



Lake District
National Park

KESWICK TO THRELKELD RAILWAY TRAIL

MONITORING & MAINTENANCE PLAN



LAKE DISTRICT NATIONAL PARK AUTHORITY

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VERSION: DRAFT 1

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1. Keswick to Threlkeld Railway Trail - Background

On 5 December 2015 Storm Desmond destroyed the Keswick to Threlkeld Railway Trail, leaving Low Pearson and Brundholme bridges washed away, Rawsome Bridge closed due to risk of collapse, the boardwalk at Greta viaduct undermined, over 200 metres of the path washed away at Brundholme Bottoms and many of the remaining bridges and path drainage system weakened by the flood waters.



The Lake District National Park Authority quickly responded to the users of the popular amenity by establishing a project to reconnect the route. The project has three key stages.

Stage 1: Focused on the temporary short-term reconnection of Keswick to Threlkeld for cyclists and walkers, securing alternative paths and roads. (Complete)

Stage 2: Stabilisation of damaged infrastructure and partial re-opening of sections of the path where safe and retrieval of damaged bridges from the river. (Complete)

Stage 3: Permanent reconnection including options, design, costing and construction for cyclists and walkers. Undertake the construction of a new trail to meet user needs, incorporates resilience and is durable and cost effective to maintain. (On-going at time of writing)

The trail design reflects the various user interests that were captured in the survey we undertook during the feasibility and design stages. Over 2300 people responded describing the use they had enjoyed pre-Storm Desmond and hoped would be provided in any future trail development. Walkers, cyclists, runners and people with limited mobility (those wishing access with prams, wheelchairs and some with infirmity/instability) made up the demand.

Project funding is considerable at £8.2million. A capital funding package is in place for the trail development and construction from the European Regional Development Fund, European Structural and Investment Funds, Highways England, Local Enterprise Partnership and Lake District Foundation led donations and sponsorship.

The extensive Stage 3 construction works commenced in April 2019 and are planned for completion in December 2020. These works include rebuilding, repairing and adding resilience to the trail, and the re-opening and extending of the 'big tunnel'. Additionally two new bridges will be constructed and another will be extensively repaired and improved. Also, 200 metres of brand new path will be created and work will be carried out to stabilise the river bank and repairing drains and walls along the way.

2. Plan purpose and scope

This monitoring and maintenance plan aims to describe and establish the principles, commitment, considerations, methodology and resourcing required to look after the trail once it is open for use from December 2020.

At this time there is no trail to maintain and there are extensive construction works underway to create the trail that will be fit for purpose – designed to meet user needs and be durable and resilient.

Given this circumstance this plan is draft and will remain so until we know the exact specifics of the finished product and the relevant maintenance requirement of the component parts. Once we have this information a finalised plan will be produced; autumn 2020.



3. Key principles – maintenance commitment

- Trail will be kept in good condition to ensure its popularity and attractiveness to users.
- Level of investment in trail construction to be protected.
- Maintenance considerations embedded within the trail development process.
- High standard of design and construction will mean less maintenance in the future.
- Authority led trail monitoring and maintenance plan delivery.
- Deployment of resources to maintain and promote the trail with community support.

Commitment to providing an attractive trail in good condition:

The trail will be kept in good condition to ensure it is more useful, attractive and popular than one that is allowed to deteriorate. Maintenance can sometimes seem like an afterthought compared to the exciting world of designing and building new routes, but having invested time and money in building the trail, we recognise that it is important that it remains attractive to users.

Walking and riding experiences of a high quality will be maintained, particularly keeping route surface in good condition year round.

Protecting the investment:

Maintenance has been considered as part of the trail development process. Route user needs and preferences shaped the design. The design and specification aims at minimal but efficient and effective maintenance in the future. For example – the trail surface of tarmac has a long life needing little maintenance other than litter picking and keeping it clear.

Maintenance was intrinsic to the trail development process given the capital only funding package secured for trail construction. Maintenance will be from existing Authority budgets.

Authority led and resourced maintenance that involves others:

The trail is nearly all within the ownership of the Authority and where it is not owned by the Authority there are legal easements in place allowing trail construction, public use of the trail and rights to maintain the trail.

Two of the Authority's services have responsibility for the provision and maintenance of the trail. They are – Park Management and Resources & Programmes (specifically the Property Team and Finance Team). These responsibilities were defined at the outset of the project and future years - property management, surveying and monitoring, maintenance works and budgeting will be intrinsic to annual service planning.

The maintenance of the significant infrastructure (tarmac surface, tunnels, bridges, main drains, lighting, and revetments roads) is a specialist task for professionals, the trail will provide an opportunity for the Lake District National Park Volunteers Service to be deployed and who can 'adopt' the trail route and help ensure it is in the best possible condition when combined with Authority staff or contractors doing the more specialist tasks such as – mowing, cutting back trees, bridge maintenance, and structural surveys.

There may be an opportunity to secure local volunteers from the communities of Keswick and Threlkeld to supplement the Park Volunteer Service, the Authority staff and contractors carrying out the bigger maintenance tasks. Volunteers provide a hugely valuable role, ensuring the local community is involved in its' local path and promoting its use, while carrying out appropriate monitoring and maintenance tasks.

4. Key maintenance considerations

Given the traffic-free nature of the trail the priorities for monitoring and maintenance are:

- Planned, resourced and executed trail monitoring and surveying regime
- Condition surveying of all key infrastructure items
- Repairs to surface damage
- Clearance of drainage channels and culverts
- Sweep surface debris
- Clearance of encroaching side vegetation
- Repair or replacement of damaged or lost signage and interpretation
- Maintenance of lighting and any associated trail furniture
- Encouragement of considerate behaviour on this shared trail



5. Trail specific maintenance considerations

Vegetation and woodland:

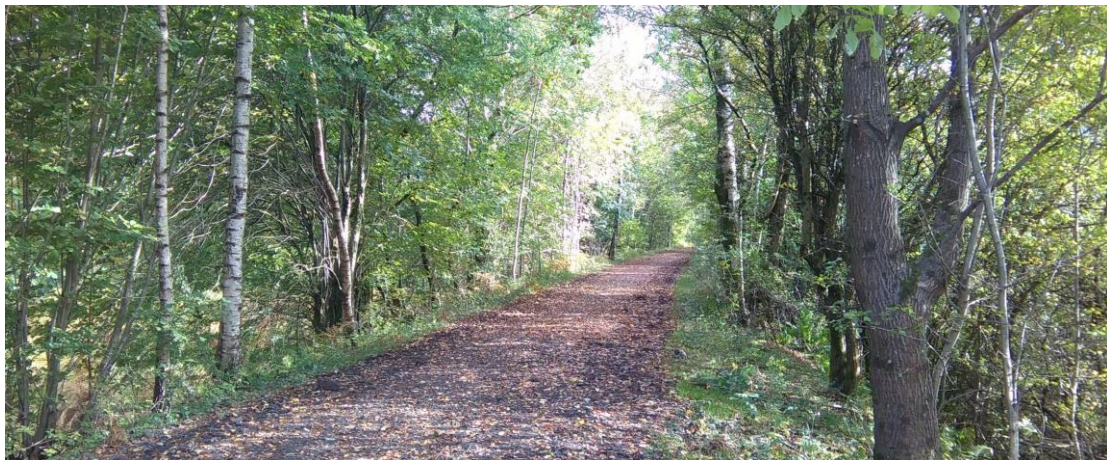
This traffic free trail could become unattractive and difficult to use if the vegetation and adjacent woodland fringe along it is allowed to grow freely. The maintenance regimes will ensure that the path is kept clear, there is some natural light on the path, attractive and appropriate flora grows, which in turn encourages animals to use the path and its verges as part of the natural habitat.

Given the majority of this trail is an old railway line the plan for the maintenance is one covering the whole year and supports environmental protection of the designated habitats and considers user needs.

The trail follows a route, although mostly along an old railway track, through semi-ancient woodland and within the River Greta Special Area of Conservation. Therefore it is important that simple but important best practice underpins the approach to maintenance to protect the habitat whilst maintaining an attractive resource for users. For example – trees and scrub need management outside the bird nesting season. And such management needs to be mindful of user's needs – avoiding the tunnel effect that can occur on overgrown routes which can give rise to personal security concerns for some users.

Tree inspections will be part of the monitoring regime to ensure they do not pose a hazard; as landowner the Authority will undertake this.

Invasive species such as Himalayan balsam or Japanese knotweed will be part of monitoring and management regime too and as landowner the Authority is subject to legal requirements to take special measures to preventing them spreading.



Drainage:

Given the background to this trail development – Storm Desmond we know that water can really spoil a walk and a cycle journey. It can cause tremendous damage to paths and walking or cycling through standing water is not appropriate.

The trail design and specification includes cambers or falls across the trail to avoiding flooding when it rains. It also incorporates significant off route drainage systems that are essential to limit ground and surface water inundating the trail and any water on the trail is allowed to drain away. Such drainage systems (culverts, pipes and open channels) will be cleared regularly to avoid a build-up of silt and debris.

Depending on the scale and nature of the drainage system this can be done with appropriate plant and machinery or a team of volunteers led by skilled Authority staff.

Bridges, tunnels and retaining walls:

Key infrastructure items such as the trail bridges (including old railway bridges and the new bridges) tunnels (re-opened and existing) and the trail surface retaining structures will have a dedicated inspection and management system as part of the overall monitoring and maintenance regime.



The inspection and monitoring of such items will focus on the structural condition of the bridge and pay less attention to the environment of the bridge. The environment of such structures being covered in general monitoring activity.

Bridges throughout the trail vary in size and design and all are being refurbished during the trail construction. They were inspected and restoration works specified during the project development and design. These works form part of the construction contract.

Given the traffic-free nature of the trail the bridges are specified with maximum weight limits to accommodate maintenance vehicles and plant only. Typically the bridges have wooden decks and will have treatment to provide anti-slip properties; requiring specific attention within the maintenance plan.

Tunnels and retaining or revetment walls are large scale structural features throughout the trail. They are individually identifiable and have had a structural survey conducted as part of the project development proposals. Similar to the bridges they form part of the current construction activity and they will have bespoke surveying and maintenance requirements following trail opening.



It will be important to keep vegetation cut back close to bridges, tunnels and retaining structures to allow surveyors a clear view of the structure and to avoid damage by any such vegetation, scrub and trees which can cause foundation undermining, masonry to crack and painted surfaces to corrode.

6. Trail monitoring and maintenance methodology

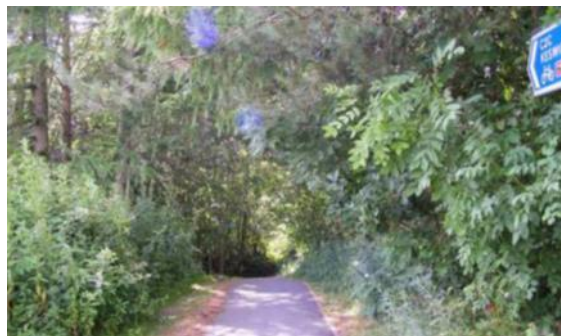
Monitoring:

A systematic approach to on trial monitoring and surveying will be delivered as follows:

Monitoring and survey activity	Frequency	Who	Action / Output
End to End routine walk through inspection of the trail using a definitive itemised features and structures checklist	Weekly	Volunteer	Signed off survey record. Work required actions investigated and actioned by Authority staff.
End to End routine walk through inspection of the trail using a definitive itemised features and structures checklist	Bi - monthly	Authority staff – park Management	Signed off survey record. Work required actions investigated and actioned by Authority staff.
Annual detailed trail condition survey – all infrastructure items visually inspected for condition; check list approach used	Annual	Authority staff – park Management	Signed off survey record. Actions prioritised – safety / maintenance / improvement and used to bid for budget for works delivery in next financial year.
Structural survey of specific major infrastructure items – specialist detailed inspections	3 – 5 years depending on the individual item	Third party consultant / structural engineer	Definitive report on condition of listed items. Proposals for any remedial or preventative works. Estimate of costs of the works identified. Used to inform budget allowances in future years to undertake necessary works.
Record keeping – property asset management data files updated	As required - within 15 working days of field based activities undertaken	Authority staff – Park Management supply information. Authority staff – property team administer the asset record keeping	Definitive Trail property asset management register. Auditable records of monitoring activity and any resultant action.

Maintenance:

Routine / Regular maintenance activity	When	Who
<ul style="list-style-type: none"> ○ Repair & renewal as needed of general trail surfaces ○ Prompt filling of potholes and reinstallation of sunken ironwork ○ Ensuring specialist surfacing, white lines and cycle symbols on the trail are in kept good condition ○ Clearance of litter, especially broken glass which can cause punctures, accidents as cyclists try to avoid it and injuries if they fall onto it. Other litter can cause obstructions and be unpleasant (for example, half-eaten takeaways and dog mess) ○ Clearance of drains and remedial work if chronically flooded places develop ○ Maintaining lighting, where provided, in working order, and repairing promptly ○ Ensuring that signage is properly placed, appropriate, clean and legible ○ Rapid replacement of missing signs and removal of signs that have become redundant 	<p>All year round – as required; defined by the monitoring and survey activity.</p>	<p>Authority staff, contractors and volunteers</p>
<ul style="list-style-type: none"> ○ Regular cutting back of trees, shrubs and plants that are encroaching onto the trail - narrowing it and making passage difficult or dangerous ○ Ensuring overhead shrubs do not cause serious obstruction when they droop as a result of rainfall or snow 	<p>In summer - as required; defined by the monitoring and survey activity.</p>	<p>Authority staff, contractors and volunteers</p>
<ul style="list-style-type: none"> ○ Surface clearance – possible debris / leaf sweeping ○ Cutting back of trees, shrubs and plants that are encroaching onto the trail 	<p>In autumn - as required; defined by the monitoring and survey activity.</p>	<p>Authority staff, contractors and volunteers</p>
<ul style="list-style-type: none"> ○ Review need for gritting winter whenever sufficient frost or snow is forecast ○ Review need for snow clearance and gritting/salting when snow has fallen. ○ Cutting back of trees, shrubs and plants that are encroaching onto the trail 	<p>In winter - as required; defined by the monitoring and survey activity.</p>	<p>Authority staff, contractors and volunteers</p>



7. Resources

The Authority has a contractual commitment with key funders to maintain the trail asset in a fit for purpose condition for a 15 year period post opening.

The Authority is the owner of the trail and as such the property is embedded in the Authority's 'Property Asset Management Strategy'.

The Authority has a dedicated Property Service Team with specialist staff covering – land agency, conveyancing, estate management and facilities management services. The Park Management service has dedicated operational staff with the relevant skills, knowledge and experience to undertake or to contract out work necessary to maintain this trail.

Given it is a property owned by the Authority the trail is subject to the property condition survey regime (as explained earlier in this document). The annual condition survey results define the actual works programme for care of the property. Based on a prioritisation criteria the works identified will be allocated an appropriate proportion of the Authority's dedicated Property Maintenance Fund each year.

In addition, an annual revenue budget is set three years in advance for specific properties such as this trail where there is a known minimum commitment for basic maintenance. In this case, prior to Storm Desmond, the old railway path budget was £5000 per year. The intention is to re-establish this budget for 2020 / 2021 onwards.

Volunteering is a realistic resource to support the care and maintenance of the trail. The Park Management Service has a dedicated cohort of over 350 existing volunteers. And this model of volunteer offer has proven successful in large scale care and maintenance led by the Authority such as Fix the Fells, where over 2100 days of volunteering are given each year to maintain over 250 upland paths in the national park. This trail will be an attractive opportunity for some of the existing volunteers and it could easily attract new volunteers.

8. Conclusion

The new trail is being built to high standards to meet the needs of users, be resilient and durable.

The Authority is contractually obliged to maintain the trail for at least 15 years. It also has existing property management strategy and condition survey methodologies that will be utilised on the property.

There are some in-house revenue resources that will be dedicated deployed to take care of the trail. And financial systems and processes that can be initiated, based on need and priority, should additional resource be required.

It is envisaged that continued fund-raising activity and volunteering effort will be an element of support to maintain and enhance the trail provision over the years.

This coherent and resourced approach to care and maintenance should ensure the trail exists as an attractive and valuable asset that will deliver the relevant social, economic benefits and done in a way that meets environmental protection needs.

Lake District National Park Authority

22 October 2019

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