upgrading – thereby minimising waste in the long term
- Building components and materials are easily repairable / replaceable for low cost maintenance in the long term
- A number of health based measures are also proposed in the specification, including full height windows to maximise natural light, wood floors without carpets and paints and timber avoiding toxins.

Outline / Indicative Building Specification

Procurement:

Conventional Contractor-led construction programme. Potential for offsite / kit construction at least in part.
Allow for 2no air pressure tests and target airtightness of <1m3/h/m2

Foundation / Ground Floor (U Value: 0.1 W/m2K):

By Structural Engineer, assume the following
150mm free draining compacted hardcore on undisturbed ground, all soft patches cleared and re-filled with good material
25mm sand blinding
100% recycled dpm, lapped with dpc
300mm xps insulation, 100mm xps insulation upstand around slab perimeter with metal downstand flashing
250mm deep reinforced concrete slab over insulation
30mm woodfibre floor board with underfloor pipework within pre-cut grooves
20mm oiled hardwood flooring (plywood and linoleum to Produce Area and Toilets / Lobby etc.)
Allow for inset and removable entrance matting by each glazed doorway

300mm wide and deep, fleece lined pebble perimeter tray, with land drain taking surface water via top perforations to attenuation store and ditch, rainwater taken directly store and ditch.

Walls (U Value: 0.12 W/m2K)::

12.5mm taped and filled, painted (NBT trade emulsion) plasterboard
on 50x50 untreated vertical softwood battens at 600mm centres forming service void
on 10mm OSB board forming structural bracing to stud wall
Vapour Control Layer and Airtightness membrane carefully sealed at all joints
220x50 untreated C16 softwood studs at 600mm centres
with 50x50mm untreated horizontal C16 battens to outer face of studs at 600mm centres vertically
forming 270mm thick timber frame 'breathing' wall with 270mm natural sheepswool or loose fill cellulose insulation
Outer sheathing to be 12mm 'Timbervent' vapour permeable woodfibre sheathing
Pro Clima ‘Solitex’ WA breather membrane carefully affixed over, all laps / corners etc taped
15x50mm larch heartwood vertical battens over at 600mm centres
with 35x50mm larch heartwood horizontal battens at 600mm centres vertically fixed through to studs
with 2 layer 'board on board' vertical cladding formed with variable width by 25mm depth larch heartwood boards
with 2 coats OS Colour paint finish over, 1 coat applied before installation (or left uncoated

Ceilings (U Value: 0.1 W/m2K):

9mm taped and filled, painted (NBT trade emulsion) plasterboard
on 25x50 untreated vertical softwood battens at 600mm centres forming service void
on 10mm OSB board forming structural bracing to stud wall
Vapour Control Layer and Airtightness membrane carefully sealed at all joints
untreated min depth 300mm C16 softwood trusses or rafters at 600mm centres or as required
300mm deep locally sourced sheepswool or loose fill cellulose insulation between trusses with
Allow for loft hatch and ceiling joits / flooring over Kitchen / Toilets for additional services / long terms storage as required.

Roof (External):

Mill finish zinc standing seam system with flashings and fixings as required to suit exposure

fixed down to 25mm sarking over vented cavity

50x10mm exterior grade plywood vertical battens

Pro Clima 'Solitex Plus' windtight breathing membrane, all laps taped and sealed

on 25mm sarking

over trusses / rafters as noted above

All gutters and downpipes in mill finish aluminium

Eaves level ventilator and insect / bird guard to roof sheeting to prevent bird / insect ingress to loft but allow ventilation

Allow for 3no rooflights

Internal Walls:

125mm untreated softwood studs at 600mm centres with 12.5mm painted t+F plasterboard each side, infilled fully with sheepswool, additional OSB bracing where required.

Moveable / Acoustic Walls:

2no layered / panel type as indicated approx. 7m and 4m long respectively.

External Joinery (U Value: 0.8 W/m2K)::

External windows and door glazing to be triple glazed, dry fixed, low 'e' coated with 'U' value to max. of 0.8 W/m2k.

Joinery to be timber with vapour permeable and biodegradable paint coatings, aluminium cill beads to all glazing.

Allow for external metal roller shutters.

Internal Joinery:

Standard internal doors

OS Colour painted skirtings, architraves and cill boards /linings etc.

Fit-Out / Fixtures:

Allow sum, to include showers, trays, toilets and basins, mirrors etc. Conservation sanitary fittings, aerated taps and shower heads, low flush WCs

Kitchen fittings, Kitchenette units and tiling. Assume stainless steel commercial grade. Allow for commercial grade dishwasher, fridge and freezer.

Fixtures to include tables, chairs (30 covers), misc equipment eg ceiling mounted projector and linked-in laptop for presentations, drop down desk with lockable shutter for security. Include for additional external tables / chairs suitable for leaving / stacking outdoors (15no?).

Utilities

Electricity:

Existing Feeder Pillar nearby (25m) with 3ph supply (supplied deer store container)

Water:

Mains water supply is at road. (50m)

Allow for creation of fire pond (description tbc)

Telecom:

BT Pole at bridge (50m) with junction box at Deer Store (25m)

Services

Heating:

Air Source Heat Pump to provide bulk of space heating (low level) via underfloor water pipes within woodfibre boards above slab.

Hot Water to be provided by Instantaneous electric, ie electric showers, under-sink / basin units. This means marginally restricted flow to kitchen but avoids all hot water storage and distribution in the building.

Ventilation:

Central heat recovery ventilation, unit in loft above Toilets / Kitchen, rigid and cleanable circular galvanised steel ducting

Electrics:

Low energy lighting throughout, LED where possible, CFL based where not

Standard LV circuitry in non-pvc cabling throughout.

Sum for external low level lighting to accessible pathways and around building.

Lightning conductor

Comms.:

Broadband connection, landline x 2 (1 needed for till), projection links

High-risk linked fire alarm and standard fire fighting equipment.

High performance / risk security arrangements to include linked CCTV and linked security alarm.

Allow for external landline public phone for emergencies.

Water / Waste:

Foul Waste / Sewage: Stand-alone private treatment required. Use Biorock System which needs no electricity but requires gravity fall from building, with effluent discharge to soakaway and then to river.

Surfacewater: to existing holding area to North of site area, overflow to river.

MDPE supply pipework.

HDPE Waste pipework, Clay underground pipework.

External Works

Allow for 17no car parking spaces, in compacted gravel leading directly off existing gravel track.

Allow for accessible compacted gravel path with edging from disabled parking areas to building.

Allow for loose gravel, unedged, across woodland area.

Allow sum for levelled, drained and re-seeded gathering spaces as shown.

Allow sum for paved areas around building, bike racks in close proximity and within view of Cafe area. Include area of c. 30sq.m by Cafe to allow for outdoor use with tables / chairs etc.

Allow sum for signage

Sustainability Notes

The brief calls for a best practice exemplar in energy efficiency. Energy efficiency is one part of a much wider appreciation of environmental sustainability which this project seeks to address.

Sustainability is generally considered to comprise three interlinked aspects: economic, social and environmental sustainability, a trio of imperatives which were first expressed by Scot Patrick Geddes as “Folk, Work and Place”. Clearly a building procured by, and for a community group which seeks to reinforce local social connections and support economic development in the area whilst being economically sustainable itself (the principal purpose of this study) is actively addressing the social and economic aspects of sustainability.

This leaves environmental sustainability. In this feasibility study, we have addressed this through three aspects: energy, resources and health.

Energy

The use of energy is important because the use of fossil fuels is heavily linked to Global Climate Change with all that that entails as well as the problems associated with Peak Oil and fuel poverty. Energy conservation is the key to being sustainable in this regard as this is where the greatest and most cost effective gains can be made. After this, the use of passive (free) energy sources, followed by energy recovery and finally renewable supplies can all contribute to offsetting remaining fossil fuel use and improve fuel security in the medium

term. Savings in energy are reflected in reduced running costs which is helpful for long term financial sustainability.

Measures in the Proposed Building:

Energy Conservation / Space Heating

- Compact form – reducing the 'form factor', or external surface area in relation to the heated volume – is the first and most important move in reducing heat energy required. As a single storey, detached building this building is not optimal, but we have done our best to keep the form compact and simple to minimise heat loss as far as possible given the context.
- After compact form, it is important to orientate the building to optimise the benefits of passive solar gains. While views to the North and East are desirable, the majority of glazing is located to the South.
- Creating a 'tea cosy' effect with high levels of insulation is the next step to reducing heat loss and thus energy consumption. In this building we have specified a level of insulation consistent with Passivhaus which represents best practice well beyond the requirements of building regulations. In addition to high levels of insulation generally, we have specified a number of items which further the cause of reducing heat loss such as 'soft' quilt-type or blown insulation which in practice is more effective within a frame than rigid insulation, the use of 'rainscreen' cladding materials reduces evaporative losses from walls and roof which is particularly important in exposed locations and a thermally broken studwork has been specified as a cost-effective technique to reduce heat loss through thermal bridging, which can be optimised at a detailed stage to ensure best practice.
- The insulated slab specified has a number of benefits over conventional strip foundations which are more prone to ground movement and harder to insulate effectively. The specification ensures high performance in both theory and practice.
- After insulating a building effectively, the next priority is to employ high levels of airtightness, while ensuring good levels of controlled ventilation. Best practice levels of airtightness have been specified and simple, easily buildable solutions to achieving this included in the construction specification.
- After insulation and airtightness, the next place to look for savings is the heat lost in extract ventilation. For this reason, we have specified heat recovery ventilation which recovers almost all of the heat lost in ventilating the building while ensuring high levels of fresh air at all times. Ventilation heat recovery is many times more effective than other forms of heat production so represents an effective means of providing warmth, and reduces the demands made on the specified heat pump 'main' heating system.
- Use of thermal mass (in floor slab) serves to help balance heat gains and can assist efficiencies depending on occupancy, using natural insulation like sheepswool or blown cellulose increases the thermal mass of the walls, which also helps while also allowing the fabric to 'breathe' reducing the risks of interstitial condensation and the need for chemical treatments.
- The underfloor heating system, managed carefully, represents the most energy efficient form of space heating for well insulated and airtight building, especially where there are high ceilings, heat is radiant and less susceptible to loss via ventilation / air leakage / doors left open etc.
- Heat pump technology is generally nowhere near as effective as commonly claimed, while significant concerns remain unaddressed. The largest is that the UK is facing increasing pressure on the National Grid, particularly at peak times in the winter, and the use of electrical heating exacerbates this. In addition, the National Grid is only 30% efficient, so that for every kW consumed within the building, 3kW or more of mainly coal, gas and nuclear energy has been consumed somewhere in the UK. For this reason electricity has to be used very carefully unless renewably sourced. Since heating uses far more energy than lighting, electricity is best reserved for conventional electrical demands, and never used for heating. However, where there is no mains gas, it is an issue that needs to be addressed due to the costs of transported gas and oil. Furthermore, heat pumps only work at the stated levels of efficiency when asked to do the minimum of work, ie to provide heat at low levels. For this reason, they are only likely to operate as stated in airtight, energy efficient buildings, where the temperatures required are low. Insofar as this building is energy efficient, this is OK, but it also important that underfloor heating is used in preference to (cheaper) radiators, which only operate effectively at higher temperatures. So in this case, without mains gas, but used efficiently in an efficient building, heat pumps represent a reasonable, if not ideal heat source. The efficiency of the heat pump is improved by the use of heat recovery ventilation which again reduces the need for high loads on the heat pump.

- Ground source heat pumps tend to operate more effectively than air source versions, but require large areas of ground to work. In this case, the area of land available would not be a problem, but the installation costs of ground loops can be high, so we have proposed an Air source unit as a simpler and cheaper alternative, acknowledging that the long term performance may not be as good.
- We are not specifying a hot water cylinder with accompanying cylinder and pipework heat losses – all hot water provision to be via instantaneous under-sink units.

Energy Conservation / Water Heating

- In otherwise energy efficient buildings, by far the largest heat demand is for water heating, if, as here, there is a significant hot water demand. If electricity is the chosen fuel source, then it is critical to do what is possible to reduce consumption. Before considering the use of renewables, it is possible to deploy some techniques to reduce by well over half the electricity needed.
- The first tactic is to employ conservation fittings which reduce the amount of (warm) water used without reducing the effect of the fitting. Leak detection devices can be used, shower-heads and taps can use aerated heads which reduce the consumption of water by around 50%, while waterless urinals remove water consumption almost completely. Low-flush WCs can be used and while conservation fittings tend not to be considered helpful in kitchens, the overall effort can be reduce water consumption by 50% if carefully considered.
- An additional way to save energy in water heating is to employ waste heat recovery technologies most commonly found in showers. In these, the incoming water is pre-heated by the outgoing waste water obviously without touching via a heat exchange mechanism. The systems tend to be passive, ie have no moving parts and are commonly used now by developers. Although they only work for showers, and are less effective on ground floors, they can still recover around 30-40% of the heat. In combination with aerated shower heads, this represents approximately a 70% reduction in energy demand. This is far more than can be achieved by solar thermal panels and has none of the installation, complexity and cost issues associated with active solar thermal systems.
- A significant problem in most buildings is the heat losses associated with hot water distribution and storage. In practice, the losses tend to be far higher than predicted. For this reason, we have specified instantaneous electric heating of all hot water outlets. This means there is no need for any hot water pipework and storage, greatly reducing complexity and associated risks such as legionella, along with the energy efficiency benefits.
- Taken together, the use of conservation fittings (except in the Kitchen sinks), the use of waste water heat recovery for the showers and the use of instantaneous heating represents an estimated saving of 75% of the energy typically spent on heating water without the need for any active renewable system. This means that although it is not ideal to use electricity for heating water, the demand is much reduced, to a level which represents a primary energy consumption lower than a mains gas combi boiler.

Energy Conservation / Electricity

- 100% of all lighting will be low energy – CFL or LED type – where possible.
- All equipment under control by the Client will be AA or AAA rated and as energy efficient as possible.

Energy Supply and Renewables

- As explained above, a range of savings can be delivered in energy consumption before considering renewable technologies. Whilst renewables are a fundamentally beneficial option, in practice, there are numerous drawbacks to their use, not least additional capital and running costs, complexity and maintenance.
- For space heating, we acknowledge that mains gas is not available, and that bottled gas and oil are both fossil fuels and expensive.
- Biofuels have been considered and would make some symbolic sense in an afforested area but the capital costs and more importantly practical aspects, such as effective maintenance and supply contracts suggest that this is not the best way forward, especially when these systems work best with higher demand patterns.
- For space heating, our starting point has been to reduce the demand ‘at source’ and in so doing we have proposed a building with a very low likely demand. On this basis, the generally high capital and running costs of complex renewable supply systems becomes unnecessary and whilst heat pumps are themselves expensive, it does mean we need no additional fuel supply chain other than the existing electricity cable.

· What would make sense in energy terms is to look at the potential to source electricity. This would offset the all-electric energy consumption in the building. Wind turbines and photovoltaics are arguably the most likely contenders while micro-hydro schemes are viable when there is a large head of water which may be possible nearby. All of these options would require a specialist survey to establish feasibility, and of the three the use of photovoltaics is most likely to be worthwhile. However, capital costs of all three systems would be high and we have taken the view that at this stage, this is something that could be reviewed if the more general feasibility of the project is agreed and the community wishes to proceed with an expressly 'sustainable' proposition.

Embodied Energy

In the past, the main focus when looking at energy conservation has been the operational energy, that is the energy used by the building in occupation. Embodied energy is the energy used to extract raw materials, manufacture and transport them to the building site. The more this has been studied the more it has become clear that it can represent a significant part of the overall lifetime footprint of a building. A recent study showed that in new-build housing, embodied energy represents around a third of the total energy. For this reason, when discussing energy conservation it is important not to overlook embodied energy.

The bulk of materials by volume used to build the building as proposed are renewable in origin being mainly timber with natural insulation.

Most materials have been chosen are 'natural', ie relatively unprocessed so containing relatively little embodied energy.

Where possible materials will be sourced locally reducing pollution and energy associated with transportation.

Materials high in embodied energy have been minimised and used only where cost effective or suitable alternatives do not exist, eg. concrete for the floor slab, polystyrene under-slab insulation and metal for the roof (though this is 100% recyclable).

Resources

We are using up resources in the UK at a rate that would require 3 planets to be sustainable. We must therefore seek to reduce the simple bulk and complexity of resource use by at least two thirds. Waste and over-consumption have been cited as the biggest environmental issue in Scotland ("Scotland's Ecological Footprint"). We need to use less, and ensure that what we do use is going to last longer, be repairable, ultimately re-useable or recyclable if not safely compostable. Landfill should not be an option. We need to use materials and components which are more natural, and more local on the whole. We need to use less water, spend less energy on water treatment and create less pollution.

Measures in the Proposed Building:

Building designed to be flexible in function, with relatively high ceilings, some flexible partitions and service voids for simple / inexpensive and non-disruptive services upgrading – thereby minimising waste in the long term

Use of 'Breathing Walls' (and ceilings) ensures that timber elements are free from risk of decay ensuring greater durability and better investment in resources

Building components and materials are easily repairable / replaceable for low cost maintenance in the long term

Linoleum flooring (for Toilets etc) is an entirely natural product sourced in Scotland

Vast majority of building components and materials are safely biodegradable thus the building fabric represents an almost zero waste solution. As landfill becomes more of an issue, this future-proofs the Client in the event of future charges for materials disposal, all can be safely composted without pollution risk to the immediate environment.

This philosophy could be continued into the use of biodegradable detergents and other cleaning agents for ongoing maintenance

Water fittings are specified to be low water use, effectively reducing to half conventional water use through fixed components (ie not relying on occupant behaviour)

The Client should commit to use of recycling stations and of recycling bins near work stations to encourage a culture of recycling throughout the centre.

Sewage treatment is proposed as a stand-alone private treatment not requiring electricity and avoiding any additional loads on the public system.

Health

Most people don't study the health effects of buildings and so never realise how harmful much of what is now conventional can be, particularly to children. The UK is particularly bad at taking these issues seriously, and it is no surprise that Scotland now has the highest incidence of childhood asthma in the world – at 1 in 7 children currently. The other problem is that it is not in anyone's interests commercially to investigate too closely and it is notoriously difficult to establish cause and effect. However, under the precautionary principle, a good deal is known about what might be harmful and it is relatively simple to design a building that as far as we know, is benign and indeed beneficial to occupant health.

Measures in the Proposed Building:

Full height windows allow more light into a space and provide better daylighting levels.

All windows incorporate opening casements for individual control of spaces, especially in warmer weather.

No carpets of any sort are specified in the building and with the relatively high quality of timber flooring and high comfort levels, it is hoped to dissuade anyone from introducing them.

All timber is used without chemical preservatives / insecticides / biocides etc.

All paints specified to be natural origin and avoiding toxins commonly found in conventional paints

Timber flooring is to be oiled and waxed only.

Avoidance of all pvc and mineral wools.

Avoidance of the worst of the commonly available office furniture and fittings (if possible) (VOC offgassing is the main problem with chipboard based furniture).

Underfloor heating is by far the most healthy of all heating systems being low level, low temperature, largely radiant in nature, avoiding dust circulation and convection currents and avoiding excessive temperature and thus humidity swings.

Ideally pot plants in soil can be used throughout the building to provide pleasant foliage but more importantly to naturally humidify air when relative humidity drops.

Appendix 22 QS Quote for Stage 3 Option 1 build costs

SKS SCOTLAND

CARRON VALLEY & DISTRICT COMMUNITY BASE

REID ASSOCIATES
CHARTERED QUANTITY SURVEYORS

		PHASE 1	PHASE 2	TOTAL
1.0	**WORKS COST**			
1.1	Substructure	35,000	27,000	62,000
1.2	Superstructure	178,000	149,000	327,000
1.3	Finishes	29,000	22,000	51,000
1.4	Fittings	30,000	5,000	35,000
1.5	Services	31,000	23,000	54,000
		£ 303,000	£ 226,000	£ 529,000
1.6	Site Works	83,000	8,000	91,000
		£ 386,000	£ 234,000	£ 620,000
1.7	Preliminaries	68,000	41,000	109,000
		£ 454,000	£ 275,000	£ 729,000
1.8	Contingencies	45,000	28,000	73,000
	TOTAL WORKS COST	**£ 499,000**	**£ 303,000**	**£ 802,000**
1.9	Loose Furniture Etc Allowance	20,000	8,000	28,000

Note

1. The above costs are based on works being competitively tendered and have a base date of November 2016. They exclude:

   1.1 Professional Fees
   1.2 VAT
   1.3 Acquisition Legal Costs

2. The above costs are based on John Gilbert Architects Proposals and also include for:

   2.1 A catering kitchen
   2.2 Security and Fire Protection Installations
   2.3 An allowance for loose furniture etc is also highlighted

3. No Site Investigation Report or Civil and Structural Engineering information was available.

13 Sandyford Place
Glasgow
G3 7NB

Reported

Reid Associates

14/12/2016

Chartered Quantity Surveyors

ADM/JW/1127/1127 Works Cost