

Wicklow Mountains Path Survey

Client: Wicklow Uplands Council

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1 Introduction

The survey included 50 paths or routes across the Wicklow Mountains, which were divided into a total of 350 sections and amounted to approximately 167km. The fieldwork was undertaken in April and July 2021 by Chris York and Marc Vinas, supported by Matt McConway and Vince McAlinden. Helen Lawless, Brian Dunne, Ann Fitzpatrick and Wesley Atkinson accompanied Chris at various times during the survey to provide invaluable support, information and assistance.

It is estimated that at least 4,000 days of labour would be required to reduce the impact of recreation on the surveyed paths, as well as an ongoing commitment to maintenance.

2 Methods

The Amber Survey Technique (UPAG 2015) was used as the basis for assessing the condition of paths, but was augmented by recording any constructed features on each path and measuring peat depths on each section. Each path was divided into sections and the section locations were defined by each surveyor, based on experience and finding places that could be relocated for future surveys.

The survey technique collects a range of qualitative and quantitative measures that can be used to assess the condition of the path and the potential for deterioration.

In order to manage the survey dataset an electronic recording system was used in the field that had been developed by Walking-the-Talk. This allowed surveyors to geo-reference all relevant information (section locations, images) and removed the need for transcribing field notes. Along with GPS tracking, the surveyors used tape measures and clinometers for recording dimensions and a 1m peat depth probe for checking depth of peat.

The field dataset was then imported to a Geographical Information System (based on open-source software, QGIS) and a version has been translated for use with Google Earth software.

To avoid issues with using estimated costs that become dated, calculations were based on standardised labour inputs for different features (hand build techniques). There are some repairs that would be suited to machine assistance and these have been noted within the surveys.

3 Standards, definitions and terminology

Throughout this report upland path repair and restoration techniques are described in line with the common usage of terms set out in the Upland Pathwork Manual (UPAG 2015) and in line with the principles of Helping the Hills (Mountaineering Ireland 2013). The premise of any options or recommendation is to protect the mountain in the long term from physical or cultural impact – this is most likely to be retrospective action to remediate damage that has occurred rather than development of new ‘facilities’.

In order to provide consistent terminology within the surveys and report, the following conventions have been used:

Route – a notional line joining two or more points. This might be visible on the ground and could follow a desire line, a constructed path, track or trail.

Path – a visible line on the ground which could have developed by trampling (a desire line or trod), or may have had some work done to define or construct a surface

Track – a constructed line, usually for vehicles

Trail – a way-marked line on the ground, which may have been constructed as a path or track, but in some circumstances is just a notional line.

Section – a defined length of the route / path which can be identified by physical features on the ground. Sections vary in length from tens of metres to hundreds and within the section the route / path will have similar characteristics.

Peat Hag – steep face of exposed peat, susceptible to erosion by natural processes or trampling (by people or animals).

Peat gully – erosion channel through deep peat formed by flowing water; commonly gullies form complex hydrological patterns and may cross-cut each other. In extreme cases the gully may erode to the underlying rock surface and can be over 2m deep.

Light touch work – often thought of as low-key interventions, less formal than constructing a path, to define a line or reduce the visual impact of visitor use. Light touch does not necessarily reflect the amount of work required (it can involve intensive efforts to produce low visibility results). It is highly skilled work and is difficult to ‘specify’ exactly what needs to be done using generic descriptions.

Early intervention – work to slow down or reverse the effects of visitor pressure before damage has become extensive or catastrophic. The underlying assumption is that minor interventions at an early stage could help reduce the amount of work required if it were left to deteriorate (as in the proverb “a stitch in time, saves nine”). This assumes that future recreational pressures can be predicted and that

a whole path approach is taken – intervening on one section of path may negatively affect other sections if, for example, this leads to increased pressure of use.

Partial repair or spot repairs – work on specific points or short segments where damage is greater than the rest of the section.

Major repair – work to repair the majority or whole of a section on the basis of managing the entire path (not all sections on one path need to be treated the same).

Realignment – work to change the position of the path or section so that it can be managed more effectively (to reduce the gradient or avoid sensitive areas).

4 Implications of peat for path management in Wicklow

There are extensive areas of active, degraded and relict blanket bog in the Wicklow Mountains, where peat depths are 50cm or more (the commonly used definition of blanket bog). Recreational use of routes that cross deep peat presents a number of challenges and will have a significant influence on decisions about path management. Deep peat will also complicate the logistics and increase the cost of any proposals for path management which may in turn affect the viability of long-term management of some paths.

4.1 Depth of peat

Depth of peat is one of the main constraints for path management in the Wicklow Mountains because it determines the techniques that can practically be used to repair damage to habitats caused by recreational use (or other pressures on the habitats).

Where the (remaining) peat depth is **less than 30cm** conventional upland path management techniques can be used to control water and provide a hard-wearing surface for users. Aggregate and/or block stone may be available close to the path and could be used to build up the level to the surrounding ground, or materials might need to be imported by helicopter. The survey indicates

Where the depth of peat is **between 10cm and 30cm**, ‘early intervention’ and ‘light touch’ works become more challenging because a hard path surface would be below the wider ground surface, potentially acting as a watercourse or pond (depending on the gradient).

Peat depths **greater than 30cm** are more problematic because it is not easy to ‘anchor’ a path to a fixed point. Without fixed anchors it is necessary to ‘float’ any structure on the peat, making its long-term viability more doubtful. Techniques include using a geotextile (sheep fleece or synthetic sheet) beneath the path to spread the load and keep the construction materials separate from the peat. It is usually necessary to import all materials to site, by helicopter, and maintenance becomes difficult to achieve in the medium- and long-term.

‘Spot repairs’ (treating localised erosion) also become less viable with deeper peat because trampling pressure is concentrated on a single line to the repair point, leading to extension of the trampled / damaged area at the ends of the treated segment – this usually results in an ongoing ‘positive feedback loop’ of extending the repair zone, or in some cases abandonment.

Figure 1: discontinuous bog bridge with braiding at the ends



4.2 Deep peat on slopes

The gradient is a compounding factor for path management and there are long sections of damaged path in Wicklow Mountains that are on relatively steep ground – where conventional path repair techniques, without the complication of peat cover, would require significant maintenance commitment. Field observations suggest that deep peat on slopes greater than 10% (1 in 10 or approx. 5°) suffer deterioration of the vegetation layer with high recreational demand, eventually leading to bare peat. Once the peat is exposed and compressed by trampling, the peat is likely to become eroded by surface water preferentially using this line, especially if the path runs directly upslope. This starts a cycle of path widening through trampling of the margins, vegetation loss and erosion of bare peat. A similar process can be seen happening around wet areas and ‘bog pools’ on flat ground, where people avoid the bare peat or standing water, so widen the trample zone – in places these can be 30m wide.

On gradients up to 30% (1 in 3 or 16°), floating aggregate paths or bog bridge / boardwalks are an option, but as the gradient increases above 10% (1 in 10 or approx. 5°) aggregate tends to need more frequent ongoing maintenance. In areas with high water tables, paths and structures are susceptible to movement, especially as the weight of the path / structure and gradient can cause the peat to ‘flow’ over time exacerbating any effects of gravity within the peat mass itself. Flagstone / slab paths have working in other areas (such as the Pennines) on low gradients, but there is no obvious source of flagstone locally.

Figure 2: Bog bridge with 'passing place'



Slopes greater than 30% (1 in 3 or 16°) generally require stone pitching as aggregate will erode downslope in a relatively short time. In the Wicklow Mountains there are considerable sections that are at least 30% gradient on deep peat, which would mean building an interlocking stone 'structure'. Without it being anchored (technically possible in some situations, but probably not desirable where peat depth is beyond 50cm) this structure would deform and likely disintegrate reasonably quickly. The option of boardwalks on gradients would not be in keeping with the Helping the Hills principles as they require significant above-ground construction including handrails.

4.3 Eroded peat

Some routes cross areas of peat that have eroded down as far as the underlying substrate either as a result of long-term recreation on a particular line, or wider peat degradation and erosion resulting from other pressures (e.g. grazing). Perhaps counter-intuitively, these damaged areas may provide opportunities to develop more sustainable routes without needing to float paths for extended lengths. By careful selection of a route through eroded peat it may be possible to find hard base close to the surface – this may at times be a less direct option than that usually taken by walkers. However, it would be necessary to consider the path as a whole rather than as individual sections to ensure that it is viable to repair the whole path without significant traverse(s) of deep peat.

Figure 3: Desire line through area of eroded peat (Camaderry)



5 Issues and constraints on path management

5.1 Parking and transport

In common with all rural areas, private motor vehicles are currently the main way that visitors access the Wicklow Mountains. This means that wherever people walk the hills, they will park their vehicles. There is a conundrum with providing space for parking, which is almost impossible to solve: providing for the maximum number of visitors on the busiest day of the year without impacting on other land uses or people. Usually parking areas can cope with the majority of demand and it is not anticipated that significantly expanded parking space should be needed as a result of the recommendations of this report.

5.2 Social media

Routes, views and mountain summits can become ‘victims’ of promotion through social media and the consequences can be difficult to manage. It is almost impossible to influence the popularity of a mountain to ‘de-promote’ on social media and it is not clear whether attempts to dissuade people from visiting would be counter-productive.

The main problem for path management relates to the speed of change when social media is involved. Number of visitors can dramatically increase over a short period and could potentially fade away equally quickly. This means decision-making needs to be responsive but without assuming that intervention is the only option. The main hotspot in Wicklow appears to be Lough Ouler and there is evidence of recent and rapid increase in damage. However, it is not clear whether this is likely to be sustained or if the recent Covid-19 lockdowns have meant a temporary rise in popularity.

5.3 Dispersal from ‘honeypot’ sites

The main outdoor visitor areas within the Wicklow Mountains are thought to be close to or at capacity and other locations for visitor facilities (or unmanaged experiences) are being investigated. In principle open country can provide high quality visitor experiences and expansion of this ‘market’ may be well intentioned to give more inclusive access to mountain spaces. However, it is usual for some level of infrastructure or services to be in place in order to avoid inadvertent damage to the ‘resource’ and to ensure that visitors remain safe and within appropriate areas.

There are innumerable examples where visitor pressure has had a detrimental impact on the environment as well as the visitor experience and more often visitor management planning is implemented as a response to those issues rather than proactively to avoid or prevent impacts. As a result, nothing in this report should be used to justify promotion or development of upland paths as a visitor attraction or for tourism development purposes. Mountain environments are intrinsically fragile and unsuited to development as tourism destinations.

Introducing new visitors to an area can also have unintended consequences, particularly where the objectives for visitor management focus on economic benefit or if proposals have been developed without wide engagement of different perspectives. Promotion of upland paths, or specific hill/mountain sites, as mass visitor destinations would come with associated risks and there may be conundrums that need to be considered before proceeding with any proposals. The following aspects are worthy of note, but not exhaustive:

5.3.1 Visitor Capacity

Open countryside has a much lower carrying capacity for visitors than, for example, woodland or forest. A mountain will feel busier for a given number of people and the perception of busyness stems from generally long sight lines and open views. This may not have a strong impact on new visitors who are unfamiliar with mountain areas and may even be seen as a positive for some who are less confident away from built-up areas. However, it is likely to have a negative impact on many people already using mountains areas for recreation and could diminish their experience. It is difficult to mitigate this issue and is often cited as ‘elitist’, but gradual increase in visitors over an extended period may reduce the perception of an impacted experience if higher use of a location is agreed to be appropriate.

5.3.2 Robust environments

The survey of upland paths and routes in the Wicklow Mountains shows that the majority of summits are peat-bound (in the sense that visitors need to traverse deep peat at some point on the journey) or have fragile habitats, making them sensitive to trampling. In some cases, this could be mitigated by well-constructed a path but, in others, dispersal of large numbers of people could have a significant impact on the mountain or make any visitor management procedures ineffective. Some summits are already at or beyond their capacity, so would have limited scope for increase without major ‘hardening’ of the resource – this may not be appropriate for a variety of reasons (landscape impact, habitat management, aesthetics).

There are legally protected habitats and species within the Wicklow Mountains that will need to be considered, some of which are more prone to disturbance than others.

5.3.3 Infrastructure

Foreseeable (albeit unintended) consequences of promotion need to be designed out rather than left for others to manage. Prior to additional sites being promoted as visitor destinations, it would be imperative to put appropriate infrastructure in place – reactive development is likely to be more expensive and harder to achieve to a high standard. This would include provision of car parking or viable public transport alternatives; sustainable and appropriately constructed paths and potentially other visitor facilities such as toilets to avoid general degradation of the environment.

5.3.4 Visitor preferences and behaviour

It has been reported by recreation professionals, and is intuitive, that visitors have a preference for circular or loop activities rather than linear or out-and-back opportunities. This makes mountain paths more challenging in many circumstances unless there is a clearly defined achievable loop. Creating a summit destination is highly likely to lead to ‘leakage’ beyond the intended area as visitors seek alternative return routes or other opportunities to explore. Visitors will also tend to seek uncrowded spaces for rest, further adding to the pressure of the area around a path or summit.

This means that there are significant challenges to any proposals that would require people to return along the same route, including the need for enough space for people to comfortably pass without stepping off a robust surface.

5.3.5 Visitor safety

Although it is always the responsibility of the individual to be prepared for every eventuality, promotion of mountain environments as tourism destinations has implications for visitor safety. Unprepared or inexperienced visitors will generally ‘get away’ with difficult conditions, but the consequences when things go wrong can be significantly more serious. The implications of mitigating these risks can also be significant depending on how the issues are approached and can lead to over-engineering or development that is inappropriate to its location, particularly if dealt with retrospectively. Mountain environments are therefore not best suited to promotion as mass-market tourism destinations.

5.4 Blanket bogs

There are extensive areas of damaged blanket bog in the Wicklow Mountains where the pressure caused by recreation is insignificant when compared with other issues. This does not imply that recreational use could continue or expand with impunity, instead there are other land management issues that need to be addressed more urgently if the loss of peat is to be slowed or reversed. It is beyond the scope of this report to address these issues, but management of recreation cannot viably be treated in isolation from other aspects of land management – large scale investment in repairing upland paths may not be the most effective use of limited resources, even though it may be a highly desirable activity.

There are large areas of actively eroding bare peat (e.g. Kippure, Barnacuillian) as well as gullies and hags on a very large scale across the mountain range. Whilst external factors such as climate change undoubtedly have an influence on the ability of peat bogs to self-sustain, land management practices over an extended period have been the dominant impact. Burning is often seen as a positive tool for graziers to improve ground for sheep, but has an incremental impact on the functioning of blanket bogs and can be disastrous where fires are allowed to burn uncontrolled leading to total loss of vegetation

cover. Continued grazing pressure results in loss of heather and mosses towards dominance of grasses. Water absorption properties of mosses are significant especially on slopes so reduction of moss can have implications for surface water and therefore erosion – potentially leading to the development of gullies.

It is important to note that the degradation takes place over decades and the environmental responses to different pressures are rarely immediate and may interact. This makes it difficult to categorically prove cause-and-effect or quantify truly sustainable levels of grazing and is consequently harder to advocate changes to practices that could have an immediate economic impact on land managers.

Healthy blanket bogs can act as a long term means of storing and sequestering carbon, but it is clear from the extensive damage caused to the blanket bogs of Wicklow Mountains that, without coordinated and sustained action, the degradation will continue and carbon stored over the past few thousand years will be rapidly released.

5.5 Off road vehicle use

Parts of the Wicklow Mountains are used by quad bikes and scramblers, most of which is not related to land management. The routes used by these vehicles show significant levels of damage – far outweighing impacts of walkers, especially in areas of deep peat. ‘Recreational’ use of off-road vehicles is acknowledged to be a policing issue requiring ongoing enforcement, but there are difficulties in gathering evidence that can be used in court. Even though it is probably a small number of individuals engaging in illegal activity, additional resources including CCTV may be necessary in order to overcome current inadequacies in rates of prosecution, to discourage others from participating.

Figure 4: Extensive damage caused by quad bikers and scramblers



5.6 Skills and capacity

There is a common assumption within funding bodies that projects to repair upland paths can be implemented using contractors. Whilst this could fit a ‘standard’ procurement model to ensure value for money and competitive tendering, there is a fundamental flaw in this assumption for Ireland – there is insufficient capacity and skills base to support an ‘industry’ level of specialist contractors that would be required to implement such projects.

5.7 Maintenance

There is no such thing as maintenance free option so before considering repair of paths, a long-term commitment to maintenance is highly recommended, not only to ensure that repaired paths remain functional, but also to ensure that the potentially large investment is secure in the long term. There are innumerable examples of capital investment in upland paths or recreational facilities where these resources have not been set aside or, in some cases, considered and the investment has been effectively forfeited.

One way to address this is to develop local capacity in upland path management and to deploy these skills across a mix of capital projects and ongoing maintenance – there would be sufficient work (assuming funding were available) to keep at least one team of skilled path workers busy indefinitely.

6 Summary of path surveys

Paths within the survey have been categorised according to the depth of peat and gradient as these have the most significant influence on repair and management viability.

6.1 Paths without deep peat

The following paths do not have significant accumulations of peat and conventional path repair techniques could be used to manage the impacts of recreation. Inclusion in this list does not imply that repair is necessary and / or desirable.

Path	Sections	Route length
Great Sugarloaf	9	1980
Lugnaquilla spur	3	1906
Prince William's Seat loop	6	1369
Scarr	3	1171
Scarr / Oldbridge	5	1879
Scarr ridge	5	4403
Seahan	6	1845
Two Rock and Three Rock Mountains	6	2230
Two Rock approach	5	800

6.2 Paths with deep peat on low gradient

The following paths include one or more section with peat greater than 30cm deep but on gradients of less than 15%. These sections may not be entirely deep peat but they would require a ‘floated’ path (aggregate or bog-bridge / boardwalk) in order to cope with significant numbers of walkers. There are no technical impediments to such work, but they may be expensive and/or undesirable.

Path	Sections	Route length (m)	Not peat	Shallow peat	Deep Peat and Low gradient	Length (m) deep and shallow
Lugnaquilla to Table	9	5780	1	6	2	1281
Seahan to Seefingan	5	2507	0	3	2	1328
Table to Avonbeg River	3	1673	1	0	2	1487
Keadeen	7	4357	3	1	3	1267

6.3 Paths with deep peat on steeper gradients

The following paths include sections that have deep peat on gradients above 15% and are listed in ascending length of these sections, to indicate the increasing difficulty / likely cost of attempting repair. To add to the complexity, on some sections the deep peat has eroded to expose underling rock, but field measurements of these lengths were not collected. It is not possible to determine the exact amount of deep peat across such an expansive survey area using the Amber Survey and the cost of doing so would be prohibitive. However, more detailed reconnaissance of individual sections could be useful to confirm whether peat erosion has resulted in conditions more conducive to path repair.

Path	Sections	Route length	Number of Sections					Length (m)	
			Not peat	Shallow peat	deep peat	deep peat low gradient	deep peat and steep	deep peat low gradient	deep peat steep
Glendoo-Cloghnagun-Prince William's Seat	8	4628	0	1	7	6	1	4004	208
Luggala	13	3134	7	4	2	1	1	47	285
Table to Oiltiagh Bridge	5	2435	2	2	1	0	1	0	346
Sorrel hill	3	1099	0	2	1	0	1	0	352
WW to maulin	5	1653	1	3	1	0	1	0	547
Camerahill	7	4093	3	2	2	1	1	184	595
Brockagh	19	6242	7	7	5	3	2	998	745
Lough bray morraine	4	880	1	0	3	0	3	0	767
Turlough	7	2374	2	3	2	0	2	0	802
Cullentragh and Mullacor	13	6188	2	7	4	2	2	688	861
Kippure to Seefingan	7	3177	0	0	7	5	2	2274	903
Maulin loop	7	3387	6	0	1	0	1	0	913
Seefingan to Seefin	4	3420	0	1	3	2	1	2018	989

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Path	Sections	Route length	Number of Sections					Length (m)	
			Not peat	Shallow peat	deep peat	deep peat low gradient	deep peat and steep	deep peat low gradient	deep peat steep
Lough bray lower	4	1287	0	1	3	0	3	0	1202
Church mountain	10	4273	6	1	3	1	2	325	1275
Tonelagee to Mullaghcleevaun	9	5632	0	5	4	2	2	1546	1346
Wicklow gap to Tonalegee	6	1796	0	1	5	0	5	0	1389
Slievemaan to Ballineddan	8	4845	2	3	3	1	2	448	1394
Derrybawn	12	3329	3	6	3	0	3	0	1405
Lybagh	7	4288	2	3	2	0	2	0	1446
Fraughan Rock Glen	8	2156	3	0	5	0	5	0	1562
Claughenagh	7	3516	1	1	5	1	4	340	1572
War hill	5	1631	0	0	5	0	5	0	1631
Moanbane	2	2344	0	0	2	1	1	618	1726
Mullaghcleevaun	5	3518	0	1	4	1	3	1173	1772
Kippure to White Rock Road	6	2297	0	0	6	2	4	452	1845
Warhill - Glensoulán	3	2727	0	0	3	1	2	786	1941
Luggala to road	4	2576	0	0	4	1	3	617	1959
Maulin to tonduff	5	2591	0	1	4	0	4	0	2359
Lobawn	12	6899	1	2	9	4	5	2369	3026
Kanturk - Scarr	9	4594	1	3	5	0	5	0	3046
Tonagalee - Lough Ouler circuit	21	7353	2	6	13	6	7	1707	3100
Corriegasleggaun and Carrawaystick	10	5804	0	1	9	2	7	1685	3542
Lough bray upper	9	4520	0	1	8	0	8	0	4230
Gravale	13	7087	2	1	10	2	8	1095	5346
Camaderry	11	7979	3	1	7	0	7	0	6297

7 Repair options

Paths are presented in different categories, depending on type of work indicated – they are listed alphabetically for ease of reference. The amount of work indicated does not imply priority or importance, or urgency.

Each section has been assessed independently according to the work required, but there are many situations where conditions elsewhere on the path over-ride the potential to repair individual sections – for example if a section lies beyond an area of deep peat, it could be impractical to invest significant resources when the peat section cannot reasonably be repaired or avoided. This means that there are potential conflicts between recreational interest / demand to use a route and the viability of managing the route. The assessment has taken a cautious approach, focussing on technical issues for conserving and repairing paths rather than potential to develop and sustain recreational demand. Section-by-section descriptions of work (or otherwise) are provided in the detailed assessments and Google Earth dataset.

7.1 Paths for no action

The following paths, although showing signs of damage would be difficult to justify intervention.

Path	Sections	Length (m)	Rationale
Kippure to Seefingan	7	3177	There are extensive bare peat areas and peat depths are significant. Restoration of damaged peat is considered to be a much higher priority.
Lough Bray moraine	4	880	The location of this path in relation to the road is such that repair or development could have a highly detrimental impact on neighbouring areas – it would be difficult to keep people on a single line and the deep peat makes construction more problematic.
Lough Bray upper	9	4520	There is deep peat above the cliffs and, combined with the gradients, would make management of a path extremely difficult.
Luggala to road	4	2576	Deep peat across this open moorland means that there are no minor interventions possible. It is difficult to justify constructing a path in this area
Lugnaquilla spur	3	1906	This is a relatively remote site and it would be difficult to constrain people on

Path	Sections	Length (m)	Rationale
			a path that would be in keeping with the location.
Maulin to tonduff	5	2591	There are areas of deep peat on relatively steep gradients, through which it would be very difficult to construct a path
Moanbane	2	2344	There is limited damage on this route and no continuous path. Areas of deep peat mean that small scale interventions would not be effective
Tonelagee to Mullaghcleevaun	9	5632	This route traverses one of the most extensive areas of exposed peat in the Wicklow Mountains – path work in this area is inappropriate before tackling the more significant damage on the land
Warhill - Glensoulan	3	2727	There is no continuous path and areas of deep peat – it is a remote site and would be difficult to manage.

7.2 Paths for early intervention or light touch work

The following paths have one or more section where small scale works would be of benefit. In some cases, it is not possible to produce a sustainable route so the work described may simply be to stabilise urgent damage or prevent deterioration that is reasonably predictable.

Camaderry	Sections	Length (m)	Labour (days)
Light_touch	3	2817	140
None	8	5162	0

Church mountain	Sections	Length (m)	Labour (days)
early_intervention	3	1242	37
none	7	3031	0

Corriegasleggaun and Carrawaystick	Sections	Length (m)	Labour (days)
early_intervention	1	548	5
Light_touch	4	2848	150
none	5	2408	0

Derrybawn	Sections	Length (m)	Labour (days)
early_intervention	6	1422	38
Light_touch	2	453	15
none	4	1454	0

Glendoo-Cloghnagun-Prince William's Seat	Sections	Length (m)	Labour (days)
early_intervention	3	1933	9
Light_touch	1	416	5
none	4	2279	0

Gravale	Sections	Length (m)	Labour (days)
early_intervention	1	328	5
none	12	6759	0

Kippure to White Rock Road	Sections	Length (m)	Labour (days)
early_intervention	1	189	5
none	5	2108	0

Luggala	Sections	Length (m)	Labour (days)
early_intervention	8	1630	111
none	5	1504	0

Lybagh	Sections	Length (m)	Labour (days)
early_intervention	1	1180	10
none	6	3108	0

Mullaghcleevaun	Sections	Length (m)	Labour (days)
early_intervention	3	1772	30
none	2	1746	0

Scarr / Oldbridge	Sections	Length (m)	Labour (days)
early_intervention	3	1455	20
none	2	424	0

Scarr	Sections	Length (m)	Labour (days)
early_intervention	3	1171	25

Scarr ridge	Sections	Length (m)	Labour (days)
early_intervention	1	1009	8
Light_touch	4	3394	15

Seahan to Seefingan	Sections	Length (m)	Labour (days)
early_intervention	2	993	15
none	3	1514	0

Seefingan to Seefin	Sections	Length (m)	Labour (days)
early_intervention	2	1402	22
none	2	2018	0

Lugnaquilla to Ballineddan	Sections	Length (m)	Labour (days)
early_intervention	1	253	5
none	7	4592	0

Sorrel hill	Sections	Length (m)	Labour (days)
early_intervention	2	747	18
none	1	352	0

Turlough	Sections	Length (m)	Labour (days)
early_intervention	1	309	40
Light_touch	3	1071	80
none	3	994	0

War hill	Sections	Length (m)	Labour (days)
Light_touch	1	207	10
none	4	1424	0

Wicklow gap to Tonalegee	Sections	Length (m)	Labour (days)
early_intervention	4	1219	40
Light_touch	1	430	20
none	1	147	0

7.3 Paths for more intensive repair

The following paths include one or more section where intensive works are required as well as the early intervention and light touch work. Some sections remain inappropriate for work.

Brockagh	Sections	Length (m)	Labour (days)
early_intervention	7	2564	82
Light_touch	1	132	20
minor_repair	1	38	6
none	10	3508	0

Camerahill	Sections	Length (m)	Labour (days)
early_intervention	1	184	1
Light_touch	4	3066	180
minor_repair	1	697	30
none	1	146	0

Claughenagh	Sections	Length (m)	Labour (days)
early_intervention	2	611	25
Light_touch	4	1764	165
minor_repair	1	1141	0

Cullentragh and Mullacor	Sections	Length (m)	Labour (days)
early_intervention	4	2162	125
Light_touch	1	468	90
minor_repair	1	450	10
none	7	3108	0

Djouce	Sections	Length (m)	Labour (days)
major_repair	2	803	380

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Fraughan Rock Glen	Sections	Length (m)	Labour (days)
early_intervention	2	356	55
minor_repair	1	238	5
none	5	1562	0

Great Sugarloaf	Sections	Length (m)	Labour (days)
early_intervention	1	74	100
Light_touch	2	649	100
minor_repair	3	749	28
major_repair	3	508	750

Kanturk - Scarr	Sections	Length (m)	Labour (days)
early_intervention	8	4408	78
part_repair	1	186	10

Keadeen	Sections	Length (m)	Labour (days)
early_intervention	3	1761	33
minor_repair	1	288	6
none	3	2308	0

Lobawn	Sections	Length (m)	Labour (days)
early_intervention	1	331	5
minor_repair	2	585	10
part_repair	2	1596	120
none	7	4386	0

Lough bray lower	Sections	Length (m)	Labour (days)
early_intervention	1	301	5
minor_repair	1	689	14
major_repair	1	85	25
none	1	212	0

Lugnaquilla to Table	Sections	Length (m)	Labour (days)
early_intervention	1	162	5
Light_touch	5	3049	180
none	3	2569	0

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Maulin loop	Sections	Length (m)	Labour (days)
Light_touch	1	345	20
minor_repair	2	868	20
major_repair	1	913	40
none	3	1261	0

Prince William's Seat loop	Sections	Length (m)	Labour (days)
early_intervention	3	1086	6
minor_repair	1	115	8
none	2	168	0

Seahan	Sections	Length (m)	Labour (days)
early_intervention	4	1230	31
part_repair	1	574	30
none	1	41	0

Table to Avonbeg River	Sections	Length (m)	Labour (days)
minor_repair	2	1487	14
none	1	186	0

Table to Oiltiagh Bridge	Sections	Length (m)	Labour (days)
early_intervention	1	245	5
major_repair	1	57	60
minor_repair	3	2133	16

Tonagalee - Lough Ouler circuit	Sections	Length (m)	Labour (days)
early_intervention	1	231	10
Light_touch	2	1381	25
minor_repair	1	118	2
none	17	5623	0

Two Rock and Three Rock Mountains	Sections	Length (m)	Labour (days)
early_intervention	1	64	10
Light_touch	3	1298	55
minor_repair	1	382	4
part_repair	1	486	30

Two Rock approach	Sections	Length (m)	Labour (days)
early_intervention	1	79	10
part_repair	1	157	25
major_repair	2	385	95
none	1	179	0

Wicklow Way to Maolin	Sections	Length (m)	Labour (days)
early_intervention	1	499	8
minor_repair	2	328	14
part_repair	1	279	20
major_repair	1	547	120

8 Resource requirements

The enormity of the study area and the range of influences on potential repair options means that there is currently no way of prioritising repair across the whole of the Wicklow Mountains. The figures included in the report are indicative of the labour required for each section but more detailed specification would be required before embarking on any programme of repair. It would be impossible to do all of the work concurrently and therefore the condition of some paths may deteriorate before the anticipated work would be undertaken. However, the survey reveals that a starting point of requiring approximately 4000 person-days of labour to begin the process of repairing damaged paths.

By way of quantifying that estimate, it is the equivalent of **a team of 4 working continuously for almost 5 years** just to tackle the work outlined in this report. It does not include many of the wider actions of peatland remediation that are urgently required across the Wicklow Mountains.

9 Next steps

The scale of the task is daunting and therefore needs to be sub-divided into manageable packages. This could be done geographically or by land ownership (providing that each path is managed coherently if they cross between owners). Within each package, some prioritisation will be required, and this could potentially be done without further survey work.

It may be possible to tackle one or more high priority path as a demonstration of techniques or delivery mechanisms, but certainly upland path management in the Wicklow Mountains cannot reasonably be achieved without the generation of skills and capacity to undertake this labour intensive task and there would be considerable merit in a strategic approach being taken, rather than ad hoc delivery of projects dependent on imported labour (whether from within Ireland or beyond).

Stakeholder Organisations

Wicklow Uplands Council

Wicklow Uplands Council is an independent, voluntary organisation which represents the shared interests of over 40 member groups and individuals in the Wicklow and Dublin uplands. Supported by the Heritage Council, Wicklow Uplands Council promotes projects which bring value to people who live and work in region and those who use it for recreational purposes. www.wicklowuplands.ie

National Parks and Wildlife Service (NPWS) – Wicklow Mountains National Park

The National Parks and Wildlife Service (NPWS) has responsibility for the protection and conservation of Ireland's natural heritage and biodiversity at national government level. The primary purpose of Wicklow Mountains National Park is the conservation of biodiversity and landscape. The Park is also an invaluable recreational space for locals and visitors alike. Over one million visits are estimated to be made each year. www.wicklowmountainsnationalpark.ie

County Wicklow Partnership/Rural Recreation Officer

County Wicklow Partnership (CWP) is a local and community development company which formed in 2009. CWP's activities cover the entire of Co Wicklow and include LEADER (Rural Development Programme), SICAP (Social Inclusion, Community Activation) and Tús. CWP holds the office of the Rural Recreation Officer (RRO) for Co Wicklow. www.wicklowpartnership.ie

Coillte

Established in 1989, Coillte is the custodian of 440,000 hectares or 7% of Ireland's land. Coillte are the leading provider of outdoor recreation in Ireland with more than 3000 kilometres of trails, 260 recreation sites and 12 forest parks across the country and more than 90,000 hectares managed for biodiversity. www.coillte.ie

Mountain Meitheal

Mountain Meitheal Ireland is Ireland's governing body for Mountain Meitheal branches who undertake projects to protect and conserve mountain and forest areas in Ireland. They aim to counteract the pressures which are evident on our fragile landscape by building and maintaining trails which are sympathetic to the surrounding countryside. www.mountainmeitheal.ie

Mountaineering Ireland

Mountaineering Ireland is the representative body for hillwalkers and climbers in Ireland. It is recognised as the National Governing Body for mountaineering, hillwalking, rambling and climbing by both Sport Ireland and Sport Northern Ireland. In 2012, Mountaineering Ireland started Helping the Hills to raise awareness of upland path erosion and to highlight possible solutions. www.mountaineering.ie, also www.helpingthehills.ie

Wicklow County Council

Wicklow County Council is the Local Authority with responsibility for the provision of a broad range of social, infrastructural, regulatory and promotional services to, and on behalf of, the people of Wicklow. www.wicklow.ie