

Sustainable Schiehallion Scoping Study

John Muir Trust

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JOHN
MUIR
TRUST

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Image Credit: OS Maps

1 Executive Summary

Site Context

- The John Muir Trust owns East Schiehallion which attracts large numbers of visitors. Parking is provided on land owned by Forestry and Land Scotland. The existing car park provides 25 spaces and hosts a toilet block. The car park has become increasingly inadequate and in 2020 up to 100 cars/day were parked on the roadside verge causing major local traffic management issues.
- JMT commissioned a scoping study in order to explore ways to resolve visitor management issues and engage the general public in an exemplary manner with regards to land management and wild land issues that are central to JMT's ethos.
- The study team carried out a baseline desktop analysis of the landscape, reviewed FLS and Heart of Scotland Forest Partnership documents and visited the site in order to understand the location and develop a landscape appraisal diagram. A range of stakeholders were interviewed, and their views used to inform the scope of interventions from minimal to more ambitious. Issues associated with different levels of development were assessed and a potential strategy for further research, local engagement and decision-making identified.
- The 40ha study site adjoins the eastern edge of the Loch Rannoch and Glen Lyon National Scenic Area and is dominated by Schiehallion which is a prominent landmark because it stands alone, separate and apart from other ridges and summits. The site as it is currently forms a broad wedge shape, with the Schiehallion road bounding the northern boundary, existing plantation woodland and steeply sloping ground to the east, young native woodland and natural regeneration at Dùn Coillich community land to the south. The site has significant areas of clearfell alongside mature stands of Scots Pine. Existing interpretation is in the form of printed panels on posts with a combination of text, photos and diagrams.

Consultations

- Interviews were conducted by phone or videocall with 19 stakeholders. Interviewees were unanimous in supporting efforts to resolve parking problems, citing compromised access for disabled users and farm, emergency and bus company vehicles as major issues. FLS highlighted the challenges of operating the site, with not all users paying fees, more frequent breakdowns of equipment on an exposed site and occasional theft of money from the payment kiosk.
- Most consultees did not raise toilet provision as an issue but JMT and FLS staff noted problems with maintaining a reliable water supply from the borehole and adjacent burn.

- Several respondents considered that there were good opportunities for education on site and thought that additional low-level trails, including all ability ones would be beneficial. There was some support for modest building provision that would provide shelter but less support for a visitor centre-type facility with one interviewee concerned about competition with a planned community facility in Kinloch Rannoch.
- Interviewees generally thought that JMT should lead on the project seeing as its property attracts most visitors. FLS and the Highland Perthshire Communities Land Trust (HPCLT) both expressed an interest in working with JMT to manage adjacent ground, while interviewees did not see much partnership interest from community groups likely due to limited local capacity and distance from the site.

Site Development

- There is no electricity supply currently to the site. However a single phase supply runs along the northern boundary and could be accessed. The supply would require approximately 800m of cable to be upgraded to 3-phase if a significant number of EV charging stations were to be installed in the car park.
- There is no public water supply to the site. The only watercourse of significance runs adjacent to the existing car park. Therefore, a new toilet block or building elsewhere on site would require another borehole. A septic tank or other system would need to be provided to treat wastewater.
- There is a telephone line nearby but broadband speeds can be expected to be poor. Mobile phone signals are also poor to not available. Broadband and internet telephony could be provided through satellite provision.
- The single track Schiehallion road should have capacity to allow for development of the site but JMT would need to be mindful of the impact of attracting large numbers of additional visitors.
- The physical effort and landscape impact of moving thousands of tonnes of soil and rock to create additional car parking space adjacent to the existing car park would be high. It also risks being seen as not in keeping with JMT's approach to land management. A new car park with a capacity of 150 spaces and room for expansion could be accommodated in the heart of the site and would be shielded from view from the road. Reinstating the old car park would be more practical than maintaining 2 separate facilities.
- There is ample scope for additional trails and interpretation to be installed, including a link trail from the new car park to the existing Schiehallion path. An indicative 1600m of trails would cost £50,000.
- Buildings could range from simple shelters through to more comprehensive visitor centre type facilities, with budgets varying from tens of thousands to millions of pounds. The incorporation of renewable technologies would allow a 'carbon credible'

approach to be developed. A deer larder could be housed on site but would require a good water supply. Discrete siting would be important so as to avoid negative feedback from butchery activities being visible to visitors. FLS have opened a new facility at Tummel Bridge which may be available for shared use.

- Tourism accommodation facilities could be provided in the form of campervan hook-ups, pods/shepherd's huts/yurts and there may be scope of adventure facilities. However, JMT would have to carefully consider how well these fitted with its own ethos.
- The site could be developed under a minimal intervention approach with no electricity and no water provision using composting toilets and interpretation on paths. It could alternatively be developed using a larger intervention approach with full service provision that would allow any (or all) of visitor centre, deer larder, EV charging and visitor accommodation facilities.
- There are opportunities for developing a bespoke suite of features that will draw curious attention and offer a more creative way of telling the different stories / themes relating to Schiehallion and its history, natural heritage, future plans and surrounds. This could be developed within the context of a wider John Muir Trust brand development that conveys the message of what the Trust does and encourages a more diverse audience to visit.
- 3 case studies are provided covering Ben Lawers, Glen Finglas and Corrieshalloch illustrating the options of no visitor centre, a small building and a larger building.
- The land required could be either purchased or leased from FLS. Purchasing a small area to resolve the car parking problem will be easier for FLS to allow than for a larger area which would require a greater justification. Various forms of partnerships with community groups or FLS are also possible.
- JMT needs to take a strategic approach to development with the planned withdrawal of a temporary parking facility by FLS due in 2023. An indicative strategy is outlined by which JMT could address development in a phased manner and allow for either a minimal or larger intervention approach to be taken.

2 Introduction

The John Muir Trust is the owner of East Schiehallion which attracts thousands of visitors to climb the hill each year. Visitors mostly arrive at this remote site via motorised vehicle and make use of a car park and toilet facilities which are located on land belonging to Forestry and Land Scotland at Braes of Foss.

The Braes of Foss car park was built in the 1980s. Visitor numbers to the car park have long surpassed its current capacity of 25 spaces. This has led to an additional unofficial 30 spaces (approx.) often being used along the car park's access track.

As visitor numbers have escalated in recent years, overflow vehicles parked along verges on the single-track Schiehallion road have obstructed timber wagons, emergency vehicles and farm vehicles from passing through and cause a danger to the public.

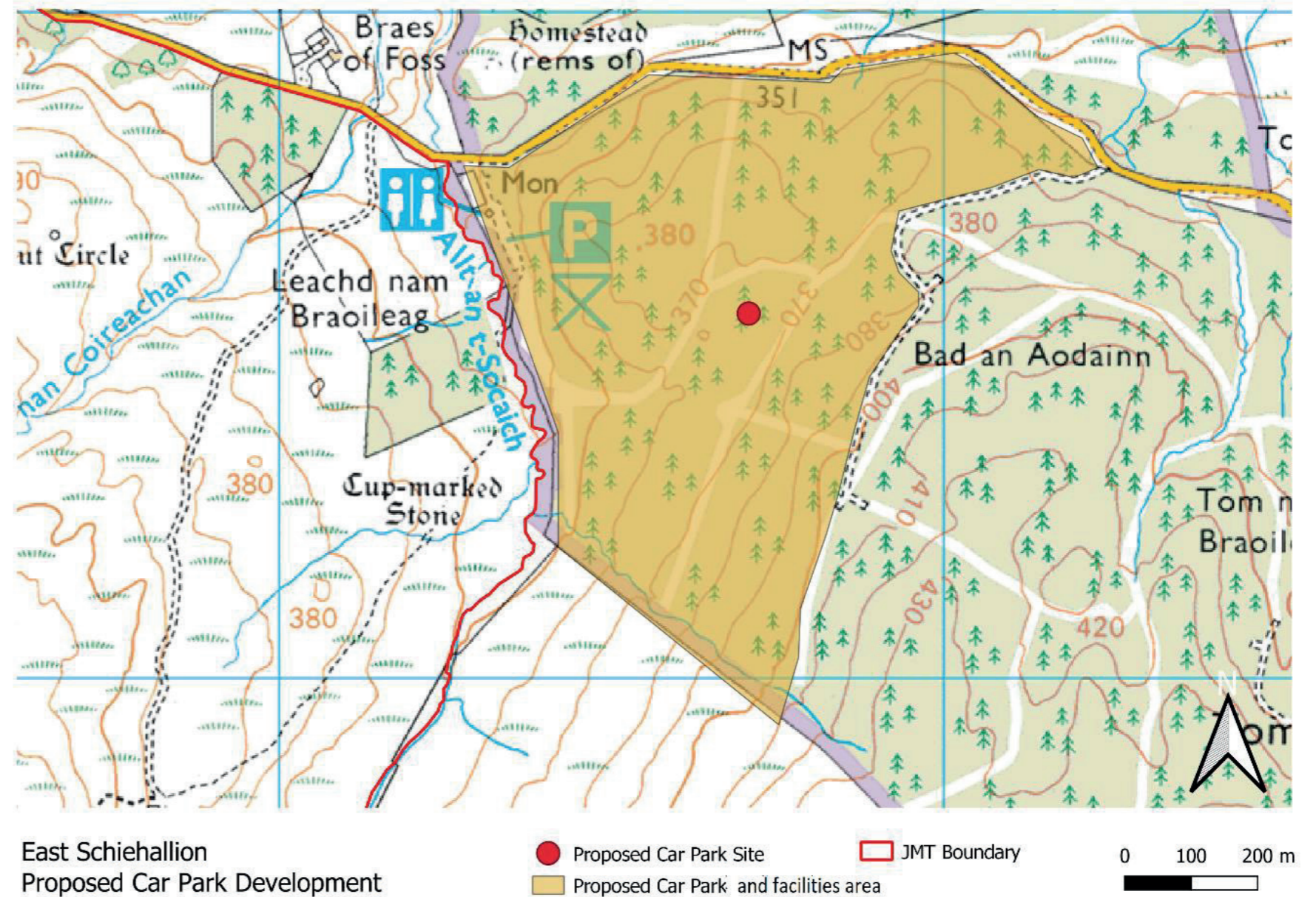
The effects of Covid 19 turned a developing problem into a major issue and in summer 2020 at least 100 cars were often parked along the single-track road. A maximum number of 200 cars was recorded. (From a people counter at the start of the Schiehallion path, there were 6,000 people in August 2020 compared to 3,000 in August 219, and there were twice as many visitors in September and October 2020 as well.) This led to safety concerns being raised in summer 2020 by Perth & Kinross Council (PKC) and the implementation of a clearway on the road.

Forestry and Land Scotland (FLS) and John Muir Trust (JMT) wish to resolve the problem by working together. There is a recognition that it would be logical for JMT to lead on a resolution as it is their property which is attracting the visitors. JMT also wish to explore what opportunities there may be to use a redevelopment of the car park and toilet facilities to engage in greater depth with the general public about wild places, and developing exemplary land management practices in the context of modern land management and its impact upon landscape and habitats. To that end an area of some 40ha is being considered (Map 1).

The brief stated: The Trust's vision is to create a sustainable, world class visitor facility in keeping with the surroundings that can act as a hub for local land management activity as well as a space for engagement, education and economic activity.

It asked for a range of options to be explored including improved car parking, visitor engagement facilities, ranger base/volunteering hub, a path network, accommodation, and deer larder.

The brief also requested that options for ownership or lease of the land be considered and for Heart of Scotland Forest Partnership (HoSFP) partners and local community representatives to be consulted to ascertain their level of interest in the proposed project.



Map 1: proposed site for investigation

3 Methodology

Landscape Methodology

For the Scoping Study we have carried out desktop baseline analysis of the landscape in relation to the site's Landscape Character Assessment as defined by the No122 Tayside Landscape Character Assessment Report by NatureScot; identified the relevant Landscape Designations and Core Paths covering the site and its context; and recorded the topography and watercourses within the locale.

We have reviewed the FLS' forest plans; general soil map; deep peat map and the Heart of Scotland Forest Partnership Mountain Woodland Restoration Feasibility Study. This provided useful context, and an understanding of the constraints and the opportunities that the site offers.

We also carried out a physical site visit, adhering to coronavirus government guidance, with the John Muir Trust staff. This enabled a better understanding of the site, its micro climate, views, drainage patterns and topography as well as the existing vegetation and land cover. This was recorded with photographs and developed into a landscape appraisal diagram.

Site development options evolved from the landscape appraisal alongside the information gathered from the stakeholder consultations. This informed the potential scope of interventions from minimal to more ambitious. This was supported with images of precedent examples that could be considered in more detail at the next stage.

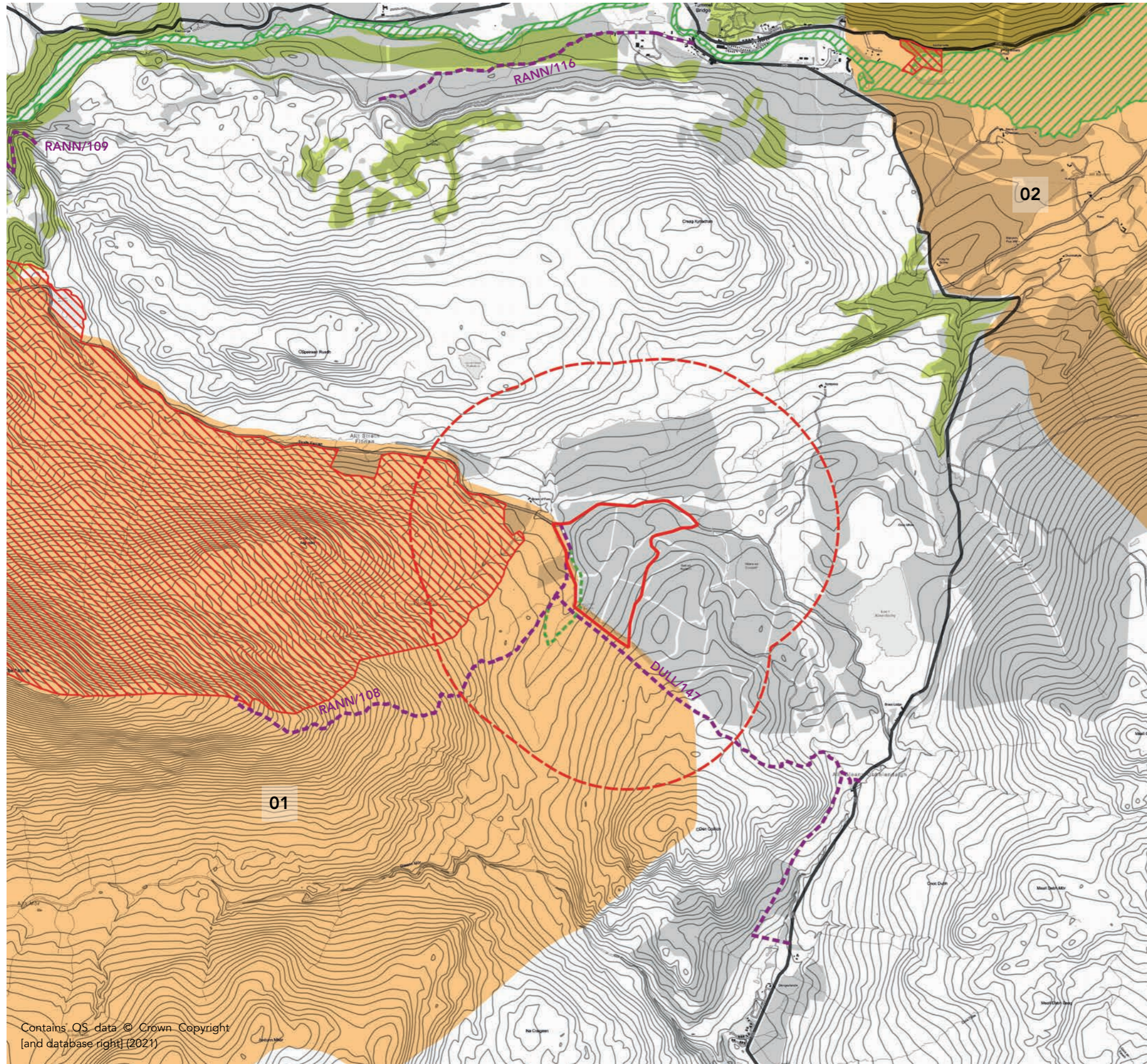
Development Potential Methodology

Key elements in the scoping study were identifying the opportunities and challenges presented by the site and researching the views of stakeholders.

A range of telephone and video interviews were conducted with stakeholders and their responses analysed and aggregated according to subject categories.

In addition to a site visit, desk-based research was carried out to investigate potential site activities and any constraints associated with them. Issues with each element were assessed, drawing on previous experience locally and elsewhere in Scotland. From this knowledge a potential path for development and recommendations for future action were developed.





Landscape Designations & Core Paths (1:25,000 @ A3)

KEY

- Proposed Site
- 1km buffer
- Ancient woodlands
- Sites of Special Scientific Interest
- Special Area of Conservation
- National Scenic Areas

01 - Loch Rannoch and Glen Lyon

02 - Loch Tummel

Easy Access Path

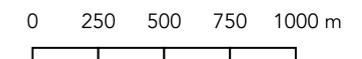
Core Paths

DULL/147 - B846 at White Bridge to Schiehallion path

RANN/108 - Schiehallion - route to viewpoint below boulder field

RANN/109 - Path to McGregor's Cave and Creag an Tuathanaich via Crossmount

RANN/116 - Tummel Bridge to Aqueduct



4 Site Context

Landscape Designations

The site does not have any landscape designations however it adjoins the most eastern reach of National Scenic Area 01 – Loch Rannoch and Glen Lyon immediately to the site's western and southern boundaries. The Special Qualities of this Scenic Area of particular relevance are:

Epitome of the mountain grandeur of Highland Perthshire

The mountains create a monumental backdrop, dwarfing the more intricate, human-scale and detailed features at loch side, glen floor and lower slopes. The seasonal changes in texture and colour of vegetation serve to enhance the drama of this vast outer landscape, against which human activity is set.

Secluded side glens and ancient shielings

The glens generally contain previous summer grazings (shielings) and some are long, such as at Gleann Mòr which stretches for five miles along the southern flanks of Schiehallion.

The wild summits

The high tops, slopes and moors are mountain terrain, only accessible on foot. However, the distance to the summits from the nearest road is generally not great, enabling hill walkers to be able to leave the comforts of the Central Belt, drive to the area, ascend the summits and return home easily within one day.

Peacefulness and tranquility

There is a comparative lack of large-scale modern development. These factors engender a sense of peacefulness and tranquility, reinforced by the predominance of natural sounds of wind and birdsong and by the presence of water.

The long, symmetric mass of Schiehallion

Schiehallion is a prominent landmark, a shapely, symmetrical conical peak with a long east-west axis. It is visible and readily identifiable across a wide area because it stands alone, separate and apart from other ridges and summits.

As an elevated viewpoint at 1083m nearly in the centre of Scotland, the summit of shattered quartzite scree provides extensive views over Loch Rannoch, the expansive Rannoch Moor and the Central Highlands generally.

Schiehallion has an important place in scientific history and discovery because in the 18thC its regular form made it suitable for the first accurate determination of the mass of the earth, which led to the development of the concept of contour lines. The mountain has rich flora in places because it is underlain by areas of Dalradian limestone, mainly on its eastern flanks.

Within 1km range there is a Site of Special Scientific Interest, Schiehallion code 1411. The north facing slopes of the mountain are notified for the range of upland habitats – montane assemblage, limestone pavement and Dalradian rock geology.

Core Path Network

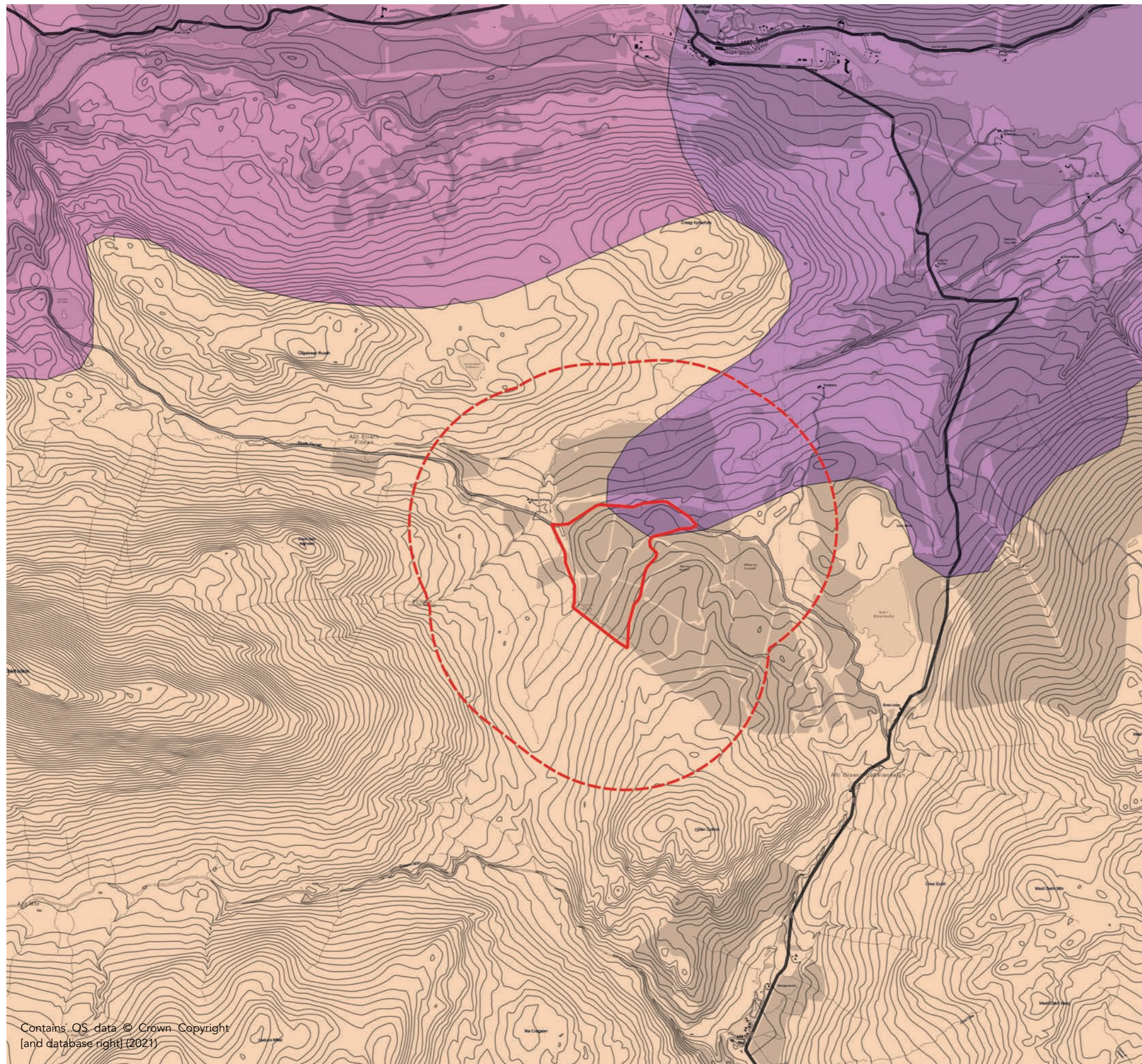
2 Core paths begin at the existing Braes of Foss car park. RANN / 108 Schiehallion is the route up to a viewpoint below the boulder field on the mountain. DULL/147 is from B846 at White Bridge to the Schiehallion path. A low level loop path heading south from the car park that returns to meet the Schiehallion path has recently been installed.

Landscape Character Assessment

Most of the site lies within the Summits and Plateaux – Tayside within the Tayside Landscape Character Assessment, SNH Review

No.122 with a small area to the north east of the site lying within Lower Upland Glens with Lochs of this review.

The Summits and Plateaux Character Type comprise the highest and most remote upland part of western and northern Perth and Kinross and Angus Council areas.



**Landscape Character Assessment
(1:25,000 @ A3)**

KEY


 Proposed Site

 1km buffer

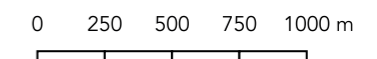
Landscape Areas

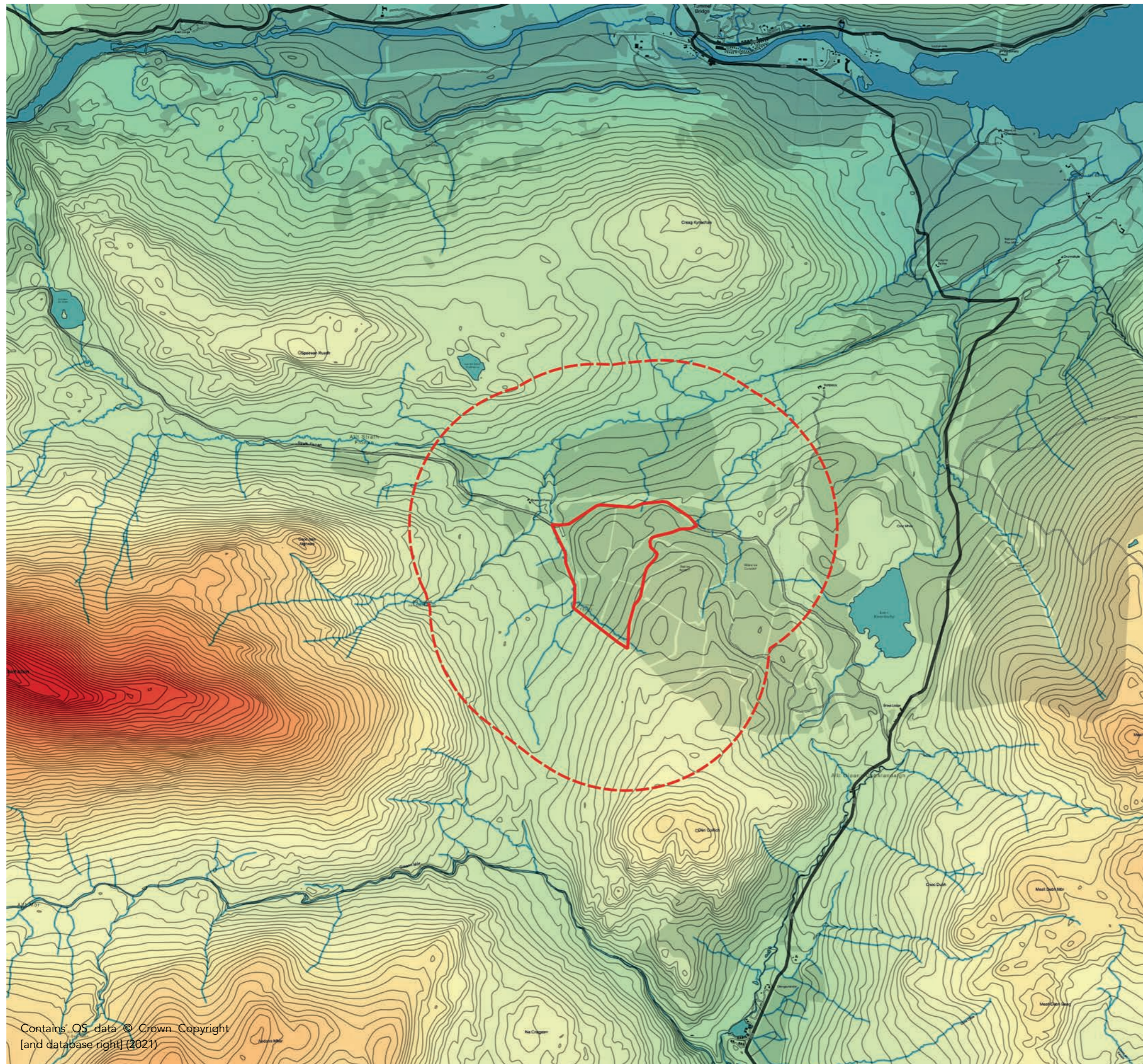
 Lower Upland Glens with Lochs

 Mid Upland Glens

 Summits and Plateaux - Tayside

Land Use Consultants 1999. Tayside Landscape Character Assessment. Scottish Natural Heritage Review No. 122.





Topography (1:25,000 @ A3)

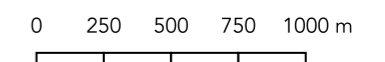
KEY

- Proposed Site
- 1km buffer
- Existing water bodies

Terrain height (AOD)

- 0
- 250
- 500
- 750
- 1000

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4 Site Context

Soils

The majority of the site comprises Brown soils, with the southern end of the site being Mineral gleys.

The Carbon and Peatland Classification Map highlights that this site is Class 0 – a mineral soil, where peatland habitats are not typically found.

FLS Forest Plans

Although it is acknowledged that these plans require a review and update, and the site lies in a small area within the overall Forest Plan, the summary of proposals are to:

Expand areas of native woodland through PAWS restoration, natural regeneration and new planting

Maximise thinning potential within woodland blocks

Improve riparian zones through management interventions which will enhance biodiversity

Maintain landscape quality by carefully designing areas of clearfell

Any proposals for the John Muir Trust to repurpose this site would have to be in discussion with FLS.

Heart of Scotland Forest Partnership Mountain Woodland Restoration

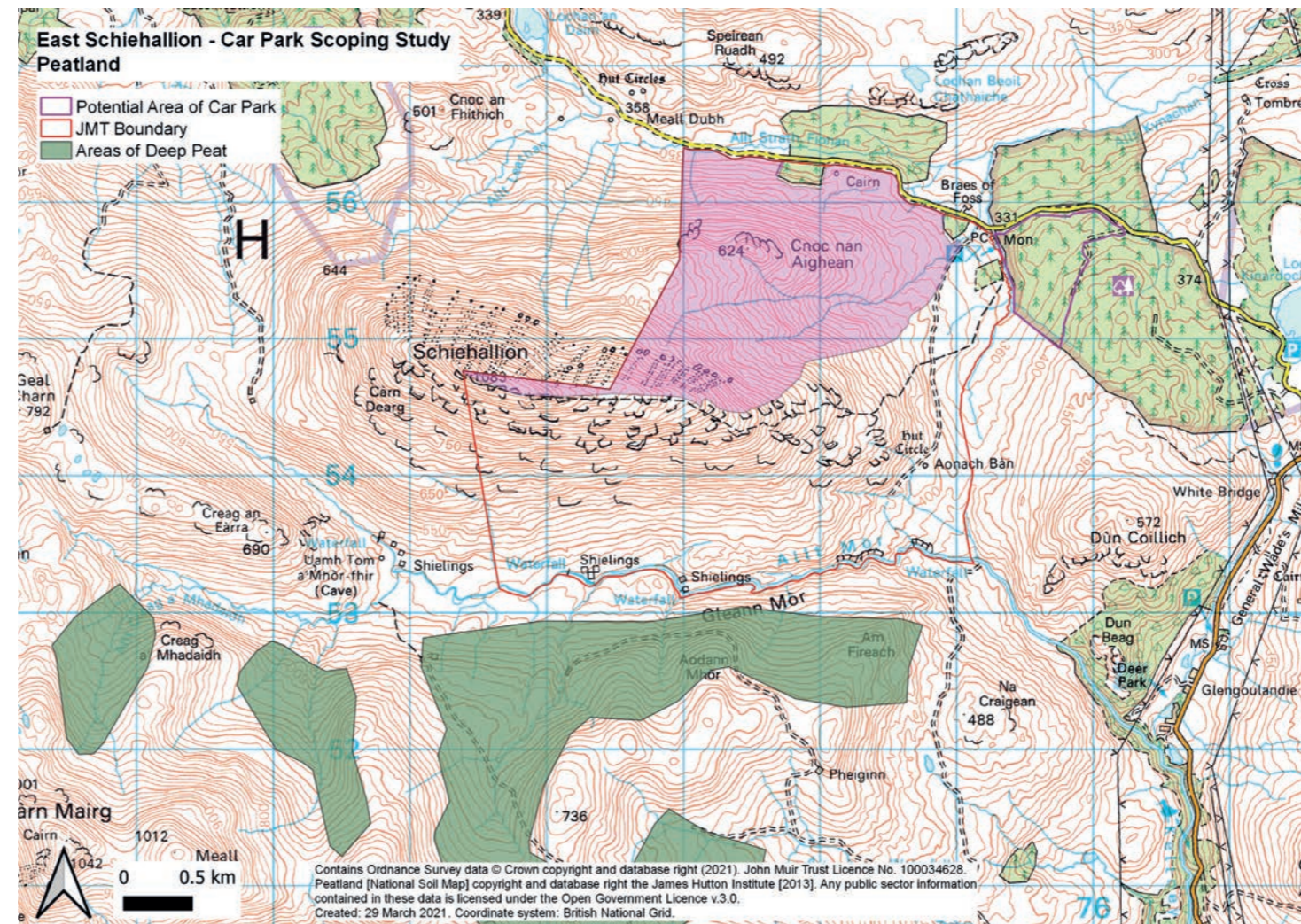
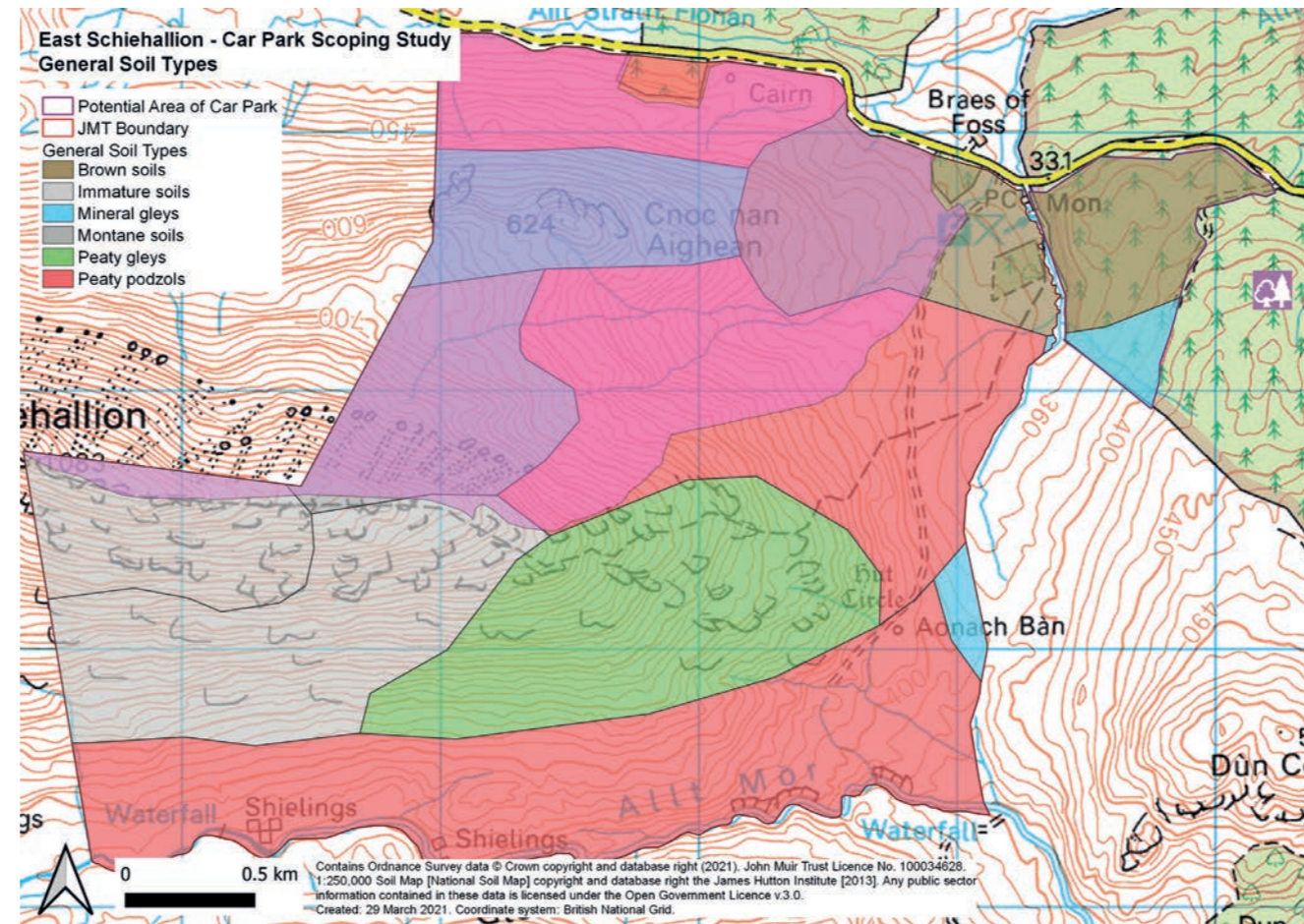
The Heart of Scotland Forest Partnership is a group comprising a mix of public, private, community and NGO landowners. Current partners are Dalchosnie & Kynachan Estate (Jez Robinson), Woodland Trust Scotland, Garth Wood Wilding Project, Dùn Coilich (Highland Perthshire Communities Land Trust), Keltneyburn Reserve (Scottish Wildlife Trust) and East Schiehallion (John Muir Trust) and two recent affiliate partners, Grenich and Ben Lawers (National Trust for Scotland).

The Partnership has a long-term vision to create new native woodland and connect existing woodland across the Partnership area.

They are aiming to raise awareness for and increase cover of fragile montane scrub habitat across the area also.

They have a vision to create a restored, vibrant landscape that provides opportunities for people and wildlife to thrive, for local employment and enterprise, and for the local community to enjoy, access and learn.

Any proposals for the site would have to take the Partnership vision into consideration and ensure the proposals align with



4 Site Context

Landscape Appraisal

The site as it is currently forms a broad wedge shape, with the Schiehallion road bounding the northern boundary, existing plantation woodland and steeply sloping ground to the east, young native woodland and natural regeneration at Dùn Coilich community land to the south.

A small watercourse and the existing car park bound the western boundary with the paths to Schiehallion and the low level loop path starting from this point.

Within the site there are significant areas of clearfell alongside mature stands of Scots pine on the knoll to the west and central areas and young Sitka spruce planting to the northern end.

The existing tree cover and topography provides sheltered hollows within the top half of the site, with fine long distance views to the north.

In the lower half of the site the clear felled ground sits in contrast with the native woodland and regeneration to the south of this boundary which is delineated with a restored stone dyke with turf top built by the community trust volunteers.

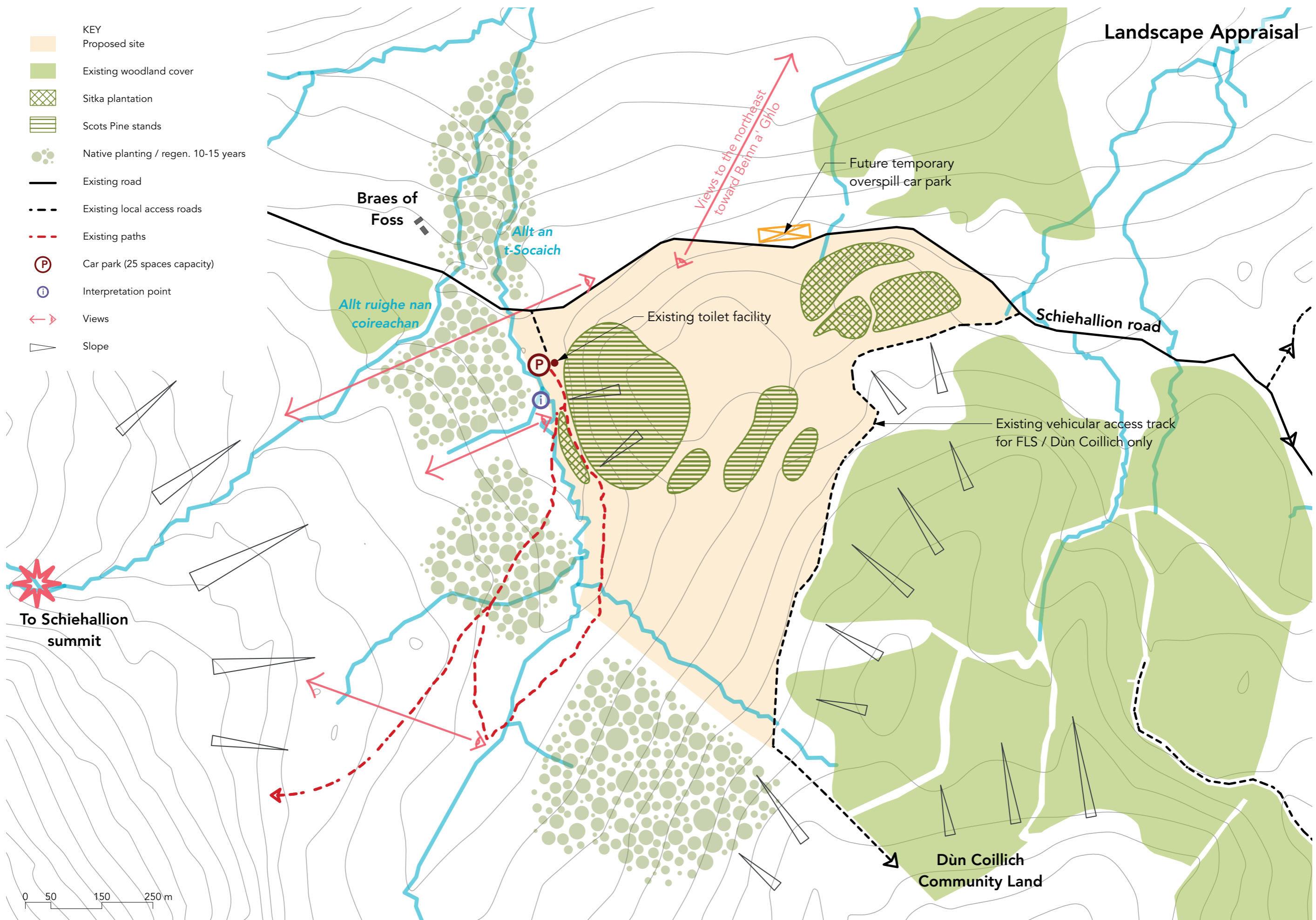
There are fine open views towards Schiehallion at this southern end of the site and a drainage channel cuts through the west of the site to meet the watercourse at the bottom of the slope.

Existing interpretation is in the form of printed panels on posts with a combination of text, photos and diagrams.



Landscape Appraisal

- KEY**
- Proposed site
 - Existing woodland cover
 - Sitka plantation
 - Scots Pine stands
 - Native planting / regen. 10-15 years
 - Existing road
 - Existing local access roads
 - Existing paths
 - P Car park (25 spaces capacity)
 - i Interpretation point
 - Views
 - Slope



5 Consultations with Stakeholders

Methodology

Interviews were carried out with a range of people to understand initial thoughts on addressing the car parking problem, potential additional opportunities that may be offered by the site and perceptions of the level of community interest there may be in the site.

A total of 19 interviews were conducted, comprising JMT staff, HoSFP members, neighbours, community groups, community members and the local fire service.

The interviews were semi-structured with main questions being general in nature and interviewees given latitude to express their own views on how to address the issues and opportunities at Braes of Foss.

The narrative is a synthesis of the main points arising from the interviews.

Car Parking

There was unanimous agreement that the lack of car parking was a major problem which had become much worse in 2020. FLS staff noted that the car park had been inadequate for some time causing occasional overflows of up to 60 cars on the road at occasional peak times prior to 2020. These overflows were now much greater.

Several others commented that problems had appeared in 2019 but were far greater in 2020, with one interviewee having counted 90 cars. Another provided footage of driving past the site in which 95 cars were counted parked on the verge.

The problems highlighted included:

- Farm vehicles unable to pass parked cars and businesses incurring costs having to take long detours
- Fire crews instructed not to use the road as fire tenders could not get past parked cars
- The local bus company being unable to use the road at peak times
- South-bound drivers becoming upset because they were unable to get past the flow of traffic from Aberfeldy
- Disabled users avoiding the car park at busy times due to the inability to unload an all-terrain mobility scooter from a trailer.

One interviewee noted that it is government policy to access mountains and some drivers last year were unfortunately receiving a parking ticket which spoiled their day out.

- All interviewees were supportive of creating additional car parking. This was seen as essential for 2021 and people were happy to support both short-term and long-term solutions.

Several who knew of the plan by FLS for temporary additional provision approved of it. Long term solutions suggested included:

- Enlarging the current car park if possible
- Using the FLS forest track 1/2m south of the braes of Foss as an entry point and extending that track to create a loop to the existing car park
- Creating new parking on JMT land to the west
- Overflow parking some way from Schiehallion, nearer turn off from B846.

Car Park Charging

FLS noted that there were problems with the charging system:

- Payment is not policed and therefore not all users pay
- The exposed site means that the kiosk breaks down regularly. A new machine is required and it would benefit from being sited in a shelter
- In winter the solar charging system can fail to charge the battery at times leading to lost revenue.
- The machine had been robbed once by opening the rear with an angle grinder, and another time the whole machine had been stolen from the site. This is now discouraged by using G4S to empty the machine regularly at a cost of £40-50 per visit.
- Income last year was in the region of £10,000 but could be greater if better managed.

JMT staff noted that some visitors get quite concerned they might receive a fine if the machine was broken and they were unable to pay.

Toilet Provision

Most consultees with the exception of FLS and JMT did not mention toilet provision as being an issue. FLS and JMT staff highlighted the lack of reliable water provision which is attributed to the LPG powered generator being inadequate. This is discussed further in Section 6.

JMT staff said that the roof was leaking as a result of damage when it arrived on site. FLS would have concerns if JMT proposed an alternative facility with no toilet provision. FLS had found that when the toilets were shut because of Covid people were toileting to the rear of the building.

Site Development

The view of JMT staff was that the current problems provide an opportunity to do something much more visionary than simply fixing a parking problem.

One offered the opinion that if a car park alone was to be created there was no real incentive for JMT to take responsibility for the site.

The Chief Executive noted that it was peculiar that the JMT brand is invisible on its properties. It is not clear who is managing the property and why. He noted that from the summit of Schiehallion it is possible to see a wide range of land management and use practices (forestry, deer, wind turbines, power transmission, farmland etc) and therefore there is an opportunity to explain why wild land is important. The site could be used as a gathering point to say to people "Here are things to think about".

The area has a strong social history too, so it needs to be more than a provision for people to simply tick their 1st Munro. The lack of prior knowledge of the hills was noted by another employee who stated that large numbers of people are now arriving at the mountain without a map.

JMT staff were keen to see all options explored that would lead to a greater understanding of land management issues by the general public as well as greater accessibility to the land. This was described as an improved focus on the trailhead so as to remain true to JMT's core philosophy of protecting wild land. This trailhead development could include improved accessibility and include tactile aspects and sound in interpretation techniques. The poetry path at Corbenic was cited as an example.

A building could be useful but was not essential and there was a concern to avoid proposing anything too ambitious that could lead to local pushback. A shelter might be sufficient or a simple building combining outdoor/indoor space that could act as an educational facility could be beneficial. A potential visitor centre could engage a lot of people but there would be a number of factors to consider including:

- It must be designed to fit into the landscape
- The need to provide space for interpretation material that would be constantly changing
- What level of local support there might be
- The likelihood of it being shut for the winter
- The remoteness of the site and the lack of public transport
- The opportunity to carry out research and host visiting groups
- The opportunity to provide business opportunities for the local community e.g. in running a retail/coffee space

Other interviewees had not given any significant thought to an expansive vision for the site which is to be expected, given that this was their first opportunity to consider how the area might be developed. However, they did offer a range of thoughts which are discussed below.

Access & Interpretation

Several respondents spoke positively of the potential for increased site interpretation and education of the public. At a very basic level some would support anything that serves to improve general understanding of responsible access, noting problems with littering and dirty camping in the Loch Rannoch area. One proposed improved waste bin provision.

One person proposed a nature trail aimed at school children using innovative approaches such as QR codes on interpretation panels. Another proposed that JMT use the site to promote Kinloch Rannoch to visitors, thereby providing some economic benefit to the local community.

There were some positive comments on the introduction of the low-level walk connecting FLS, JMT and HoSFP ground, although one person wondered why that had been created when there were already problems with car parking.

Several suggested that there was an opportunity to put across messages about partnership working and the story of re-establishing mountain woodland. FLS and the Woodland Trust would be happy to contribute to any approach that highlighted HoSFP collaborative working.

Buildings

Two people wondered whether constructing a significant building would comply with JMT's wild land ethos. Several thought that a shelter or a meeting space would be acceptable and beneficial to the local community.

HPCLT could make occasional use of a simple facility but their focus is on the other side of the hill where they intend to install simple container provision in the near future. FLS would potentially use classrooms /accommodation in a larger building but would not drive demand for such a facility.

One person saw potential for a visitor centre to compete with plans by Rannoch Community Trust to create a community hub in Kinloch Rannoch and would not support a major building for that reason.

The Woodland Trust mentioned a building near Callander that they had recently constructed which had a main atrium containing information and seating, a small meeting room and a toilet.

A pared down version might be more appropriate at Schiehallion, such as a shelter only with interpretation boards.

Project Leadership & Partnership

Interviewees generally thought that JMT should take the lead on developing solutions because visitors are primarily attracted to their property.

FLS would strongly support this approach because it is hard to make an internal case for funding improvements because they would be related to improving access to another landowner's property.

A land sale would take longer to deliver than a lease and the more land requested the greater the justification that would be required for a sale.

There was no interest expressed from other bodies in a formal partnership to creating and managing assets on site. FLS and HPCLT both expressed a keenness to consider how the larger area of the site and the neighbouring ground could be managed (particularly in the context of replanting) to complement any approach taken by JMT.

Other interviewees did not think there would be much interest from community groups in being involved in management because of the small size of the local community, its limited capacity to take on new initiatives and the distance of residents from the site.

Summary

All interviewees strongly support efforts to increase car parking provision at Braes of Foss. There was quite a lot of support expressed for further site interpretation along with general visitor education.

There was some support for more modest building infrastructure and some concern that a large visitor centre may not be appropriate for the location and that it may compete with local facilities nearby.

There is strong support for JMT to take a leadership role in resolving current problems with no clear interest at this stage from others interested in formal partnership working.



6 Development Options

This section considers the options open to JMT in developing the land available to meet its objectives and those of the HoSFP and the local community.

Infrastructure

As noted in the introduction the brief highlighted a range of potential developments that could occur on site including electric vehicle charging, buildings and camping facilities.

The type and extent of these developments will depend upon available infrastructure, how much any upgrades will cost and how much JMT is willing to invest in the site.

It is therefore important to consider current provision and limitations to infrastructure before considering specific development possibilities.

Electricity

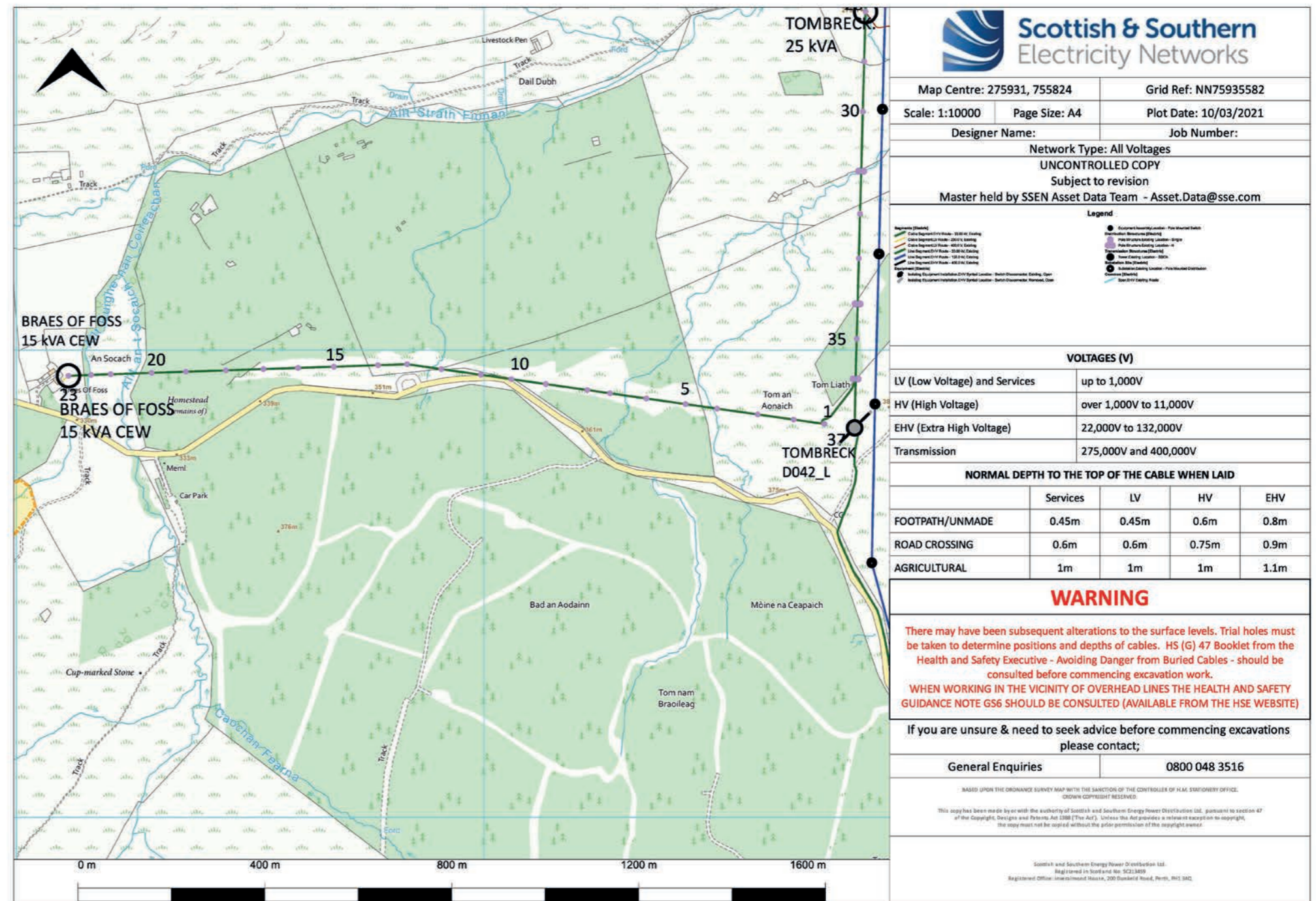
There is no electricity supply to the existing site. However, there is a supply nearby that provides a single-phase power supply to Braes of Foss farmhouse.

A supply would be essential to provide EV charging and desirable for any other building use as generators are expensive to maintain and use fossil fuels. Attempting to generate a lot of renewable energy on site and store in a battery system would be prohibitively expensive at the current time.

Scottish & Southern Energy Networks (SSE) have advised that a 3-phase supply (used for high capacity EV chargers – see below)) would require an upgrade to approximately 800m of existing 2 wire line .

A feasibility study would be required to estimate costs for up to 3 different connection capacities which would cost about £400. If an order was placed within 12 months of the study the cost of the study would be refunded.

SSE have provided a budget estimate of £31,000 + VAT for a more basic single-phase supply of 12KVA taken from a nearby pole and supplied to site. This would be sufficient for a modest building but not for EV charging.



Water

There is no mains water supply in the area and the toilets are currently supplied by a combination of borehole and the Allt an t-Socaich (when supplies are sufficient).

FLS advised that the borehole is 80m deep and total costs of drilling and lining were about £20,000. The water quality is good from this site but if poorer quality water is sourced some form of after treatment may be required.

The alternative site on adjacent does not have access to any watercourses and therefore a new borehole would be required if flushing toilets or buildings with work/accommodation facilities were provided.

Waste

There is no sewerage provision in the area so septic tank or other treatment system may need to be considered at the new site.

Telephone/Internet

There is a telephone line on poles at the roadside which could be taken to the site. However, it is likely that broadband provision will be poor due to the long distance from the nearest settlement.

Mobile phone signals on site are poor to non-existent and therefore mobile 4G internet provision is not likely. Satellite broadband is a possibility and this provision is available from £30-£70/mth for average download speeds of 22-75Mbps and upload speeds of 5Mbps¹.

It is likely that a dish would need a clear view of the sky and not be shrouded by tree cover. It is quite possible that satellite provision will become cheaper in the future with the introduction of low earth orbit constellations bringing increased capacity and competition to the market.

The lack of a 4G signal could limit future potential to engage with the public in a world class manner. Smartphones are now powerful enough to handle Augmented Reality (AR) through 4G and 5G networks. AR enables additional information in the form of information, sound and graphics to be layered over the image generated by a smartphone camera and it is already being piloted in tourism situations.

Roads Capacity

An initial internet search produced limited information on the capacity of single-track roads. However, it would appear from historical research that capacity is in the region of 100-300 vehicles/hour². It would appear that current use is likely to be less than 100

vehicles per hour but JMT would need to be mindful of the impact of any developments that attract more traffic to the area.

Development of a visitor centre could be expected to attract the most additional traffic. However, a development of this nature should be possible because other sites requiring access over a single-track road have accommodated them e.g. The Lodge Forest Visitor Centre³ near Aberfoyle.

Summary

Braes of Foss has only basic necessary infrastructure in place. It is possible to create most of the necessary provision (with the possible exception of 4G) but this will have implications for both capital investment and revenue costs in the development of the site. The successful provision of water from a borehole will be critical to any site redevelopment.

¹See for example: https://register.konnect.com/satellite-broadband-beam-campaign-uk/?gclid=Cj0KCOjwrsGCBhD1ARIsALILBYrKLqriMhtngS7I6OB9xwplccHdR4VGY_V5klLOEluRWHa7uHBUWrEaApX5EALw_wcB

²http://www.trics.org/conference12/richard_sweet.pdf

³<https://forestryandland.gov.scot/visit/forest-parks/queen-elizabeth-forest-park/the-lodge-forest-visitor-centre>

Car Parking

The issue of car parking provision is the substantive one that is driving this study and also the key one that would allow FLS to enter into a sale/lease arrangement with JMT. Therefore, it will be considered first before considering how other needs and opportunities can be addressed.

There are 2 options available to provide additional car parking at Braes of Foss:

1. Extend the existing car park.

The existing location already has an access, 25 spaces and a toilet facility provided. The site is clearly marked on maps and guidebooks and the existing paths to the summit of Schiehallion and the lower-level walk.

The car park is bounded on the west by the Allt an t-Socaich. The option therefore remains to extend east. To create space for 150 cars would require approximately 3300m² of ground with 2.75m x 5m bays and a 6m wide lane in between rows.

Allowing for existing space this would require to extend 25-30m east along a 100m front. As seen in the adjacent image this would require the excavation of ground that rises sharply from the edge of the current car park. Allowing for a 5m depth of material to be removed at the rear the total volume would be ½ x 5 x 25 x 100 = 6250m³.

Assuming a mix of soil and rock and an average density of 2.5t/m³ the total weight would be in excess of 15,000 tonnes or 750 lorry loads. The material that was excavated would need to be removed from site and either dumped or reinstated elsewhere with the permission of the Scottish Environment Protection Agency (SEPA) as it would be considered as waste material.

The result would be a car park with a sharp cutting into the landscape, which would likely raise questions about JMT's commitment to landscape protection and sympathetic development. It is therefore not a practical option to resolve the parking problem by extending the original site.

2. Create new parking within the 40ha search site.

The brief pinpointed a location within the search area where a car park could be located. Following a visit to the site the study team are of the view that this general area is the best location for car parking because it lies in a hollow, with the result that rising ground on either side shields the visibility of vehicles from the road.

There is ample ground to satisfy current needs and to provide for any likely future needs. Therefore, it is logical to seek to create parking within this area.



Braes of Foss existing car park

Developing the New Site

There are 2 potential accesses to the site. The first is the existing forestry road entering the forest at Grid ref: NN762558, approximately ½ m east of the existing car park. However, FLS have said that they require this access for timber felling operations and would therefore not wish it to be a permanent access for other reasons. The second option is to create a new access immediately opposite the proposed FLS temporary parking area at grid ref: NN758559.

There are 2 strong reasons for developing an access at this point:

1. There is a natural gap between higher ground to the left and right which extends for several hundred metres into the site. This would allow the creation of road access with minimum amount of excavation and impact on the existing landscape.
2. If, several years after initial provision, demand outstripped space once again, the FLS timber storage area immediately across the road could be used once again ((with permission from FLS) as a temporary overflow. This would address an immediate problem and allow for JMT to plan the expansion of their parking provision.

If the car park located 200-300m into the forest it will allow for considerable space for expansion back towards the road in future.

In addition, it will allow cars to park along the access road (in the same way as occurs with the existing car park) in times of occasional overflow without causing a problem.

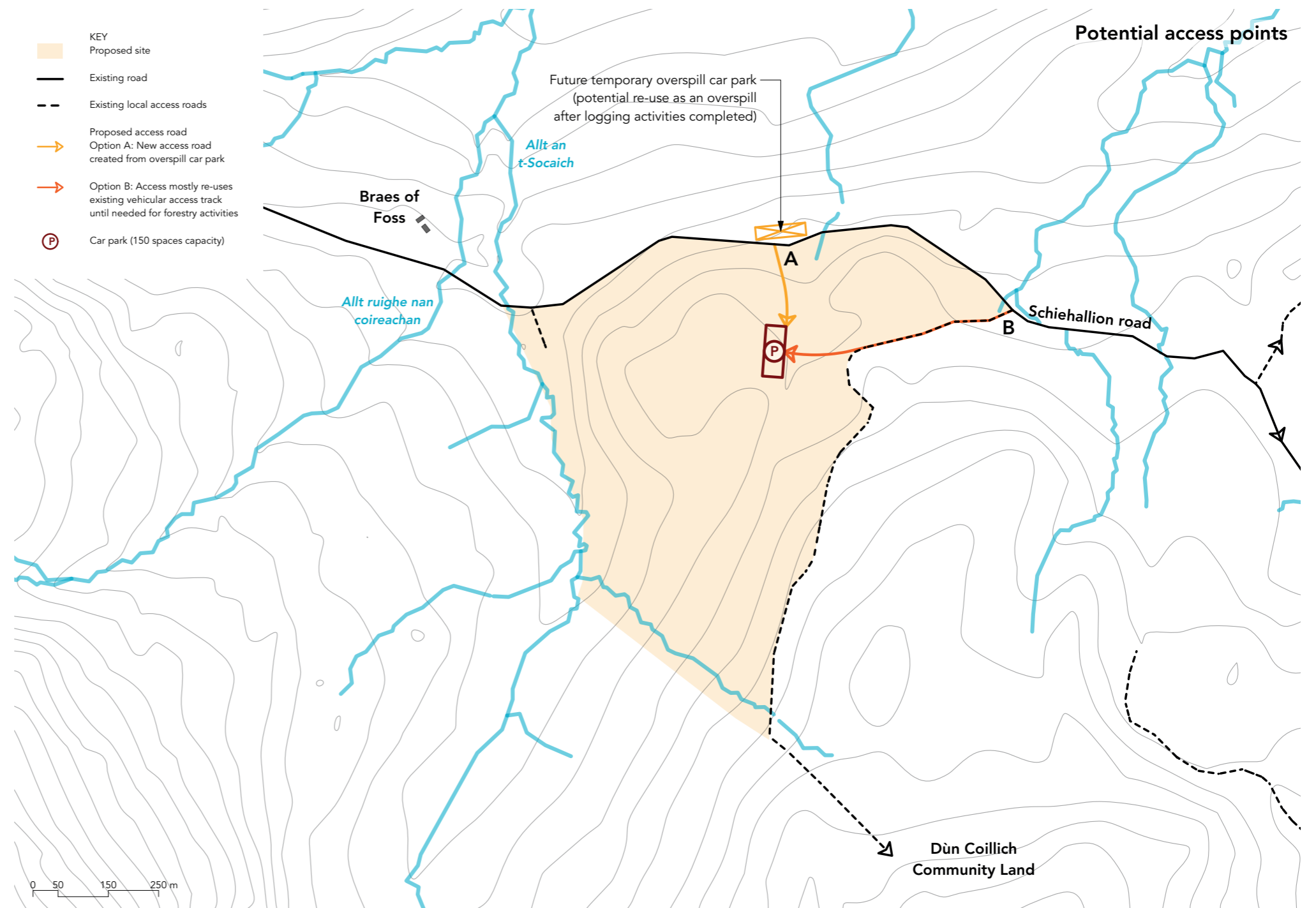
Apart from exceptional years such as 2020 any increase is likely to be gradual and therefore incidences of parking on the access road can be used as an early warning of the need to increase provision.

Two Car Parks or One?

The creation of a new car park raises the question of what should be done with the old one? The toilet facility is there and there would be 25 spaces and more of parking provision.

However, this would create 2 distinct sites to manage and the existing one could be considered more attractive as a location because it would save perhaps 200m of walking as compared to the new car park.

Once it was full there would likely be cars driving to the car park, turning round and then heading to the new one, creating unnecessary manoeuvres by traffic on the single-track road. It would therefore be better to reinstate the site and plant with trees.



Additional Site Provision

JMT does not wish to be merely custodians of a car park but desire to use the opportunity to deliver greater engagement with the general public on wild land and land management issues.

It also wishes to do so in a manner that is as environmentally sensitive as possible. To that end each potential component of a project package is considered in turn.

New Toilet Facilities

As noted in the consultation section FLS would not support a new car park without adequate toilet provision. The problems with the existing facility have been noted already, which the FLS Visitor services manager attributes to an incorrectly sized LPG generator.

It is not the purpose of this study to come up with a specific solution but there are different options open to JMT:

1. It could replicate this facility in the new car park using similar technology. We will note here that even if a correctly sized generator is installed there will still be ongoing maintenance issues with a non-standard technology.
2. A composting toilet facility could be installed instead. This would not require a water supply or a septic tank but post-COVID-19 it would be advisable to supply hand sanitiser. FLS have used composting toilets elsewhere but have not found them good at composting.

Mounds can form which need to be raked flat, people tend to dispose of plastic waste and nappies in them and when the material is removed it needs to be sent to landfill.

The failure to compost may be due to not leaving the material long enough once full, but it is worth noting that the elevation of the Braes of Foss site will mean lower temperatures and therefore a slower composting process.

If JMT is attracted to the idea of composting toilets it would need to investigate different systems and their management practices carefully prior to decision-making.

3. If an electricity supply is installed a system similar to the current one could be installed that required pumping water from a borehole but it would be easier to maintain, and should be more reliable.

Options 1& 3 would require a borehole while option 2 would not.

Electric Vehicle Charging

Electric vehicle charging technology has developed rapidly in recent years. Chargers are available as 7kw, 22kw and 50kw versions. Most installations are now 22kw, with 50kw chargers being found at motorway service stations.

At a site like Schiehallion most cars will sit for 4-6hours so rapid 50kw chargers are not required. A family car will consume c.15kwh/100km so a 4 ½ hr charge from a 7kw charger would theoretically provide enough for 200km or 125miles which would be enough to reach most places in the central belt.

In the future larger cars and minibuses will require significantly more charge. Therefore, a mix of 7kw and 22kw chargers may be more appropriate. By way of comparison a typical house will draw less than 5kw for much of the time and only approach 22kw if it is using electric heating and electric showers.

A double 22kw unit will have an installed cost of c.£10,000.

A typical transformer is 69KVA which would allow for 2 x 22kw chargers plus other uses. Beyond that transformers are available in 100kw and 200kw size.

In addition to greater capital costs the standing charges for a larger capacity electricity supply are greater e.g they may rise from £5-10/month to £50 or more/month.

Inevitably the proportion of electric cars is expected to rise steadily over the next 10-20 years and therefore JMT should plan transformer and supply cable size in accordance with future plans.

Additional charging units could be added as increasing numbers of electric cars are added to the roads. This is a complex technical area so JMT would need to take professional advice and carefully consider options before making any decision.

SWARCO⁴ have been working with FLS to assess potential charging sites and have recently been named as preferred bidder to operate the Chargeplace Scotland network for the public sector⁵ so would be worth considering amongst others.

It should be noted that battery capacities on cars are growing as technology becomes cheaper. Therefore, it is conceivable that the next generation of cars will have similar capabilities to those of today's fossil-fuel powered vehicles.

It is therefore an open question as whether drivers would prefer to charge up while climbing Schiehallion or whether they would be happy to wait until they returned home.

⁴ <https://www.swarco.com/solutions/emobility>

⁵ [SWARCO eVolt to operate ChargePlace Scotland \(transport.gov.scot\)](#)

Active & Alternative Travel

The site could be made more attractive to cyclists by providing bike racks or covered storage, either as a standalone structure, or incorporated into another building. If electricity is supplied to the site an electric bike charging station could be provided, which would increase the attractiveness of bike use and encourage people to cycle from greater distances.

The tender brief included consideration of the potential for a shuttle bus at peak times. It is understood that the great majority of visitors come from outside the local area. Due to public transport provision being poor to Aberfeldy (and other nearby settlements) most people will choose to visit Schiehallion via car.

Therefore, a shuttle service would require the provision of a Park & Ride system which would require additional car parking provision at another location. A shuttle service may be attractive to people already staying in the local area and could help to supply additional capacity if the created provision is exceeded by demand once again.

Interpretation and Access

The site is large enough, and with areas that are flat enough, to create trails for all abilities. These would offer an opportunity for JMT to engage with visitors on land management and wild land issues. Different themes could be explored at the arrival point and on different short trails. Suitable approaches to this are discussed in Section 7.

It would also provide an additional resource for exercise for local communities. It is not clear at this stage what the level of local demand will be but this can be explored further through local community consultations.

However there is support for additional paths, particularly all abilities ones during our limited consultation. We have already noted that HPCLT are happy for their land not to have any new built paths in order to avoid unnecessarily disturbing protected wildlife.

Therefore, any paths can be designed not to link to HPCLT ground and the vast majority of people will be happy to limit their use to these. Further guidance should be referred to within NatureScot's Management for People document.

JMT has recent experience of constructing path for which the costs were £32/m for aggregate sections and £118 for boardwalk. At a minimum 600m of new aggregate path would need to be created to link the new car park to the existing Schiehallion path and a new bridge would be required across the burn. This could be expected to cost in the region of £25,000. An additional indicative 1600m of new path would cost a further £50,000.

Buildings

The size and complexity of any buildings on site will depend upon what JMT wishes to achieve, community acceptability and available budget.

Shelter

A simple structure that provides shelter but is otherwise open to the elements can take a variety of forms and there is scope for JMT to be creative in terms of what it wants architecturally.

Such a structure would be suitable for short-term use by individuals, rangers with groups and by day volunteers. There would be no need to provide services but lighting or waterproof outdoor electric sockets would be an option.

Interpretation could be included on the walls. Cost would be in the region of £250-£750/m² so a 50m² building would be £12,500 - £37,500.

Visitor centre

A more complex building capable of providing workspace for staff and hosting meetings would require all services. A small building with toilets, interpretation space and a single office may cover 100m². The need for a building of architectural merit and the remote location for the build would perhaps give a build cost of £2500 - 3000/m² or £250,000 - £300,000 for the building. A larger centre with a café, more interpretation space and meeting rooms could require 200-500m² for a build cost of £500,000 - £1,500,000.

A highly insulated building would still require a heating system. In this location an air source or ground source heat pump would minimise electricity use and avoid direct burning of fossil fuels. This could be supplemented by solar PV panels on the roof or ground mounted nearby.

As grid electricity moves increasingly to renewable sources this combination would be one example of a 'carbon credible' way of delivering such a development.



Accommodation

The costs of providing accommodation in a traditional building would be similar to that of the costs indicated for a visitor centre where all services are required and buildings must meet buildings standards regulations.

This would be suitable for researchers and longer-term work parties. The challenge with providing accommodation for such groups is ensuring that the amount of accommodation provided matches needs.

If there is too much accommodation the facility will be underused and risk being a financial burden upon JMT. This is particularly important if it is expected that users will be limited to the warmer months.

An alternative option would be to use simple tourism accommodation to provide space as and when required for volunteer work parties who tend to have lower expectations.

Tourism options are discussed below.

Deer Larder

As noted previously a deer larder would require electricity and water and would ideally be situated at a distance from any car park, in order to avoid negative feedback from visitors who could find the sight of blood and carcasses unpalatable or upsetting.

A water supply system would therefore require to be designed to take the water from a borehole supplying toilets/visitor centre to wherever the larder was situated. Deer larders can now be bespoke manufactured as steel box type units.

These can be made more attractive by applying larch cladding or being constructed within another structure. Larders can be used for storing carcasses for collection by a game dealer only or can also have an added processing room for butchering meat for sale. A suitable budget would be in the region of £50-75,000.

JMT currently culls c. 5stags and 30-40 hinds/yr which are fairly modest numbers. As noted in the consultation section FLS has currently invested in its own facility at Tummel Bridge.



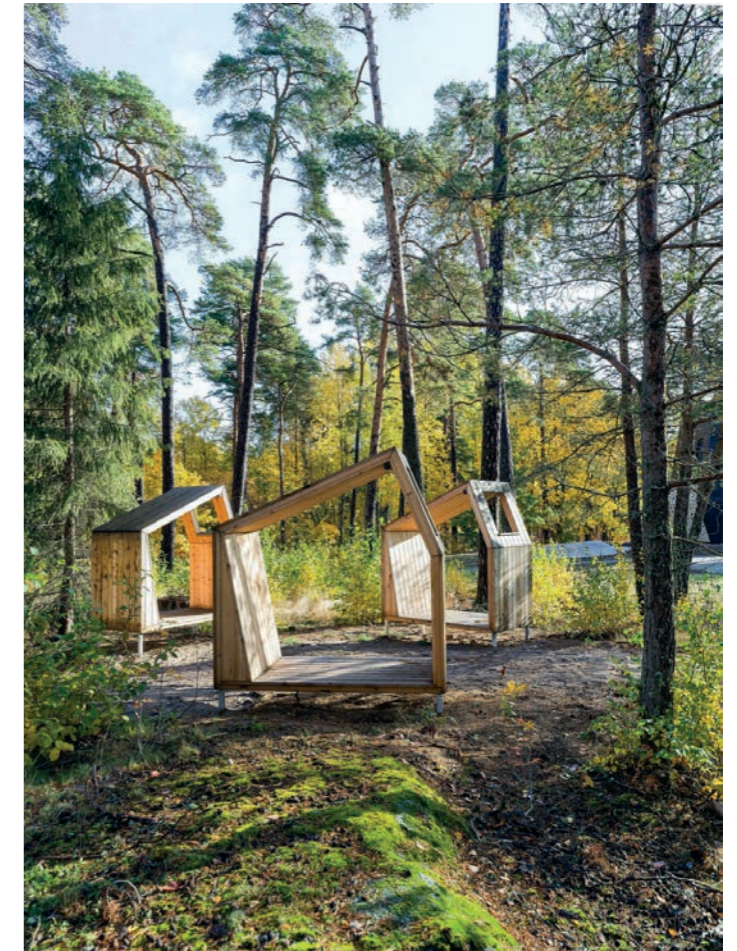
Lisanden Rest stop - Jensen & Skodvin incorporating interpretation



Vasikkasaari



Rasteplass Reinoksevatn pushak



Carlshage & Siegbahnsparken

Maintenance

All buildings require ongoing maintenance. At an altitude in excess of 300m at an exposed location deterioration of building fabric and equipment can be expected to occur at a faster rate than low ground locations. Appropriate strategies and budgets will need to be put in place to mitigate and manage the effects of the climate in this location.

Tourism Facilities

The provision for tourism can come in two forms: providing accommodation and providing activities and adventure. Each of these is considered in turn.

Tourism Accommodation

If electricity, water and toilet facilities are provided to site simple tourism provision can be added in at limited cost and provide a good financial return. At the same time hosting visitors brings the challenges of managing facilities and providing good customer service.

Campervan Hook-ups

Provision can be made for campervans by providing hook-ups and a water supply to a suitable location for vans to top up their tanks. Once such provision is made it is likely that more vans will be attracted, particularly as it is a remote location. Therefore, JMT would need to consider how many spaces it wanted to provide and whether this might have a negative impact upon other local businesses.

Pods/Shepherds' Huts/Yurts

There has been an explosion of this type of accommodation in the past decade. Small accommodation pods are relatively cheap to install and in a woodland setting can be made very unobtrusive. It is not clear how long these structures will last in severe climatic conditions, but they will need repaired/replaced more regularly than other accommodation types. As noted above they could provide useful short-term accommodation for work parties. When first introduced pods were typically fairly basic but provision has been increasingly going up-market. The simpler provision may be more in tune with JMT's values than the luxury versions appearing in many places today.

Adventure Facilities

These can take various forms. Typical ones found in forests are mountain bike downhill tracks, pump tracks⁶, zip slides and tree-based adventures such as Go-Ape⁷. All of these activities are attractive to young people in particular and may offer JMT an opportunity to engage with a new generation. However, these activities may be considered by some of JMT's existing supporters to be a distraction from its core purpose and inimical to quiet reflection upon issues associated with wild land.

Conclusion

The size of the site and the available and potential infrastructure mean that any, or indeed all, of the potential development options could be created on site. Section 7 considers how such development may occur in the most practical and sympathetic manner, while Section 10 discusses issues JMT might like to

consider in making choices and how it might progress project development.

⁶For an example see: [Asphalt Pump Tracks - Velosolutions](#)

⁷ [High Ropes Outdoor Activities | Live Life Adventurously | Go Ape](#)

7 Site Development Options

The constraints and challenges are outlined in Section 6 relating to infrastructure, services and capacity of any new facilities. This section looks at the capacity of the site to accommodate new development, from a site planning, landscape and visual impact perspective.

Minimal Intervention

There is scope to bring the access for the new car park from the Schiehallion road (opposite the temporary overspill car park location). This would be located within a hollow in the centre of the site and be visually inobtrusive on approach. The car park would be screened partly from the mountain by the topography and existing vegetation on the west of the site.

An alternative option for access would be utilising the existing FLS track further to the east, it could be an additional access until needed for forest felling / planting activity. Access to the south along this track could be limited to FLS / Community land access via a locked gate.

The existing mature Scots pine stands would be retained as would the more recent Sitka woodland to the north east which provides screening of the new car park on approach from the east.

New native woodland planting along the northern boundary will further strengthen the edge and reduce visibility of the car park. The southern half of the site which is clearfelled land is in stark contrast with the Dun Coillich Community land to the south which has native species woodland and natural regeneration developing. It is very visible from the mountain and would be most sympathetic to the immediate landscape context if it were to be planted with native species trees and natural regeneration was to be encouraged.

There is plenty of scope for new paths through the Scots pine stands and new woodland planting, as well as linking the car park to the main trail paths via a new section of path and footbridge over the watercourse. Interpretation elements along with a small shelter can focus on different aspects eg: woodland and montane habitat restoration in partnership; the geological, historic and scientific significance of Schiehallion; changing land use etc.

New toilets would be provided next to the car park area and the existing car park would be reinstated as woodland with a path link. Basic structures could be provided such as shelters and/or sheds to provide for items such as a tool store and basic volunteer activities.

Increased Intervention

Should the Trust wish to develop the site more ambitiously, there is space to accommodate a building of some description that could incorporate any desired combination of improved visitor facilities/volunteering hub/ranger facilities/meeting rooms. The key differences between this and a more basic building are that electricity supply and a heating system would be essential, as would compliance with building standards regulations for energy efficiency.

There is also capacity for tourist accommodation in the form of camping pitches within the scots pine stands and small cabins within the sitka woods. This would require a toilet block facility and potentially a chemical waste point for campervans.

There are existing camping facilities relatively nearby at Glengoulandie, so the Trust would have to consider whether it was desirable to compete with local businesses.

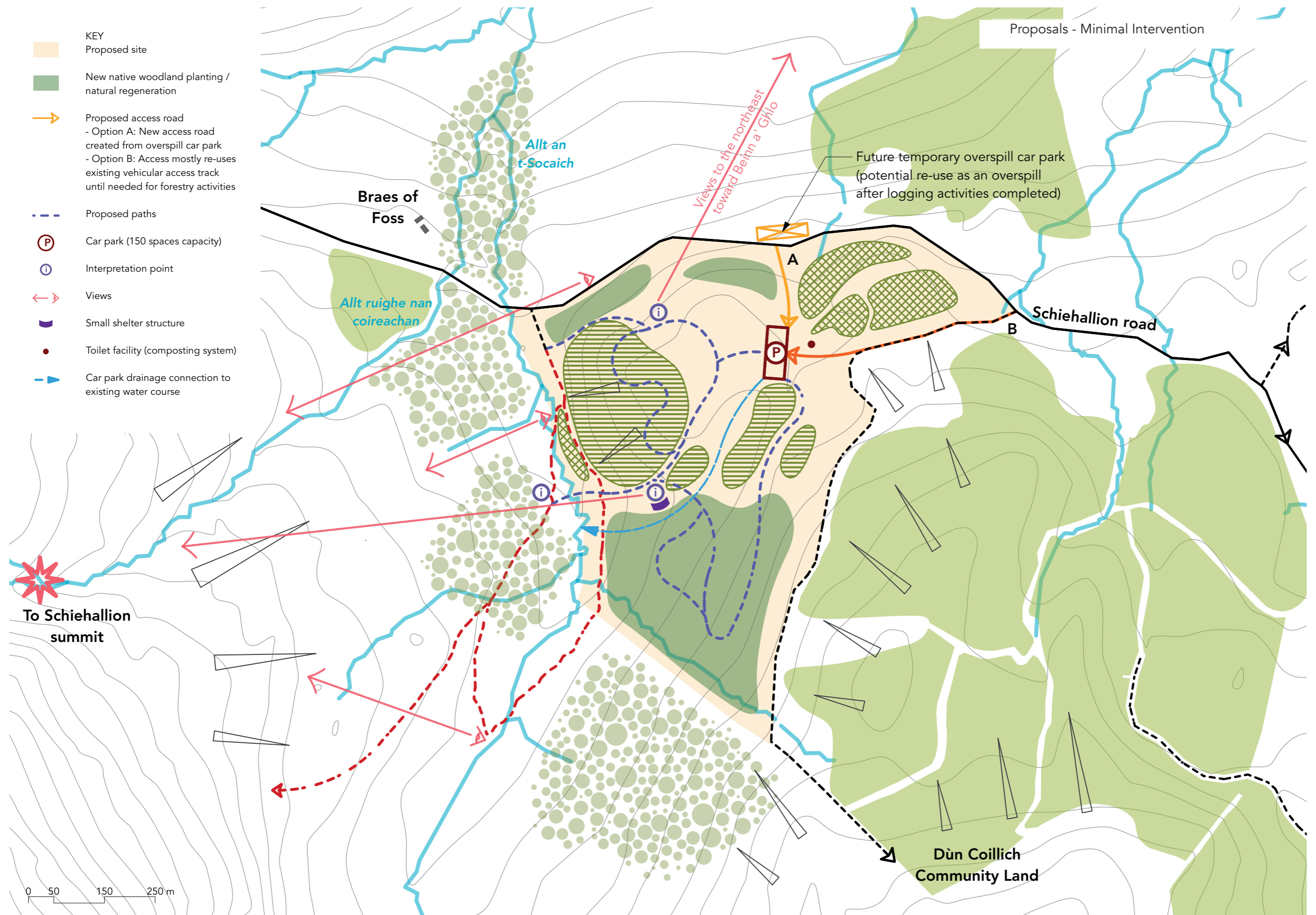
Sustainable Development

Any new development should consider reuse of materials, recyclable potential and minimising use of virgin natural material resources. Local sourcing where possible and considering the role that the circular economy can play.

If the existing car park was reinstated as landscape with a path, the excavated material from the car park could potentially be reused as a sub base for the new road access / car parking area.

Similarly some of the excavation of soil within the new car park area could be deposited within the current car park area, sensitively mounded before planting up.

Hard standing areas should incorporate sustainable drainage systems integrated into the landscape to provide amenity and benefits to wildlife as well as providing a cleaning, filtering and slowing velocity function as drainage.



- KEY**
- Proposed site
 - New native woodland planting / natural regeneration
 - Proposed access road
 - Option A: New access road created from overspill car park
 - Option B: Access mostly re-uses existing vehicular access track until needed for forestry activities
 - Proposed paths
 - P Car park (150 spaces capacity)
 - i Interpretation point
 - Views
 - Small shelter structure
 - Toilet facility (composting system)
 - Car park drainage connection to existing water course

Proposals - Minimal Intervention

Future temporary overspill car park (potential re-use as an overspill after logging activities completed)

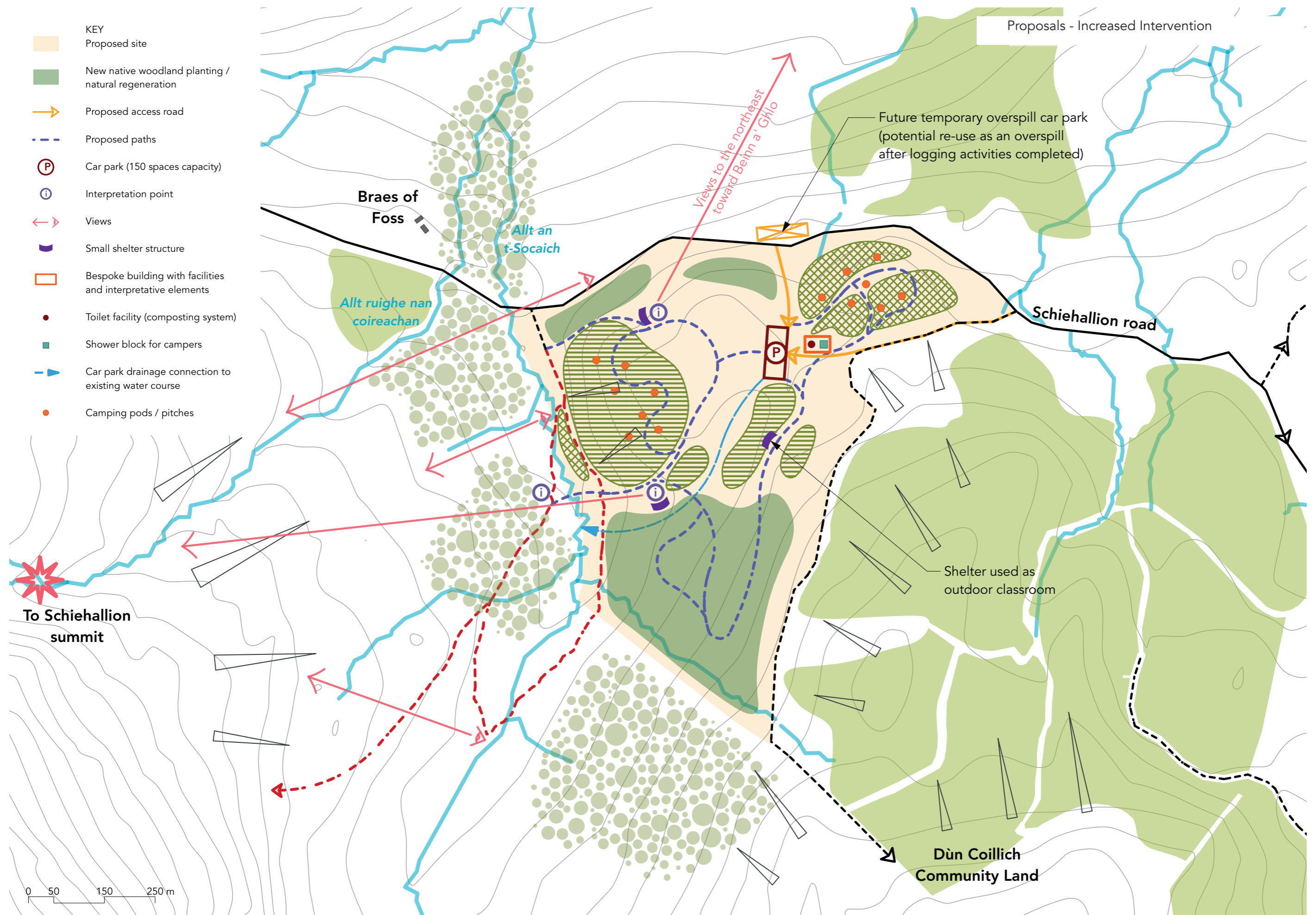
Views to the northeast toward Beinn a' Ghlo

Schiehallion road

Dùn Coilich Community Land

To Schiehallion summit

0 50 150 250 m



- KEY**
- Proposed site
 - New native woodland planting / natural regeneration
 - Proposed access road
 - Proposed paths
 - P Car park (150 spaces capacity)
 - i Interpretation point
 - Views
 - Small shelter structure
 - Bespoke building with facilities and interpretative elements
 - Toilet facility (composting system)
 - Shower block for campers
 - Car park drainage connection to existing water course
 - Camping pods / pitches

Proposals - Increased Intervention

Future temporary overspill car park
(potential re-use as an overspill
after logging activities completed)

Shelter used as
outdoor classroom

Dùn Coilich
Community Land

Braes of
Foss

Allt an
t-Socaich

Allt ruighe nan
coireachan

Schiehallion road

Views to the northeast
toward Beinn a' Ghlo

To Schiehallion
summit

0 50 150 250 m

Interpretation Opportunities

There is great scope for developing engaging, interactive and stimulating interpretation elements at Schiehallion.

There are opportunities for developing a bespoke suite of features that will draw curious attention and offer a more creative way of telling the different stories / themes relating to Schiehallion and its history, natural heritage, future plans and surrounds.

Accessibility, inclusivity and direct impact are important measures with choice of content, materials and seamless integration within the landscape are key, including structures or shelters, rest stops and wayfinding.

This could be developed within the context of a wider John Muir Trust brand development that conveys the message of what the Trust does and encourages a more diverse audience to visit.

Drawing upon specific viewpoints, relationship to the trail head and car parking / facilities needs to be fully considered in terms of the interpretive elements.

Different stories or themes that may relate to differing interests of visitors and what people do other than climb the summit when the visit should also be considered.

SWOT Analysis

The key issues associated with developing the site can be summarised using a SWOT analysis which considers the Strengths, Weaknesses,

Opportunities and Threats of each course of action. The tables overleaf are simple SWOT analyses of the minimal and increased intervention approaches.



Snow Routes Connecting Contours viewpoint seat - RFB



Gallery of 360 degree viewpoint - WaterScales architects



Gallery of Path of Perspectives Panorama Trail - Snohetta architects



Kevin Kunstadt

SWOT Analysis - Minimal Intervention

<i>Strengths</i>	<i>Weaknesses</i>
Large site area	Landform not conducive to expanding existing car park
Adjacent to JMT land	No mains water or electricity supply
FLS supportive of action	
Topography helpful to minimising visual impacts	
Existing stands of mature Scots pines	
<i>Opportunities</i>	<i>Threats</i>
Electricity supply nearby	Future growth of visitor numbers may overwhelm improved provision
New access road and ample parking achievable	Maintenance issues of water supply with non-standard generator system
Potential revenue generation from parking	
A good route for a new access path to Schiehallion	
Options for more accessible paths	
Much of the area can be replanted with more native species	
Range of routes and views to assist interpretation provision	
Improved visitor engagement	

SWOT Analysis - Increased Intervention

<i>Strengths</i>	<i>Weaknesses</i>
Large site area	Landform not conducive to expanding existing car park
Adjacent to JMT land	No mains water or electricity supply
FLS supportive of action	
Topography helpful to minimising visual impacts	
Existing stands of mature Scots pines	
<i>Opportunities</i>	<i>Threats</i>
Electricity supply nearby	Future growth of visitor numbers may overwhelm improved provision
New access road and ample parking achievable	Cost of 3-phase electricity supply upgrade may be prohibitive
Potential revenue generation from parking	Risk of alienation of core supporters if project seen as too commercial
A good route for a new access path to Schiehallion	Long-term maintenance requirement of buildings
Options for more accessible paths	
Much of the area can be replanted with more native species	
Range of routes and views to assist interpretation provision	
Buildings can be sympathetically situated in the landscape	
Opportunities for increased engagement and enhanced visitor experience with a visitor centre/volunteer hub	
Potential revenue generation from car parking, tourism accommodation, visitor facilities	

8 Precedents

Ben Lawers, Perthshire - National Trust for Scotland Removal of an existing building

The Ben Lawers National Nature Reserve is owned by the National Trust for Scotland (NTS) and is host to “the best collection of rare mountain plants in Britain”. NTS opened a mountain visitor centre there in 1972 at an altitude of 420m. The building was controversial but award winning in its time. It was a largely wooden building which was difficult to maintain, including the water supply. Its interpretation included messages on path erosion and flora on site. NTS was accused of bringing path erosion upon itself by unnecessarily attracting people to the location.

By 2007 major work was needing done to the building, the interpretation was out of date, it ran at a loss, and it had disability access issues. RaeburnFarquharBowen looked at a range of options on behalf of the Trust and it was decided to demolish the building and have external interpretation which would be available all year round, rather than be limited to the opening period of April-September. It was decided not to have toilets and the position of the car park was moved to newly developing woodland.

The new 85 space car park was created using a lot of material crushed from the site of the old visitor centre. The top layer was scraped off the old car park and vegetation removed from the new was used to cover the old. The new car park is nestled down into the contours below the public road and crucially located within the woodland regeneration enclosure so that the visual impact is much less than the previous plateau location.

As trees and montane shrubs establish the setting of the car park will illustrate to visitors how habitat management is returning diversity to the mountainside.

Installation of new visitor interpretation shielings, inspired by the summer homes of the hill shepherd. Artist Tim Chalk created a range of features to provoke the curiosity of visitors.

Quite a lot of walkers cross the cattle grid and walk up the road, rather than take the path through the ‘shielings’. This may be because signage is not clear enough. Some cars also park further up the road enabling visitors to cut across a short piece of moorland and shave a few hundred metres off their walk.

In 2020 there were twice the number of visitors from July 11th. The car park was virtually full at 7am and people parked very badly away up the road. There is also poor parking within the car park, leaving large gaps between cars. NTS intend to spray painting lines on the gravel in 2021, which is not ideal. Big campervans taking up a lot of space are also a significant problem. On a more positive note, their presence prevents thieves breaking into the parking meter.

Ben Lawers National Nature Reserve



Image Credit: RaeburnFarquharBowen



Glen Finglas Gateway, Brig O'Turk - The Woodland Trust Small building

Native woodland regeneration is at the heart of The Great Trossachs Forest Initiative. John H White Architects designed the Gateway building which houses an exhibition / interpretation space, toilets and children's play corner. It marks the starting point for ten waymarked trails ranging from 1/2hour to a 24km trail.

National Lottery Heritage Funding of £850,000 was received to deliver the Gateway Visitor Centre and the networks of waymarked trails surrounding it.

There is an interactive Play Trail through Little Druim Wood nearby and the extensive path routes are suitable for walking and cycling.



Image Credit: John H White Architects, The Woodland Trust

Corrieshalloch Gorge

Gateway to Nature, Garve -National Trust for Scotland Larger building

With its beautiful location and impressive scenery, Corrieshalloch Gorge has seen a 60% increase in visitor numbers since 2012, with almost 140,000 visitors recorded in 2017/18.

The Trust has exciting plans to create sensitively designed new visitor facilities on the site of the historical suspension bridge.

These plans include toilets, Wi-Fi, a blue loo for camper vans, improved parking facilities and paths, wayfinding and interpretation around the National Nature Reserve, enabling the 140,000 annual visitors to enjoy an enhanced experience.

The project will also help with the safe and sustainable management of visitors to the National Nature Reserve, ensuring that Corrieshalloch's built and natural heritage is well-cared for, now and in the future.

'Our plans are to create a gateway to nature and to enhance the experience of this special place, and they can be welcomed in a way that impacts less on the local environment and communities and helps keep the Highlands beautiful for everyone.'

The £2.3 million project has secured £923,277 funding from the Natural and Cultural Heritage Fund. It's part of a new, almost £9 million Scottish programme of projects to invest in the Highlands and Islands, to provide more and better quality opportunities for visitors to enjoy natural and cultural heritage assets. The Natural and Cultural Heritage Fund is led by NatureScot and is part-funded through the European Development Fund.

The Natural and Cultural Heritage Fund will encourage people to visit some of the more remote and rural areas, and create and sustain jobs, businesses and services in local communities. The purpose of the fund is to promote and develop the outstanding natural and cultural heritage of the Highlands and Islands in a way that conserves and protects them.

Oberlanders Architects were appointed, along with David Narro (Civil & Structural Engineers), Rybka (Mechanical and Electrical Engineers) and Horner & MacLennan (Landscape Architects) to provide design team services for the Corrieshalloch Gorge Visitor Centre project. Gardiner Theobald are providing Project Management and Quantity Surveying services.



An artist's impression of the new visitor facilities planned for Corrieshalloch Gorge



Image Credit: National Trust for Scotland

9 Land Tenure Options

All of the land in question is currently under the ownership of FLS. As a public body it will be mindful that all of its actions, including land sales, are subject to public scrutiny.

The consultation process identified that the sale of land for a car park to address a significant problem would be an easier process than selling a much larger area for a more diffuse range of purposes.

Therefore, JMT will need a very strong rationale for seeking to purchase a large area. There are 3 land ownership and management options available:

Ownership by JMT

The land would transfer to JMT and it would then be free to develop the land in accordance with its plans for the site. The benefits of such an approach would be that there would be no lease payments to make, there would be no need to seek permissions for additional activities under a lease agreement and with the land being contiguous to JMT's existing property a purchase would be a good fit in terms of its overall landholding. It would also allow JMT to replant the existing ground with its preferred mix of trees. Purchase however would require a significant five figure capital payment up front.

If FLS was to agree to a sale the legal process could take some time which may have an impact upon JMT's ability to create the necessary car parking facilities in time for 2023 when the temporary car park will no longer be available.

Partial ownership of the site is considered under 'Partnership' below.

Lease

An alternative to ownership would be to lease all or part of the site. This would avoid the need to raise the capital sum, allowing for capital investment to be reserved for the development itself.

FLS have stated that a lease process should be able to gain approval more quickly than a sale, which is an important consideration. However, speed is not guaranteed, and the time taken will depend upon how strong agreement is on proposed lease conditions between JMT and FLS. If either side initially wishes conditions that are not acceptable to the other negotiations can become protracted.

Partnership

There are several ways in which a partnership approach could deliver change on the site. At the simplest level plans could be developed and agreed by JMT and HoSFP, which would then be implemented by FLS. However, given that FLS does not expect to be able to have the funds to invest in this site, this option can be ruled out.

A partnership approach with the local community could see a community group take ownership of part or all of the site using a Community Asset Transfer request under the Community Empowerment Act.

If approved by FLS such an approach would be eligible to apply for funds from the Scottish Land Fund, something which JMT is not able to do. However, the consultation to date has not shown any appetite for this so far from HPCLT or another body. Consultees were also strongly of the view that JMT should lead the project seeing as they are the owners of Schiehallion.

An alternative approach would be for JMT to purchase the land it requires for the key works it wishes to do and for FLS to manage its adjacent land in a manner that is complementary to JMT's activities.

This could take various forms but 1 example might be that JMT would purchase (or lease) an area at the north-west of the site bounded by the new access road it would create and the existing ride where a new access path would be created to join the Schiehallion path.

This would provide it with enough ground to develop trailhead facilities and limited additional path infrastructure. FLS could replant the recently felled area abutting JMT and HPCLT land with a native mix of trees. In a further development FLS could create a new loop across this ground, give JMT the right to create a loop or lease/sell the additional area to JMT for this purpose.

A potential route to complete ownership by JMT would be to enter into an agreement with FLS to purchase a defined area with an option to buy the larger area if certain conditions are met, such as receiving appropriate planning permissions and being able to demonstrate a funding package to deliver a project to FLS.

Such an agreement would require FLS agreement in the first instance and would need JMT to take appropriate legal advice on any commitments it was entering.

10 An Indicative Development Strategy

An Indicative Development Strategy

The report to this point has scoped out what could be done on site. It is for JMT and its partners, however, to decide what should be done or what they would like to do. The ultimate choice of approach should not necessarily be driven by short-term considerations. However, if FLS is to withdraw its temporary car parking provision in 2023, it is reasonable to try to develop a practical project within that timeframe. It is also reasonable to develop both short term and long-term development goals in consultation with HoSFP and the local community.

A 2-year timeframe is insufficient to research, plan, finance and develop a large building such as a visitor centre. It was also noted that there is currently no clear sign of community support for such a venture at this point. It may be that support will rise in the future once full community engagement takes place and JMT further develops its thinking. It would therefore be logical for JMT to take a phased approach to any development and only to proceed with a future phase when it has a viable business plan to support it, and partners and the local community are supportive. Fundamental to ensuring options remain open (whether taken up or not) will be the correct sizing of key electricity supply and water infrastructure installed in any first phase.

This scoping study is insufficient to make final decisions, but it can be used as the basis for a next phase of study and project development. The following narrative outlines an indicative strategy approach to delivering the elements identified in the brief and discussed above, once an in-principle decision to proceed has been made by the JMT board.

Phase 1

Delivery of Car Park, Toilets, Trailhead Interpretation and Access Improvements

JMT could develop a project along a 'Minimal Intervention' or a 'Increased Intervention' approach as outlined in Section 7. During Phase 1 a 'Minimal Intervention' could include composting toilets and no electricity provision whereas a 'Increased Intervention' approach would look ahead to a future significant building (or buildings) and would require electricity and water as essential components of a development. The following elements (with the exception of point 2 for the Minimal Intervention) would be required for both projects:

1. Negotiate with FLS.

JMT will be developing a project at risk for as long as there is no formal agreement with FLS to sell/lease land appropriate to the project's needs.

2. Scope the Practicality of on-site EV charging.

This is a specialist area which will be determined by the cost of providing sufficient power to site and likely predicted future demand. Therefore, JMT would be advised to:

- Engage with an EV charging equipment supplier or independent specialist to scope the technical requirements of providing different numbers of chargers on site.
- Request a feasibility study by SSE for 3 different levels of electricity supply depending upon the information learned from the EV charging research. As noted above the cost would be deducted from the final cost of providing a supply if an order is placed within 12 months.

3. Develop an Interpretation Plan.

JMT should engage an interpretation consultant to develop an interpretation plan that will identify the key messages JMT wishes to present at the site to visitors and to consider how these will be put across. Developing an interpretation plan may help JMT to decide whether a visitor centre facility would be needed to deliver its messages or whether its goals could be achieved on other ways. This work could be done either prior to, parallel to or as part of a feasibility study (below).

4. Full Feasibility Study.

JMT should commission a full feasibility study to design a roadway, car parking, toilets and associated interpretation. The study should include:

- Appropriate placing of the different elements and consideration for adding in later elements (such as a visitor centre)
- Landscape Architectural input to minimise visual impact and maximise aesthetic benefit and to develop a site plan layout with engineer input
- Appropriate sizing of a borehole (if required) depending upon what future uses JMT plan to have for the water supplied.
- Appropriate design by engineers of a new access track, parking area and toilet facilities.
- Quantity Surveyors costings of proposed works
- Community Consultation to engage with community ideas and respond to concerns
- Business planning element to accurately estimate annual revenue and expenditure costs and associated staffing needs

5. Apply for Planning Permission.

6. Develop a Funding Package.

A key source of funding to address visitor management issues is the Rural Tourism Infrastructure Fund (RTIF) ¹. which was established by the Scottish Government to address pressure on limited facilities caused by rapidly increasing visitor numbers.

7. Exercise option to purchase the site.

The purchase process could take 2-6 months depending upon the speed of the acting solicitors and any issues affecting the title.

8. Tender for proposed works.

Tendering can occur following the completion of a funding package and could occur alongside or even slightly before item 7.

9. Carry out proposed works.

Selected contractor(s) to deliver infrastructure and interpretation improvements.

Indicative Costs for delivery of this phase are:

Item	Minimal Intervention (£)	Increased Intervention (£)
Roadway and Car park	100,000	100,000
Electricity provision		30,000
1 EV Charging unit		10,000
Borehole and toilet facilities	30,000	50,000
Footpaths (1.6km)	50,000	50,000
Professional Fees (Studies and Project delivery)	40,000	40,000
Total	240,000	310,000

Note: All costs are exclusive of VAT. It may be appropriate to develop the site using a VAT registered subsidiary.

If JMT wished to pursue a more ambitious EV charging strategy electricity supply and charging unit costs could be expected to be considerably higher.

Future Phases

The 'Increased Intervention' approach would require an additional phase or phases to deliver other elements, whether a visitor centre building, deer larder or accommodation (for volunteers or tourists).

For each phase JMT would potentially need to repeat steps 4 to 9 above. It would be theoretically possible to deliver all the other elements in a single phase, but it would be more advisable to seek to add elements in a more organic approach, one or two elements at a time.

This would help to ensure that JMT proposed only what was acceptable to the board, its members and the wider community at any one time.

¹.[Rural Development Fund - Funding | VisitScotland.org](https://www.visitScotland.org)