



**NEVIS LANDSCAPE PARTNERSHIP**

# **SEASONAL RANGER REPORT**

**AUGUST-DECEMBER 2020**

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# Introduction and Executive Summary

With the Covid-19 restrictions limiting travel, people from all over the UK spent more time this summer holidaying in the Scottish countryside. Glen Nevis was no exception, with a surge of visitors immediately after the lockdown measures were eased. This has been a great opportunity for people to connect with nature, spend quality time outdoors and appreciate the amazing wild places that are available in The Glen. Unfortunately, the impact from increased visitor numbers and unfamiliarity of responsible access by many 'new' visitors has had a negative impact on the environment. This includes litter and camping related issues such as abandoned tents, fire rings and cut down trees, irresponsible toileting and traffic congestion on country roads. However, generous support from the National Lottery Heritage Fund allowed for a team of four Seasonal Rangers to be deployed by The Nevis Landscape Partnership (NLP) for four months to tackle increased pressures. Rangers have provided visitors with local information and reminded them to "leave no trace" and follow the Scottish Outdoor Access Code (SOAC) in a positive and engaging way.

The Ranger team have taken on a number of tasks including patrolling, conservation, land management and education and community engagement work. This report details what the team achieved in detail, while the below summarize four months of work in eight bullet points:

- **Rangers completed a total of 82 patrols** from the 26th of August to the 11th of December. 19 of these in the Lower Glen, 39 in the Upper Glen and 24 on Ben Nevis.
- Rangers **engaged with a total of 1869 visitors** about Litter, SOAC, toileting practice, parking, walking routes, camping and giving local information.
- **49 Ranger days of conservation work completed**, including 12.5 working on future forests project removing bracken with the help of volunteers on 2 days. The remaining 12.5 Ranger days were spent on biological surveys and INNS removal.
- **33 Ranger days of land management work completed**, including path maintenance and infrastructure repair. 17 of which spent maintaining the paths on Ben Nevis, clearing cross drains and ditches. 10 Ranger days spent on the All Ability Path, including cutting back encroaching vegetation, mapping and repairing the flood damage. And 6 Ranger days maintaining the Riverside path and Lowerfalls Car park.
- **58 fire pits dug over** in total.
- **138 bags of rubbish collected**.
- **20 Ranger days providing outdoor education** to 7 primary school classes across three local schools.
- 37.5 Ranger days spent working with partners and organisations such as **Friends of Nevis, John Muir Trust** and **Woodland Trust**.



# Visitor Management

## Overview

The Seasonal Ranger Team took a proactive approach to minimise the impacts of increased tourism pressure, this included educating visitors on the Scottish Outdoor Access Code, handing out bin bags for visitors to take their own rubbish away, asking walkers to stay on the paths, clearing litter and fire sites to make it less tempting for others and creating land features that would make camping difficult in the most popular areas. The Ranger's time was divided, covering the hotspots in the Glen separated into the Lower Glen; Upper Glen (including Steall); and the entire Ben Nevis Mountain Path (see appendix for reference).

## Patrolling

Rangers patrolled popular hotspots for camping and hiking which were the areas with the most litter and environmental damage. Rangers engaged with a total of **1869 visitors** across the entire area, giving a friendly welcome, providing local information but also asking visitors to take away their own litter and advising campers on how to have an appropriate fire and leave no trace. Unfortunately, a lot of litter was still found in the area ranging from toilet waste to alcohol, food and drink wrappers to camping litter. This was collected during patrols as it also opened up conversation about littering with passing visitors. A total of **138 bags of rubbish** were collected and the Rangers helped with **7 Friends of Nevis litter picks**, which is included in this total.

The Lower Glen patrol route covered areas that see heavy use from locals and visitors. Rangers engaged with a total of **141 visitors** in the Lower Glen spending **19 Ranger days**, focusing on litter and camping. **34.5 bags of litter** were collected while on patrol in the Lower Glen.

The Upper Glen was very popular with car-based camping and campervanning during the summer and autumn. Rangers spent **39 days** in the Upper Glen, including **16 weekend** days from 7am till 7:30pm. The team engaged with a total of **617 visitors** at Steall and **424** in the Upper Glen about camping, SOAC, responsible fires, litter and responsible toileting and collected **19.5 bags** of litter from Steall and **38 bags** from the Upper Glen, with help from volunteers.





Ben Nevis patrols covered the entire Mountain Path route. Rangers engaged with a total of **687 visitors** over **24 Ranger days**. Different approaches were taken to spread the SOAC and leave no trace messages on The Ben, including handing out biodegradable bin bags for, reinforcing the message of leaving nothing on the Ben including fruit peelings and tissues, and giving outdoor toileting advice. Public involvement with litter picking on the Ben took place on many occasions. Rangers asked members of the public to carry full bin bags on the way down so they could collect more rubbish or asked the public to help collect the litter brought on to the path from harder to reach areas and handed out litter pickers and bin bags. A total of **46 bags of litter** were collected from Ben Nevis, with help from the public and volunteers.

## Camping

Although most people camped responsibly, many still fell into the ‘dirty camping’ category; leaving litter and toilet waste behind, burning fire rings into the ground. On one occasion a still-smoking abandoned fire was discovered. Further to this, people frequently cut down trees and had unsightly encampments with strewn litter, essentially ruining the ‘wilderness amenity’ in The Glen. Car camping was especially popular in the laybys on the road from Lower Falls to Steall. Campers pitched their tents within 10s of meters from their car, allowing easy access and often bringing larger, more luxurious items that end up being left behind, straying away from the essence of ‘wild camping’. Abandoned campsites were occasionally found and have been tidied up from around the fields at Lower Falls, near the West Highland Way paths, pinnacle ridge layby, around the Halfway Lochan and at Steall.



Rather than taking the approach of moving campers along, the Ranger team encouraged responsible camping and engaged with a total of **218 campers** in **124 tents**. For example, when campers were seen carrying their own wood into Steall Meadows, they were thanked for bringing their own wood and asked to have their fire on the shingle beach rather than on grass, to remove every sign of there being a fire, and encouraged to bring a fire bowl next time. Others having a fire were asked not to cut down live wood, to keep their fire small and to bring their own wood next time. Rangers saw **95 fires and fire sites**, and dug over a total of **58 fire pits**, this should help vegetation regenerate, and also acts to dissuade further campfires.

However, in some areas camping is not appropriate at all, such as the historic Curling Ponds which is now managed as a park for local people. **4 Ranger days** were spent mounding



earth to create disturbed land, which proved a successful deterrent for tents. Campers fought back here by pitching hammocks between trees over the freshly mounded ground, much to the Rangers amusement! Mounding earth is a low cost, low environmental impact way of dissuading campers, which has proved to be mostly effective.

## Traffic Management

Traffic along the single-track road beyond Lower Falls was busy and dangerous on sunny weekends. The small car park at Steall does not have the capacity for the number of vehicles that visited, resulting in an overspill onto the passing places and roadside. In the Upper Glen, vehicles were noted as parking in passing places and on the roadside **33 times**.

Rangers used e bikes when patrolling on busy weekends in an attempt to reduce pressure on the road and parking spaces. On particularly busy days, **Rangers stopped traffic** to explain that the car park at Steall was full and advised visitors to park at Lower Falls car park to walk to Steall. When possible, visitors were asked not to park in passing places and moved on from dangerous parking spots.

Also in response to the traffic problem in Glen Nevis, the Ranger team created a **self-guided circular walk** (appendix) from Lower Falls to Paddy's bridge, with the aim to reduce traffic to Steall. The route was trialed with colleagues and school children, and received positive responses:



***"I really enjoyed my adventure"*** -P6 Lundavra student

***"I genuinely think it could prove very helpful in easing the pressures of traffic further up the glen, making this already good car park more of a destination for people who want more than a look at lower falls, but less of a trek up Stob Ban."*** - Louise Kernaghan, local artist.

Landowners were contacted for their thoughts and their permission to use their land for the purpose of a circuit trail as there is potential to create waymarkers and hand out leaflets to local accommodation providers in the future.

# Conservation

## Overview

Rangers completed **approximately 49 Ranger days of Conservation work**. This broadly fell into the following categories: habitat management work; enclosure maintenance; wildlife surveys; and invasive/ non-native species removal.

## Tree Enclosures

The 'Future Forests' project is a legacy of the original Nevis Landscape Partnership Program. This long-term initiative is designed to enhance the viability of native woodland in Glen Nevis, and is making a huge contribution to woodland regeneration in the area.

**15 tree enclosures** have been planted over the last 5 years with native trees including Scots Pine, Aspen, Holly, Oak, Rowan and Hawthorn.

Over the last 3 months the Ranger team have spent **12.5 Ranger days** managing these enclosures to keep the deer out, and to optimise the growing conditions for regenerating trees by 'bracken bashing'. This is labour intensive and skillful work, and is essential if this project is to be successful.

Due to Lockdown, some early season work was missed. In a typical year, it would require closer to **30 Ranger days** of work to maintain this project to the standard it requires.

We are grateful to have been assisted on two occasions by volunteers to help us complete this work.





## Wildlife Surveys

Rangers have taken on a variety of biological recording surveys. Data is passed on to various scientific bodies, who use it to help inform national policy and approaches to environmental issues.

Additionally, this helps maintain a useful network of conservationists and provides learning opportunities for staff. It also allows Rangers to speak knowledgeably to the public, and add real value to their experiences in Glen Nevis.

**Birds sighted** during other work (IE, when not out surveying) were reported to the British Trust for Ornithology's (BTO) **Bird Track**. Notable sightings include WhiteTailed Eagle, Black Grouse, Barn Owl, Buzzard, Dipper, Raven, Sparrow Hawk and multiple passerine species.

**Monthly Wetland Bird Surveys** (WeBS) were carried out at East Loch Arkaig, a site with no previous WeBS recording. Data collected here has proved useful to the local Bird Recorder.



**Moth trapping** took place frequently in Autumn, **22 records were uploaded** to iRecord and the National Moth Recording Scheme. Species included: Dark Marbled Carpet, Spruce Carpet, Rosy Rustic, Lesser Yellow Underwing, Square Spot Rustic, Pink-Barred Sallow and Red-Twin Spot Carpet to name a few.

**Eight Ranger days** were spent continuing the NLP owl box project. 21 boxes were monitored for presence across Glen Nevis and Leanachan forest, **52% of checked boxes were found to be occupied**, with **three Barn Owls** being sighted. This was reported to BTO and landowners were informed.

**Water Vole** signs were also discovered in the Glen. Five latrines were found and the area has been noted for future survey work in the spring.

A further **12 Ranger days** were spent helping the Woodland Trust set up camera traps for a wild boar population density survey at Loch Arkaig. Presently there are no formal wild boar population density figures in the area, so the data gathered will be ground-breaking, and highly valuable in forming management plans. This is an ongoing project and will carry on into early next year.



**Six Ranger days** were spent helping the John Muir Trust setting up speculative camera traps for surveying in and around Coire Guisachan. Three Red Deer Stags were shot in the Nevis Management area between 3<sup>rd</sup> and 11<sup>th</sup> of October and traps were placed at the carcasses, with the hope of spotting some scavenging raptors.

While placing one of the traps, a **White Tailed Eagle was spotted** very close to the carcass but unfortunately was not captured. The only thing that was picked up on the camera was a lonely mouse that came out one night, interestingly there is a shot of it eating the meat from the carcass!



## Tree Nursery

The Nevis Landscape Partnership maintains a nursery of native trees, destined for planting in the Glen. Of note, a large stock of Scots Pine, grown from seed collected in The Glen is kept. **Four Ranger Days** were spent collecting and homing roughly **3,000 Scots Pine Seedlings** which had been cared for by the National Trust for Scotland in Glencoe. **Two Ranger Days** were then spent checking tree health, and re-potting the bigger ones.

Remaining trees are in good health, and two local Primary Schools have expressed interest in homing some seedlings as they grow up.

## Invasive Species Removal

Glencoe Primary School pitched in to Invasive Species Control during their Education Days! An afternoon was spent with the children teaching them *rhododendron ponticum* control at Glencoe Lochans, historically shrouded in *rhododendron ponticum* cover dating back to the 1890's.

*Rhododendron ponticum* is an invasive non-native species which is one of Scotland's most dangerous invasives. Its deep and wide spreading roots, toxic litter matter and ability to carry the pathogen *Phytophthora* makes it a real concern.

The group were taught to ID the plant and the 'Lever and Mulch' method of removing it. The children were well engaged and enjoyed the activity, several of them commenting that they would return at a later date to continue the work.



In Glen Nevis, **One Ranger Day** was spent tackling American Skunk Cabbage near the former school site. A further Invasive and Non Native Species Survey in this area found *Rhododendron Ponticum*, *Shallon*, *Berberis*, *Sitka Spruce* and *Cotoneaster*.

# Land Management

## Overview

The Nevis Landscape Partnership takes a proactive approach to visitor infrastructure management. Central to this, the NLP retains the responsibility of maintaining the paths and associated infrastructure built or improved during the Nevis Landscape Partnership Program from 2014 to 2019. The Lower Falls Carpark is now also under the charge of the NLP. In addition to this, the NLP works in close partnership with the John Muir Trust and the Friends of Nevis to keep the Nevis area litter free and to mitigate the impact of day visitors and campers. A series of People Counters are operated to gather visitor information, and flooding data is collected to help future planning.

## Path Maintenance

The Ranger team have been maintaining the path network across Ben Nevis and the Glen by clearing cross drains; clearing and reprofiling ditches; cutting back encroaching vegetation; and repairing flood damage.

A total of **17 Ranger days** have been spent on path maintenance on Ben Nevis including two **Friends of Nevis work parties** and one John Muir Trust work party.

A total of **10 Ranger days** were spent on the All Abilities Path in the Lower Glen. Encroaching vegetation such as brambles and nettles were cut back, the path was also checked for storm damage, and fallen tree branches were removed from the path. The proximity of the All Abilities path to the River Nevis causes the path to become flooded during large storms. Rangers mapped the extent of the flooding damage and repaired the most affected sections of the path (see appendix).

Flooding data of other areas around the River Nevis in the Lower Glen was also mapped, including around Clagan, the Visitor Centre (see appendix).

The path between Lower Falls and Paddy's Bridge benefited from **6 Ranger days** of strimming around the paths, cutting hanging branches and encroaching vegetation, ditch and cross drain clearing. An additional day was spent doing the same around Lower Falls Carpark.





## Infrastructure repair and construction

Visitor infrastructure suffers in the wet Lochaber Weather. Rangers carried out several repairs including emergency fixes of the **Ben Nevis Stile** and one of the **Bridges on the Lower Falls/ Paddy's Bridge** path. Checks of all other bridges, stiles, fences and gates under the NLP's care were also carried out.

# Education and Community Engagement

## Overview

Covid has made educational visits challenging. However, the team made it a priority to include as much engagement with the general public and school groups as was safe and possible. Working with strict risk assessments and hygiene rules rangers were able to work with Glencoe Primary School, Banavie Primary School, and Lundavra Primary School, work with partners and volunteers, and create social media pages and a self-guided walk.

## Outdoor Education

**Twenty Ranger Days** were dedicated to School Visits between October and December. The team **provided outdoor education to 7 classes** between primary 2 and 6, over three schools totalling **approximately 156 pupils**.

Rangers delivered part of the John Muir award to Glencoe Primary School (Primary 4-7), helping 14 pupils complete their award over two days. Activities included discovering and exploring the local woodland by den building and using natural materials to create art pieces, conservation activities, removing small rhododendron by hand and having a small SOAC compliant fire, in a fire bowl with our own wood, and sharing this information creating posters about invasive species. Some of the comments from the teacher and children include:



***“The Rangers were really nice, friendly and easy to talk to.”-Student***

***“It was really good being outdoors”- Student***

***“We wish we could have had more time with them so we could have visited more places, like the Shoreline.”- Student***

***“Really, appreciated how well prepared and flexible you all were with COVID and links to classroom learning, by sending plans and risk assessments.”- Miss Feighan (School Teacher).***



The Ranger team spent two days leading Banavie Primary School students (Primary 4/ 5 and 3/4) in wildlife workshops in Corpach Community Woodland in partnership with Outward Bound Instructors. Activities included making a geological timeline out of nature sculptures, linking to their classroom intended learning outcomes, learning about different species in the woodland including invasives, dissecting owl pellets, and bracken bashing. This received a lot of enthusiasm from the students as they were able to do their own practical conservation task and see the outcome once they had finished. This was a great opportunity for the Rangers to work with Outward Bound for the first time and would be a great future partnership for other local primary schools within the area. Comments from the Outward Bound Instructors who have been working alongside the primary for a number of weeks include:

***“ The students at Banavie primary have definitely taken loads away from your sessions today. You and your team's knowledge about the local environment and how to help manage it will be taken home with them to share enhancing the care for the areas they live in.***

***From our point of view having a local Ranger team to work with and share their knowledge to enhance outdoor learning is an invaluable resource.***

***We look forward to working with the NLP team again.”- James Freeman (Outward Bound Senior Instructor).***

In December, two Rangers worked with Lundavra Primary School alongside Outward Bound Instructors over four days. over two days Classes **primary 5 (30 pupils)** and **primary 6 (31 pupils)** were taken around the circular guided walk outlined previously. They created journey sticks, took part in nature scavenger hunts and nature games were played to help learn about the glen; it's geological history, habitats, native and non native species and how to look after it for future generations, including the purpose of the exclosures. **Primary 3/4 (22 pupils)** were brought to the visitor centre woodland and the woodland on the all abilities path, taught about the wildlife in the glen and how to look after it for a half day. They created hedgehog houses and bug hotels out of natural items, played **nature games**, learned to **identify things** in nature by the way they **feel** and made rush christmas decorations. Primary 2/3 is being taken out for another half day next week and will carry out similar activities as P3/4.

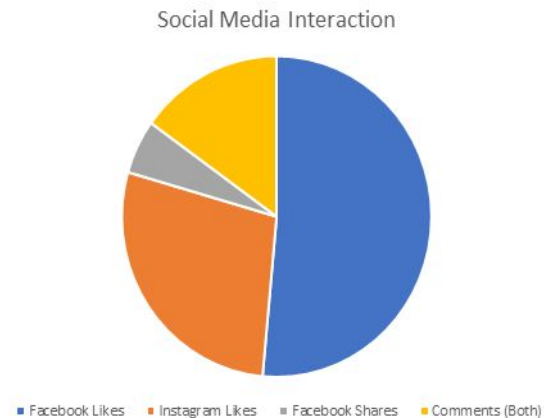




## Social Media

Social Media has allowed the Ranger team to show what they have achieved to a wider audience. Social media posts have gone up 3-4 times per month and there has been a high amount of interaction per post. As shown (Figure 1) the highest amount of interaction is from Facebook with over **400 likes** in three months, and approximately **10 posts**. Even more so, in just two posts Instagram has allowed over **200 people** to interact with the work the Rangers have been doing, gaining shares from John Muir Trust (*6,499 followers*),

Outdoor Capital UK (*3,473 followers*), Mountaineering Scotland (*5,331 followers*) and Abacus Mountain Guides (*1,835 followers*) all of which hold a higher follower platform. All interactions online have been incredibly positive, with many local organisations messaging with positive feedback towards the work the Rangers undergo on a daily basis. A few positive comments are written below;



***“This is a success story, well done to NLP and to the successful new Rangers- Heather McNeill UHI Broadford” (Welcome Message)***

***“Brilliant Effort, Well done to all Involved #TakItHame- Mountaineering Scotland” (Ben Nevis Summit Pick)***

Along with keeping Social Media up to date, the Rangers also have updated the News feed on the Nevis Landscape Partnership Website monthly with statistics, stories and information of upcoming events. This is posted on Social Media and is a part of the many shares and comments seen above.



## Volunteer Work Parties

Since August the Rangers have been involved in many work parties to date counting to roughly **37.5 Ranger days** with both Friends of Nevis, The Woodland Trust and John Muir Trust, these work party days differed from a few hours to full seven hour days. The work parties were run on a Monday morning and a Saturday morning with the odd Sunday mixed in and included a wide variety of activities from litter picks, bracken bashing, path maintenance, to maintaining the Curling Ponds found at the entrance of Glen Nevis. Due to the Ranger involvement, volunteer work parties were able to cover more ground, the Rangers were able to meet and lead small groups of volunteers. This meant that more volunteers could come along on events as the Rangers could assist the Volunteer coordinator Rory Stewart with smaller groups due to the Covis19 guidelines.



Working with John Muir Trust partners every Monday until the start of November also allowed the Rangers to work closely alongside Nathan Berrie (*John Muir Trust Nevis Conservation Officer*) and Ali Austin (*John Muir Trust Property Manager*) to help manage the influx of tourists within Steall Gorge and Steall Falls. This partnership meant that the Rangers also were able to learn more about the John Muir Trust while also supporting other activities such as Camera Trapping in places such as Criubhsachan Corrie, Meall Cumhann and Steall. Three of the Rangers joined the John Muir Trusts work party to do a litter pick up Ben Nevis, this was a huge success with **14 bags of litter** being collected in total between Nevis Landscape Partnership, John Muir Trust and the John Muir Trust Volunteers.



# Conclusion and Recommendations

## Future work

The past four months has been a great opportunity to see what a Ranger service can achieve in a short time period. Of course this means that there was only so much that could be completed, we have put together some things that would be good to continue as well as lessons we have learned and recommendations for possible future seasons.

- Continued patrolling, especially on weekend evenings and mornings. Ranger presence needs to be consistent and we have achieved the best results when an evening patrol was followed by a morning.
- Continued path maintenance, clearing clogs drains and repairing the flood damage on the All Abilities path. Rangers can easily talk to passing visitors when carrying out this work and can explain about the work of NLP and educate about litter etc. at the same time.
- Continuing to work with local schools could possibly lead into the JMT Jr Ranger programme. All schools we have worked with have shown interest in continued work with NLP Rangers.
- Possibly complete the dry stone wall along the All Abilities Path, Rangers coming out of the college course hold the tickets and can pass on this knowledge to volunteers and other Rangers.
- Completion of the Lower Falls Guided Walk, including strimming paths, installing waymarkers and advertising to the public.
- Hosting Seasonal Events and guided walks and nature talks as a way to raise the profile of why people should protect the area.
- Survey work, creating a baseline of the flora and fauna in camping areas and this could show trends over time with visitor presence - especially BBS, wildflower and water quality surveys - a way to engage with the public about how the increased numbers of campers with inappropriate behaviour is affecting the environment in a quantitative way.
- Continued WeBS counts at Loch Arkaig.
- Continue the wild boar survey at the Woodland Trust and seed collecting in partnership with the woodland trust.
- Continued monitoring and removal of american skunk cabbage and removal of other identified INNS in that area.
- Construction of new wooden bridges on paddy's bridge path.





## **Ranger's Feedback**

### **Bianca's recommendations**

"I feel that the Ranger Team this year have tried their best with what they had and the time they had been given. However, I feel there are a few recommendations in which I could put forward for future Ranger Teams ran through Nevis Landscape Partnership (NLP) if funding allowed. The first few recommendations are based on branding. Firstly, the Rangers should all have a matching kit which holds a Ranger badge or brand mark on them. This would allow for the team to be uniformed and not be mistaken for volunteers and/or members of the public. The kit would need to be of a high quality due to the use in all weathers, the jackets provided though good did not match with each other and throughout the day were known to let a little rain through the seams, which is not ideal when the Rangers are out daily. Another area of branding would be the vehicles -the red van- this allows for members of the public and visitors to know there is a Ranger presence in the Glen daily and would also ensure that when using Forestry track roads or others off main routes that the van is there for work purposes and not just left by a visitor and will overall give a more professional look for the team.

In addition, I would recommend the Ranger teams to have initial and refresher training often throughout their contracts and not just at the very beginning. This training could be on navigation, GPS, compass work and bearings as well as computer-based programmes such as Geographical Information Systems (GIS). This would mean that all Rangers individually felt comfortable with these tasks and would be more productive especially during Office Days or Lone Working, the current Ranger team have been practicing Navigation towards the end of their current contracts however time put aside throughout each month could prove useful. GIS skills especially could help with planning future projects, creating maps such as patrol maps and flooding maps and allow for the Rangers to also learn new skills, or work on skills they may not have used in a while, which they can use in the future and constantly improve on. Another computer-based recommendation includes the use of Social Media to advertise and promote the work in which the Rangers are doing in a wider accessed network, and for the social media to be used more often. A more general approach could be done with live updates on Facebook or Instagram and the use of stories. This allows for a wider audience of people over the world and not just locally to see and appreciate the work in which the Rangers do daily. The use of a work based/academic platform such as LinkedIn may become of use to allow Rangers to have contacts with other outdoor organisations and other Ranger teams where they could swap ideas.

If the Ranger positions were to be continued social media posts could become a weekly update, with the use of local hashtags and tags a wider audience would be able to see the work done as well as just locals and visitors to the area. This could also encourage over time for visitors to be involved in volunteering opportunities while visiting, as well as locals who



may not have previously known about the volunteering opportunities to follow links to the events page of Friends of Nevis.”



## Lauren's Recommendations

I think these past four months has been an amazing opportunity and I am very pleased and proud of what the team has managed to achieve in such a short amount of time. I think the seasonal Ranger format would be greatly beneficial to NLP and other organisations in the area if continued in the future. With regards to structure, it would be great to have at least one Ranger returning on an annual basis or permanent to keep momentum going. I really enjoyed the different levels of experience in the team with each seasonal Ranger coming from a different conservation background and with different aims going forward. For example, Katie's local knowledge was invaluable while Rob's experience with Outward Bound was a great connection to get involved with the local schools and was able to share nature games and navigation training with the team while Bianca was always on top of blogs and social media. I would recommend a mixed group of experience and backgrounds, with one or two with local knowledge and Rangering experience to bring a different perspective and then provide opportunities for TVR or Ranger course graduates, as paid work in conservation is very difficult to find when starting out.

I also recommend strong branding to show Ranger presence as well as a consistent approach to patrolling, having a Ranger out every weekend from early March to mid October. I think it would be great to have some kind of mobile visitor centre or gazebo when a Ranger can stay, for example on entrance to the Ben , Lower Falls or Steall, this would allow the Rangers to give SOAC information, hand out bin bags, rent fire bowls and sell wood which builds good rapport with campers as it is not an outright ban.

It would also be very beneficial to work with FLS more and other landowners in the middle of the Glen, to be able to have a consistent approach to visitor pressures. I also think there is potential and it would be beneficial to expand the Ranger service to cover other areas, for example Glencoe are having similar problems and it is often a stop for visitors before Glen Nevis, if there is Ranger presence there too that may pass the message onto the same visitors that come to the Glen. There is also an opportunity to get involved with Loch Lomond and the Trossachs National Park, they have offered to provide guidance and possibly training such as conflict resolution to help keep consistencies across Ranger services. I would also recommend registering the Ranger service with Scottish Countryside Ranger Association (SCRA), to gain more support, publicity and training opportunities.



## Rob's Recommendations

This project has been a fantastic opportunity, and I believe it has really highlighted the value of a Ranger Service in this area. Here is my summary of what I feel has worked especially well, and areas for improvement for any future teams:

### People

This team had a broad and complimentary mix of abilities and skills, which resulted in a strong team and a good working culture. I believe there is value in looking for a diverse team again in future.

However, it would be well worth ensuring each team member has at least:

- Sound ecological knowledge of the area (including basic plant, bird and animal ID)
- Sound hill skills (familiarity/ confidence to work in remote and challenging ground conditions)
- Excellent communication skills (to converse with the public on patrols)
- Experience in Educational visits/ working with young people (to continue the schools program)
- Estate/ conservation experience (to maintain fencing, paths etc)
- Confidence to do all of the above while lone-working.

In addition, the team would benefit from at least one individual with:

- Qualified power tool operators
- D1 Drivers
- +E Trailer entitlement
- Excellent local knowledge

### Branding

The team would benefit from a uniform with a striking and obvious brand from the get-go. I think it is worth investing in high-end gear, and considering designing a new, more powerful logo.

There should also be more interpretive signage around the glen featuring this logo to develop the presence of the team.

Vehicles should be kept clean and branding added to the red van if possible too.

### Equipment

The team need better kit than we had. Consider liaising with a reputable brand such as Montane to secure some high performance Gore Tex equipment. Also, boots, wellies, gloves etc need to be considered. Also consider PPE for the Steal bridge crossing, and a system to



maintain this.

### **Spending**

It would be extremely helpful for the Lead Ranger to have a 'Ranger Budget', laid out at the start of the project, which can be used at their discretion for sundries, consumables, repairs and so on. Being easily able to spend money would increase the impact of the team's work.

### **Education**

We enjoy good relationships with several schools now. I would recommend maintaining these, and offering environmental education visits. There is real scope to expand on this, and offer a kids club in the summer. More details in handover notes.

### **Bikes**

These take time to maintain, but are a great way of getting around the glen, especially in busy times. Consider getting another bike trailer, and definitely stay ahead on the maintenance!

### **Job Security**

It takes time to build the relationships necessary to have a real impact in Rangering. We have worked hard to develop good relationships with new partners (including Woodland Trust and Outward Bound), who can offer the NLP something in return for our effort. These relationships may well fall by the wayside between now and the next Ranger team, which results in lost momentum. To truly get the most out of the service, it would well be worth considering how to maintain staff year-round, or how to guarantee a renewed contract in the next season. Even one permanent Ranger, supported by a seasonal team would make a difference here. This would also allow the team to take advantage of the quieter winter months to get ahead on project work, and make a more meaningful contribution to the Nevis 2020-2040 Strategy. As it is, the current team has not been able to have a meaningful impact on this.





## Appendix

Table 1: Ranger presence in the Lower Glen

Month	No. of people observed	No. of people engaged with	Focus engagement of	No. of visits (Ranger days)
Sep*	143	92	Camping/Litter	7
Oct	60	49	Litter	6
Nov	0	0	-	6
Total	203	141	-	19

\*including the 27th-31st of August

Table 2: Ranger presence in the Upper Glen, The Steall area was incorporated into the Upper Glen patrol but was given a separate survey form due to the large presence of campers.

Month	Area	No. of people observed	No. of people engaged with	Focus engagement of	No. of visits (Ranger days)
Sep	Upper Glen	317	247	Camping, SOAC and parking	15
Sep	Steall	497	294	Litter, fires, SOAC and camping	
Oct	Upper Glen	258	167	Walking routes, parking, litter, camping	15
Oct	Steall	359	284	Litter, fires, SOAC, toileting, camping and parking	
Nov	Upper Glen	13	10	Greetings and pathwork	9
Nov	Steall	45	39	Litter	
Total	-	1489	1041	-	39



Table 3: Ranger presence on Ben Nevis

Month	No. of people observed	No. of people engaged with	Focus of engagement	No. of visits (Ranger days)
Sep	425	226	litter	10
Oct	459	452	Litter including fruit peelings and tissues and mountain safety	7
Nov*	-	-	Pathwork	7
Total	884	678	-	24

\*not recorded as focused on pathwork, people that passed by were spoken to about the work the Rangers do on the paths.

Table 4: Camping in the Glen

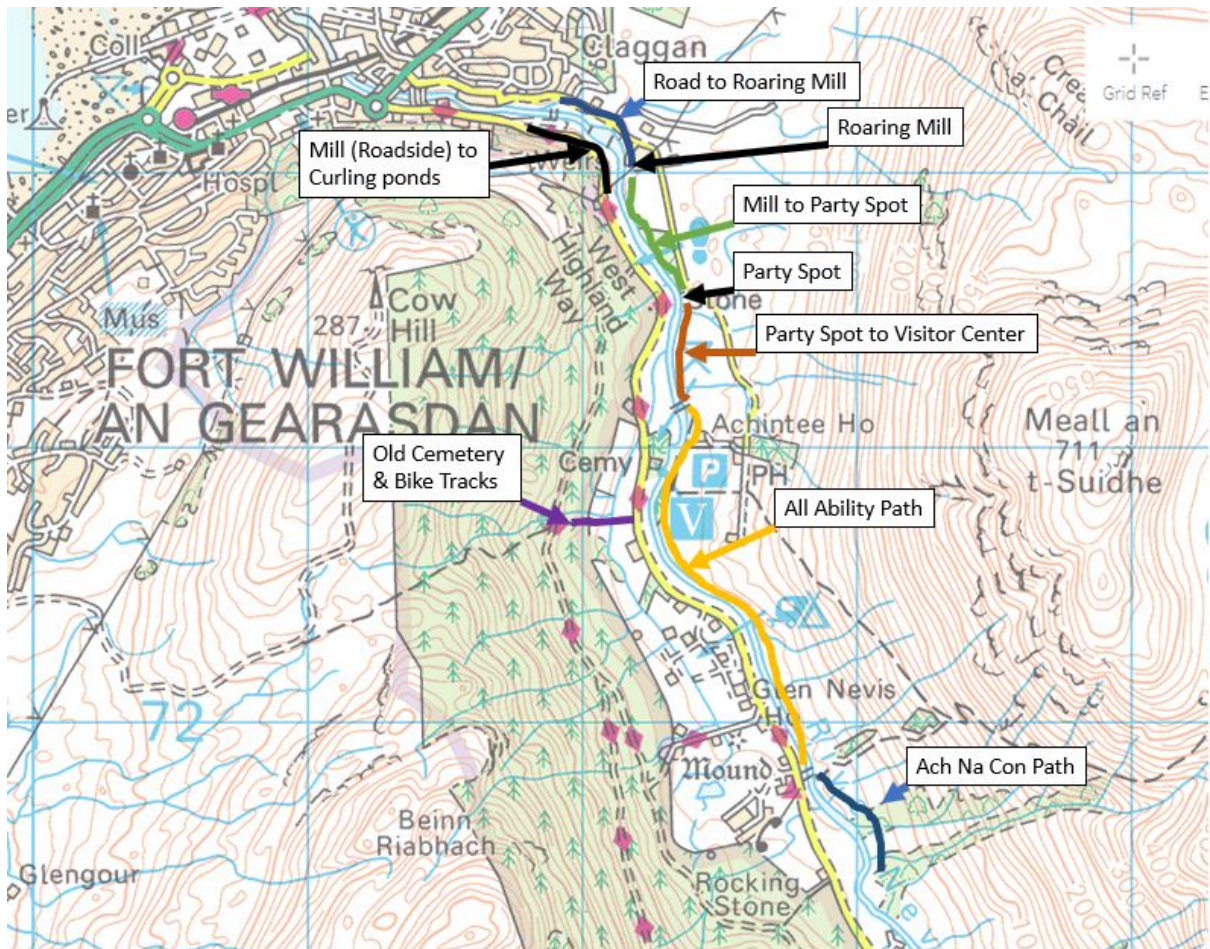
Area	No. of Tents	No. of campers spoken to	No. of fresh camping pitches	Non-compliant Fires/fire sites	No. of fire sites dug over	Bags of litter collected	No. of visits
Lower Glen	6	11	10	9	1	34.5	19
Upper Glen	37	80	36	47	39	38	39
Steall	76	123	20	29	18	19.5	
Ben Nevis	5	4	-	10	0	46	24
Total	124	218	66	95	58	138	82

Table 5: Traffic across the Glen

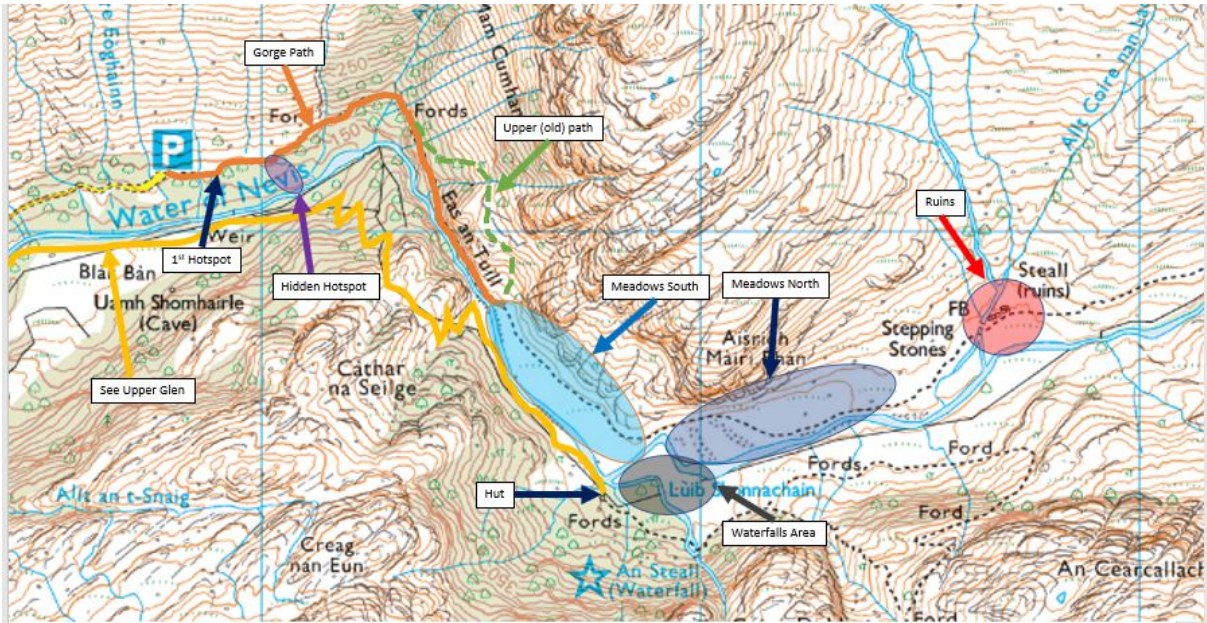
Area	No. of times vehicles noted in passing places or parked on the road	No. of campervans (<2.3m tall)	No. of motorhomes (>2.3m tall)
Lower Glen*	2	0	1

Upper Glen	23	114	37
Steall	10	85	29

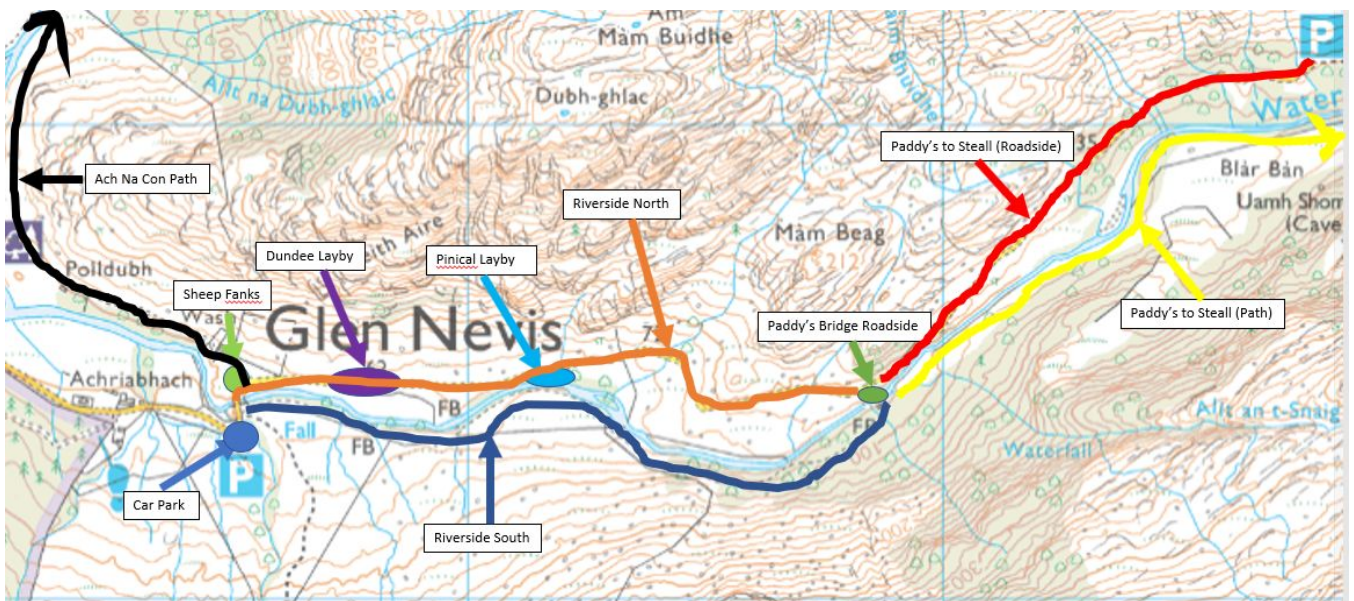
\*Under recorded as survey does not cover roadside or any car parks



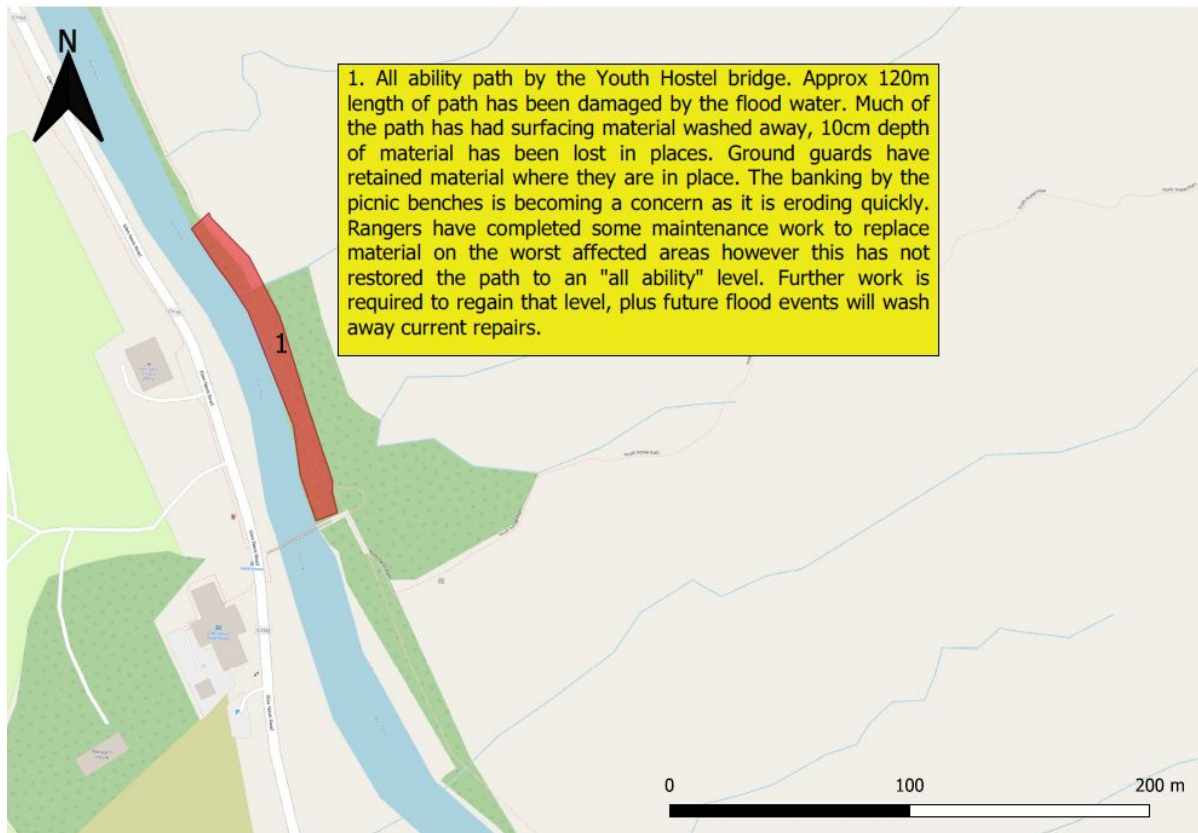
Lower Glen Patrol Route



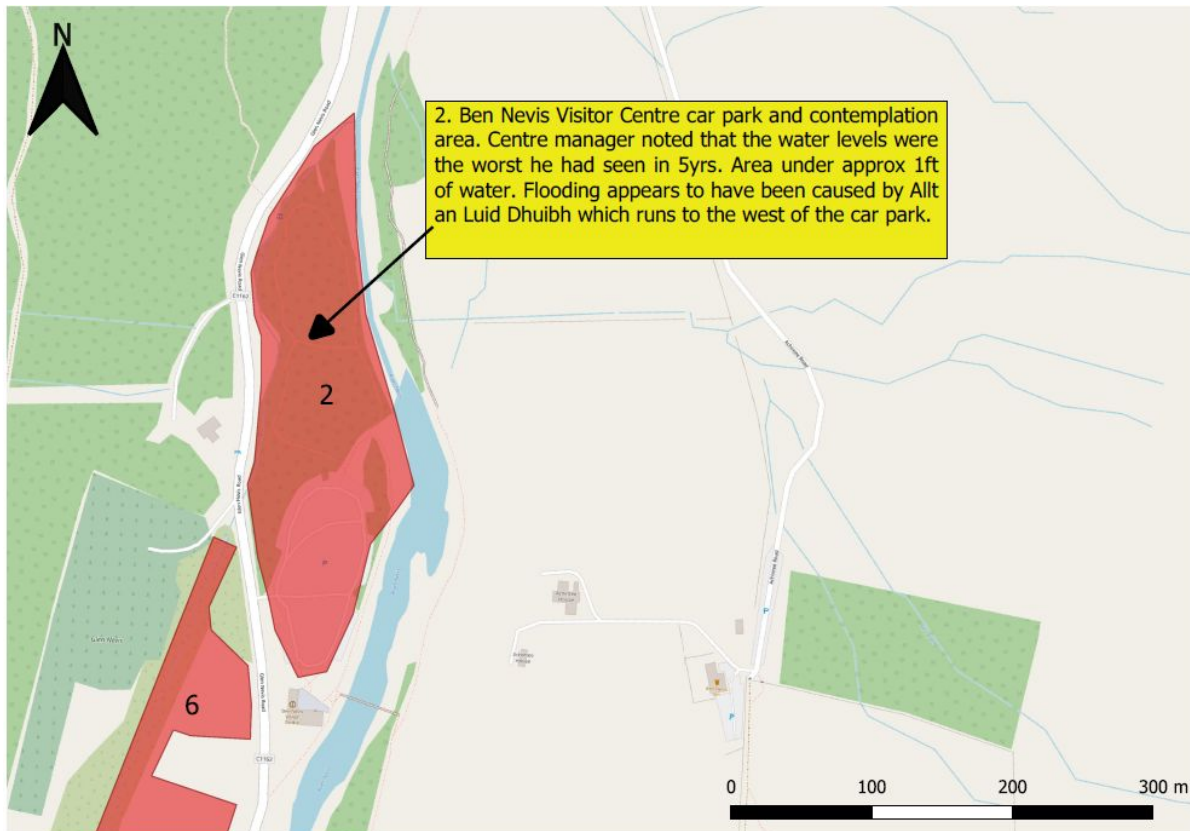
Steall Patrol Route



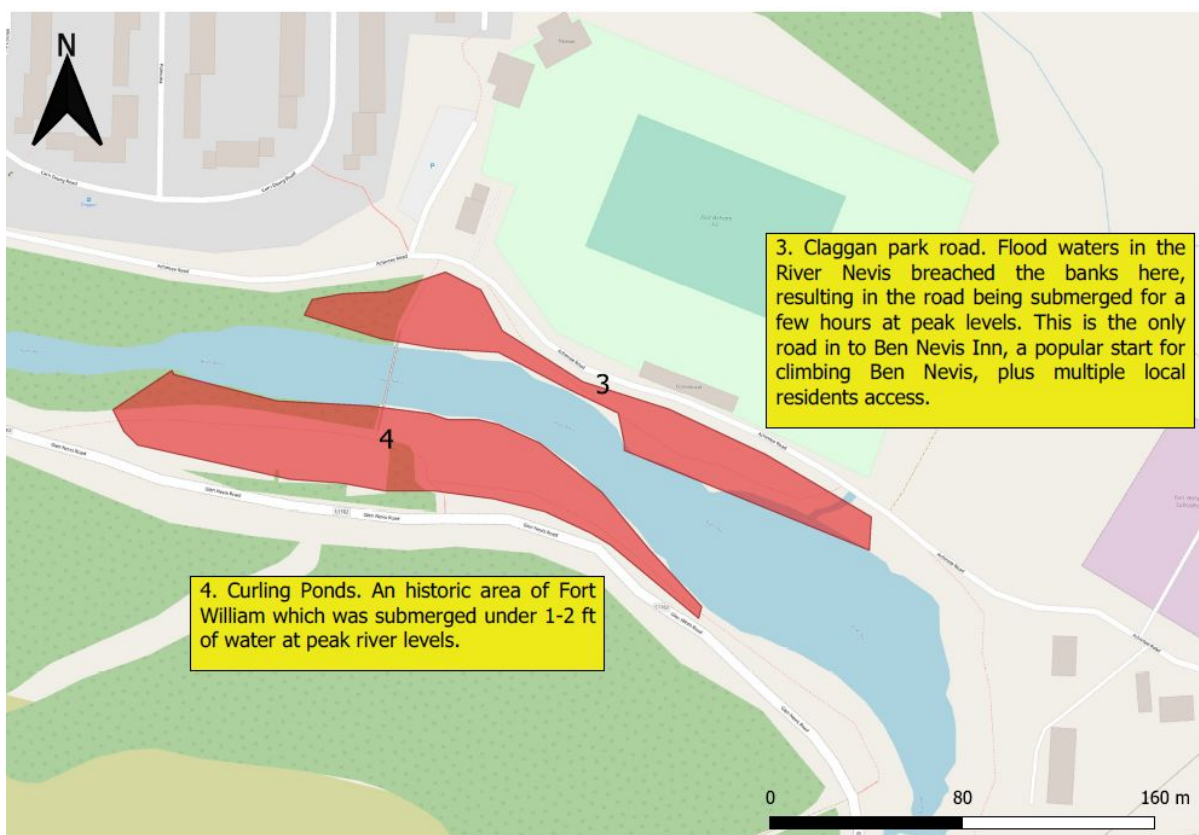
Upper Glen Patrol Route



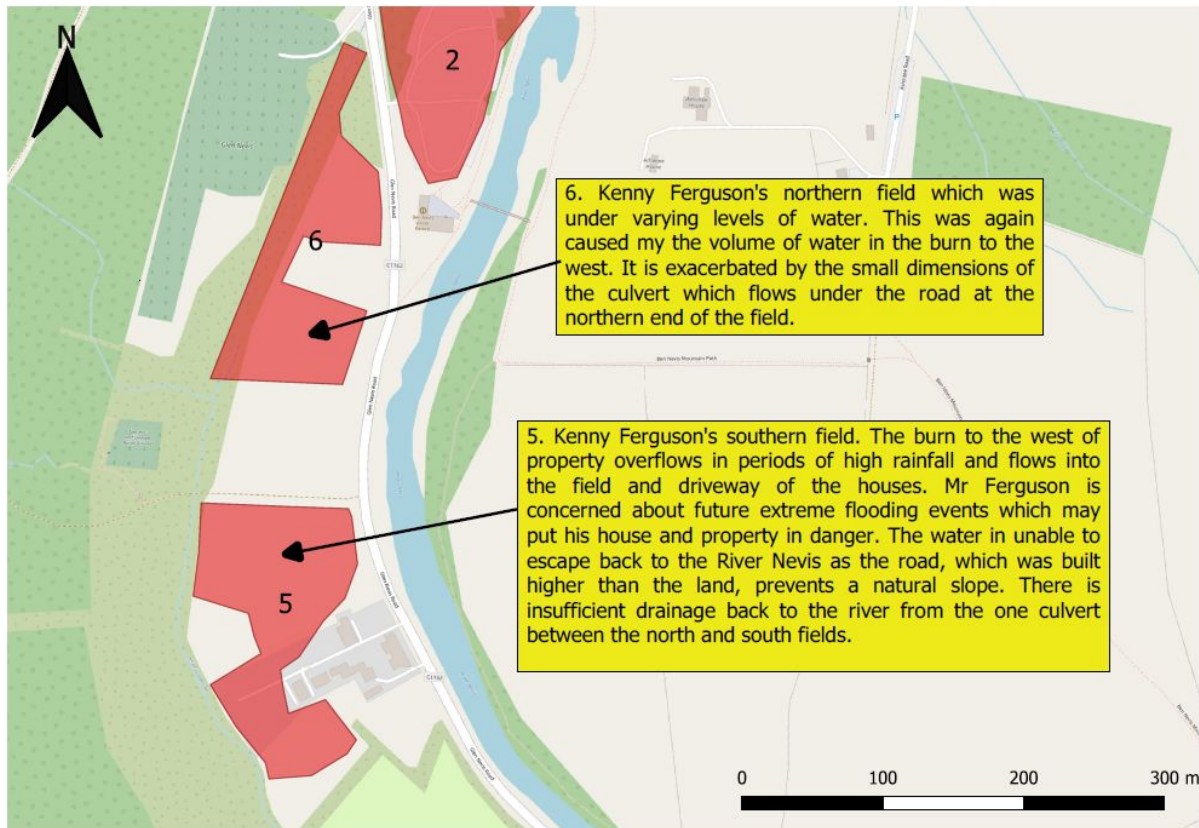
River Nevis flooding extent and damage on All Abilities Path



River Nevis flooding extent at the Ben Nevis Visitor Centre



## River Nevis flooding extent at Claggan



## River Nevis Flooding extent in fields in Lower Glen

Table 6: Ranger Days working with partners

Partner/ organisation	No. of days	No. of Ranger days	Task
Friends of Nevis	9	13.5	5 Monday morning litter picks, 1 bracken bashing, 2 path maintenance and 1 large litter pick
John Muir Trust	10	12	6 Monday morning Steall tidy up, 1 Ben nevis litter pick and 3 days camera trapping.
Woodland Trust	4	12	Wild boar camera traps

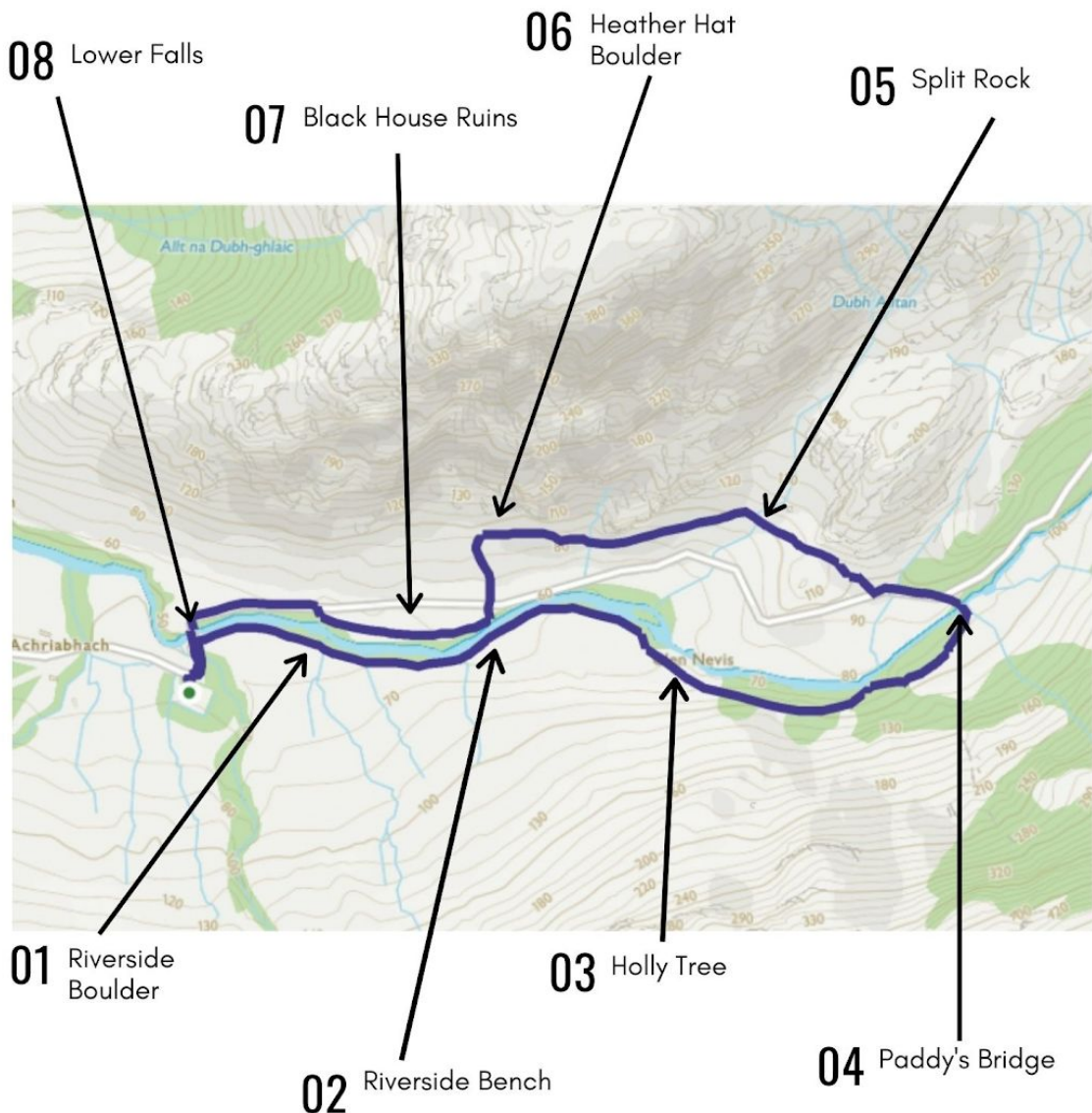
# LOWER FALLS CIRCULAR WALK

## CIRCUIT TRAIL

Moderate

3.4km | 1.5hrs | 100m Ascent

**Route:** This route starts and ends at Lower Falls Car Park. On leaving pass over the road bridge and take the second gate on the right. Following the Riverside Path until you reach Paddy's Bridge. Cross the road and walk to the left you will see a layby with stone steps leading up, take this and follow the existing trodden path. Once you arrive at Heather Hat Boulder make your way back down to the road and cross over for your final stretch along the North Riverside to Lower Falls.



HAVE YOU GOT APPROPRIATE SHOES?

Sections of this trail can be quite boggy.



## 01 Riverside Boulder TREES



Look back the way you've come. The dense forest on the hillside you can see was planted by people! This kind of mono-culture coniferous forest is grown to produce timber. It will eventually all be chopped down for this, much like crops are harvested every autumn.

To help make it better wildlife habitat, the left-hand edge of the forest has been thinned out to allow native trees to grow up. This will help wildlife operations into the new forest you see behind the fence next to you.

This new forest is made up of native trees, and is being grown to help the wild native forests that once grew here return.

This kind of forest is good for the climate too, as the carbon in the trees will stay locked up here for hundreds of years.

## 02 Riverside Bench PEOPLE



People make Glen Nevis, Orkney river-forest, Lochaber Mountain Rescue centre run a chair seat in winter months. Now it's a popular spot for locals to end their walk in winter months.

This bench commemorates a local conservation volunteer, who gave hundreds of hours to help keep Glen Nevis wild and beautiful.

The Friends of Nevis are the volunteer group who maintain this bench, and they work with local companies and charities to make sure visitor impacts, such as littering, don't spoil this special place.

## 03 Holly Tree MOUNTAINS



This native holly tree is a lonely remnant of a once huge forest, that covered much of the Highlands. People chopped it down during the Industrial Revolution and the World Wars to fuel development and to use as timber.

With a bit of help, this forest is recovering now. Looking back where you came from, you'll see the scale of the woodland regeneration project on your left, which has added a significant chunk of forest to the Glen.

Looking ahead, the high mountains on the horizon form a different kind of development: gling and mountain biking! Out of view on the other side of this range is Nevis Range, one of Scotland's mountain resorts.

## 04 Paddy's Bridge HISTORY



This bridge carries an old pipe across the river, which used to supply Fort William with drinking water. Further upstream, water from this river is channelled into a huge hydroelectric scheme, which provides power to Britain's only aluminium smelter in Fort William.

The land around you was bought by British Aluminium in the 1930s so they could capture the water and use it to power the factory.

Now it is managed by James Highland Estates, who work with their partners, as the Glenier to provide clean energy, and also to be sustainable stewards of the land.

## 05 Split Rock GEOLOGY



This impressive split boulder shows off Glen Nevis's exciting geological heritage. The Glen Nevis is part of Lochaber Geopark, which celebrates the increasing scientific and cultural history of the area.

About 400 million years ago, two tectonic plates collided to create the Caledonian mountains. The pressure and heat of this event caused the rocks to change from sandstone and shales to granite and to flow, while also creating folds in the rocks, making the mountains upside down. Two large magma chambers developed, one at Glen Nevis and the other in the Massenois, heating up the already changed rocks in this area of the Glen.

The split rock last fully happened through a process called freeze-thaw, where water in the cracks in the rock freezes and expands, making bigger cracks until the rock splits.

## 06 Heather Hat CLIMBING



The white marks on this heather boulder aren't ghost handprints, but are usually chalk. Climbers put chalk on their hands to improve their grip, and this boulder is full of some impressive short climbs.

The crags behind you are an important area for rock climbing too, featuring many famous mountaineers in the history of the sport.

Adventure is an essential part of the local economy here now. In fact, the district is known as the Outdoor Capital of the UK. Why not check out their website while you're here and look a-ley of action and adventure?

## 07 Black House Ruins CULTURAL HISTORY



Below it or not, there used to be a settlement here. Probably occupied until the 1800s, people lived off the land here for centuries. The boggy fields in front of you were once drained by a system of ditches and drains probably grown here. The people who lived here would have made their living from the land, and probably exported timber or made charcoal from the trees for more cash.

This settlement was probably abandoned during the Highland Clearances, when people were forced to leave their traditional homes to make way for sheep farms and deer forests.

## 08 Lower Falls FINISH



A dramatic spot to end our walk, Lower Falls is an impressive waterfall which has formed on interesting geological features called dykes. Heavy magma forced its way into vertical cracks in the rock, and cooled off the waterfalls here. Rows along the top of the two dykes, the rock on the dykes are softer than the surrounding granite, which is why the water has eroded it and formed this impressive stepped falls.

Captains sometimes paddle over these falls when the river is high during heavy rain.

