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Development Trust



Pump Track & MTB Trail Greenmyres & Gartly Moor

Report Produced by:

Tom Durham, Collective Trax

Tom Cole, CRContracting

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Client:

Donald Boyd - Huntly Development Trust

donald.boyd@huntly.net

Landowner:

Greenmyres Farm - Huntly Development Trust

Gartly Moor Forest - Forestry & Land Scotland

Design Team:

Tom Durham, Collective Trax

tom@collectivetrax.com | 07823338691

Tom Cole, CRContracting

tom.cole@CRC.scot | 07984633017

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1. Introduction and Background

CRContracting (CRC) and Collective Trax (CTX) are very pleased to have carried out this pump track and mountain bike (MTB) trail design project on behalf of Huntly Development Trust (HDT). This project forms an integral part of HDT's overall mission to create opportunities for Huntly and District.

HDT is a Registered Scottish Charity (SC043353) formed in 2009 with the aim of making Huntly and District 'an even better place to live, work and visit'. Its work is based around the 7 objectives of: community development; education; arts, heritage and culture; participation in sport; environment; recreational facilities and activities; and support community projects.

HDT purchased Greenmyres Farm in 2014, and the following projects have already been successfully completed:

- Erecting a wind turbine,
- Completing a 7km traffic free pedestrian / cycle route from Huntly,
- Constructing a 1,2km pedestrian / cycle route into Gartly Moor
- Planting 5000 native trees
- Installed 2 e-bike lockers and a cycle workshop
- Converted Greenmyres Farmhouse into an Ecobothy

HDT have also commissioned a feasibility study into the potential offered by the purchase or lease of the northern edge of Gartly Moor Forest. The feasibility study is as yet incomplete and awaiting a reduction in Covid-19 restrictions that would enable a thorough community consultation to take place. However the draft study makes three broad recommendations for potential opportunities within the forest. These are:

1. **Recreation and Tourism** - related to infrastructure developments and installations that encourage activity and events in the outdoors
2. **Community Development Projects** - related to volunteering, education and skills development
3. **Economic Development Projects** - forest enterprise activity and renewables

This Pump Track and MTB Trail Design project is being carried out in support of this feasibility study and will provide costed designs for developing a pump track at Greenmyres and 2 MTB trails in the northern section of Gartly Moor Forest that the feasibility study relates to. These will benefit both local people and form an important and integral part of the wider Aberdeenshire MTB facility offering.

This project also investigated the potential for a more extensive MTB trail network in the remaining part of Gartly Moor Forest, and provided a vision of what the facility could become in future years.

This report has been made possible through the generous support of North East Adventure Tourism (NEAT)



What is a Pump Track?

Pump Tracks are great for anyone on wheels! They are designed to suit a wide range from skateboards, scooters and BMXs through to full size mountain bikes. The combination of rollers and banked turns (called berms), allow users to generate speed and maintain momentum, whilst developing key skills.

The design allows riders to progress, gain confidence and develop from gently rolling, to being able to jump between rollers on the same track. This means a child on a balance bike can experience the same features as a professional mountain biker.



A Pump Track

What is a Mountain Bike Trail?

A MTB trail is similar to a footpath in construction, but is specifically designed and built for use with off road bikes, predominantly mountain bikes. This means that 'Technical Trail Features' (TTF) are built into the trail to add excitement, enjoyment, and challenge. These features often mean that walking the trail is very difficult and unless otherwise intended, MTB trails are distinct from footpaths.

TTF's can include rollers, banked turns (berms), jumps, drops, roots, rock features, and much more depending on the landscape in which they are situated. They are usually graded according to difficulty level, length, width, and other factors - often using a coloured grading system similar to ski pistes. This allows a rider to make an informed choice about the type of trail they would like to ride, based on their own fitness, and experience, etc.

Good quality MTB trails should allow for, and encourage rider progression. Meaning that gradually riders should progress from being able to ride easier trails through the more harder grades. At the same time, easier graded trails should still be fun to ride even for the most skilled rider.



A newly built mountain bike trail

2. Project Methodology

The project began with a pre-commencement meeting with some members of HDT. This allowed both parties to discuss the project more fully and for the consultants to gain further understanding of the background to the project and HDT's aspirations. The proposed timescales for different milestones and site visits etc were also discussed.

A period of desk research then followed, with a wide array of national, regional, and local strategies, policies and reports (see list in [Appendix A](#)) being identified and assessed, with a view to determining their relevance to the project. The results of this research are summarised in Sections 3&4 of this report.

The consultants made multiple visits to Greenmyres & Gartly Moor during March 2022 to conduct initial site assessments, and to meet stakeholders. The outcomes of these visits are detailed in Section 5 and informed much of the conceptual facility layouts in Section 6.

Once the conceptual facility designs were approved by the HDT representatives at a mid-project meeting, they were developed into detailed designs, design descriptions, and visual representations using various software. These were then transformed into formats suitable for both supporting the planning application and promoting the project to potential funders and other interested parties.

Finally, a project costs analysis was carried out, this provides the estimated budget for the pump track and MTB trail projects.

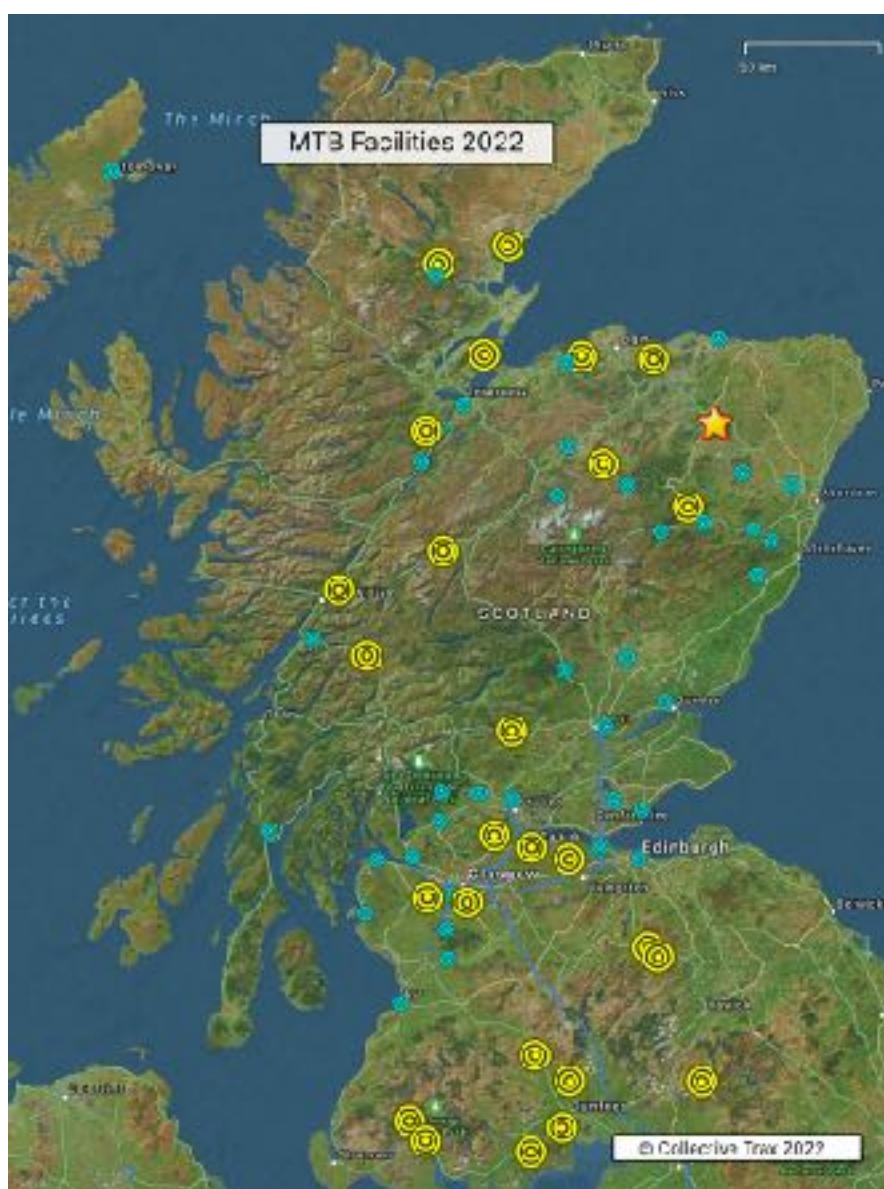
A full package of drawings created as part of this trail design project will be supplied as part of the project outcomes. Simplified versions of these drawings have been included within the body of the report for ease of reference.

3. Local, Regional and National Context

National MTB Facility Distribution

In terms of mountain biking facilities specifically, Scotland is developing a solid range of facilities across the country, and the Strategy for Scottish Mountain Biking 2019-2025 (DMBinS) describes the future planned developments.

The map below, although not exhaustive where the smaller facilities are concerned, does give a good impression of the spread of mountain bike facilities across the country. It includes some projects that are not yet completed, but does not include unofficial or unsanctioned trail networks, nor volunteer-built or Trail Association projects.

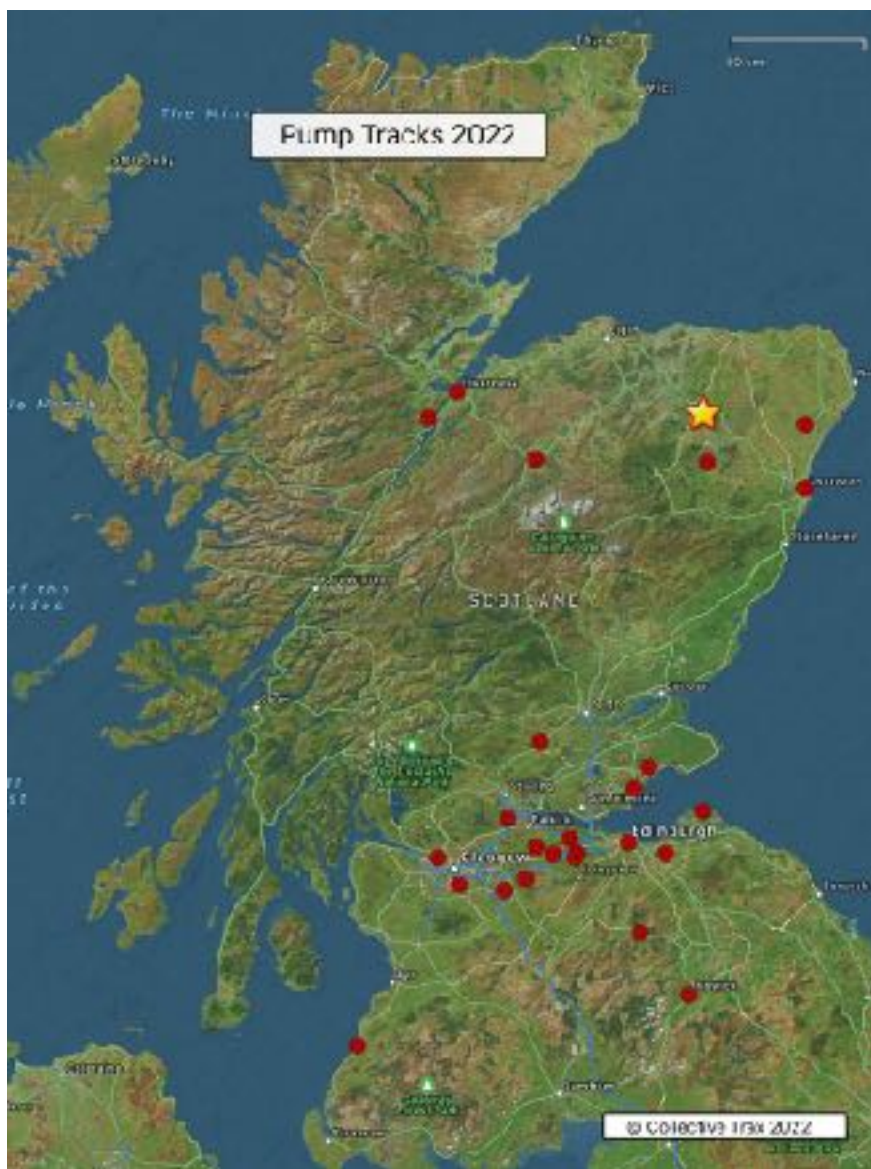


Yellow = Large facilities >10Kms trail
 Blue = Small facilities <10Kms trail
 Star = Proposed site location

National Pump Track Distribution

When considering Pump Tracks specifically, the picture is rather different. This is to be expected as Pump Tracks as we have come to know them, with an asphalt surface designed for all types wheeled equipment rather than just mountain bikes and BMX, are a relatively new innovation.

The map below shows the distribution of asphalt surfaced Pump Tracks across Scotland.



Red = Public asphalt pump track
Star = Proposed site location

What can be clearly seen is that there is limited provision for this type of facility north of the Central Belt. As noted in the caption, this map does not include any public dirt-surfaced Pump Tracks, of which there are 2 in Aberdeenshire – one at Tarland, and another very small one at Auchenblae, both of which were constructed by ourselves.

Regional Detail

Overlaying a map of the Aberdeenshire Council Area helps to give context to the spread of these small scale facilities and pump tracks within Aberdeenshire.



*Existing and Planned Facilities - Aberdeenshire Detail
Overlay of Aberdeenshire Council area courtesy of the Scottish
Government*

What can be seen from the map is the current lack of any large scale purpose built facility in Aberdeenshire, within easy reach of the majority of the population of the region. The nearest is Glenlivet – 64 miles and almost 2 hours driving from Aberdeen City and approximately 1 hour from Huntly. *Note that the recent commencement of the Tarland Trails 2 project will change this situation, with a planned completion of late 2022 - we have therefore included it on the map.* However, the map does show that a good cluster of smaller facilities is developing in Aberdeenshire particularly in the southern half of the region. These are based around smaller community projects in or near to various towns, much like this proposal. It is worth emphasising that this map includes planned facilities as well as those already in existence.

Two of the pump tracks that are shown in Aberdeenshire are projects that we are involved in and are in the early planning stages. Other pump tracks are potentially being planned at Ellon and Banchory, although these are further away from fruition.

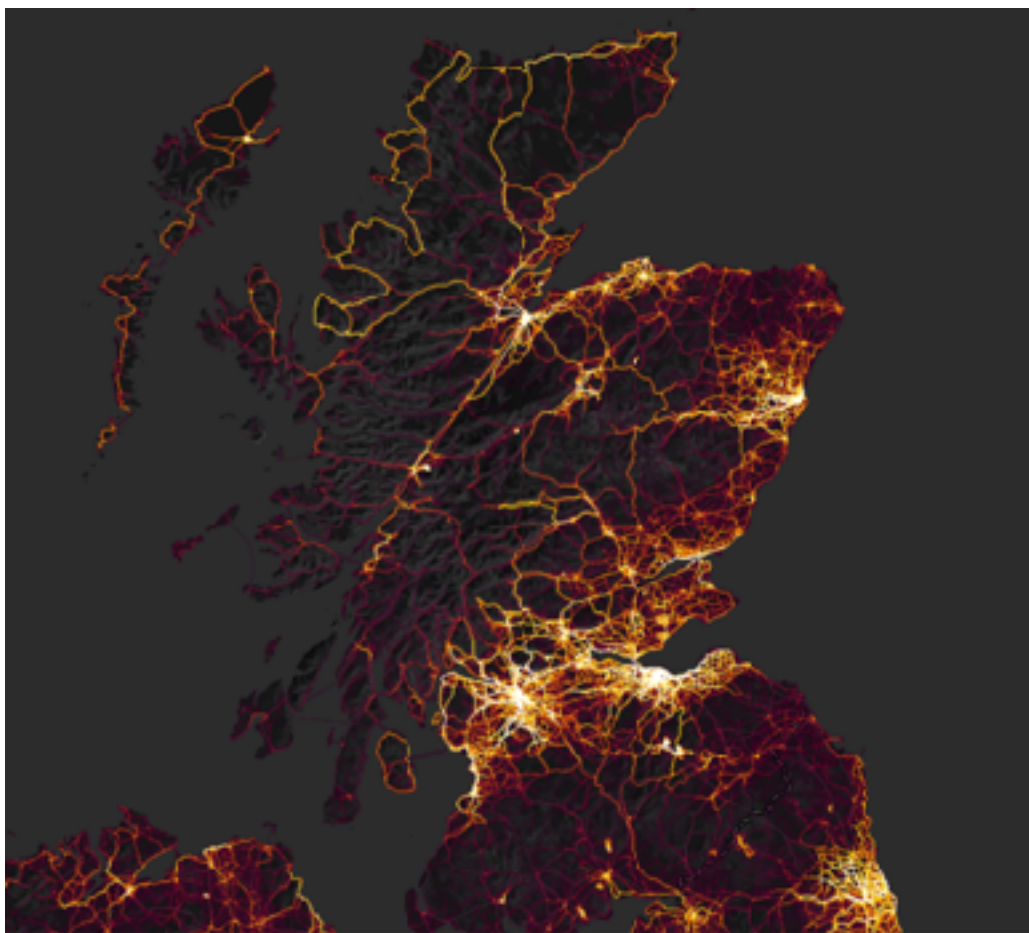
Combined together, these smaller facilities and pump tracks should start to provide the basis for a good spread of facilities across the region providing reasonably easy access for a very large number of potential users.

Aberdeenshire is indeed listed in the Strategy for Scottish Mountain Biking as an 'Emerging Destination' based around this cluster model, plus the creation of one or more larger bike park facilities. More of which in the Tourism section below.

Regional Participation

Participation levels for cycling in Aberdeenshire are high, in fact Aberdeenshire has the highest percentage of homes with access to one or more bikes for private use (50%) in Scotland. It is home to Scotland's largest cycling club in Deeside Thistle. An online search reveals some 28 cycling clubs listed for Aberdeenshire and city. Many of these are predominantly based around road cycling, but some cover other types of cycling and many specifically mention youth sections.

The heat-map from Strava.com below emphasises this point. Each time a user records a ride, a track-log is recorded as a red line. As more lines build up the colour becomes 'hotter' or brighter. This shows, albeit without hard data, that on a national level Aberdeenshire records a similar volume of rides to the much more densely populated areas of the central belt of Scotland. (Note that the heat-map does not distinguish between types of cycling, rather it shows all cycling activity.)



Heat-map produced by [strava.com](https://www.strava.com)

In support of this level of participation, there are 8 coaching companies listed online, covering all disciplines between them, right down to Balance Bike specific coaching for toddlers.

Meanwhile at a local authority level, 85.2% of Aberdeenshire primary schools were delivering L2 Bikeability Scotland training in 2020. This number appears quite high but is in context less than many regions where the training is delivered in 100% of primary schools.

Other projects such as Cycling UK's Aberdeenshire Bothy project are running formal cycling activities in Huntly, aimed at introducing new people to cycling, and building confidence in those that already cycle. A ride from Huntly to Greenmyres was recently promoted via their Facebook page.

Cycling Activity in Huntly

The town of Huntly does have some cycling initiatives, however it does not appear that there is much consistency of approach. There are no formal MTB facilities in the town or immediate surroundings. However, a few Core Paths are in place around the north of the town, linking the town with the Nordic and Outdoor Centre, and Forestry & Land Scotland sites to the north and east where extensive forest tracks can be explored. The Huntly Campus Plan aims to further enhance the number of paths for walking and cycling in the north of the town. Elsewhere, HDT completing the off road link to Greenmyres further adds to the possible traffic free options available to local residents.

No stretches of National Cycle Route pass through, or near to Huntly.

Our desk based research revealed the following cycling related activity in Huntly:

- **Active Schools Huntly** does not currently appear to offer any cycling activities as part of its programme.
- **Huntly Nordic and Outdoor Centre** offers adult mountain bikes for hire, as well as balance bike hire for toddlers who can ride their traffic free track, predominantly designed for cross country ski training.
- **The Bike Shack NoW** is a charity organisation that services bikes and refurbishes donated bikes as part of the Networks of Wellbeing Mental Health project. At present it appears to be closed and undergoing a period of re-structuring.
- **Huntly Travel Hub**, part of HDT has a fleet of e-bikes for hire, both MTB and hybrid models
- **Huntly Cyclists** is an informal cycling club run via a Facebook group, described as a group to connect local cyclists and mountain bikers. Appears to be reasonably well used during the summer months.

4. Policy Context

It is very likely that some or all of the bodies to be approached for support for developing facilities for cycling and wheeled sports at Greenmyres & Gartly Moor will want to see evidence that the business case for such development is 'joined up' with public policy in terms of sport and recreation, public health, planning, and tourism. Accordingly, a review of all relevant policies, plans and strategies at local, regional, and national level has been conducted. A large number of documents have been consulted, with the most pertinent of them being listed below and a full list in [Appendix A](#).

As will be demonstrated in the summary of findings below, the creation of wheeled sports facilities would be very much aligned with a wide range of local and national objectives. Such new facilities would undoubtedly make a positive contribution to wider national and local agendas in the areas of, amongst other things: health improvement, active lifestyles, improving Scotland's performance on the world stage, and tourism.



Taken from the Strategy for Scottish Mountain Biking 2019-2025. This image highlights in yellow the Scottish Government's National Performance Outcomes that are relevant to this project.

Sport and Recreation

A selection of national, regional and local sports and recreation strategies are relevant to this project, including:

- Active Scotland Delivery Plan (Scottish Government, 2018)
- The Strategy for Scottish Mountain Biking 2019 – 2025 (DMBinS)
- Developing a Nation of Cyclists (Scottish Cycling 2019)
- Sport and Physical Activity Strategy (Aberdeenshire Council 2018 - 2028)
- NE Adventure Tourism Project (2020)
- Huntly: A Campus for Learning and Play, a Community Led Place Plan (Huntly and District Development Trust 2021)
- Huntly: Room To Thrive Strategy To Do Lists. (Huntly Town Team and Aberdeenshire Council 2019)

“The physical environment is an important factor in encouraging and enabling us to live active lifestyles. The availability and accessibility of sport and exercise facilities, our transport infrastructure, and our built and natural environments all have a significant bearing on how readily we can take part in physical activity and sport.”

Scottish Government – Active Scotland Delivery Plan

The Pump Track proposed for the first phase of the the project at Greenmyres & Gartly Moor are not explicitly intended to provide a venue where competitive sport, or training towards competition can take place (such as a football pitch or tennis court, or even mountain bike park). Instead, the intention is to provide opportunities for participation in a broader range of activities and attract people to the site from both the town and elsewhere. Activities such as mountain biking and other wheeled sports are very, but not exclusively, likely to appeal to those for whom team or competitive sport holds little interest.

Therefore, meeting the challenge of increasing participation levels in sport generally, is a target that this project is very much aligned with, as well as the more specific aims around increasing MTB participation. From an increased base, some participants who naturally display a level of ability or talent can be identified and may in the future become interested in competing in that discipline.

For example, alongside mountain biking, road, and track cycling, BMX and skateboarding are both now Olympic disciplines. The top athletes at these less mainstream sports have often not followed a pathway of progression through competition at school and beyond, but rather their natural ability has been identified in a more informal way. Thus, while the agenda of increasing participation at all locations is the main driver, and if realised, will deliver on a variety of strategic targets, the less obvious peripheral benefits to national sporting performance may also become apparent.

A great example of this is Glasgow rider Mark Ducat, who’s natural talent and ability, discovered on a Pump Track, have lead him to a position as a professional rider competing on the world stage: <https://www.redbull.com/int-en/episodes/pump-for-peace-s1-e2-glasgow>

The MTB trails themselves can potentially form the foundation on which a more formal sporting pathway route is developed. The formalising of a MTB club based at the facility will significantly help in this regard, providing formal coaching, skills and fitness development, and opportunities for racing.

Public Health and Wellbeing

A selection of relevant national, regional, and local strategies relevant to this project:

- Cycling Action Plan for Scotland (Transport Scotland, 2017)
- Active Scotland Delivery Plan (Scottish Government, 2018)
- Healthy Eating Active Living: An Action Plan to improve diet, increase physical activity and tackle obesity (Scottish Government 2008)
- Outdoor Access Strategy (Aberdeenshire Council 2018 - 2021)
- Huntly: Room To Thrive Strategy To Do Lists. (Huntly Town Team and Aberdeenshire Council 2019)

“Physical activity is about getting people moving. Daily walking, playing in a park, going to a gym, training with a team or aspiring to win a gold medal – it doesn’t really matter how people get active, it just matters that we do.

Being physically active contributes to our personal, community and national wellbeing.”

Scottish Government – Active Scotland Delivery Plan

The Scottish Government’s Active Scotland Delivery Plan describes Scotland’s ambitions for sport and physical activity, and measures progress being made against a range of indices. The national statistics are aggregated to each local authority and health board area, which provides some interesting insight.

From the Plan, the findings for Aberdeenshire indicate that residents have a significantly higher-than-average frequency of active participation in sports and exercise, but a significantly lower-than-average propensity to ever participate. This suggests that in Aberdeenshire, there is more of a polarisation between those who are keen sports enthusiasts, and those who rarely if ever participate. Therefore, an aim for the area should be to supply infrastructure which is appealing and accessible to first-time and occasional users.

It has long been recognised that taking part in regular physical activity has a positive impact on the physical and mental health of individuals and society more generally. A healthier, more active nation enjoys a higher quality of life, reduces demands on health services, and creates associated economic benefits.

The facilities proposed for Greenmyres & Gartly Moor aim to be inclusive of all ages and abilities, free to use, appealing to those less interested in mainstream activities, accessible to those without a car or the ability to use one - albeit a distance of 7Km from the town of Huntly via the new off road link.

Therefore, access to the site is the only obvious barrier to entry for local people as a form of physical activity. Initiatives such as the e-bike hire service at the Huntly Travel Hub in the town centre seek to address this.

The longer term development plan for Greenmyres, to potentially include accommodation, a cafe, varied sports and activity facilities, educational spaces and much more, could potentially be the home of a range of local enterprises and initiatives - all contributing to local health and wellbeing.

In terms of the Public Health and Wellbeing agenda then, a project such as this one is lined up with many of the aims of organisational strategies at various levels. It has also been demonstrated that cycling more generally is a sport where there is less 'drop off' in participation through later years when compared to football or other team sports, particularly those that involve impact. Thus, there is sound logic in investing in creating a nation of cyclists from a young age, when the impact on national health in the long term is considered.



Greenmyres Farm Ecobothy

Planning

The Proposed Aberdeenshire Local Development Plan 2020 is currently in stage 3 of the review process, with an anticipated publishing date during the first half of 2022. However, within the proposed plan, Policy B3 Tourist Facilities, Section B3.1 states ***“We will support the development of new tourist facilities or accommodation. Generally, these must be well related to settlements and deliver net economic and social benefits.”***

Elsewhere, the introduction to Section 7, Shaping Development in the Countryside states: ***“We want to create a welcoming approach to development in the countryside that meets local needs, and encourages prosperous, sustainable communities and businesses, while protecting and improving the quality of the environment.”***

Tourism - External Visitors

The Scottish Government’s ‘Programme for Government’ identifies mountain biking as one of the three most important components of outdoor tourism, alongside golf and marine tourism. This sets the scene for the desire to develop high quality MTB facilities across the country.

As mentioned elsewhere, the overall approach for MTB facilities in Aberdeenshire is based around a cluster model, where the whole offering is greater than the sum of the individual facilities involved. This is being driven by the NEAT project, who’s goal is to ***“secure a bigger share of the high-value UK adventure tourism market. The [NEAT] project will encourage more visitors to stay in the region longer because of the range and quality of adventure activities on offer.”***

Market research commissioned by the NEAT project shows that 69% of respondents (all of whom came from elsewhere in Scotland or the north of England) are either ‘extremely’ or ‘fairly’ interested in cycling on paths and tracks, and a 46% where either ‘extremely’ or ‘fairly’ interested in Mountain Biking specifically.

This cluster model creates a vision where a visitor to Aberdeenshire may spend multiple days touring the region, trying out different facilities in a different areas each day. This helps to spread the economic impact of tourism coming from out-with the region, whilst also providing high quality sustainable facilities that are easily accessible for local people.

Tourism - Internal Visitors

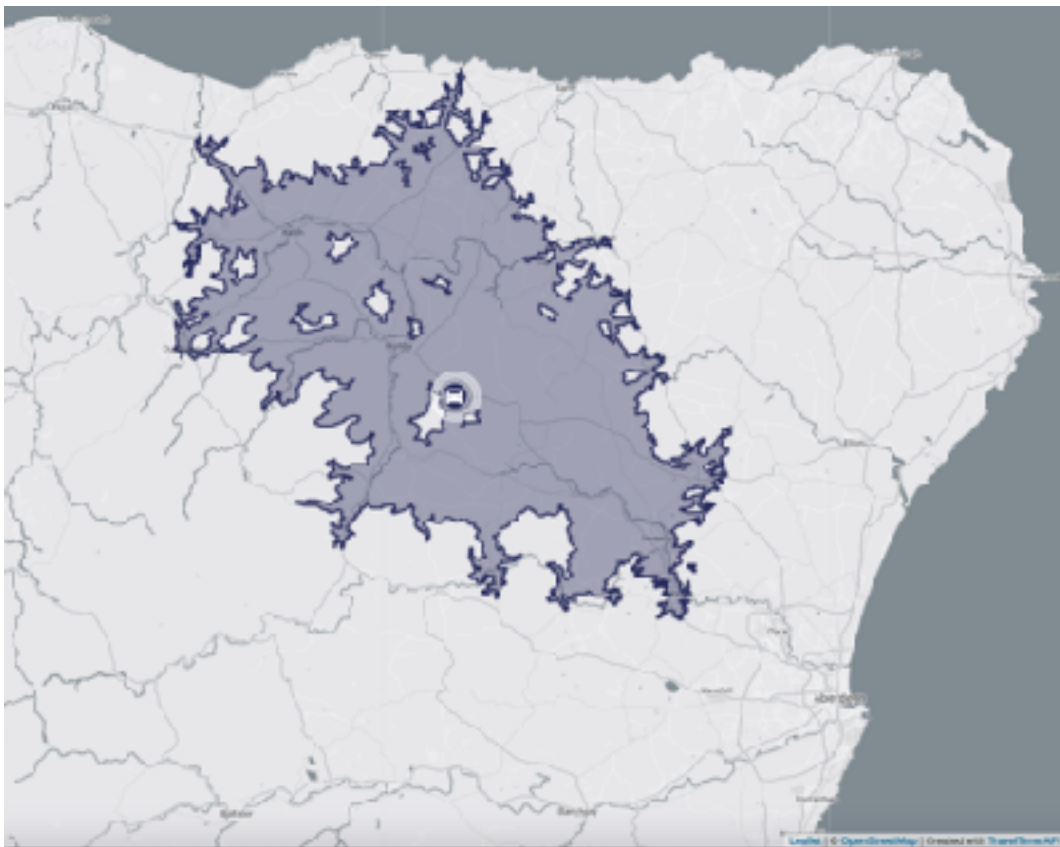
Once fulfilled, the cluster model described above should mean that local people across Aberdeenshire should not have to travel far to reach their nearest MTB facility. Indeed, all things being equal, why would they travel further than they have to? The rural nature of Aberdeenshire and the specific positioning of Greenmyres & Gartly Moor mean that around 40 minutes drive time is required to reach the site from any significant conurbation other than Huntly itself. While from the town centre of Huntly, the 5.5 miles to Greenmyres takes around 8 or 9 minutes in a car.

This is by no means a showstopper in terms of the development, but is a barrier to be acknowledged when it comes to the volume of users that the facility might expect, especially young people. Local visitors will therefore be making a special trip to reach the facility, possibly as part of

another activity, as part of a family day out, or in the future to access formalised cycling club activities.

The ease of access from the A96 trunk road is a definite plus side to the site, but in order to attract visitors to Greenmyres & Gartly Moor rather than heading elsewhere, the facility itself needs to offer a big draw.

In order to generate an economic impact for the town itself, visitors will need to be encouraged to visit the town centre and use the amenities there. Schemes like the e-bike hire are a great example, where a visitor starts and finishes their ride in Huntly, and visits Greenmyres & Gartly Moor facilities via the off-road route. It is however, unrealistic to expect the majority of visitors to do this, especially less experienced or younger riders for whom the ascent to Greenmyres would be a significant barrier.



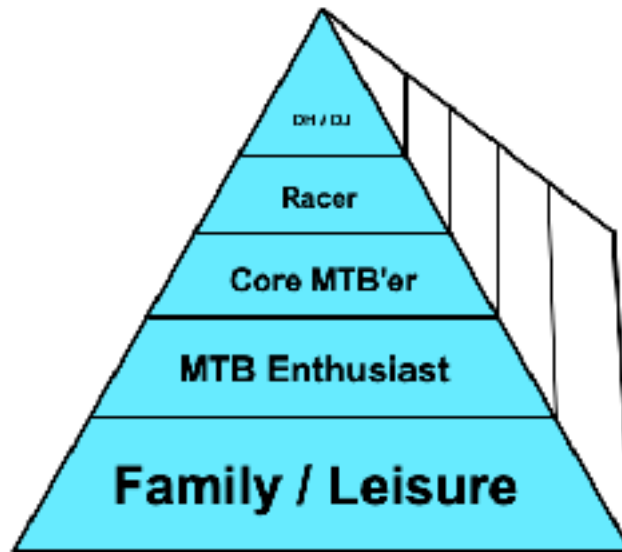
*Drivetime map courtesy of traveltime.com
Showing 40 min drive time from Greenmyres & Gartly Moor*

The Mountain Bike Market Split

The MTB market can be broken down into broad segments, describing various types of participant, and what type of riding they do most frequently.

1. Downhiller / Dirt Jumper – this small segment of riders is at the extreme end of the spectrum, using often very expensive and specific equipment to ride specially built trails with features of extreme technical difficulty. Interested in timed racing, Downhillers require an uplift method, as they are not able to pedal up hill. Will travel to arrive at a good facility, often staying overnight. Dirt Jumpers are mostly non-competitive and more likely to build their own, highly specialised jump trails close to home, riding bikes that are specifically designed for this purpose and which are unsuitable for other types of mountain biking.
2. Competitive Rider / Racer – This person is extremely fit, enjoys competing in organised races, and will travel to do so. General riding is geared towards training for races and may comprise of a variety of riding types such as Cross Country, Enduro, Cyclocross, Endurance, etc. Typically active members of cycling clubs or teams.
3. Core Mountain Biker – This person classes MTB as their only or main activity. They have expensive equipment and a good level of fitness and skill. They are interested in Blue, Red or Black graded trails and will travel to reach them, often staying overnight. They are equally keen on natural trails and are able to navigate safely in remote terrain. Core Mountain Bikers are often also interested in the MTB as a method of accessing remote or spectacular locations, and so the quality of the riding environment and overall experience can be a very important factor for this group of rider. They may also participate in races, particularly Enduro events, and often build trails in locations close to home, either with or without the support of a local trail association or land owner permission.
4. MTB Enthusiast – a large segment of riders with a variety of levels of fitness and equipment. Mostly interested in MTB for fun, fitness, and spending time outdoors. These are core trail centre visitors who enjoy the accessible and easy to navigate trails and will travel a large distance and occasionally stay overnight. Cafes, Toilets, and bike hire/shop and bike wash facilities are all important. Blue grade trails with Red grade being ridden successfully as well. This group will also ride hand built trails that they have found online if they are close to home.
5. Family / Leisure – the largest segment comprises of a large range of riders with basic equipment. They are looking for safe, traffic free, 'off road' cycling and will travel relatively short distance to get there. Related facilities such as Cafes, toilets, and play parks are of high importance. Green and Blue graded trails are most popular with red and black grades being more aspirational. Although their spend on equipment is less per person, the Family / Leisure segment are high value in terms of peripheral spend as they often ride as a family group.

The level of participation forms a performance pyramid, that illustrates the scale of the market in each of the 5 MTB market segments.



The Mountain Bike Performance Pyramid

The performance pyramid illustrates that Family / Leisure 'off road' cycling segment enjoys the largest percentage of participants, although they are potentially less visible, and likely to ride less often than other groups. In terms of maximising impact when developing a new facility, the priority in development should be targeted at the foundational segments of the pyramid, with future developments being more targeted towards the more able riders in the segments above.

This approach is also logical when considering the development of a community around a facility. Over time, as newer riders gain skills, fitness and experience, they will want to progress, moving up the performance pyramid. More challenging trails will appeal in this case, these may be 'machine built', or 'hand built' providing a more natural experience.

At the same time, some riders from the Core Mountain Biker or higher segments, may want to enjoy a ride with less experienced family members or friends. Or, as they age, become less interested in highly technical trails, and seek out a less intense experience, thus moving down the performance pyramid, albeit maybe only temporarily.

It is important therefore that all trails are built with progression in mind, in order satisfy as large a group of riders as possible, without drifting out of their grade. This allows an individual rider to move up and down the performance pyramid at will and as their situation dictates, whilst ensuring they want to return to the facility regularly.

5. General Site Assessment

Greenmyres Farm

The site of Greenmyres Farm itself is in a hollow in the surrounding hills, to the southeast of Huntly town. The main farm building has been converted into an Ecobothy, which houses a multi-use area with kitchenette, an office, a toilet/shower, a publicly accessible toilet outside and washing up basin, and storage. There are plans for extending the facilities to potentially create accommodation options, and a cafe etc in the future, as well as sheltered outdoor seating.



Looking east towards the farm

The topography of the immediate area surrounding the Ecobothy is predominantly level ground. The ground level rises to the north, west and south, while Greenmyres Moss to the east is a very flat and wet area. Other derelict farm buildings are still present on site.

The fields surrounding the farm are leased to a tenant farmer. The wind farm, of which HDT's own turbine forms a part, are a prominent feature in the fields to the northwest. As is a high voltage power line on large pylons that runs southeast - northwest, passing just to the north of the farm.

A small number of mature pine trees borders the Greenmyres site to the south, providing a small amount of shelter from the wind. HDT have planted many thousand native trees in the surrounding fields, but it will be several years until these are mature enough to provide much shelter.

Immediately to the south of the farm, beyond this row of pine trees, is a man-made pond, originally devised for fishing, but with potential for use as a water sports facility in the future. This is accessible via a made path that continues to the Gartly Wood site and towards Huntly. A burn runs northeastwards from the pond, in a deep ditch following a fence line.



The pond at Greenmyres Farm

Gartly Moor

Gartly Moor Forest is situated to the south and southwest of Greenmyres Farm. An undulating area of land comprising of several hills. In the north, and closest to Greenmyres Farm, is Wind's Eye, a lower summit at 314slm. Further south two prominent summits - Wishach Hill in the east, and Hill of Corskie in the west rise more steeply to nearly 420slm and are connected by an adjoining ridge. Further south again, the forest reaches two more summits - Knockandy Hill 434slm, and Warehouse Hill 329slm.

The forest crop is mainly Sitka with some blocks of Larch, and has undergone regular thinning and harvesting as per the forest management plan. Recent storms have done considerable damage, particularly to the area to the north and east of Wishach Hill, rendering these areas inaccessible currently.

Access and Parking

Greenmyres Farm

Greenmyres Farm is accessed via a minor road from the A96, or via the newly completed off road link path. A car park with capacity for c. 25 vehicles has been built on the site, with overflow parking indicated in the surrounding fields.

Gartly Moor Forest

User access to Gartly Moor Forest from Greenmyres Farm is via the new access path, that links to the network of forest tracks at the northern end of Wind's Eye. This access path has been built at approximately 1,8m wide, although vegetation has grown over and narrowed this considerably.

Access to Gartly Moor Forest is also possible from a public road, on the southeast side of Wishach Hill, where parking is available for approximately 10 cars.



Looking north over Wind's Eye block from near the summit of Wishach Hill in Gartly Moor Forest Block. Greenmyres Farm is just visible on the right of the image

Other Uses

Greenmyres Farm Ecobothly is intended for use by a large variety of groups, and developing this will be key for the sustainment of the project. At present it is used in the mornings by a local nursery, and has hosted a couple of other groups for various events. The coronavirus pandemic

has meant that development has been slower than anticipated to date, but there are a lot of potential options for the future to be explored.

Therefore to our knowledge, there are few current users of the Greenmyres Farm site, and certainly none that would potentially be in conflict with mountain bikers.

Aside from commercial forestry operations, Gartly Moor Forest is used by many people for recreation, including walkers, cyclists, cross country skiers in the winter. Indeed during our visit in February we saw many different people and several cars parked at the east entrance despite the wintery conditions.

A small number of informal mountain bike tracks have been created on the eastern end of Wisach Hill, these are shown on the trailforks.com site, but as far as we can tell, have now been destroyed by wind blown trees during the recent storms. We did notice a new mountain bike trail on the north side of Wishach Hill, that appears to have been built recently. This does not yet appear online. Although small, these informal tracks take considerable effort and demonstrate a desire within the local community to create purpose built facilities in the area.

Decommissioning the Facilities

If at any point in the future there is a requirement to decommission any of the facilities, this will be possible and involve essentially a reversal of the construction process. Spoil from decommissioning will require to be appropriately recycled, and the site landscaped back to its original form and re-seeded in the case of the pump track. Trails planned for the other phases could easily be returned to the woodland environment as minimal imported materials are envisaged to be required, and these can be easily re-integrated into the natural environment without causing harm.

6. Phase Specific Design Considerations

6.1 Greenmyres Farm - Pump Track

The site at Greenmyres Farm provides multiple appropriate sites for creating a pump track of modest scale as described below in section 'Greenmyres Farm Pump Track - Location, Design and Description'. We distilled these down to three options and presented the HDT team with the table below during our mid-project meeting. This shows a comparison and considerations for each, based on a pump track layout that would fit into each.

Access is good at each site, both for construction and use. Proximity to the Ecobothy is broadly similar, both from a user's and management perspective, as well as for a power source should flood lighting be desired.

It is worth mentioning that these three sites listed as 'suitable' are not the only possibilities within the Greenmyres Farm area, and the same outline layout could also be located elsewhere if other factors placed restraints on these sites that we have not envisaged.

Broadly speaking, a pump track could be located in any site that satisfies the following criteria:

- **A level site.** A gentle slope can be levelled prior to construction, but this would increase the cost.
- **A site with good drainage.** There needs to be a clear route for surface water to be drained away.
- **A sheltered site.** Users' enjoyment is greatly affected by the wind and being sheltered from the prevailing wind direction is very important.
- **A site with good access.** Both for construction due to the large volume of imported material required. And for use, by people of all ages and abilities.
- **A visible site.** Pump tracks are often places where a parent might be comfortable leaving their younger child to ride independently - in order to comfortably do this, they'll want to be able to see it from their likely location. Pump tracks are also a 'wow' feature for visitors when arriving at a new location - it's good to make the most of that.
- **A site with access to a power connection.** This can greatly reduce the cost of installing floodlights.



An example of a small pump track of approx. 75m

Pump Track Site Comparison

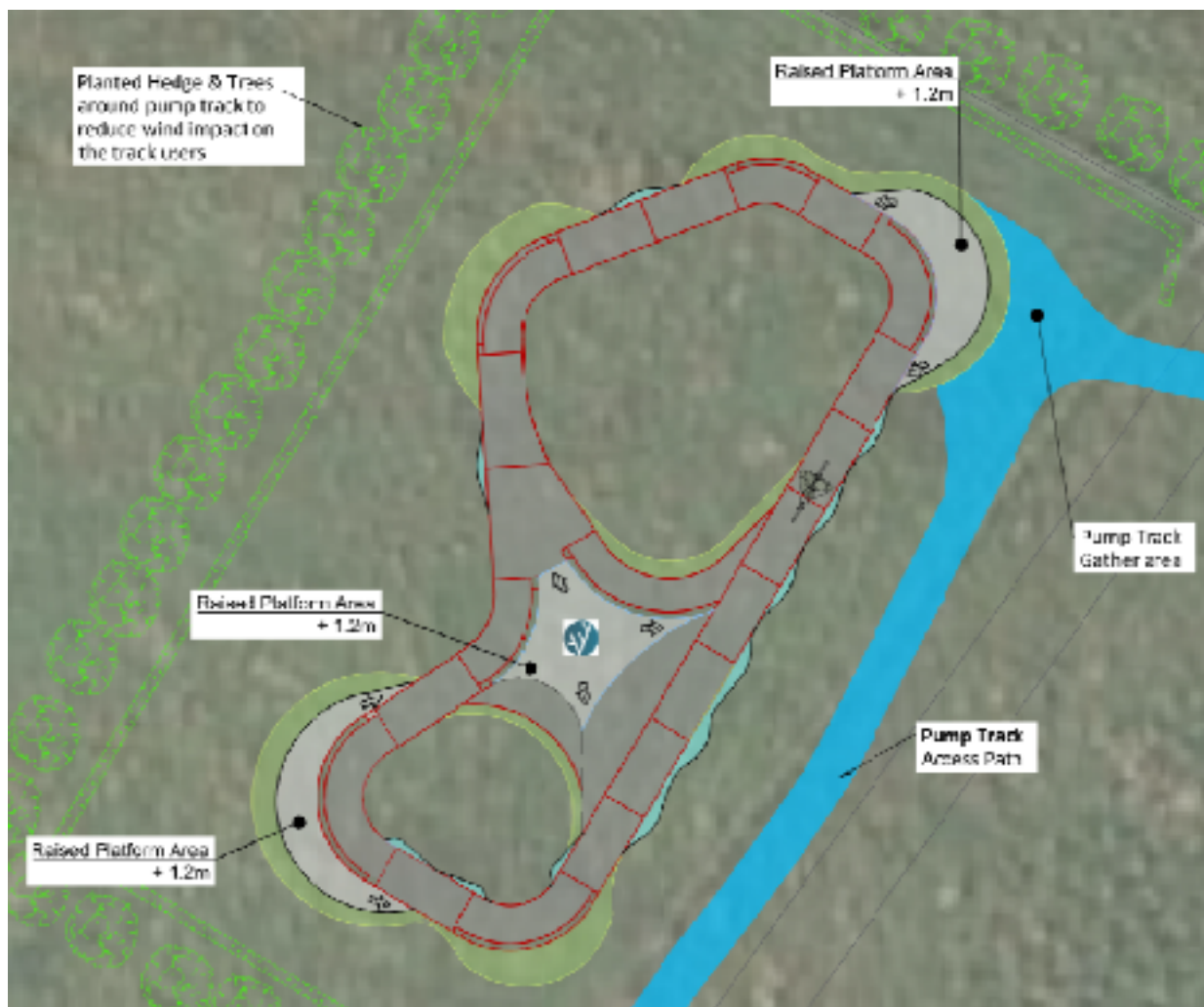
Site	Pros	Cons	Considerations
Car Park Verdict - Suitable	- Easily visible from hub area, feels a part of the centre - Sheltered by existing trees / buildings - No requirement to disrupt existing ground lease - Already hard standing, minimal ground work required - Visual impact on arrival - Relatively sheltered already	- Space required to create track of desired length would mean moving car park to alternative location	- May conflict with other developments, for example storage for watersports equipment or similar.
South East Field Verdict - Unsuitable	- Sheltered to west by existing trees	- HV overhead cables limit potential space due to restricted construction corridor - Insufficient space to create track of desired length - Need to disrupt / amend existing ground lease - Less visible from hub area	- Field may be better utilised for car park extension?
South Field Verdict - Suitable	- Easy to partition field due to existing shape - Plenty of space to expand if desired - Possibility to create viewing area on east end of pond embankment	- Less visible from hub area - Need to disrupt / amend existing ground lease - More expensive as base formation required	- Would need to plant mature trees to provide shelter from wind
South West Field Verdict - unsuitable, but potentially more expensive	- Plenty of space to build track to any desired scale -	- Construction would mean the removal of a large number of newly planted native trees - Less visible from hub area - Low lying and potentially wet - possible issues with construction and drainage - Water supply located in this area - Potential to conflict with other future facilities or amenities on site	- Would need to plant mature trees to provide shelter from wind as newly planted trees will take many years to grow.
West Field Verdict - Suitable, but potentially more expensive	- Plenty of space to build track to any desired scale - Unlikely to conflict with other future facilities or amenities on site	- Less visible from hub area - More expensive as levelling and base formation required prior to construction - Possible conflict with buried services for heat pump	- Would need to plant mature trees to provide shelter from wind as newly planted trees will take many years to grow.

Following a review The HDT team responded with their preferred pump track location taking into account their other future development plans. This location then formed the basis of our design work during the second half of our project, all of which is detailed below.

Greenmyres Farm Pump Track - Location, Design and Description

The context of the longer term plans for Greenmyres Farm, the rural location of the site, lead us to the opinion that the Pump Track should be of modest scale, with a track length of approximately 100m. This will give a track layout that is worthwhile and appealing to a variety of different riders, that adds value to the overall offering at Greenmyres, but doesn't dominate the site, nor demand a disproportionate percentage of the overall project budget.

The Pump Track will be an exciting, feature-rich, and progressive facility that will appeal to all wheeled sports enthusiasts. A combination of straights, curved straights, berms of differing radii, rollers and roller doubles of mixed heights will combine to ensure that there are plenty of opportunities for progression and skill development, whilst still being fun for all.



Greenmyres Pump Track Layout - design detail (Taken from Drawing no.004)

The track includes raised rest areas where users can rest, watch, and rejoin the track at different locations. These help to manage traffic on the track, allow users to support and encourage each other, and provide social areas. The continuous loop design can be ridden both directions and allows riders to create new transfer lines and combine features for more advanced riders. It will be rideable by all levels of mountain biker, from small children on balance bikes, right up to riders of the highest skill level. The individual features will be of varied height but never so big as to be intimidating to less experienced riders, while the layout will allow those with greater skills to be more creative with their line choice, joining sections together in new and exciting ways.

The border of the track will be landscaped such that it blends with the surrounding area, and after a short time will appear to have grown from the ground once vegetation has had a chance to regrow. It is recommended that the surrounds of the track are seeded with native wildflower species, which both enhance biodiversity in the area, and reduce the requirement for grass cutting on the landscaped banks.

Pump Track Location

Following a meeting with the HDT team at the half way point of the project, a final location for the pump track was decided. This took into account the longer term development plan for the Greenmyres Farm site, and ensured that once built, the pump track would not obstruct other developments.

The location chosen, in the fields to the west of the farm buildings necessitates additional access paths to be created, linking the pump track both to the farm, and into the path and Phase 1 trail network. This will help to segregate riders from other users in the immediate area of the farm which has the potential to be quite busy with lots of different activities happening concurrently.



Final agreed location for the Greenmyres Pump Track (Taken from Drawing no.003)

The chosen location is a little more distant from the Ecobothy than the other sites suggested, meaning it will be less visible to the visitor as they arrive at the site. It will also cost more to develop the site, and will require sheltering from the wind. However, the choice of location appears sound overall and these less positive considerations are offset by the benefits.

Pump Track Construction Access

From a construction perspective the track will require a level surface to be created as foundation for the track. This will require excavations to reshape the existing slope and to provide access for plant and material deliveries. It is likely a temporary access road will require to be created to the track during the construction phase. The initial assessment of this would be to access from the existing HDT wind turbine track, or from Greenmyres.

Materials

The Fairhurst report provided detail on the trial pit taken within the location of the proposed pump track. Overall the material looks suitable for the path formation and potentially to form a level base on which the pump track would be constructed. The cost estimation takes into account the suitability of this for the path construction and some allowance made for the pump track. We have still allowed for imported material for the pump track and capping for the path. This is in part due to the engineer's recommendation and also considering the visual impact of excavating material locally to the pump track area.

Key to the success of an asphalt pump track is the use of specially formulated asphalt capping material. This is imported, then laid and compacted by hand with vibrating plates.

Pump Track Drainage

The drainage design will be focused on ensuring there is no standing water within the site. A combination of filter drains and culverts under the track formation will be installed to ensure water flows away from the track and dissipates safely into the surrounding ground.

Pump Track Lighting

There are multiple options available for lighting paths and other facilities, such as ground level lights, LED strips, and lights set into the path surface. However for a pump track, floodlighting is the only practical option as a rider can be travelling in either direction, as well as oscillating vertically over the features, which can lead to other forms of lighting shining directly in a rider's eyes, or casting shadows in the lower sections of track.

Adding floodlighting to the pump track at Greenmyres would be a sensible addition, particularly given the northerly location and many months of the year when the days are short. Floodlighting would allow the track to be used year-round, weather permitting, for example by a weekly after-school bike club or similar. It would therefore greatly enhance the return on investment in the facility.

Although expensive to instal, modern LED floodlights are very cheap to run, and give off very little light pollution to the surrounding area. They can be activated via various mechanisms, such as coin operated timers, daily timers, or simply controlled from an external point, for example in the office space.

Floodlighting has not been mentioned in the brief for this project, and is a significant investment. However, we'd recommend always constructing the track with the potential for floodlighting in the future in mind. Installing the ducting required for cabling, and considering the location of lighting tower bases, at the time of construction, makes future installation a much less expensive and involved process.

From recent experience of other similar projects, we'd estimate a budget of £30,000+VAT as sufficient to provide floodlighting for the pump track at Greenmyres.

Pump Track Shelter

Construction of an agricultural shed or barn style building over the pump track is also something that HDT may wish to consider. This would immediately eliminate the problem of the exposure to the wind, as well as meaning the track would be truly useable 365 days per year. Lighting could be easily installed for darker periods along with skylight roofing panels to provide natural light at other times. Curtain style sides on at least one side could be opened during the warmer weather to provide an outdoors experience.

This would necessitate considerable extra expense, but one that would create Scotland's first indoor, year round pump track, potentially attracting a wider range of users from a larger area, especially during the winter months, and creating much more of a destination.

Investing in a building such as this would also provide the opportunity to host other activities undercover, such as a climbing or bouldering wall, a skate ramp, an MTB trials area, an undercover learning / seating / viewing area, storage for equipment, etc whilst being in keeping with the agricultural surroundings of the area. Timber cladding and vegetation could potentially be used to lessen the visual impact.

There are many cycling and other outdoor activity clubs in Aberdeenshire and it is easy to envisage the popularity of an easily accessible, covered activity space during periods of inclement weather, or darkness. Thus both increasing the potential user base of the Greenmyres facility as a whole, but also potentially providing an income stream.

The pump track as designed has a 1010m² footprint, although this does not include any boundary or gathering areas. We'd therefore suggest a shed of at least 1500m² would be required, especially if other activities or amenities were contained within. An online search returned the following company who supply such structures for leisure purposes, and their online cost calculator might help with budgeting.

<https://www.easysteelsheeds.com/gb/product-list/equestrian-leisure>

Specific Maintenance

Once built, the asphalt surface of the Pump Track will require little to no maintenance aside from ensuring that organic material does not build up on the surface. This can require more regular intervention if trees are close to the track and leaves therefore fall on the surface.

Vegetation at the sides of the track surface should be strimmed back occasionally to prevent overgrowth, and the drainage must also be kept clear.

Signage

A pump track requires a single interpretation panel with a description of the track including diagram, safety and pump track etiquette advice, in case of emergency advice, and some tips on how to best use the track.

There should not be arrows indicating a particular direction of travel, and the signage is therefore very simple. The interpretation panel should be large enough to be easily read by multiple people, and placed at an appropriate height for all users.

Other Suggested Developments for Consideration at Greenmyres

In order to truly create a 'bike hub' at Greenmyres, several other ancillary amenities should be considered in order to ensure that cyclists of all types are welcome and feel at home. With out these, there is a risk that the pump track and any future facilities are viewed as an afterthought, and that they aren't truly a part of the whole offering.

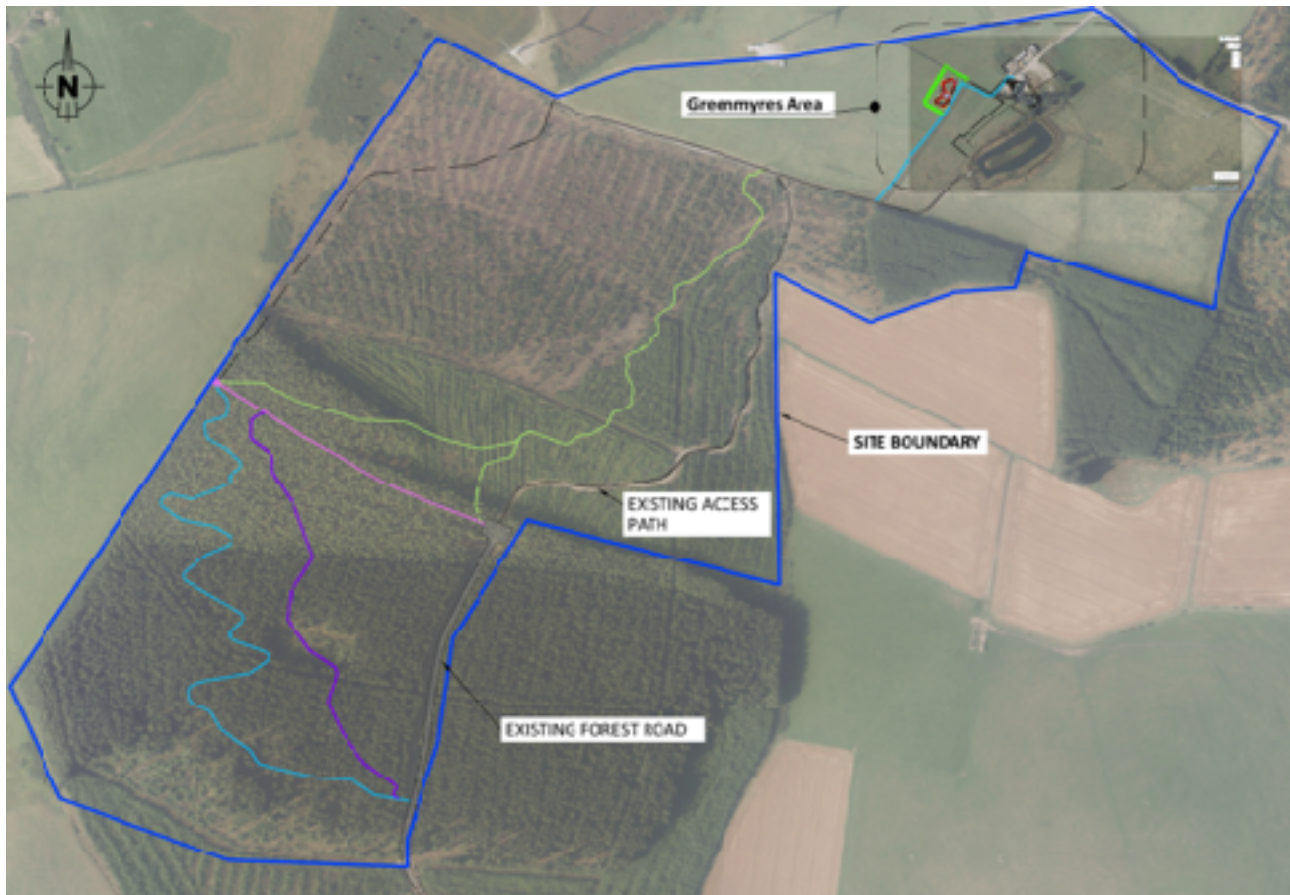
We've compiled a list below of amenities to consider. Some of these are more relevant to a larger facility, such as what will be offered with the Phase 1 plans for the Wind's Eye block, but we've included them here to help with the holistic masterplanning for the future of Greenmyres. Some of these are also potentially revenue generating, could be charged for to cover the cost of running, or could be simply added value and part of the service.

Featureless Skills Area / Hard Standing Area	An area of level hard standing can be a very useful space for multiple purposes. Used by coaches for instructing beginner riders on basic cycling skills, an area like this can also be an event space, or used for other activities. We'd suggest that an area of 100m ² would be sufficient and provide a meaningful space. This would potentially cost £38/m ² , or £3800 +VAT at today's prices.
Changing Facilities / Showers	More relevant to a larger scale facility, but still extremely useful for a club or visiting riders.
Café / Hot drink facility	Could initially be a vending machine, if access to the Ecobothy kitchen is unsuitable.
Spares provision	A simple stock of basic spares can help to keep people rolling and prevent their day being ruined. A vending machine can be a practical solution for this without the need to operate a shop. An example of this is here: https://biciway.com/en/products/bike-vending/bicivending/
Bike Hire / A Bike Library	A fleet of hire bikes will open up the facility to more people, whilst generating an income. A Bike Library works similarly but on a membership scheme, aiming to reduce or even remove the cost of participation to members.
Bike Stands	Essential for visiting riders, to keep bikes secure and out of the way. Providing locks is a great added value extra.
Create suggested road / gravel / MTB rides that pass Greenmyres	Developing an online resource with suggested ride itineraries that pass through Greenmyres will help to generate footfall. For example, prior to the construction of the Phase 1&2 networks, a gravel ride that leaves from Huntly and does a circuit of Gartly Moor Forest with a stop at Greenmyres for a coffee could be very popular. Both for experienced riders and tourists hiring an eBike.

Bike Wash and Bike Maintenance station	A bike wash and maintenance station is essential for a larger trail network. The example below has brushes on secure cables, for public use. Basic tools can be attached in a similar way. Purchasing a prebuilt bike wash station is not essential however, and a simple but effective solution could be constructed on site fairly easily, as long as a water source and drainage is available. A budget of £1000-£2000 would seem reasonable for this. Whatever solution is chosen, it is important to prevent oil and grease in the run-off from polluting surrounding water courses.
	
E-bike charging station	A quick plug-in solution for visiting riders to charge their battery whilst they drink a coffee. The version below simply provides a power outlet and a lock attachment point. Keeping a stock of various adapters for different battery types can be a real added value extra too. https://www.cyclehoop.com/category/shop-online/ provide this type of infrastructure and we'd estimate a budget of £5000 for this.
	

6.2 Phase 1 Trails - Gartly Moor Forest (Wind's Eye Block)

Having surveyed the site with a view to creating MTB trails within the Wind's Eye block, northern area of Gartly Moor Forest, we recommend that the area outlined below be considered as the preferred area for the construction of trails in Phase 1.



Wind's Eye block detail showing boundary of area required for trail development (Taken from Drawing no.002)

The following site specific considerations pertain to this site as indicated.

Rationale for Site Selection

The area of the Wind's Eye Block that we are recommending for trail construction is predominantly based on the topography present in this area of the block. A gentle but reasonably consistent slope leading in all directions away from the summit of Wind's Eye provides a great opportunity to create a range of trails suitable for the largest segment of the mountain biking market.

The ascent from Greenmyres Farm to Wind's Eye is not insignificant, especially for those on smaller wheels, but it is manageable with only mild gradients. From the Wind's Eye summit, there is a rewarding view and a feeling of having reached a summit as you look out over the surrounding area.

The topographical shape of the hill presents an obvious opportunity to create a network of trails within the forest that start from the high point and utilise the existing forest tracks and access path as an ascent. This will be described in full in the Phase 1 Trail description.

The section of forest to the east of the central forest track is of a flatter gradient and doesn't provide any particular benefit in use. Therefore we have excluded this area from the proposed trails site. As described below, the area to the south of the Wind's Eye Block is much lower-lying and wet, and has been ruled out for this reason.

Access for Construction

Construction access to this area of the forest would have to be made via Gartly Moor Forest entrance located at NGR: 57.39057, -2.69618 off the minor road between Insch and Hillhead on the A96. This is a gated entrance, approx 3,5kms from the Wind's Eye summit, along a forest track that is currently blocked by recent storm damaged trees.

As mentioned in the associated feasibility study, there are no known Aberdeenshire Council restrictions on this unclassified road, other than the standard UK restriction to 44 tonnes gross.

However, as discussed below, the planned installation of 4 new wind turbines on Wind's Eye will necessitate the creation of new forest roads, and construction access directly from Greenmyres Farm may well be possible at the time of trail construction.

Welfare During Construction

Welfare facilities should be provided taking into account the time of year works are taking place, and prevailing weather conditions. Given the remote location of the site, a 'site hut' with power, toilet, hand washing, and basic cooking facilities should be considered.

Ground Conditions

Ideally, mountain bike trails should be built from 'as-dug' subsoil that is available on site. This is largely dependant on the location though, and the availability and suitability of as-dug soil. If as-dug subsoil is unsuitable, or unavailable, a capping layer of imported material should be used as a minimum, to ensure long term sustainability of the trail surface.

In order to be sure of the availability and suitability of as-dug soil on site, we would have to dig trial pits at various locations near to the planned trail corridors. This would then allow us to ascertain whether the as-dug soil will be suitable, or alternatively if a capping layer of imported quarried material will be required.

To date, no trial pits have been carried out. However, analysis of the subsoil evident beneath the root plates of wind blown trees in various locations across the Wind's Eye area of the forest shows a shallow layer of approx. 30cms organic topsoil, with good quality granular subsoil beneath. Some locations show a further deeper layer of clay subsoil although this was not evident everywhere.

This reflects the findings of the feasibility study, taken from The Soil Survey of Scotland: *The Soil Survey of Scotland identifies that the majority of the block is underlain with the Foundland Association. The soils of the Foundland Associations are developed on drifts derived from slates and other weakly metamorphosed argillaceous (clay minerals are a minor but significant component) rocks.*

In any case, we are confident at this stage that the as-dug soil will be suitable for forming the base of the trails, and as bulk fill for any features. Therefore our cost estimates ([section 7](#)) are based on

this with an imported capping layer to ensure a sustainable trail surface. This is the less desirable option, but provides a safer budget estimate at this early stage.

Drainage and Water Courses

The site appeared to be free draining within the area we are recommending for trail construction during this phase. This is especially positive due to the long period of wet weather experienced prior to our visit.

Further to the south, towards the southern end of the Wind's Eye block, the ground was noticeably wetter, in keeping with its flatter topography. Indeed a marked watercourse runs east from the eastern boundary of the forest in this area. For this reason, we do not recommend trail construction take place in this area.

Elsewhere, occasional puddles were visible, in the tracks left by forestry plant. These are of no concern and have been caused by the excessive, localised compaction of the ground, reducing its capacity to drain. No other significant water courses or drainage issues were noted during our visit.

Utilities and Services

No utilities were noted during our visit to the Wind's Eye area of forest, and we have not been made aware of any.

Ecological, Environmental, and Historical Designations

Desk based research shows that no historical, environmental, geological, or scientific designations are present on the site or within the immediate area that would potentially be affected by the project.

As noted in the feasibility study, several wildlife species are noted as being present in the Gartly Moor Forest Area:

"Wildlife of note includes wildcat (Felis silvestris), Scottish crossbill (Loxia scotica), water-vole (Arvicola amphibious), European badger (Meles meles) and red squirrel (Sciurus vulgaris). There is also a relatively new record of hairy wood ant (Formica lugubris). GMF lies within the Strathbogie Wildcat Priority Area"

We did not encounter any badger setts or evidence of other wildlife during our visit. However a Preliminary Ecological Appraisal will be required, likely to go with the planning application. Typically a pre-construction follow up survey will be required and potentially further monitoring during the construction depending on the ecological site constraints and time of year - Construction should be timed to avoid key nesting and breeding seasons.

We regularly partner up with Envirocentre as our ecological experts on these type of projects.

Trees and Other Vegetation

The Wind's Eye area of Gartly Moor Forest is a mix of plantation Sitka and Larch forest predominantly. The northern side of the forest has been clear-felled and naturally reseeded with low lying tree species, due to its proximity to the wind-farm.

The area of forest that we recommend be used for the Phase 1 trail project has been through several thinning cycles, and the well spaced, mature trees create a pleasant and open forest environment.

Contaminated Ground

It is not envisaged that a ground contamination survey will be required.

Removal of Spoil

It is not envisaged that any excess material will be required to be removed from the site.

Phase 1 Trails - Design and Description

As mentioned above, the Phase 1 trail network envisaged for the Wind's Eye block will be based around a gathering point at the summit of Wind's Eye, where a view point and potentially other amenities will be created. This will create a network that is easy to navigate, and mean that groups of riders may chose to ride different trails individually, but will all return to the same start point each time.

The trail network will consist of the trails described on the following pages. The design concept is to create an inclusive, fun and progressive facility that encourages repeat laps and builds fitness and bike handling skills naturally.

In conceptualising this trail network, we have concentrated on the priority trails that will create a cohesive and worthwhile visitor experience. These make the most of the existing path and forest road network in order to reduce initial costs, whilst leaving room for future expansion.

Please note: We have conceptualised and costed this trail network based on the information that was available to us at the time of carrying out this project. We are aware that HDT has plans for installing further wind turbines within the Wind's Eye block, and we would strongly recommend that this is carried out prior to the creation of a trail network on the site. The installation of turbines would necessitate the creation of new forest roads, and potentially the felling of trees from the areas surrounding them. This inevitably changes the landscape from the way it is currently, and while a similar trail network would in theory still be possible, it would need redesigning to some degree following turbine installation.



View of Wind's Eye block from Greenmyres Farm

Accessing the Trail Network

Riders will use the new access path from Greenmyres Farm to access the Wind's Eye block at the termination of the existing forest road network. This access path should be widened and maintained at 2m to allow for safe passing of multiple user types. Interpretation panels explaining the shared nature of the path, and suggested respectful behaviour from all user groups should be installed at each junction and at the start of the route.

Cyclists should only be travelling in opposite directions on the lower section of this path where it is relatively level and has long sight lines due to being straight. Cyclists will be passing pedestrian users on the higher section of path through the trees, but only whilst ascending, therefore travelling at a slow speed.



Existing access path

Wind's Eye Viewpoint Access Path

Upon arriving in the forest, a new shared path will be created to access the trail start gathering area and Wind's Eye view point. This ascends the last few vertical metres to the summit of Wind's eye but is a very gentle gradient. We have described this path as a 2m shared path specification. However, it may be advisable to build this to forest road specification in order to accommodate heavy vehicles. This would be beneficial should other developments be envisaged for the Wind's Eye summit area, as well as for future trail maintenance access etc.

Wind's Eye Viewpoint Access Path Specifications

Trail grade	Shared Pa	
Trail width	2 metres	
Trail length	390 metre	



The view to the northwest from the Wind's Eye summit viewpoint on the edge of the forest block

Beginner Flow Trail

The Beginner Flow Trail needs to be rideable by all levels of rider and therefore will be graded at beginner level. It will use the natural contours and topography of the hillside to help riders maintain momentum without excessive pedalling. Grade reversals and supportive corners will provide an engaging ride but one that is not too intense or intimidating. As the trail nears the end, a series of fun corners will naturally slow riders down prior to arriving at the lower access path. From here riders can return to Greenmyres Farm, or ascend the upper access path for another lap!

This trail will be a great warm up loop for some, a great introduction to purpose built mountain bike trails for others, and a forgiving and fun trail to ride for all!

Beginner Flow Trail Specifications		
Trail grade	Easy	
Trail width	1.5 metres	
Trail length	968 metres	



A beginner flow trail

Beginner Flow Trail - Return Link

The beginner flow trail will serve an important purpose for all riders as it will be used as a return from the trail network to Greenmyres Farm, avoiding the need for riders to descend the upper access path.

An additional link section will be added to the Beginner Flow Trail, enabling riders returning from further afield in the forest to access this descent from the same place as the upper access path, thereby removing the temptation to shortcut down the upper access path and ensuring all users are safe.

Beginner Flow Trail - Return Link Specifications		
Trail grade	Easy	
Trail width	1.5 metres	
Trail length	140 metres	

Intermediate Flow Trail

The Intermediate Flow Trail will head in a southerly direction from the Wind's Eye summit start point. Making use of the slightly steeper gradient on this side of the forest it will wind down through open forest of well spaced larch and sitka trees for over a kilometre.

Although a consistent gradient, this area of woodland has little in the way of natural topographical features to utilise. Therefore features such as rollers, roller doubles, large berms will be built to create a 'feature rich' trail. This will allow riders with more skill to work the trail to generate extra speed, in a similar way to riding a pump track. Progressive additions to features will ensure that more experienced riders are always engaged and are able to push themselves, while those who are developing skills will have the opportunity to progress.

The intermediate flow trail will finish with some fun corners to control speed before arriving at a small gathering area shared with the intermediate jump line. This will ensure that riders join the forest road to continue their ride at a slow speed, minimising conflict and ensuring all users are safe.

The return to the start point will be via the forest road. This starts with a short section of slightly steeper gradient, before mellowing for the remaining climb.

Intermediate Flow Trail Specifications		
Trail grade	Intermediate	
Trail width	1.5 metres	
Trail length	1150 metres	



An intermediate, 'feature rich' flow trail

Intermediate Jump Line

This trail requires a higher speed and takes a more direct route down the hill than the intermediate flow trail. It follows the gradient more directly and the focus is on the features, which will consist of tabletop style jumps, and drops, with intermittent rollers and some shallow berms.

All jumps will be completely roll-able, meaning that even beginners will be able to learn the techniques required to ride this type of trail properly, preparing them for larger bike park style trails at other venues, or in the Phase 2 development of the future. Progressive additions to the features will again allow riders to develop and continue to push themselves as their skills progress.

The intermediate jump line will finish with some fun corners to control speed before arriving at a small gathering area shared with the intermediate flow trail. This will ensure that riders join the forest road to continue their ride at a slow speed, minimising conflict and ensuring all users are safe.

The return to the start point will be via the forest road. This starts with a short section of slightly steeper gradient, before mellowing for the remaining climb

Intermediate Jump Line Specifications		
Trail grade	Intermediate	
Trail width	2.0 metres	
Trail length	600 metres	



An intermediate jump line

Maintenance

Regular maintenance is an essential component of managing facilities such as those proposed for the Wind's Eye block, and HDT should consider both the practicalities and costs of ensuring that this happens in a sustainable manner at an early stage.

Given that the HDT have other responsibilities beyond just these facilities, it is recommended that a sub-group is formed to take on responsibility for trail maintenance activities. Maintenance is a good project for local young people to get involved in as it encourages ownership and responsible use of the facility – particularly those who are actively using it. Some young people's volunteering initiatives such as the Scouts and Duke of Edinburgh awards can also provide mutually beneficial arrangements, or it may be that a future bike club that is based at Greenmyres, or a group of volunteer 'trail fairies' supported by Aberdeenshire Trail Association could take on the responsibility.

In general terms, the key to good trail maintenance is a 'little and often' approach, where regular checks identify potential problems early. This allows for them to be dealt with before becoming a hazard to riders and inevitably incurring more cost. It is recommended that regular maintenance checks are carried out during the first year of use, as this is when the facilities will both be used the most, and not yet be fully settled, or bedded in. At this point, any issues can be easily rectified, and doing so will ensure that the trail stays in good condition for many years.

Regular preventative maintenance at this stage will pay dividends in the future, and will also give those responsible for facility maintenance a real-time indication of the likely future maintenance burden. A simple maintenance schedule and logging document is recommended for use by HDT. Collective Trax & CRC provide templates of both of these documents with every facility we build.

In terms of cost, it is suggested that as a minimum for mountain bike trails and paths, 5% of the total build cost is budgeted for maintenance annually over the first 5 years for a project of this size.

Signage

Correct signage is an important aspect of any purpose built mountain bike facility and this should also be taken into consideration. It is recommended that for this facility, one interpretation panel is installed at the trail head at Greenmyres Farm, and another at the Wind's Eye viewpoint start area. These should give riders the information they need in order to choose the trail best suited to them, they should include emergency information, and an overview of the facility as a whole.

These interpretation panels should then be supplemented by finger post style trail signs. These should indicate junctions, path crossings, give way points and other useful information to help keep both the rider and other woodland users safe. As well as trail route signs, we'd recommend the installation of regular 'shared path - shared responsibility' type signs that encourage respectful behaviour and mutual enjoyment of the countryside, especially along the access path and wider path network.

A quote for design, supply, and installation of signage is included in the estimated project costs, at the end of this document. [A signage requirements table is included as an appendix.](#)

Other Suggested Developments for Consideration in Wind's Eye Block

Whilst considering this trail design concept, we have naturally been considering other additional developments that may benefit the trail network as a whole. These are listed below and we hope they add value to the report.

For this Phase 1 concept we have included what we recommend as essential trails to build during the initial development of the forest block, in order to create an appealing and worthwhile facility. The further trails listed here would add to this and could be developed over time, but are not essential to the initial success of the Phase 1 project.

Walking Path Extension

An extension to the existing access path, leaving from the Wind's Eye summit area, and heading north through the heather and birch trees towards the wind farm. This could then join the end of the lower access path creating a pleasant loop. We have indicated the potential route as following the western boundary of the forest block. It could however, take a more meandering route if that was desired.



Example of a shared path

Extending the walking path network is out-with the scope of this MTB trail design project and as such we have not sufficiently surveyed the site to allow us to estimate a cost for this inclusion. However the construction of the existing access path should give a good ballpark figure, baring in mind that materials and other construction costs have increased significantly in recent months.

Ascending Trail

An ascending trail could be built to better link the end of the intermediate trails with the Wind's Eye summit and segregate riders from other forest users a little more. There is ample space to do this, but as the existing forest road is reasonably direct and not too steep or long, we would view it as a 'nice to have' rather than essential development during Phase 1.

Further Trails

The space available in the forest allows for the creation of more trails to add to the network if these were desired. For example, hand built trails with a more natural ride experience, a longer single track loop following the forest boundary, a more technical trail, would all be possible.



A section of hand-built trail under construction

Vehicular Access

It will also be worth considering the creation of a vehicular access route from Greenmyres Farm up to the Wind's Eye Block at an early stage. This would make developments such as further wind turbines, creation of mountain bike trails and other paths, and the maintenance of these all much simpler. It would also open up the possibility of providing vehicular access to the forest for less able people.

The indicative forest road extension to access future wind turbines that we have been provided would impact the trail layout we are suggesting, therefore it would need to be finalised prior to a final trail design and planning permission submission. In order to retain the maximum amount of undisturbed space in the northern section of the Wind's Eye block, it may be better to follow the forest boundary on the western side to ascend to the summit viewpoint. This route choice may also be predicated on the eventual position of the wind turbines planned for the Wind's Eye block and therefore it is hard for us to recommend a route without information on all aspects of the development plan.

6.3 Phase 2 Trails - Gartly Moor Forest, Wishach Hill Block

Having surveyed the Gartly Moor Forest site with a view to creating MTB trails within the greater area of Gartly Moor Forest, we recommend that the area outlined below be considered as the preferred area for the construction of trails in Phase 2.



Phase 2 Trails - Preferred Boundary on Wishach Hill

The following site specific considerations pertain to this site as indicated, on the northern flank of Wishach Hill. This echoes the recommendations contained within the CWA Feasibility Study, that Wishach Hill as the best option for future expansion of the facilities based at Greenmyres Farm.

Rationale for Site Selection

It is appropriate that trails for a Phase 2 development in the larger section of Gartly Moor Forest are more challenging in nature. Being further away from the trailhead at Greenmyres Farm will be less of an issue to those who are capable of riding more technical trails and will actively seek them out.

Of the options within the Gartly Moor Forest, Wishach Hill has the most suitable and consistent gradient, and a slope that continues for a good linear distance, presenting the opportunity to create trails of a reasonable length without interruption. Wishach Hill is visually prominent both from a far, and from a user's perspective as they travel through the Wind's Eye block from Greenmyres Farm, meaning it is both visually and psychologically linked to the Farm and trailhead.

For this reason we also recommend the northern flank as indicated above, to try and maintain as much of a connection with the rest of the trail network and trailhead as possible. A risk in developing the Wishach Hill site is that users may access the trails from the existing car park on the east of Wishach Hill, thus not generating any revenue at the trailhead. Locating trails on the northern side of the hill, and ensuring that the trailhead facilities at Greenmyres are as appealing as possible, will help to mitigate this.



Looking south from the forest road at the foot of the identified hill side, towards the eastern end.

Access for Construction

Currently, construction access to this area of the forest would have to be made via Gartly Moor Forest entrance Wishach Hill North (NJ 583 336), off the minor road between Inch and Hillhead on the A96. This is a gated entrance, to the east of Wishach Hill, along a forest track that is currently blocked by recent storm damaged trees.

As mentioned in the associated feasibility study, there are no known Aberdeenshire Council restrictions on this unclassified road, other than the standard UK restriction to 44 tonnes gross.

However, as discussed below, the planned installation of 4 new wind turbines on Wind's Eye will necessitate the creation of new forest roads, and construction access directly from Greenmyres Farm may well be possible at the time of trail construction on Wishach Hill.

Welfare During Construction

Welfare facilities should be provided taking into account the time of year works are taking place, and prevailing weather conditions. Given the remote location of the site, a 'site hut' with power, toilet, hand washing, and basic cooking facilities should be considered.

Ground Conditions

No trial pits have been carried out. However, analysis of the subsoil evident beneath the root plates of wind blown trees, and roadside verges in various locations across the Wishach Hill area of the forest shows a shallow layer of approx. 30cms organic topsoil, with slate like rock subsoil beneath. The quarry on the summit ridge of Wishach Hill shows that this material is readily available and easy to handle, and it appears to have been used to good effect for construction of the forest track network.

This reflects the findings of the feasibility study, taken from The Soil Survey of Scotland: *The Soil Survey of Scotland identifies that the majority of the block is underlain with the Foundland Association. The soils of the Foundland Associations are developed on drifts derived from slates and other weakly metamorphosed argillaceous (clay minerals are a minor but significant component) rocks.*

Drainage and Water Courses

The site appeared to be free draining across Wishach Hill. This is especially positive due to the long period of wet weather experienced prior to our visit. Small water courses were evident, as expected due to the steeper topography of this site.

Utilities and Services

No utilities were noted during our visit to the Wishach Hill area of forest, and we have not been made aware of any. A communication mast is present on the Hill of Corskie, with an associated power line connecting it to Gartly village, but this is out-with our recommended area for development.

Ecological, Environmental, and Historical Designations

Desk based research shows that no historical, environmental, geological, or scientific designations are present on the site or within the immediate area that would potentially be affected by the project.

We have been provided with a document from Forestry & Land Scotland titled "Gartly, areas of conservation interest" however. This is dated 8 September 2009. Wishach Hill is mentioned with a question over open moorland on the summit and old quarry workings and the ecological and archaeological value of each. It is unclear as to the outcome of this query however. Evidence on site would suggest that the quarry on Wishach Hill has been used more recently than 2009.

As noted in the feasibility study, several wildlife species are noted as being present in the Gartly Moor Forest Area:

*“Wildlife of note includes wildcat (*Felis silvestris*), Scottish crossbill (*Loxia scotica*), water-vole (*Arvicola amphibious*), European badger (*Meles meles*) and red squirrel (*Sciurus vulgaris*). There is also a relatively new record of hairy wood ant (*Formica lugubris*). GMF lies within the Strathbogie Wildcat Priority Area”*

We did not encounter any badger setts or evidence of other wildlife during our visit. However a Preliminary Ecological Appraisal will be required, likely to go with the planning application. Typically a pre-construction follow up survey will be required and potentially further monitoring during the construction depending on the ecological site constraints and time of year - Construction should be timed to avoid key nesting and breeding seasons.

We regularly partner up with Envirocentre as our ecological experts on these type of projects.

Trees and Other Vegetation

The Wishach Hill area of Gartly Moor Forest is a mix of plantation Sitka predominantly, with some Larch plantation. A large swathe of the northern side of the forest has been clear-felled and is naturally reseeding with sitka spruce.

A large area of open moorland exists on the summit ridge of Wishach Hill, predominantly covered with native heather, although self seeding sitka spruce is encroaching at the boundaries.

Recent storms have felled many trees, particularly on the northeastern flanks of Wishach Hill, where the crop appears to have been largely flattened. This made surveying this area of the site impossible.

Contaminated Ground

It is not envisaged that a ground contamination survey will be required.

Phase 2 Trails - Conceptual Description

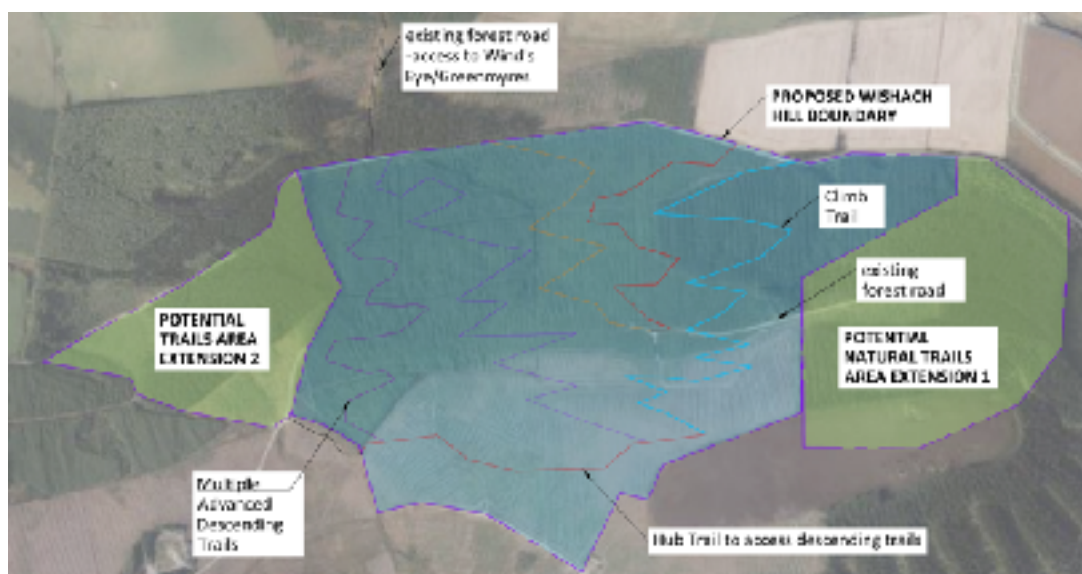
The conceptual vision for a trail network on the northern flank of Wishach Hill is one of a 'bike park' style facility, where multiple descents of different types are serviced by an easy and efficient ascent. This allows riders to do multiple laps in one visit, either honing their skills on a single trail, or riding different descents each time.

The topography of the area identified is ideal for this style of facility, and where it lacks in vertical height difference; it gains in having a good consistent gradient, apparently suitable and free-draining ground conditions, and width - meaning that multiple descending or ascending trails could be created side by side.

An existing forest road skirts the northern forest boundary at the foot of the slope, whilst a forest road also ascends the hill at the western extent of our identified boundary. This creates the potential for a vehicular uplift service without the requirement to construct an expensive uplift route, should an uplift be desired. Our recommendation is that this option is marked as 'potential' and is re-evaluated at the time of Phase 2 becoming a realistic possibility. In any case, an ascent trail would be constructed, and we would recommend that this be designed and built in the 'flow-up' style that allows an eMTB rider to maximise the potential of their bike on both the ascent and descent.

On arriving at the top of the ascent, riders would join an access trail that traverses the upper section of the hillside, at the edge of the moorland area. Descent trails would then be created, with the access trail passing the start of each in turn as it traverses the hillside. A viewpoint could potentially be built at the Wishach Hill summit to take advantage of the 360deg view of northern Aberdeenshire, accessible via a link from this access trail.

The descending trails themselves would be designed and built around a progression from the trail network that exists on Wind's Eye at that point. There is much more gradient to utilise on Wishach Hill however, giving more possibility for longer and faster flow descents for intermediate riders, through to advanced jump trails and technical descent trails. Descents of up to 2Kms long should be possible, and an indicative layout for these is below.



Wishach Hill Indicative Trail Layout

As indicated in the Phase 2 layout, a network of one ascending trail and at least four descending trails should be created at the outset of the phase 2 project. This would mean that a facility of sufficient scale to both attract riders from a reasonable distance from the outset, whilst supporting a reasonable number of riders without becoming congested.

There is ample space within the boundary identified to extend this network in the future, either with further machine built trails, hand built trails, or a combination of both. Meaning that the facility could continue to adapt and evolve over time to suit the demands of riders and the market.

The trail types we have suggested on this conceptual layout are purely indicative, and are intended to show what the greater facility could become in the future. At the time of committing to the Phase 2 project however, an analysis of the existing trail network, and its place within the regional and national picture at the time will be vital to ensure that Phase 2 adds further value to the regional 'cluster' and is a worthwhile project to undertake.

7. Project Costs

The estimated project costs for each phase of the project are set out in the tables below. The costs are based on today's market rates for materials, plant hire, and personnel. Please be aware that these costs are increasing daily and may increase significantly in the space of a few weeks due to supply issues and the extremely high rate of inflation. We therefore advise that a significant contingency is built into your budget.

Greenmyres Pump Track - Project Costs

In calculating the cost estimate below, the material costs have been separated from the project total cost. Construction costs at present are increasing rapidly and as this represents the likely biggest risk to the project cost in the short term.

CONSTRUCTION COST PUMP TRACK AND PATH:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL (+VAT)
1	Design	1	SUM	£2,250.00	£2,250.00
2	Preliminaries and mobilisation	5	WEEK	£5,129.37	£5,129.37
3	Pump Track & Soil/Landscaping	1143	M²	£54.90	£62,746.99
4	Access Path	265	M²	56.97	£15,096.85
				SUB-TOTAL	£85,223.21
				VAT	£17,044.64
				TOTAL	£102,267.85

MATERIALS COST PUMP TRACK AND PATH:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL (+VAT)
1	BULK FILL LEVEL PAD	121	TON	£19.00	£2,299.00
2	TYPE 1 FOR FORMATION	300	TON	£19.00	£5,700.00
3	GRAVEL FOR DRAINS	39	TON	£24.00	£936.00
4	PIPES	39	M	£6.00	£234.00
5	TAR 100MM DEPTH	305	M²	£50.00	£15,250.00
6	GRASS SEED	30	KG	£10.00	£300.00
7	SIGNAGE	1	ITEM	£1500.00	£1500.00
				SUB-TOTAL	£26,219.00
				VAT	£5,243.80
				TOTAL	£31,462.80

GRAND TOTAL PUMP TRACK AND PATH (inc VAT): £133,730.65

Phase 1 Trails Wind's Eye - Project Costs

Similarly with the trails the cost of sub-base surfacing material has been separated from the trail costs. This is partly due to the risk of cost inflation but also that there is a potential saving in using 'as dug' material using borrow pits on the hill to provide suitable surfacing. To assess the suitability of the material, trial pits on dug within the trail corridors would be required. This could present a cost saving should the material prove to be suitable.

CONSTRUCTION COST WIND'S EYE TRAILS					
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT RATE	TOTAL
2	Design	1	SUM	£4,000.00	£4,000.00
3	Prelims, Mob/De-Mob	1	SUM	£12,900.00	£12,900.00
5	Beginner Flow Trail	968	LIN. M	£45.73	£44,270.75
6	Shared Viewpoint Path	390	LIN. M	£40.65	£15,854.51
7	Intermediate Flow Trail	1150	LIN. M	£52.27	£60,107.77
8	Intermediate Jump Trail	600	LIN. M	£52.27	£31,360.58
9	Return Link Trail	140	LIN. M	£45.73	£6,402.78
				SUB-TOTAL	£174,896.39
				VAT	£34,979.28
				TOTAL	£209,875.67
MATERIAL COST WIND'S EYE TRAILS					
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT RATE	TOTAL
1	TYPE 1 SUBBASE	1610.1	TON	£19.00	£30,591.90
4	SIGNAGE	1	ITEM	£5,000.00	£5,000.00
				SUB-TOTAL	£35,591.90
				VAT	£7,118.38
				TOTAL	£41,710.28
GRAND TOTAL WIND'S EYE TRAILS (inc VAT): £252,585.95					

8. Planning Application

The supporting technical drawings for the planning application are provided as part of the package of drawings supplied with this report. We will also provide support through the process where possible.

A key factor in keeping the planning cost and process straightforward is to have the development area under 2 Ha to avoid the application being considered a major application by the planning department. This would be the area of the pump track and phase 1 trails in this case. The Planning drawings we provide give this information and the relevant construction details.

Drawing Number	Drawing Title
007	Planning - Trails Site Plan
008	Planning - Pump Track Site Plan
009	Planning - Pump Track Layout
010	Planning - Pump Track Site Sections
011	Planning - Pump Track Drainage Layout

Planning application costs are dependant on are and the local authority. From experience these tend to range between £1000 - £2000 although it would be prudent to check with Aberdeenshire Council on this.

9. Project Sustainability

Aside from the long term sustainability of the project once complete, it is important to complete the design and construction of the facility in as sustainable as way as possible. As well as the environmental and ecological assessment and monitoring mentioned elsewhere in this report, we list below our approach to sustainability and would recommend that any potential contractor involved in the project is assessed on similar terms.

We acknowledge that delivering a project such as this involves major construction is inherently damaging to the environment. By undertaking the following measures though, we aim to mitigate this impact as much as possible.

- **Local Workforce.** Our work force is sourced from as close to the work site as possible, whilst ensuring the high level of skill and experience that we require is there. Where a local workforce is not possible due to the location of the project, we provide accommodation as close to site as possible, in order to minimise daily travel requirements.
- **New, Efficient Plant & Machinery.** By ensuring our vehicles, plant, and machinery are all new, in good condition and working at optimum efficiency, we reduce our use of fuel and the likelihood of fuel spills.
- **Spill Kits.** All plant has spill kits on board, and refuelling takes place in designated areas only.
- **Environment and Ecology.** The Construction team works closely with ecological experts to ensure the trail routes and construction methods minimise any impact on local ecology.
- **Local Materials.** Where possible we utilise material found on site to create trails and paths. In cases where material must be imported, we work with the nearest appropriate supplier to the location, and seek to manage deliveries to be as efficient as possible.
- **Sustainable Trail Design.** The trail design is focused on working with the landscape to create sustainable long term trails. Designing the trails to fit within the natural environment minimises ecological impact, ensures existing water course are protected and the finished trail requires minimal maintenance.
- **Sustainable Construction.** Designing and constructing trails and paths in the way that we do provides a more durable trail with greater longevity. This in turn reduces the need for maintenance interventions, which themselves have an environmental impact.
- **Local Volunteer Maintenance.** Working with locally based volunteer groups to regularly maintain the trails ensures the longevity and encourages community engagement with the project in the long term. As part of the construction we look to ensure any maintenance required can be carried out with hand tools. This encourages volunteer engagement and doesn't require mechanical intervention. Maintenance material is placed at key locations along the trail during construction to assist with this.

10. Conclusions and Next Steps

We have included our conclusions and a suggested set of milestones for each of the phases of the project overall. Please note that these are relevant to where we are currently in the life-cycle of the project and may need to evolve or change as the context changes.

Greenmyres Pump Track

A pump track will definitely add an exciting extra element to the greater outdoor activity facility planned for Greenmyres Farm. In an ideal scenario, the Phase 1 trails on Wind's Eye would also be created at the same time, creating much more of a MTB destination that will attract more visitors from the start.

As discussed above, a modest scale of pump track of around 100m is what we recommend for Greenmyres. The location is too remote from a large population base to generate sufficient footfall daily in order to realise the return on the significant investment that a larger track would require. However, this 'medium' scale of track will create an exciting, meaningful and progressive facility, that will suit all levels of rider.

In order to truly succeed, the pump track must be part of a holistic approach to welcoming cyclist and cycling at Greenmyres Farm. HDT have made a great start with this and should continue to install further complementary infrastructure from [our list](#), to demonstrate their intent to grow the MTB and cycling offering in the coming years, and start to build a following and recognition from within the cycling community.

We see the installation of floodlighting as essential to the pump track facility's success, and the relatively modest extra investment required would generate a much greater return in the availability of the facility almost year round. Similarly, and especially due to the exposed nature of the site identified for a pump track, suitable shelter from the wind must be included and installed as part of the development for it to succeed.

An appealing solution for both lighting and shelter, would be to build an agricultural style shed over the pump track, covering it from above where lighting could be installed, and sheltering it from the wind to the sides. This would be in keeping with the rural landscape, and create a truly year round facility - a first in Scotland. This solution would potentially deliver a multitude of benefits to the project, beyond the obvious weather proofing of the pump track, and we'd encourage serious consideration of this by the HDT project team.

Also key to the sustainment of the MTB facilities as a whole will be the creation of a cycling club, based at Greenmyres. Starting this initiative early and building momentum towards the creation of the trails on Wind's Eye would be beneficial. The Scottish Cycling Regional Development Officer can help with advice on how to go about this and where to start.

Pump Track Development Milestones



Design Project and Feasibility Study completed



Pump Track planning application and approval



Pump Track funding in place



Pump Track and Access Path construction

Phase 1 Wind's Eye Trail Network

Taking on ownership of the Wind's Eye Block through a CATS or similar mechanism, and developing a trail network as described on Wind's Eye will really unlock the potential of the Greenmyres project in our view.

At this scale, the facility will become important regionally, and be large enough to be an appealing destination for mountain bikers in the larger foundation sections of the performance pyramid. These are the most important groups to target initially - not only do they tend to spend more money, but they are also likely to be the experienced mountain bikers of the future, and help to sustain the facility in the long term.

Our concept for Wind's Eye has very much been based on these target user groups for this reason, as well as Wind's Eye hill itself being ideal for this purpose in terms of distance from the trailhead and in topography.

The installation of further wind turbines on Wind's Eye should not be seen as a potential constraint to using the same area of forest for trail development. Many existing MTB facilities are built on wind farm sites and they exist happily together. To be identified however, is the amount of tree felling that will have to take place for the turbines to work effectively. We would have concerns that removing the trees altogether would both detract from the pleasant nature of the open woodland, and potentially make the trails very exposed to the wind which would very negatively affect the experience for the rider.

As mentioned in the conclusions to the pump track development above, a holistic vision and development approach to the greater project will deliver the most benefit, and help to sustain the facility long into the future. This however needs to start now, as building viable cycling club, and a reputation and loyal visitor base amongst the cycling community will take time.

Phase 1 Trail Network Development Milestones



Wind's Eye CATS process completed



**Final Design and planning approval for trails -
following confirmation of turbine locations and
access roads.**



Trail Network planning application and approval



Trail network funding in place



Wind turbines installed



Trail Network construction

Phase 2 - Wishach Hill Trail Network

Is a Phase 2 Trail Network Feasible?

Feasibility for a trail development generally falls into two categories: Physical Feasibility, and Economic Feasibility. No full feasibility study has been carried out on the potential for MTB trails on Wishach Hill, but we have included a high level overview of our thoughts at this stage for reference.

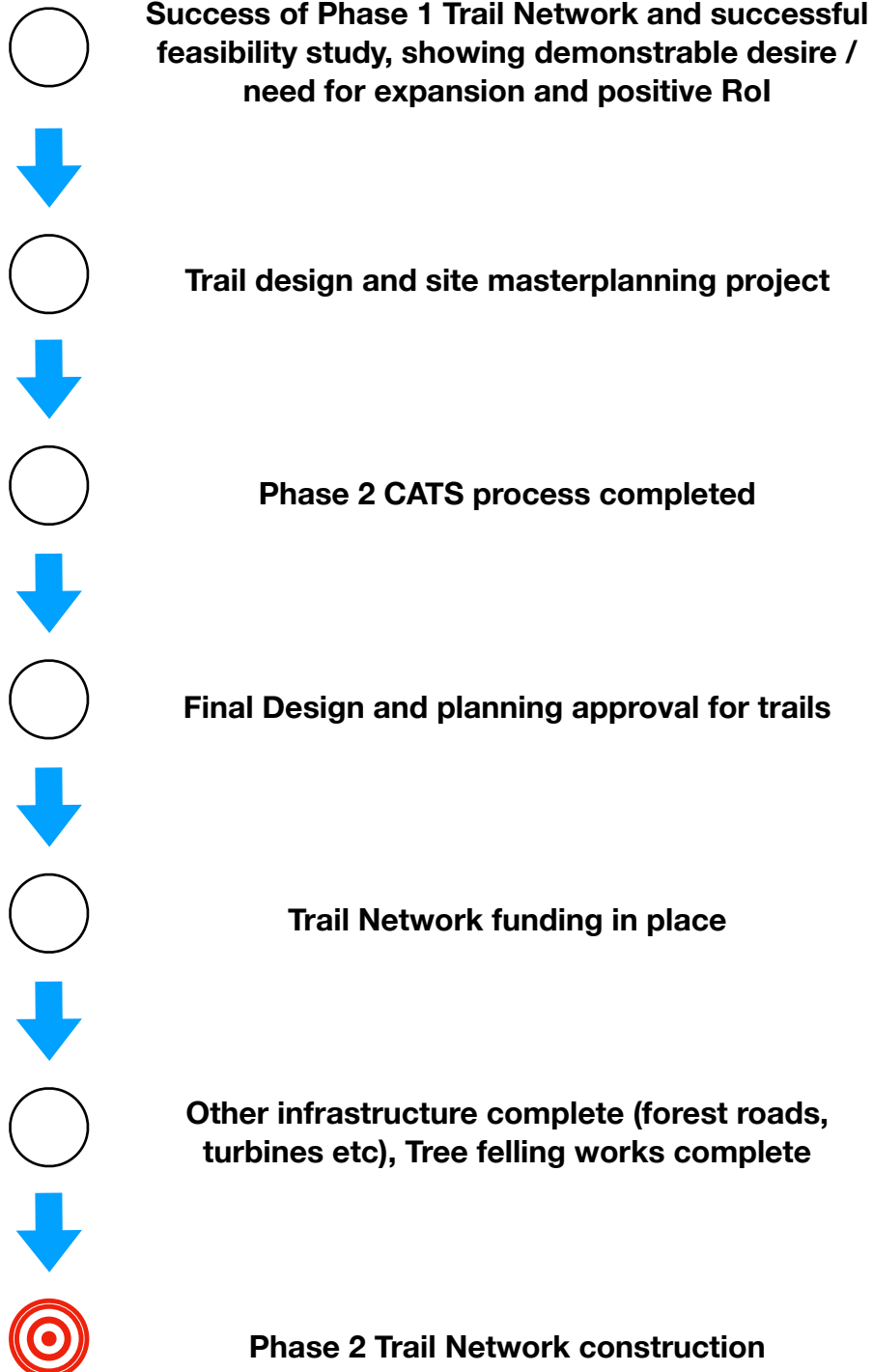
At a physical level, the area of Wishach Hill that we have identified is certainly suitable for creating an exciting and progressive bike park style facility of modest scale. The topography and gradient of the site are both good, as is the outlook. The subsoil appears to be suitable and readily available, and drainage doesn't appear to be an issue. Access for both construction and maintenance is OK at present, and at the time of a Phase 2 project being initiated, it would likely be much improved with new forest road access from Greenmyres.

Economic feasibility is generally related to the likely return on the economic investment, bearing in mind that this is generally assessed through indirect benefits rather than direct financial return. While the location is a little remote from the main population centre in Aberdeen, the dualling of the A96 will improve the drive time from both Aberdeen and Inverness, making the facility much more accessible to a large number of people.

Although Aberdeenshire currently doesn't have any facilities of the type or scale conceptualised for Greenmyres including both Phases 1&2, the regional picture is evolving almost daily with a significant development about to start construction at Tarland, and (although just outside Aberdeenshire) Glenlivet MTB Trail network is growing very quickly with new trails being completed each year. In the south of the region, the Gravitare North East project is making progress on their first phase, and while the full scale adventure park is a long way off, if realised it would have a big impact. Looking elsewhere to Aberdeenshire's near neighbours, projects at both Cairngorm Mountain, and Glenshee are both seeking to create MTB facilities that will certainly be of importance to the northeast of Scotland, while there are other similar projects near to Inverness that are being discussed.

Therefore, it is almost impossible to comment with any certainty on the economic viability of the Phase 2 project at Gartly Moor Forest at the present time. What is certain is that should any of the projects mentioned above come to fruition, the potential visitor numbers to Greenmyres will inevitably be diluted. Therefore it will be vital to carry out a full feasibility study at the time of development prior to financially committing significant sums of money - the regional context could look very different in a few years time.

Phase 2 Trail Network Development Milestones



Appendix A: Policies and Strategies Reference List

National

Active Scotland Delivery Plan (Scottish Government 2018)
 Cycling Action Plan for Scotland (Transport Scotland, 2017)
 The Sustainable Development of Mountain Biking in Scotland - National Strategic Framework 2016-18 Refresh (Developing Mountain Biking in Scotland, 2016)
 Guide to Project Development for Mountain Bike Trails (sportscotland et al, 2015)
 Mountain Biking Tourism in Scotland (Scottish Enterprise, 2013)
 National Performance Outcomes (Scottish Government, 2016)
 'Reaching Higher: Building on the Success of Sport 21' (Scottish Government, 2007)
 'Rides of Way' – Cycling UK's Off-Road Report 2017
 Scottish Cycling Strategy 2014-19 (Cycling Scotland, 2013)
 Scottish Tourism 2020 – National Tourism Strategy
 Tourism Development Framework for Scotland (VisitScotland, 2013)
 UK Mountain Biking Tourism Characteristics (M.S.Gajda, 2009)
 Value of Cycle Tourism (Transform Scotland, 2013)
 Annual Cycling Monitoring Report (Cycling Scotland 2020)

Regional/Local

Aberdeenshire Council Plan 2013-17
 Aberdeenshire Council Walking and Cycling Plan (2009)
 Aberdeen City & Shire Tourism Partnership Strategy 2013-20
 Making Aberdeenshire More Active (Aberdeenshire Community Planning Partnership, 2015)
 Marr Community Plan, 2019-22
 Strategy for an Active Aberdeen 2016-20 (Active Aberdeen Partnership, 2016)
 Visit Aberdeenshire Destination Narrative, 2017
 NE Adventure Tourism Project (2020)
 Huntly: A Campus for Learning and Play, a Community Led Place Plan (Huntly and District Development Trust 2021)
 Huntly: Room To Thrive Strategy To Do Lists. (Huntly Town Team and Aberdeenshire Council 2019)

Appendix B : Signage Requirements Table - Phase 1

Location	Finger Post Sign Panels							Interp. Panel	Install. Notes
	No. of posts	Green Arrow	Blue Arrow	No Entry	Give Way	Trail End	Trail Name Panel (to go with arrows)		
Trail Hub	1	✓					All MTB Trails	✓	
Access Trail Jct 1	1	✓ ✓					All MTB Trails, Return to Greenmyres		
Access Trail Jct 2	1	✓ ✓ ✓					All MTB Trails X2 (both sides), Return to Greenmyres		
Wind's Eye Viewpoint Access	1	✓					All MTB Trails		
Trail Start Area	3	✓	✓ ✓				Easy Flow, Int. Flow, Int Jump	✓	Finger post at start of each trail
End Easy Flow Trail	2	✓		✓	✓	✓	All MTB Trails		No entry' on reverse of 'Trail End'
End Int. Flow Trail	1			✓	✓	✓			No entry' on reverse of 'Trail End'
End Int. Jump Trail	1			✓	✓	✓			No entry' on reverse of 'Trail End'
Int. Trail Finish Area	1		✓	✓	✓		All MTB Trails Return to Greenmyres,		No Entry on reverse
Easy Flow Variant	1	✓ ✓					All MTB Trails		
Easy Flow Merge	2	✓ ✓			✓ ✓				One placed before jct on each trail

These are the signs that we'd envisage being required as the site is currently. The creation of new forest roads may necessitate different trail layout and more junctions etc.

Appendix C - Drawing Package List

Drawing Number	Drawing Title
001	Location Plan
002	Greenmyres Trails Site Plan & Trail Layout
003	Pump Track Site Plan
004	Pump Track Layout
005	Trails Construction Details
006	Pump Track Construction Details
007	Planning - Trails Site Plan
008	Planning - Pump Track Site Plan
009	Planning - Pump Track Layout
010	Planning - Pump track Site Sections
011	Planning - Pump track Drainage Layout
012	Phase 2 Concept Trails Layout