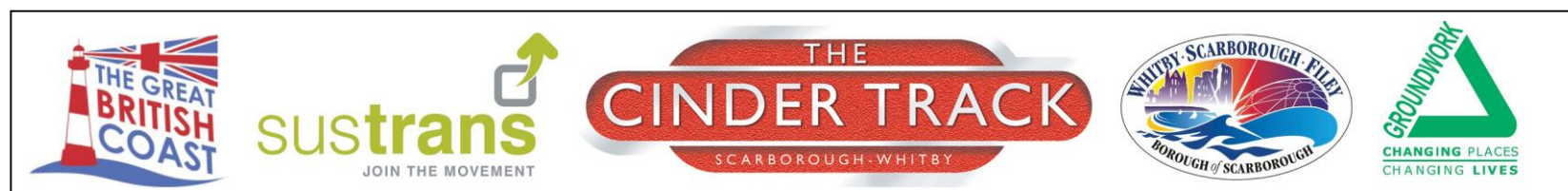


The Cinder Track

Restoration Plan

April 2016



About Sustrans

Sustrans makes smarter travel choices possible, desirable and inevitable. We’re a leading UK charity enabling people to travel by foot, bike or public transport for more of the journeys we make every day. We work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

It’s time we all began making smarter travel choices. Make your move and support Sustrans today. www.sustrans.org.uk

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1. Introduction

- 1.1. The Cinder Track is a largely off highway multi user route connecting Scarborough to Whitby via the disused Scarborough and Whitby Railway Line. The Track is popular with both local communities and visitors allowing access to the countryside as well as local amenities. It passes through wonderful scenery and provides outstanding views over the landscape as well as providing an everyday connection between villages and towns. This Restoration Plan (the Plan) lays out the ambition to improve the Track to make it more useable and sustainable to a wide range of current and future users.
- 1.2. Although a Management Strategy was developed in 1995 and an Action Plan in 2011, competing interests, uses and funding priorities has prevented a coordinated and comprehensive restoration plan to date. Over the years improvements have been made such as road crossing at Hawsker and Burniston, the purchase of Larpool Viaduct by Sustrans and subsequent incorporation into the Cinder Track and recent resurfacing of the Track south of Ravenscar by Scarborough Borough Council. In addition voluntary organisations (Friends of the Old Railway and Gateway Whitby) have raised funding for and carried out localised improvements. However the overall standard of the Track, in particular it's surface, has deteriorated over the years.
- 1.3. It has long been recognised that to reverse this deterioration and to create and implement an effective management strategy will take substantial co-ordinated investment. This Restoration Plan is designed to be a working document providing design solutions and /or recommendations to inform strategic direction and future management. It is intended that it can be used to co-ordinate funding bids and action.
- 1.4. The Plan gives an overview of the Track - its importance and the problems that it faces and proposes how these challenges will be met. It looks at the potential the Track has to boost the local economy and contribute to health outcomes. Specific design details are given in series of maps covering the whole route with suggested phasing and actions proposed to achieve improvements.
- 1.5. If using an electronic version of the report the maps can be downloaded as a separate document.



2. Methodology

- 2.1. Funding was received to undertake an initial consultation before the Restoration Plan to gauge initial opinion on the current status of the Track and to inform the Plan. The consultation was web based and asked people about their experience of the Track and what they thought the issues were. It was web based but with the opportunity to contact Groundwork North Yorkshire if respondents had difficulties in accessing via the web. Main points of the initial consultation can be detailed in Section 3.
- 2.2. The Restoration Plan was completed by Sustrans and has been based on desk top study, site visits and meeting key stakeholders. The establishment of a steering group has helped to clarify issues and formulate solutions. In addition Sustrans has a large depth and breadth of experience in-house to draw upon to suggest solutions to particular problems. Our aim is to explain design details and provide maps that give enough technical information but are understandable to the lay reader.
The first draft will be commented on at the second public consultation with subsequent changes being made. It is anticipated that the second draft will be available in July 2016.
- 2.3. The facilities proposed in this route study have been proposed with regard to latest standards and current best practice as set out by the *Handbook for Cycle Friendly Design (Sustrans)*. Designs should have the following core principles in mind:
 - *Safety*: Collision, Perception and Social
 - *Directness*: Journey Time, Delay, Deviation
 - *Coherence*: Connections, Way-finding
 - *Comfort*: Surface material, Effective width, Gradient, Deflections, Undulations
 - *Attractiveness*: Greenery, Air quality, Street clutter, Secure cycle parking
- 2.4. Groundwork North Yorkshire are responsible for the public consultation of the Restoration Plan. This is taking place on -line and also via a number of staffed drop in sessions at village and town public spaces along the trail. There will also be a standalone public display at Scarborough Town Hall during the first two weeks in May.

3. Consultation and the Importance of the Cinder Track

- 3.1. After the dismantling of the railway Scarborough Borough Council had the foresight to buy the Cinder Track and granted use as a permissive path; this situation remains today. The route forms part of National Cycle Network (NCN) Route 1 and the European North Sea Cycle Route.
- 3.2. A majority of the Track lies within the North York Moors National Park and for much of its 21½ mile length runs within a mile of the coast. The coastal area around the Track receives a large number of tourist visitors, over five million people per year. The Track allows car free access to this beautiful area and has the potential, with improvements, to become a year round tourist attraction.
- 3.3. It is estimated that approximately 60,000 people live within one mile of an access point to the Cinder Track (based on the population of towns and villages near the route of the Track). The Track is a link between communities and the amenities within them; in particular in Whitby it passes next to Caedmon College and at Scarborough finishing near shops and the rail station. With appropriate improvements along the route the Track could be used as a utility route for more local residents. Data from previous user counts established that there is most use in the Scarborough urban area (Groundwork 2010 – 13).
- 3.4. The initial consultation generated over 1100 responses a majority from the Scarborough Borough area but a significant amount from the rest of Yorkshire and Humber. The consultation was designed to gather basic data on use and what people felt the Track needed (or not) in terms of improvement. Main responses are shown below with figure 1 showing a wordle of the most common responses to what improvements are needed.

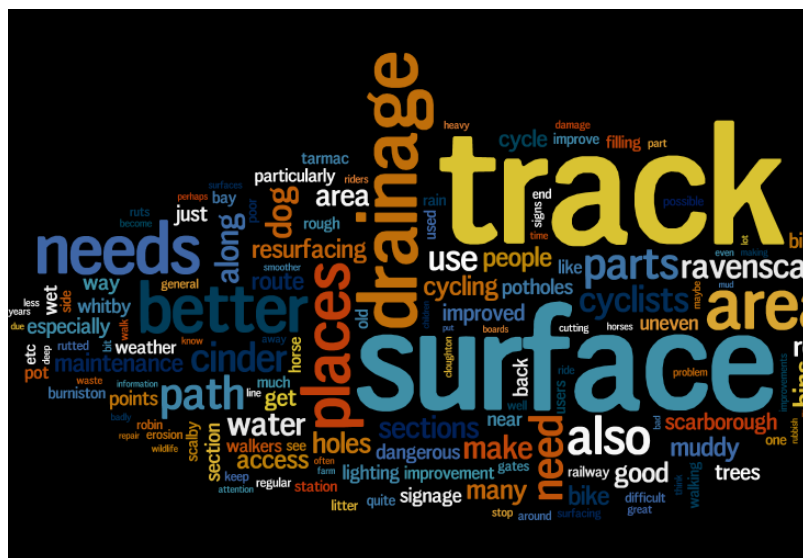
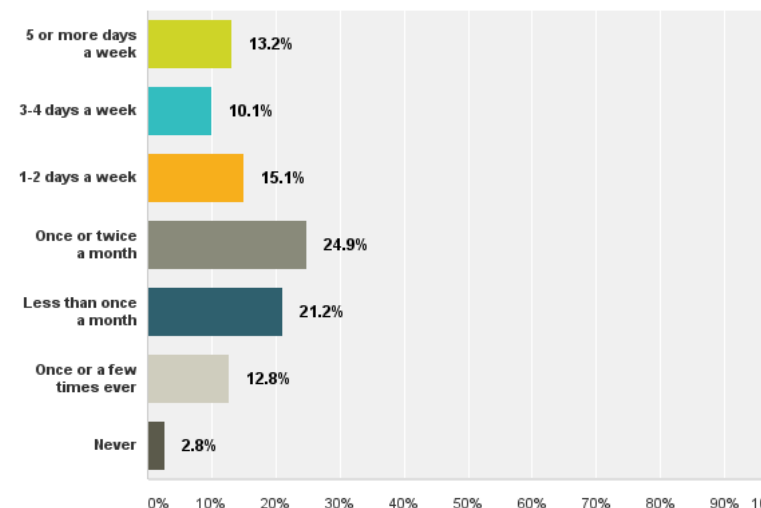


Figure 1: Wordle of improvements needed.

- 3.5. Respondents were allowed to answer more than once in the 'use' question to reflect all types of journeys made. As expected walking is the highest use however cycling is significantly higher than we would expect to see on other similar routes.

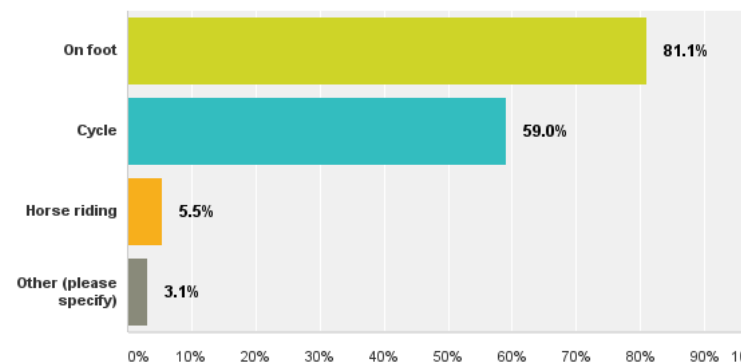
Q1 On average, how often do you use the Cinder Track?(Please tick one box)

Answered: 1,110 Skipped: 0



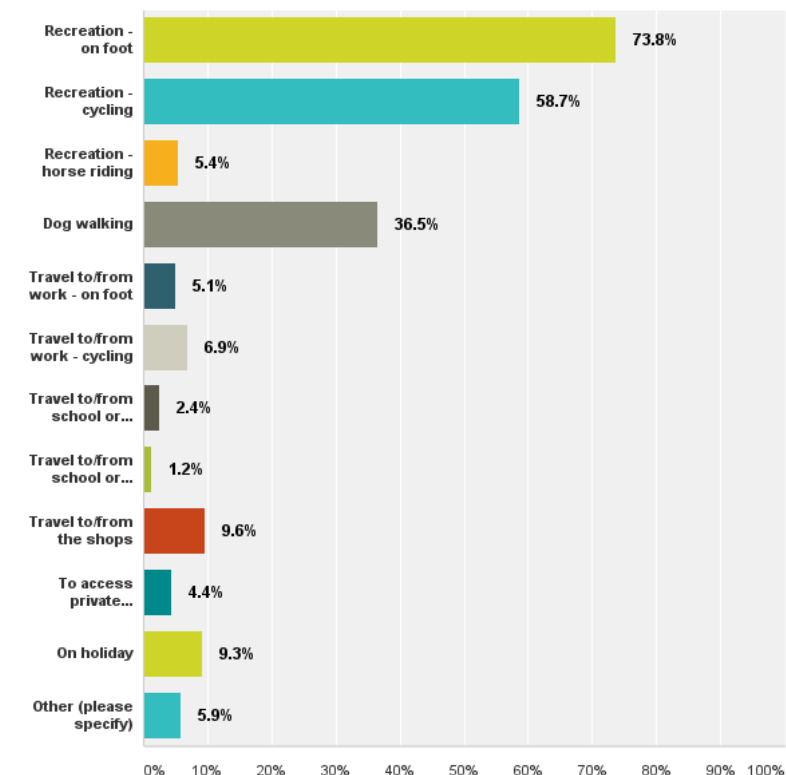
Q2 What forms of transport do you use on the Cinder Track?(Please tick as many boxes as appropriate)

Answered: 1.074 Skipped: 36



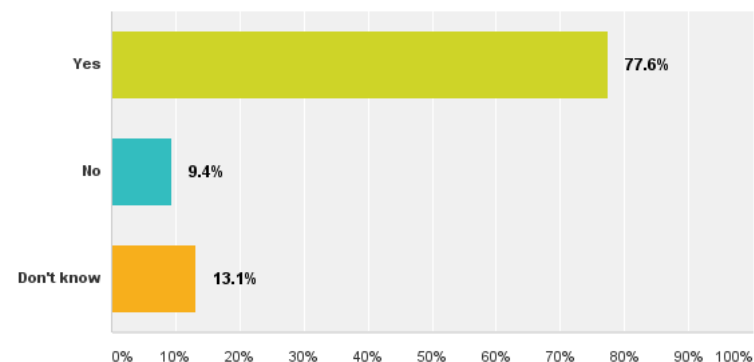
**Q3 What do you use the Cinder Track for?
(Please tick as many boxes as appropriate)**

Answered: 1,068 Skipped: 42



Q5 Do you think the Cinder Track needs any improvement?

Answered: 1,087 Skipped: 23



- 3.6. As well as being a recreational and transport route for humans the Track also provides an important wildlife habitat for a number of species. The linear nature and the proximity of a range of habitats means it acts as a wildlife corridor to species enabling them to move between areas. Details on ecology management are in Section 6.
- 3.7. A second consultation will be carried out on this document and this section along with the rest of the document will be updated accordingly.

4. Economic and Wider Benefits

4.1. The old railway route between Scarborough and Whitby forms part of National Cycle Network Route 1, which in turn is part of the British section of the North Sea Cycle Route (also known as the EuroVelo 12 route). During 2013, the number of trips on the National Cycle Network increased 7% to 748 million with 4.8 million people choosing to walk and cycle to work, school, the shops and for leisure and pleasure. This record usage generated more than £1 billion of economic benefit over the 12 months, with the biggest benefit being to health, valued at £803 million (Sustrans: Millions of people on the move: Usage and benefits of the National Cycle Network in 2013).

The Cinder Track passes through beautiful scenery adding to its tourism potential



4.2. Tourism Benefits

- 4.2.1. Building a Future: a Visitor Economy Strategy for the Borough of Scarborough (2014 - 2024), sets out key priorities for tourism these include:
- target existing and new markets with growth potential, “encourage more sports and leisure tourism related activities outside of the main season”
 - develop a year round product that meets market demand, including “renewed focus on the long distance walking and cycling product”
 - ensure a high quality environment through improvements to key sites, including access to a network of rights of way, footpaths, cycles and bridleways.

4.2.2. The economic benefit derived from people using a promoted route for leisure and tourism cycling (and / or walking and horse-riding) and spending money on a range of local goods and services is well understood. Looking at examples in the North of England, the Way of the Roses Coast to Coast cycle route between Morecambe and Bridlington was reported to provide “a valuable economic benefit to the local economy; open for just two years it already attracts 130,000 cycle trips, including 8,000 end-to-end cyclists, and generates approximately £3 million to the local economy and supports approximately 60 FTE jobs. There is scope for further growth in cycle usage which will have the potential to instigate a corresponding growth in supply and accommodation industries.” (Way of the Roses Economic Impact Report – Sustrans (September 2012)

The Trans Pennine Trail, a coast2coast route linking the Irish and North Seas between Southport and Hornsea for walkers, cyclists and horse-riders, has recently published findings of visitor survey work carried out last year showing that over 1.3 million people visited the Trail generating an economic spend of over £9m. (Trans Pennine Trail 2015 Visitor Survey - info@transpenninetrail.org.uk) The Coast and Castles cycle route between Newcastle and

Edinburgh generates total yearly expenditure of £3.3 million and supports 53 jobs (Sustrans: 2006)

4.2.3. Single day trips (leisure cycling from home or holiday base) are 100 times more frequent than multiple day trips (cycling holidays) , and perhaps offer the greatest growth potential, and are consistent with the increasing number of day visits undertaken by all tourists.

With the right welcome businesses by trails can benefit. (Jason Patient/ Sustrans)



Economic & Health Impact of Devon Trails

In September 2015, Devon County Council (Devon CC) commissioned consultants SQW to develop an economic impact model and analysis for three landmark cycling and walking trails in the county: the 21-mile Drake’s Trail (from Tavistock to Plymouth and incorporating the Plym Valley Trail), the 16-mile mile Exe Estuary Trail (from Exeter to Exmouth and Dawlish Warren), and the 30-mile Tarka Trail (from Barnstaple to Braunton and Meeth).

Using data from automatic cycle counters, manual counts, intercept surveys, business surveys and other sources, SQW have calculated that for the year October 2014 – September 2015, the economic impact of these trails is as follows:

Trail trips	540,000
Leisure users	72%
Ave. cycle commuter round trip	9.7 miles
Trail user expenditure	£9,300,000
Business turnover	£13,400,000
Gross value added	£5,800,000
Employment	200 FTE jobs
Additionality	£2,900,000

It is also possible to monetise health economic benefits using the World Health Organisation Health Economic Assessment Tool (HEAT), using this model it was calculated that the Devon trails generated benefits in health valued at £1,000,000 for commuters (28% users) and £2,600,000 for local leisure users (78% users), a total of £3,600,000 in the October 2014 – September 2015 year alone.

Source: SQW economic impact model

All these trails share similar characteristics with the Cinder Track. In terms of length, rural location and being located in an area already a tourist destination.

A full copy of the SQW briefing note to Devon CC is attached as Appendix 4.

- 4.2.4. Leisure and tourist cycles do have different spending patterns with cycle tourists requiring a wider range of services and normally spending significantly more per day. For example, survey work on the Peak District's 8-mile Manifold Trail in 2010 produced estimates of an average local spend of £19 per head for day users, and £31 per head for overnight visitors.

Larpool Viaduct –an attraction to both walk or cycle over and a railway heritage



- 4.2.5. Overall, cycle tourism has been growing rapidly in the UK; the percentage of cyclists using the National Cycle Network (NCN) for leisure purposes increased from 43% in 2010 to 54% in 2012. Presently, the UK cycle tourism market is likely to be worth over £1 billion. (Sky and British Cycling: The Olympic Cycling Effect (2012). Furthermore, the benefits of investment in cycling infrastructure are extraordinarily high. For example, the average benefit to cost ratio (BCR) for Sustrans Connect2 schemes is 6.3. BCRs above 4 are deemed 'very high' by the Department for Transport. (Department for Transport: The Economic Case for HS2 / Value for Money Statement (2012)

- 4.2.6. However, the main barrier to increasing cycle tourism is the issue of safety. A traffic-free route like the Cinder Track, which is also very attractive and easy to get to, should be well-placed to realise some of this growth potential for the Scarborough area for both utility and leisure journeys.

4.3. Health Benefits

- 4.3.1. There is an increasing awareness of the need to improve the health of the population. The benefits of walking and cycling on both physical and mental health are clearly laid out in the Chief Medical Officer's physical activity guidance Start Active, Stay Active and the NHS Five Year Forward View.
- 4.3.2. Levels of premature death from heart disease and stroke for those aged under 75, and levels of physical inactivity and adult obesity generally, are significantly higher in Scarborough than the rest of North Yorkshire and nationally. Public health bodies are putting more emphasis on action to reduce physical inactivity and a working group named Let's Get the Borough Moving will be developing a marketing campaign, incentive schemes and will engage with local communities, sports clubs and third sector groups to promote active travel and encourage people to live more physically active lives.
- 4.3.3. Improved cycling and walking infrastructure can contribute to improved health Public Health England's (PHE) national physical activity framework Everybody Active Every Day which includes 'active environments' as one of the four domains for local and national action to increase population physical activity levels.

Better paths for a variety of uses (J Bewley/Sustrans)



- 4.3.4. Being active through walking, cycling or riding can also lift your mood. The Cinder Track is in reach of a significant number of people within Scarborough Borough and its relatively gentle gradients make it accessible to people who want some gentle exercise as well as those regular cyclists and walkers. However the quality of the physical environment impacts on people's physical activity levels (Department of Health, 2011, Start Active, Stay Active). To achieve the health benefit potential of the Cinder Track coherent and consistent improvements need to be made so that it is accessible for all abilities of users.

The Benefits of Walking and Cycling to Health

The National Institute for Health and Care Excellence (NICE) guidelines PH41 (2012) gives details and guidance on the benefits of walking and cycling. Increasing how much someone walks or cycles may increase their overall level of physical activity, leading to associated health benefits. These include:

- Reducing the risk of coronary heart disease, stroke, cancer, obesity and type 2 diabetes.
- Keeping the musculoskeletal system healthy.
- Promoting mental wellbeing.

An increase in walking or cycling can also help:

- Reduce car travel, leading to reductions in air pollution, carbon dioxide emissions and congestion.
- Reduce road danger and noise.
- Increase the number of people of all ages who are out on the streets, making public spaces seem more welcoming and providing opportunities for social interaction.
- Provide an opportunity for everyone, including people with an impairment, to participate in and enjoy the outdoor environment.

Several recommendations were given including that walking and cycling be considered alongside other interventions when working to achieve specific health outcomes in relation to local population (such as reduction in risk of cardiovascular disease, cancer, obesity and diabetes or the proportion of mental wellbeing).

It also recommends actions for local authorities, national park authorities, local enterprise partnerships and other agencies 'ensure high strategic plans and policies support and encourage both walking and cycling' including a 'commitment to invest sufficient resources to ensure more walking and cycling'.

<https://www.nice.org.uk/guidance/ph41>

5. Broad principles of Cinder Track improvement

5.1. There are parts of the Track that need substantial investment and proactive management to protect it for future use. If this is not done the Track is likely to continue to deteriorate. This section details the key issues that have been highlighted in consultations, by the Restoration Plan Steering Group and from Sustrans' site visits giving the current issues, problems and broad solutions. Proposals for specific sections of Tracks are detailed within map sections of the report.

5.2. Drainage

5.2.1. Drainage is the way water is moved from one place to another; and how it is or isn't managed. In geographical terms the drainage system relates to the catchments of particular water courses rather than administrative boundaries. It is not acceptable to remove water from land to create a problem on neighbouring land or the wider catchment. Any drainage on the Cinder Track has to be understood and managed as part of a wider system both geographically and legislatively. Resolving drainage on the Cinder Track is a complex issue but also provides the opportunity to re-establish and generate new habitat in the form of boggy areas and standing water.

5.2.2. Problem for the Cinder Track

Water is an issue on the Cinder Track; during and after wet weather, water runs on to the Track from neighbouring land. Although much of the original railway drainage is still detectable much has become ineffective as trees and other vegetation have grown within the ditches. This causes water to run down the Track eroding the surface resulting in a rough surface sunken path which in turn attracts more water. On flatter sections water pools creating muddy sections and in certain areas misuse by motor vehicles exacerbates the problem. In some places people sidestepping wet areas create path widening into the verge.



Water damage near Bay Ness

Currently repairs are either very local, such as removing water by cutting through the path verges, or by tackling the worse sections with some larger improvements. The former may provide a solution in the short term but does not tackle the underlying issues and can in fact cause greater wash away by removing path material. The latter is based on stretches of Track reaching an almost impassable state and therefore something having to be done. Both approaches are unsustainable in terms of making the Track a high profile route for utility and leisure journeys.

Water damage near Stainsacre



5.2.3. Why change?

If the current situation continues the path will continue to wash away and the surface deteriorate; it would be likely that the route as a coherent whole would cease to be passable. There is the strong possibility of run off adversely affecting neighbouring land by the amount of water and / or silt deposition transported in the water. Climate change

means that the rainfall levels are likely to rise increasing the problem. Drainage needs to be managed to protect the path now but we also need to make sure that our solutions meet the needs of future users and are resilient to climate changes.

5.2.4. Proposals

Solutions suggested to remove water from the Track are as follows:

- Reinststate side ditches - this includes removing tree and vegetation growth, and regular maintenance / inspection
 - Reinstating or creating wet areas at Track side
 - Reinstating or creating ponds to collect and hold water (with controlled outflow in to existing water courses)
 - Having camber or crossfall on the path surface so that water is shed off the path surface quickly
 - Having adequate cross drainage (e.g.culverts) to convey any drainage from adjacent land under the path rather than over it
 - Where there is a relatively steep long fall (gradient) shed water to the sides of the path as quickly as possible rather than running along the path
- Fig1:Path on causeway wet area to side to allow drainage*



Castleford Greenway – ditch to side to collect run off



5.3. Path Construction

- 5.3.1. Paths should be constructed to meet current and future user needs so they have a positive experience of using the route. This includes a good standard of surface throughout (that can be used year round), good drainage, enough space to pass other users and to give good visibility. All should be constructed to keep future maintenance costs to a minimum. Where roads are crossed there should be flush (same level) kerbs and consideration given to safety of users crossing the highway. Features of ecological interest and value should be retained and where possible enhanced alongside the path.

Although in places the Cinder Track is wide the unsealed surface means water can gather.



5.3.2. Problem on the Cinder Track

The Track is currently a permissive bridleway north of Scalby however in places the path is narrow making passing other users difficult e.g. equestrians and cyclists. North of Scarborough the surface is unsealed and drainage has caused problems as noted above; in addition in most areas

where vehicles cross or use the Track the existing surface is not adequate. The rough surface makes a majority of the route difficult or impossible for some users, for example young families, novice cyclists or people in wheelchairs. The unsealed surface is not of high quality and there is very limited funding for maintenance.

Consequently ruts and potholes can develop for a number of reasons from wet weather; use of the path by horses (each hoof print exerts a significant force onto the path surface so if it is soft because it is wet a depression can easily become a pothole) or vehicle use. These will quickly grow through two main ways. Firstly, water will sit in them making that part of the path even softer and so more susceptible to rutting. Secondly surface water flowing over the path will concentrate in the ruts which will cause erosion and deepening of the ruts.

Where cinders are still present on the Track they are washed out after periods of rain although they eventually reform to a more even surface; however before this happens breaks appear in the path and deposits of cinder gather creating a skid risk for cyclists.

5.3.3. Why change?

During consultations the surface of the Cinder Track is the feature that most people want improving. One of the aims of this plan is to improve the route so that it can be marketed and used all year by the local community and visitors alike. Unless the surface of the route is improved this cannot be done and the route will remain accessible to only some people.

Smoother surfaces make routes accessible to more user, for example novice cyclists and families



5.3.4. Proposals

The following principles are suggested within the report to improve the path construction:

- Where possible the path will be a minimum of 3m wide; with a managed 1m verge on either side free from shrubs and trees.
- In wetter areas the path will be built above the level of the surrounding ground to allow run off to side wet areas / ditches.
- Where there is high use, including regular vehicle use, the surface should have an all-weather vehicle capable specification; areas with less intensive use need not be to vehicle specification.

- 5.3.5. Specification will be to the highest durability and quality possible in each situation to reduce future maintenance costs.

Surfaces should meet the needs of uses and be durable – York Selby path sealed surface



Cyclists Downs & Weald Avenue Vert (David Young)



- 5.3.6. For further details on design and path surface options please see

Appendix 1: Traffic free routes: Conceptual Design (draft) Sustrans Design Manual Chapter 5, 2014

Appendix 2: Traffic free route: Detailed design (draft) Sustrans Design Manual Chapter 6, 2014

Appendix 3: Cycle Path Surface Options 2012

5.4. Vegetation

5.4.1. Part of the attraction of the Cinder Track is the variety of landscape it passes through. Vegetation is a main contributor to this experience; not only aesthetically but providing an environment for a varied fauna. An initial ecology impact assessment forms part of the wider report and highlights particular areas of interest. Vegetation should be managed to conserve and allow to flourish a species rich flora and fauna; eradicate invasive species; allow good accessibility and visibility to the Track for the convenience and safety of users and to foster understanding of the management process.

5.4.2. Problem on the Cinder Track

With exception of areas of verge cutting and urgent tree work there appears to be little planned management of vegetation on the Track. Consequently there are areas where trees and other vegetation have grown in drainage systems causing water flow down the Track rather than in the ditches and trees growing close to the path edges. In many areas trees are growing in a shallow depth of soil (typical of the surface of an old rail Track), which can heighten the risk of tree failure – this can be seen in some of the embankments where trees are falling over.

Willow growing in drainage ditch blocking the ditch; the proposal is that such trees are removed.



5.4.3. Why change?

Trees growing in the drainage system are contributing to the amount of water on the Cinder Track causing problem to the surface as noted above. Trees close to the edge of the path can cause upheaval of the Track surface creating damage; where proposals for the Cinder Track are to widen or resurface some trees will need to be removed. The Cinder Track is a permissive bridleway well-used by the public; many of the trees along the route could be considered as within 'falling distance' of the Track. As landowner Scarborough Borough Council are legally expected to take reasonable steps to inspect their trees and to remove hazards and reduce the risk 'within reason' to people and property. Likewise there is a responsibility to deal as required with invasive species. Within the length of the Track there are a number of areas valuable for their ground flora where shrubs and trees are encroaching. Appropriate management of these can improve this habitat.

There are several multi stemmed trees beginning to falter, growing on the poor soil of the rail track; some will need to be removed and in such areas it may appropriate to plant hedge species at the base of the embankment.



5.4.4. Solutions

Trees need to be managed either with active maintenance of the trail or restoration of the Track, and this will involve some removal. The detailed maps show areas where trees will need to be removed and in some sections further ecological surveys will take place; however the basic principles are as follows:

- Invasive species managed as directed by legislation and good practice
- Tree removal from drainage ditches
- Tree removal from path edges to allow a 1m wide ground flora verge
- Tree and scrub removal from areas noted for grassland flora
- Removal of or remedial work to make safe trees that are showing signs of failure and / or considered to pose a hazard to path users or property
- Tree planting to at least retain or preferably increase the amount of the tree cover in the area of the Cinder Track; including the possibility of new hedgerows
- All work carried out to adhere with legal restrictions and health and safety guidelines
- Establishment of long term maintenance strategy to ensure vegetation is managed effectively in the future.

5.5. Vehicle Use

5.5.1. Some properties (generally farm businesses) have rights to cross the Track to access fields or other parts of their business; Scarborough Borough Council operate a permit scheme allowing use of the Track to adjacent properties. In addition there is illegitimate use of the Track by vehicles taking short cuts or for off road recreational purposes.

5.5.2. Problem on the Cinder Track

Regular motorised vehicle use of the Track damages the surface creating ruts and dips for water to collect in and further erode the surface. Reckless use by motor vehicles can also put other legitimate users in danger. The permit scheme is not proactively enforced so actual use of the Track is difficult to quantify. Furthermore at some access points e.g. Stoupe Brow, there is nothing to physically deter vehicles.

5.5.3. Why change?

If use of the Track by motorised vehicles is not regulated then there is a high chance that resurfacing and improvements to the Cinder Track would fail. Options are given within the report for a variety of surfaces; use by vehicles is a central factor in the choice of construction and surface type.



Where vehicle access isn't required barriers can be creative to allow access for legitimate uses. This example is on the Caledonian Trail

5.5.4. Proposals

It is essential that we gain a clear a picture of where motorised vehicles access the Track for business reasons or as the only access to property. The basic principles are as follows:

- Clear picture of where farm vehicles are crossing the Track so appropriate surface can be used e.g. concrete pad
- Clear information where permits have been granted
- Appropriate construction for vehicle use where required
- Establish and enforce a permit scheme for necessary use
- Appropriate barriers and signs to deter unauthorised use by motorised vehicles

5.6. Access

5.6.1. The Cinder Track runs through a popular outdoor recreation and tourism area and has the potential to draw visitors away from more ecologically sensitive areas. In places it could provide a 'wet weather' alternative to the Cleveland Way if connecting paths were better established. Some sections of the Track have more users than others due to proximity to settlements and access points. Creating more access points and highlighting easy entry points will spread user footfall.



The main access from Whitby is currently poor

5.6.2. Problem on the Cinder Track

In common with other railway paths there is limited access on and off, lessening the opportunity to create shorter circular routes incorporating parts of the Track. This is exacerbated on Track sections in cuttings or on embankments where access from crossing roads or paths means negotiating often steep slopes. Signing on the Track and to locations off it is also inadequate; in some segments it would be difficult for users to know their location.

5.6.3. Why change?

The Cinder Track steering group highlighted the need to try to improve access to the Track as a desirable outcome of the Restoration Plan. This does not just include existing access but where possible creation of and formalisation of new access points. Some entry points are very steep and unsurfaced, while others are only steps making access difficult or impossible for some users.

5.6.4. Proposals

The premise is to improve the entry points throughout to give easier access along the length of the Track; to do this we are proposing:

- Creation (or formalising) of access from roads and public paths where currently none exist
- Creation wherever possible of ramped access where currently only steps are present
- Improving sloped access points by resurfacing and widening
- Coherent signing on route and off route
- Publicise and sign access points to widen Track use e.g. on road cycle route from Whitby Abbey; Ravenscar as a Track 'hub'.
- Link with other routes such as Cleveland Way to create circular walks.



Formal access can be used to create Track 'gateways'; there needs to be enough headroom for all users as shown in this example from The Great Northern Railway Trail.

6. Ecology

- 6.1. During the development of the Restoration Plan a specific group has been established to look specifically at the ecological issues. This is attended by ecologists and countryside officers from the North York Moors National Park (NYMNP), Scarborough Borough Council and Sustrans. Sustrans' ecologist collated information from the Local Records Office; NYMNP records will also be shared. Once this data is received an Ecological Impact Appraisal will be available for the Track.
- 6.2. Through meetings it became apparent that although there was ecological information on the track and neighbouring sites further information is required for some areas that will take time to gather. This ranges from species surveys to establish presence (and abundance) to obtaining specialist advice on habitat preferences of specific flora to inform work, protection methods and future management.
- 6.3. This group will continue to collaborate so that design, development, construction and use have due regard to ecological requirements both legislatively and in terms of good practice. Over coming months a working plan is being developed to highlight where surveys need to be scheduled to allow work to begin. This will include on site meetings to develop solutions in areas where Track restoration is likely to be complex. The first site to be examined in this way is to the south of Robin Hoods Bay (near Middlewood Lane).



Areas such as the Track near Middlewood Lane will be looked at in more detail to find a management solution

6.4. There are common ecological principles that will inform the overall work on the Cinder Track:

- Detail design to keep work footprints to a minimum
- Adherence to best practice guidance for construction
- Update Ecology Impact Assessment as more records become available
- Further surveys where required – and development of a schedule for this
- Method statements for dealing with invasive species – Japanese Knotweed and Himalayan Balsam
- Ground cleared near species rich grassland left to naturally regenerate
- Wood from tree felling left on site for lower plants and fungi in a variety of formats (whole trees left intact and exposed and partially buried log piles)
- Replacement tree planting (on and off the formation) and hedgerow planting will be considered and ecotones created if tree clearance results in the exposure of woodland interior habitat.
- Waterbody design in improved drainage scheme to benefit invertebrates and provide suitable breeding habitat for amphibians



Overgrown ponds should be reinstated to provide new habitat

7. Heritage

- 7.1. As well as being a railway heritage feature (see Scarborough & Whitby Railway box) the Cinder Track connects numerous features along the coast and the railway itself had a huge impact on two settlements in particular on the route. Before the railway Robin Hoods Bay was a small fishing village; the rail link changed its future and it grew to be a popular Victorian holiday destination that continues to this day. The few houses at Ravenscar and laid out street pattern are the legacy of nineteenth century plans to turn it in to a seaside town; the long walk to the rocky beach meant it never gained popularity but trains continued to serve the village until the line closed.



Laid out street grids at Ravenscar



Ravenscar Station today

7.2. However this heritage of this part of the coast goes back much further than the Track. The area has long been known for its fossils clearly seen in the wave cut platforms at Robin Hoods Bay and Whitby. Fossil hunters have come through the years to search for specimens such as ammonites, reptiles and shells and of course the area is known for jet – the fossilised remains of monkey puzzle trees. The neighbouring moorlands show traces of ancient human settlement.



Ammonite fossil Whitby

7.3. At either end of the trail are two iconic features of this area Scarborough Castle and Whitby Abbey. A castle has been on the headland at Scarborough since the 12th century but stands on a site that has shown signs of human habitation since 800 BC. Whitby Abbey dominates the eastside skyline of the town and provided inspiration for Bram Stoker's Dracula. The ruins are that of the Benedictine Abbey founded after the Norman Conquest. Both sites are owned and managed by English Heritage and are within easy reach of the Cinder Track. At Whitby we are proposing signing the link from the crossing of the A171 at Hawsker to the Abbey with cycle parking in the Abbey car park and / or near the Abbey Tea Rooms.

7.4. Situated in the middle of the Cinder Track is Ravenscar and it is one of the several alum works found along the Yorkshire coast. Alum (extracted from quarried shales) was used as a fixative for dyes in the textile industry. Ravenscar Alum Works are well preserved and provide an interesting destination for Track users.

7.5. Just to the south and next to the Track is Chain Home Low Radar Station, constructed in 1941 as part of the coastal defence radar system. Interpretation is provided at the National Trust owned site.
Chain Home Low Radar Station viewed from the Track



7.6. There are not many 21 mile routes that people could use to reach such a variety of heritage site in such close proximity. There is huge potential for the Track to be promoted as a sustainable means of getting to these sites if they are clearly signed from the Track and site publicity lists the Track as a way of reaching them.

The Scarborough & Whitby Railway

The Scarborough and Whitby Railway line opened in July 1885, amid an era of intense railway building across Britain. By joining Scarborough and Whitby, the line provided the missing link in a network of railways built over preceding decades connecting Whitby, Pickering, York and Scarborough.

However, the line was not originally intended to connect to these networks and was first approved as a stand-alone Track between Gallows Close and Whitby Abbey. Only an amendment to the original plans, adding the extraordinary structures of Larpool viaduct and Falsgrave tunnel at either end, enabled this to be the case. The first proposal to build a line between Scarborough and Whitby arose in 1848, but it was not until 1865 that a scheme from the Scarborough and Whitby Railway Company (SWRC) was eventually approved by Parliament. This lengthy period was due in no small part to the exceptional physical challenges of building a railway between Scarborough and Whitby. All route options were beset with steep gradients, rugged cliffs and coastline, high moors and deep valleys. In addition the SWRC received consistent objections from their competitors, the giant North Eastern Railway (NER), who believed the line was unnecessary. In 1865 the NER even built a short section of Track at Rillington to improve journey times between Scarborough and Whitby on existing Tracks, but this closed after only one year due to lack of custom.

Further difficulties of a financial nature meant that construction did not start until 1872, 25 years after the idea was first put forward. The financial problems worsened and progress was slow. By 1877 all work had ceased, and did not resume until 1881 following the appointment of new engineers and the raising of significant additional capital.

Despite their thorny relationship with SWRC, the NER ended up actually operating the Scarborough to Whitby Line under an agreement with SWRC, although the line was not a profitable one, largely due to the huge cost of construction. Eventually, in 1897 NER bought the line from SWRC for £261,333, less than half of the construction costs of £650,000. The fortunes of the line took a brief upturn in the 1930's, when a boom in holiday travel, camping coaches and cheap fares saw passenger numbers increase, but these good times were short-lived. The Second World War, an increase in car use, and the limitations of the largely single Track line, meant that the financial losses became unsustainable.

Despite avoiding closure in the Branch Lines Committee era of 1948-62, the Beeching Report of 1962 sounded the death knell for the Track. The last passenger train ran from Scarborough to Whitby on 6 March 1965.

Two attempts were made to organise preservation schemes in 1966 and 1967, but both failed. The Track was dismantled over the next few years and in the early to mid-1970's Scarborough Borough Council (SBC) purchased the Track and permitted its use as an informal path.

8. Design Features

8.1. Access Control

8.1.1. Sustrans' ambition is that all Greenways should be freely open and without barriers. However, there are occasions where access controls are required. Where access is needed by maintenance vehicles, larger entrances will be required than needed for everyday users but there is a need to deter illegitimate use by other vehicle users. Bollards with a spacing of 1.20m - 1.50m can be used to prevent vehicles from accessing Greenways while still allowing access for maintenance vehicles. If the Greenway is used by equestrians, the bollards need to be 1.80m apart.

Access controls can also act as route gateways (Trans Pennine Trail)(Dave Roberts)



8.1.2. Whilst it is recognised that the use of motorcycles presents a problem on some sections of the National Cycle Network, the use of other access barriers restricts and deters users such as cyclists and wheelchair users as much as they do motorcycles. 'A' frames, which block wide motorcycle handlebars while allowing wheelchairs through, are widely used. The best designs are adjustable so that as the problem of motorcyclists is overcome through a combination of high levels of public use, informal surveillance and working with the local police, the gap can be widened to minimise the inconvenience to legitimate users.

8.2. Cycle Parking

- 8.2.1. Cycle parking is an essential element of a cycle route and wider network. Sustrans recommends key principles that should be followed when considering cycle parking:
- accessible and convenient. As close as possible to the destination entrance, prominently located, with plenty of space to get bikes in and out, without unnecessary detours or flights of steps
 - good natural surveillance
 - secure against theft and vandalism, appropriate to the type of area and length of stay expected
 - parking stands should enable the bicycle frame and at least one wheel to be locked, catering for different sizes and shapes of bikes
 - longer stay parking should be covered, well-lit and have CCTV, where practical/feasible
 - where two-tier parking is introduced, low-level parking should be provided for the convenience of those who are unable or unwilling to lift their cycles
 - free of charge wherever possible
 - have sufficient capacity for existing peak demand plus future growth
 - clean and well maintained

Undercover town centre parking



8.2.2. The most common type of public cycle parking is the Sheffield stand, in conjunction with shelters where bikes are left for long periods. For locations/attractions with a significant proportion of children, stands with a lower or slanting crossbar should also be considered.

8.2.3. Care should be taken when siting cycle parking to avoid obstructions to pedestrians including those with visual impairments. Where cycle parking is located on the footway, the use of a tapping rail and textured surfaces such as granite setts should be provided to warn the visually impaired. *Covered cycle parking is always welcomed*



8.2.4. Away from urban centres, the style of cycle parking facilities can change to reflect more rural or heritage character environments. *In rural areas a more rustic style of parking may be preferred*

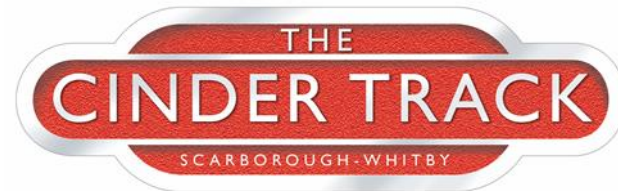


8.2.5. Because some of the places where those cycling may wish to visit are well away from the Cinder Track and possibly down a steep descent at sea-level e.g. at Robin Hoods Bay and Hayburn Wyke, secure and adequate cycle parking should be provided at a safe location at or very near the point of leaving the track (and signed if necessary). Other locations where new / additional cycle parking may be appropriate are:

- Viewpoints / picnic areas
- Ravenscar Coastal Centre
- Refreshment stops along the route for example Cloughton Tea rooms or Hayburn Wyke Inn
- Scarborough e.g. at the railway station or creation of a cycle hub
- Whitby Abbey / YHA Abbey House tea rooms

8.3. Signing and Information

8.3.1. The Cinder Track needs to be sufficiently well signed so that it is easy to follow in both directions between the main destinations along its 21.5 mile length, and also to find from key access routes. Overall, a balance needs to be struck between providing clear and consistent information, and avoiding visual clutter. The name / symbol for the Cinder Track is currently as shown below, but this is not consistently incorporated in signage throughout the entire length of the route.



8.3.2. Signs should be placed at every access / exit point along the route. At those points where the track intersects with routes to nearby settlements / places to visit, signs (with distances) should be used in the same style and font as the Cinder Track signs to help establish the Cinder Track's identity.

8.3.3. A review of signing for the Cinder Track should be undertaken involving Scarborough Borough Council, the North York Moors National Park Authority, North Yorkshire County Council (both highways and public rights of way), The National Trust, local interest / community representatives and Sustrans. Ensuring that the unique and distinctive identity of the Cinder Track is conveyed through the consistent use of the name / symbol, and as part of a unifying signing approach should be a primary aim

8.3.4. Symbols and direction arrows marked on road sections may provide a useful alternative to post mounted signs. The use of existing features such as lamp columns should be maximised to help avoid clutter and minimise costs. On the highway, cycle route specific signing (to Department for Transport approved standards) helps raise awareness of cyclists amongst other road users. It's usually the responsibility of the highway authority to provide and maintain it, often with the help of Sustrans volunteers.



Signs using existing signposts avoid extra clutter



Signs on routes and rural area can be in more keeping with their surroundings

8.3.5. The Track is open (for most of the part) for cyclists, horse riders and pedestrians and it's important that all users realise that the others have a right to be there and respect other users. On some routes Sustrans have erected signs to promote this such as the one shown below used on the Nidderdale Greenway.

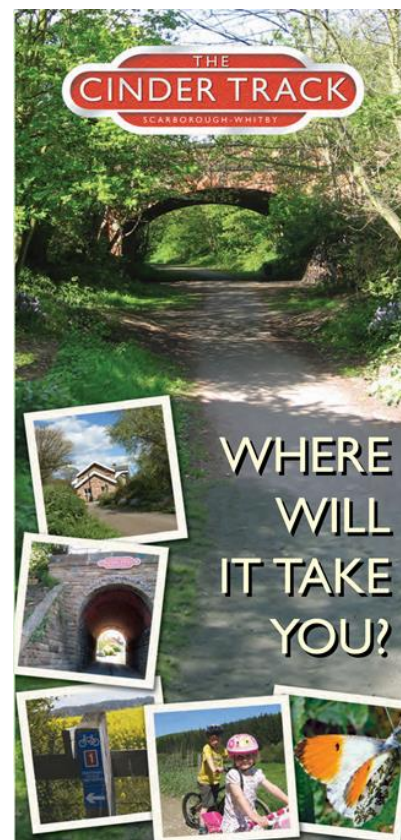


8.3.6. As well as formal direction signs, there will be other opportunities for marking the route such as mileposts and information boards. Map-based information boards could be placed at selected access points to help people appreciate what opportunities they have, and to familiarise themselves with the locality. These boards should be positioned to face the direction of travel. Weatherproof leaflet holders may also be provided. The longevity of information provided needs to be considered in relation to the likelihood of updating and general maintenance. Currently, there are information boards at the Whitby end of the track, at Robin Hood's Bay, Ravenscar and in Scarborough. As with signing, all information provision needs to be clear, consistent and up-to-date.



Covered information board giving route and local information

- 8.3.7. There is a leaflet of the Cinder Track available The Cinder Track Scarborough to Whitby - Where will it take you? This is produced by the Friends of the Old Railway and Scarborough Borough Council it gives a good map-based overview of the greenway. It should be updated as appropriate, incorporate any changes to the identity of the route and have an agreed distribution plan with the route's partners.

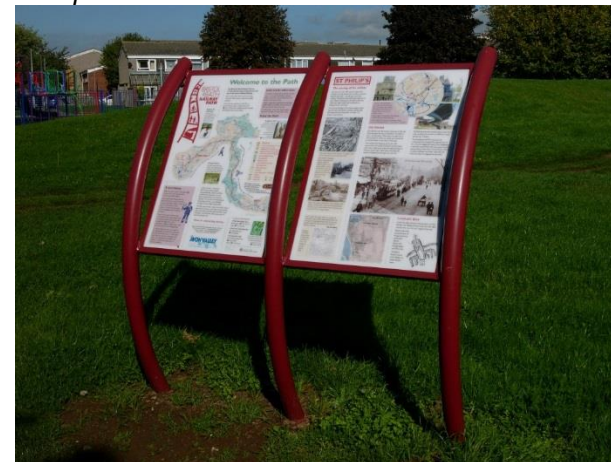


- 8.3.8. A pdf version for electronic circulation and use on websites / blogs and with social media would help broaden its circulation and use by partners in a cost-effective way. Ideally, the leaflet should include a link to a more comprehensive and regularly updated online source of information, possibly an official website. Initially for the purpose of helping with public consultation for the Restoration Plan a Facebook Cinder Track page was set up. This can continue to be used once the Plan is completed for sharing information, especially with a younger audience.

- 8.3.9. Like good signing, good information (whether printed or online) that can be sustained over a period of time requires a certain amount of coordination, dedicated effort and budget resource.

- 8.3.10. Well executed interpretation is a fun, inspiring and motivating recreational learning experience, which would crucially make the Cinder Track more than just another scenic greenway, both for local people and visitors.

Interpretation Bristol to Bath Rail Path



- 8.3.11. Master planning needs to be done based on an inventory of stories to tell along the route (historic sites, industrial sites, natural sites and features, historic events, current sites/events of interest etc.), audience analysis, selecting and developing themes, setting objectives, and selecting the mix of media (panels, self-guiding booklets / mobile phone apps, guided activities, artwork and performance events).

- 8.3.12. Both The National Trust and the North York Moors National Park Authority have considerable experience of welcoming visitors and bringing their sites and properties to life, so we suggest asking them to advice and assist in developing a coherent interpretative approach in conjunction with other stakeholders and local history sources.

8.4. Seating

- 8.4.1. Part of the joy of walking and cycling is stopping and resting. Seating offers the possibility of integrating art with landscape. An imaginatively designed bench in the right position can be a meeting place, a talking point, and a highlight of the journey. A good view, a chance to appreciate the local flora and fauna, history and geography, can provide an extra dimension to a ride or a walk.

Seats don't have to be boring – Wiggly Wall Exmoor



But should provide a space to stop and rest (Phoenix Trail)



- 8.4.2. Therefore every seat is a place where a person may want to stop and, perhaps even more importantly, a destination a person might want to reach and a locality where they can meet friends. At entrances, or in areas likely to be used by older or disabled people, seats should be close together, no more than 200–300m apart, because even these distances might present quite a challenge for some. Seats should be positioned not only so they have an attractive view out over the vista either side of the path but also along the path so that their very presence and occupancy leads to informal surveillance of the Greenway itself.

8.5. **Artwork**

8.5.1. Sustrans has a long tradition of commissioning artists and sculptors to work on its projects. From the beginning the objective has been to give rhythm and points of focus on routes, to provide local historical and geographical interpretation to enhance visitors' enjoyment of the area, and to create a memorable route one would want to visit again.

Artwork can be fun



And say something about the local area



- 8.5.2.
- 8.5.3. Art along the Greenway also offers a way for the local community to be involved in the making of their Greenway, by way of artists working locally with schools and others to create and maintain their own pieces, promoting the feeling of ownership of the Greenway
- 8.5.4. Some of our pieces stand alone, some as part of art trails. Some create entrances or markers along the way and some create a space where people can simply sit and reflect. Whatever and wherever they create a focal point of the route.



Lady of Shallott By Anwick Forge on the Water Rail Trail

Artwork - telling a local story

Art can portray a story or event from the local area giving any track a resonance with visitor and residents alike. 'Genome Stripes' by Katy Hallet is part of the National Cycle Network that links Addenbrooke's Hospital near Cambridge. The work on this route celebrates the role of the nearby Sanger Institute in decoding the vital human gene BRCA2.

BRCA2 is just one of the 30,000 genes in the human genome and plays an important role in our bodies, producing a protein that helps to repair human DNA. However, variants of it can cause breast cancer in women who carry them.

A series of stripes in four colours representing the 10,257 genetic letters, or bases, of the gene BRCA2 have been laid on the path using thermoplastic strips heat welded onto the tarmac. It is the sequence of the four bases colour coded - adenine (A) in green, cytosine (C) in blue, guanine (G) in yellow and thymine (T) in red - that contains the code for life. As visitors cycle or walk over these stripes they will be traversing a portion of their own genome.



Four species of trees were also been planted at intervals along the route to improve the local environment and to represent the colours of the four genome bases; Yew 'Taxus Baccata' (green), Rowan 'Sorbus Sheerwater-seedling' (blue), Crab Apple 'Malus Rudolph' (yellow), and Cherry 'Prunus cerasifera 'nigra'' (red).

9. Next Steps

- 9.1. This section suggests the next steps required for implementation of the Restoration Plan. It should be read alongside the technical details supplied in the map section. Although finding additional funding is crucial, there are several important issues that need to be resolved, especially the management, not just of the Cinder Track, but of the whole restoration process.
- 9.2. Close co-operation between key groups and organisations is essential for the Restoration Plan to be fulfilled, as in the current funding situation it is extremely unlikely that any one organisation could deliver the Plan on their own.

Table 1: Recommended next steps

- 9.3. A strong steering group, with all members taking responsibility, for progress is crucial to moving forward. Many of the next step actions stem from this, in particular getting the Restoration Plan in to key strategic documents.
- 9.4. Volunteers are extremely important to the future of the track. However the volunteer effort needs to be co-ordinated to avoid duplication of effort and to make sure that actions dovetail with recommendations in the Restoration Plan.

- 9.5. If no concerted and coordinated action is taken following the completion of the Plan (and communicated to partners, other stakeholders and the wider public), then there is a risk that considerable momentum and goodwill will be lost. The situation will remain static with Scarborough Borough Council left to respond to none but the most basic maintenance tasks for what will likely be a deteriorating resource.,
- 9.6. The table below recommends actions to be taken to the end of the 2016-17 financial year.

No	Recommendation	Purpose	Action	Timescale
1	Steering Group	To provide co-ordination, agree and prioritise work and establish 'task and finish' groups as required. Comprising Scarborough Borough Council, North York Moors National Park Authority, the National Trust, community groups, and Sustrans	A. Completion of Plan taking in to account consultation feedback B. Frank discussion on track responsibilities C. Agree terms of reference and responsibilities, including paid steering group management secretarial support to group D. Set Track management objectives and priorities for next 3 years and set review dates	Aug 2016 Sept 2016 Sept 2016 Jan 2017
2	Volunteers	To co-ordinate volunteer activity acting as one single point of knowledge, ensuring that volunteer action dovetails with action 1C	A. Identify lead body / person to act as co-ordination for all track-related volunteer activity (from Action1B)	Oct 2016
3	Funding	One 'collection' point for funding opportunities, working to Actions 1B and 1C	A. Identify group to act as co-ordination (from Action1B) B. Ensure the Cinder Track Restoration is incorporated as a strategic project in the full suite of strategic development documents – for example Tourism Strategies, Neighbourhood Plans and Transport Planning C. Gather list of possible funding opportunities and timescales for larger pots of funding (including development opportunities).	Jan 2017 Ongoing Ongoing
4	Ecology	To gather enough information on species and habitat and make recommendations to the management Group on ecological action in implementing the Plan.	A. Establish group of experts to look at identified issues as required. B. Agree action on area of Track near Middlewood Lane and begin implementation C. Identification of areas where more ecological information / surveying is required; and production of gant chart taking in to account optimum survey times.	June 2016 Sept 2016 Sept 2016
5	Communication and Marketing	Maintain flow of positive information about the Cinder Track whilst agreeing track signing, information and interpretation plan	A. Regular posts to Facebook page B. Discuss route identity and resolve name / symbol issues C. Agree NCN signs on road sections / from road junctions with NYCC D. Agree greenway sign style and locations (including to neighbouring villages / attractions) E. Agree interpretation study F. Print updated Cinder Track leaflet G. Consideration of gathering of route data for whole Track	Ongoing Sept 2016 Dec 2016 Jan 2017 Jan 2017 Jan 2017 Oct 2016