SUMMARY REPORT

THE HADRIANS WALL PATH

A LANDFORM AND CONDITION SURVEY
OF THE
PROPOSED NATIONAL TRAIL
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Map of the proposed route for the Hadrians Wall Path

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1. INTRODUCTION

An integral part of planning and developing the Countryside Commission’s proposals for a Hadrian’s Wall National Trail was to undertake a comprehensive and detailed field survey of the proposed route during September and October 1991. This is referred to as the "Landform and Condition Survey" and was carried out after extensive public consultation on the proposed route, for which a number of alternative route sections suggested by consultees and others were included.

The survey was carried out by the Commission in order to provide a clearer understanding of the landform, terrain and archaeology across the proposed route, and give an overall appreciation of the condition of the path surface and ancillary facilities such as stiles, gates and waymarking etc. This information provided a sound foundation upon which to assess the optimum route for the Trail, and evaluate the work required to both create the route on the ground and maintain it to a high standard in the future. It also enabled detailed costs to be formulated for the creation and management of the Trail which would form an essential part of the Commission’s final report to the Secretary of State.

The detailed objectives of the survey were to:

- assist the Commission in determining the precise alignment of the proposed route and the position of adjacent archaeological features in relation to the Trail;
- establish detailed information on the physical characteristics of the terrain across the route;
- provide an accurate record of the present condition of path surfaces and ancillary facilities against which change can be measured over time;
- identify the priority areas of work necessary in order to establish the National Trail;
- give an indication of the broad costs of establishing the National Trail;
- provide consistent data to enable local highway authorities to formulate costed action plans in order to manage and maintain the National Trail.

This report gives an overall picture of the survey findings and sets out the key results of the study. It aims are two fold; firstly to provide an overall appreciation of the character of the proposed route, its current condition and suitability for being developed as a National Trail. Secondly to indicate the costs and necessary work involved to establish the Trail on the ground. The appendices sets out the key facts about the route for each of the local highway authorities (North Tyneside, Newcastle City, Northumberland, Cumbria) and provides a summary of the survey findings in chart and tabular form. More detailed information about the survey records and results are available from the project officer.
2. **A SYNOPSIS OF THE SURVEY FINDINGS**

A comprehensive landform and condition survey of the proposed Hadrians Wall National Trail was undertaken in 1991. The survey was undertaken in order to provide a clearer understanding of the landform, terrain and archaeology across the proposed route, and give an overall appreciation of the condition of the path surface and ancillary facilities such as stiles, gates and waymarking.

The proposed 81 mile route lies between Newcastle upon Tyne and Bowness on Solway, and passes through the spectacular landscape of Northern England’s border country of which 21.5% is within Northumberland National Park and 13% within the Solway Coast AONB.

The results of the survey indicate that the route is characterised by well drained mineral soils, undulating terrain with relatively few steep slopes and generally favourable climatic conditions. The path surface supports a robust and vigorous grass sward which along the overwhelming majority of its length, is in remarkably good condition. Throughout the route there are no major areas of organic or peat soils which are the most vulnerable to damage.

At present the public have access to 67% (54.5 miles) of the route of which:

- 16.5 miles show little or no sign of wear whatsoever and 6 miles requires generally minor repairs within the popular areas of Northumberland National Park.
- A further 31 miles is protected by hard, durable path surfaces spaced out across the route, of which 8 miles requires some maintenance and upgrading.
- The remaining 33% (26.5 miles) of the route lies across private land within east Northumberland and parts of Cumbria for which new access will need to be created.
- There are 410 field boundaries, road and river crossings encountered on the route of which 250 new gates stiles and bridges are needed to open up the Trail, and two major footbridges across the river Irthing and Cam Beck in Cumbria. A further 100 existing gates and stiles require repair. There are 60 obstructions to the route. 220 signs are required.

The major element of capital investment and subsequent maintenance will be the upgrading and repair of the path surface and in preparing and establishing new sections of the route.

The cost of establishing the Hadrian's Wall path will be in the order of £1.5 million of which 76% will be capital works to create the route on the ground. Future maintenance over a 15 year cycle will require an annual investment of £100,000.
3. THE SURVEY METHODOLOGY

The methodology used in this survey was developed from an established and proven survey technique already used by the Commission on other National Trails. It was adapted in order to take into account the significant archaeological heritage of Hadrian’s Wall, and included recording the incidence, location, and condition of specific archaeological features across the route.

The survey was undertaken in two distinct phases. Firstly, detailed landform information was acquired by means of a careful and systematic field survey of the route. Secondly, a desk study was undertaken to determine the exact position of known archaeological sites that have been identified by the Royal Commission on the Historic Monuments of England to establish their precise location in relation to the line of the proposed Trail.

The field survey was undertaken by two graduates trained and supervised by the Project Officer during September and October 1991. Their brief was to walk the length of the proposed 81 mile route from Wallsend to Bowness on Solway observing and recording detailed landform information using maps and proformas, backed up by notes and photographs.

The exact position of the route was surveyed and mapped on a 1:10,000 O.S. scale map base, and the route divided between varying sections of between 10-1,000 metres. For each individual section, careful measurements and observations were made of the land use, soils, drainage, slope and overall condition of the path surface. A change of section was made wherever a particular characteristic such as the land use, slope, soils etc. changed, and thus each section represented a length of consistent information. In all some 760 individual sections were identified across the route and recorded on the 1:10,000 O.S. scale maps.

Particular attention was made to carefully measure and record the wear and tear of the path surface, both grass covered paths and hard surfaced paths eg. aggregate, stone steps etc. Measurements were made of the worn and bare widths of the path surface, vegetation and soil loss for which an overall assessment was made to categorise the level of wear for each section, according to a scale or index of erosion. This helped provide a means to quantify and compare the level of wear and tear across the route.

Information was also gathered wherever a crossing point was met eg. field boundary, road, river etc. and the condition of each crossing and need for new gates, stiles, bridges etc recorded. The condition of existing signposts and need for new waymarking across the route was similarly identified. Wherever the route ran close to or crossed particular archaeological features hand notes and photographs were used to supplement the recordings. All of the recordings made were uniquely identified and cross referenced to the 1:10,000 O.S. scale maps of the route so that any individual section could be readily located.
Once the field survey was fully completed, the mass of survey data for each section and crossing across the route was transferred onto a computer database for ease of handling and storage. A simple programme was developed to draw out the overall summary results and enabled the data to be split between each of the four local highway authorities across the route. These results gave for the first time a strategic picture across the whole route of what creating the Trail would entail, showing its overall condition, highlighting the most vulnerable areas, and providing a shopping list of work required to establish the route on the ground.

Stage two of the survey was undertaken during November and December 1991, and involved a desk study to identify the position of known archaeological features of Hadrian's Wall in relation to the proposed route of the National Trail. In order to be able to identify sufficient detail from the map, the mapping of the proposed route was transferred from a 1:10,000 to a 1,2500 O.S. map base. This corresponded to the scale of map records held by the Royal Commission for the Historic Monuments of England on the position and form of recorded archaeological features of Hadrian's Wall. The two sources of information were then brought together by overlaying the map record of archaeological features at 1:2500 O.S. scale with those of the proposed route of the Trail. From this the distance of each archaeological feature to the proposed route was measured according to three broad categories (on or across the Trail, less than 10 metres, or greater than 10 metres from the Trail).

Once completed, it enabled a register to be drawn up of the proximity of known archaeological features to each section of the route. This information was used to underpin a comprehensive study undertaken by the Countryside Commission in partnership with English Heritage to carry out a detailed assessment and analyses of the potential impact of the Trail on the archaeological heritage of Hadrians Wall.

A model was developed that classified archaeological features in relation to their sensitivity to visitor pressure taking into account the intrinsic vulnerability of each archaeological feature, the landform characteristics and visitor distribution patterns - both existing and forecasted future. An additional weighting was deliberately given to the archaeological component, reflecting the importance of the monument and the need to safeguard its integrity.

The results of the study enabled the two organisations to locate and identify the distribution of key sensitive archaeological sites across the route and respond to a range of management options: These included major or minor re-routing of the Trail, protection of archaeological features using a range of appropriate surface treatments, and specified routine monitoring. The single most important management prescription would be a commitment to a long term management strategy to provide adequate maintenance over the years ahead.

In conclusion, the research formed a critical part in the planning and evolution of the Trail, shaping and developing the route and setting the standards for its creation on the ground. The results of both the condition survey and impact assessment study clearly demonstrate the suitability of the route to be developed as a National Trail, and provide the foundations for informed and responsible management in the future.
4. THE NATURE AND CHARACTER OF THE ROUTE

4.1 The proposed route of the National Trail is 81 miles long and follows the course of Hadrians Wall for most of its length between Wallsend in the east and Bowness on Solway in the west. The course of the Wall follows the high ground wherever possible taking advantage of generally well drained ground conditions and providing elevated views.

The character of the landscape varies considerably across the route and is part of the Trails interest and attraction. Of the total 81 miles the route includes:

- 55.5 miles (69%) of countryside including the raised plains of east Northumberland, the upland area of the Whin Sill through Northumberland National Park, the lower plains of the Eden valley and the Solway Coast of Outstanding Natural Beauty.

- 16.5 miles (20%) of urban and urban fringe areas of Newcastle upon Tyne along the course of the Tyne valley, and City of Carlisle along the course of the Eden.

- 9 miles (11%) of rural lanes and attractive villages spaced out across the route.

The geological influence on the landform is significant and presents a mix of contrasting terrain; open plains and river valleys interspersed with rolling hills and escarpment. The landform and inherent ground conditions have a significant bearing on the sustainability of path surfaces from the wear and tear of its users. Slightly raised terrain and flat surfaces coupled with fertile soils, good drainage and low rainfall provide the ideal conditions. Conversely steep slopes, poor soils and drainage and high rainfall provide the most difficult conditions to cope with. Detailed observations from the survey show that of the 81 mile route:

- 35.5 miles (44%) lies across flat terrain of less than 5° slope which include the Tyne Valley, parts of east Northumberland, the Eden valley and the Solway coast.

- 43.5% (54%) lies across gentle or undulating terrain of between 5° - 15° slope which includes the greater part of Northumberland and east Cumbria.

- 2 miles (2%) lies across steeper slopes of greater than 15° slope which are found only within the central section of Northumberland National Park and above the River Irthing in Cumbria.

Further observations of the ground conditions of both soils and drainage reveal that the walking surface is characterised between:
- 48.5 miles (60%) of grass covered surfaces, of which the overwhelming length lies upon mineral based and clay soils which are generally free draining and support a vigorous and robust grass sward. There are no significant areas of peat based soils or poor drainage which are known to be the most vulnerable to erosion.

- 32.5 miles (40%) hard surfaces eg. tarmac, pavement, aggregate, stone steps etc., which are to be found across all parts of the route. The majority of man made paths are surface water drained and very durable.

For a more detailed understanding of the terrain and ground conditions across the Trail, the route has been divided between three distinct sections which relate to the local highway authority areas of Newcastle City and North Tyneside, Northumberland, and Cumbria.

4.2 Newcastle City and North Tyneside

Wallsend to Newburn. 13 miles (16% of the Trail).

The National Trail starts at Segedunum Roman Fort at the eastern end of the Roman Wall within North Tyneside. The proposed route follows the course of the lower Tyne Valley along the north bank of the river Tyne to Newburn.

The terrain is urban in character, on level ground and predominantly hard surfaced. For the first 12.5 miles the Trail shares the same route with the proposed “North Tyne Cycleway” currently being developed by Newcastle City, North Tyneside and Tyne & Wear Development Corporation. It utilises 5 miles of quayside through the heart of Newcastle, 7 miles of disused railway line and 0.5 miles of road verge. The remaining 0.5 miles follows through pasture.

As part of the development of the cycleway, the course aggregate base of the railway line is being upgraded with a tarmac or bitmac surface, whilst the areas of quayside and road verge have been laid with concrete slabs. Once completed the route shared by the Trail will provide an attractive hard wearing path, with a high standard of ancillary facilities such as gates, stiles, bridges and surface water drains.

The entire 13 mile length of the route within Tyneside is served by public rights of way or areas of public open space and there are no requirements for new access to be created.

4.3 Northumberland

Newburn to Gilsland - 36 miles (44.5% of the Trail).

The Trail leaves the urban character of the lower Tyne valley at Heddon on the Wall, where the course of the Roman Wall is rejoined and followed close to the B6318 military road across the open plains of east Northumberland. The route
rises along the crest of the Whin Sill to follow the most spectacular section of the Wall through Northumberland National Park, before descending across the lower plains of Greenhead to Gilsland.

The 11 mile eastern section is dominated by a mix of good pasture and fertile arable land across gently undulating terrain. The 25 mile western section is more upland in character, rising to a height of between 700-1,000ft, and following steeper rolling terrain suited to rough grazing for sheep and cattle.

29 miles of the Trail is grass covered and lies upon generally well drained mineral soils following the edge of large open fields. These provide favourable ground conditions which are noted to support a strong and resilient grass cover. This is particularly evident across the Whin Sill, the most popular part of the route, where the grass surface of the path is generally in excellent condition.

The remaining 7 miles of the Trail are hard surfaced and account for small sections of the route within the National Park and lengths of road, pavement and track along rural lanes and villages. Within Northumberland the route involves some 4 miles of road verge walking and 14 crossing points of the B6318 road.

17.5 miles of the proposed route within Northumberland is served by existing rights of way or public road chiefly through the National Park, Heddon, and Greenhead area. 18.5 miles lies across private land within east Northumberland for which new access will need to be created.

4.4 Cumbria

Gilsland to Bowness on Solway 32 miles (39.5% of the Trail)

The Trail crosses the river Irthing at Gilsland, and continues west following the course of the Wall on elevated ground across east Cumbria. It then descends to the green plains of the Eden valley following the course of the river Eden through Carlisle before reaching the Solway coast. The National Trail ends at the village of Bowness on Solway which marks the western end of the Roman Wall.

The 12 mile eastern section is semi-upland in character, lying at a height of between 200-400ft and following across undulating terrain suited to rough grazing for sheep and cattle. The 12 mile central section gives way to more fertile, improved grassland through the Eden valley. The 8 mile western section is dominated by flat coastal saltmarsh and rough grazing land.

19 miles of the Trail is grass covered and lies upon generally well drained mineral rich and clay soils following the edges of fields and across the open marsh of the Solway coast. These will generally provide an adequate and
durable path surface for the Trail which will require only minor surface improvements and drainage at pinch points.

The remaining 13 miles are hard surfaced and include a number of footpaths within the Carlisle area, and lengths of road and pavement along rural lanes and villages. Within Cumbria the Trail passes through 14 attractive small villages and settlements which involves some 6 miles of road verge walking.

24 miles of the proposed route within Cumbria is served by existing rights of way or public roads mainly through the central section of the Eden valley. The remaining 8 miles lies across private land at the eastern and western ends of Cumbria, for which new access will need to be created.
5. THE CONDITION OF THE ROUTE

5.1 The results of the survey provide an overall picture of the condition of the Trail. It indicates both the condition of the walking surface and of crossings (eg. stiles, bridges, gates etc) across the proposed route. The survey includes both those parts of the route which have existing rights of way (54.5 miles 67%), and those which at present are across private land and will need to be created (26.5 miles 33%).

In assessing this information, some account needs to be made for the fact that 33% of the route is not currently used by walkers, and that any evidence of wear for these sections would be expected to be minimal. The survey does however indicate other factors which cause wear and tear such as farm machinery, stock poaching etc. as would be expected on any working farm.

The condition of the path surface included both grass covered and hard surfaced sections of the route, and confirm that along the overwhelming majority of its length the proposed Trail is in remarkably good condition.

Of the proposed 81 miles length of the Trail:

- 50% (40 miles) shows little or not sign of wear of grass surfaces.
- 31% (25 miles) is in good order and has a hard surface.
- 10% (8.5 miles) requires minor repair of grass surfaces.
- 9% (7.5 miles) requires minor repair of hard surfaces.

The condition of crossings were recorded (eg. stiles, bridges and gates) and the boundary itself at the point of crossing (eg. fences, walls and hedges). Also included were other structures such as the need for wayside fencing alongside the route and waymarking.

In order to open up the 81 miles length of the Trail the following repairs and new structures are required:

98 boundary repairs to fences, walls and hedges.
248 stiles bridges and gates.
6.8 miles (11km) wayside fencing to separate the Trail from farmland.
2 major footbridges across the river Irthing and Cam Beck.
62 obstructions to remove
158 signposts.

For a more detailed understanding of the condition of the Trail, the route has again been divided between the local highway authority areas.
5.2 **Newcastle City and North Tyneside** (13 miles 16% of the route)

The Trail benefits from being incorporated within the development of the North Tyne Cycleway, which has been designed to withstand the demands of urban use through the engineering of hard surfaced paths and the high standard of gateways and bridges. The survey indicates that 10 miles of the route is both hard wearing and in excellent condition despite minor incidence of damage by vandalism. Future maintenance of the path surface and crossings are likely to be minimal.

Within the areas of Walker, Paradise and Scotswood 2.5 miles of railway track await upgrading and 3 new gateways are required. This will be undertaken as part of the cycleway development.

The only area of grass surfaced path within Tyneside is a 0.5 mile section of footpath along the north bank of the Tyne at Newburn which requires improved drainage and hard surfacing in places.

The vast majority of those using the route within the city will continue to be local urban users, with future long distance walkers representing only a relative minority.

5.3 **Northumberland** (36 miles 44.5% of the route)

The results of the survey show that in general the proposed route is in good condition with 24 miles of the path surface within east and west Northumberland showing little or no sign of wear whatsoever. A further 5.5 miles are hard surfaced and in excellent condition.

Whilst the nature of the terrain is generally robust and hard wearing, the most vulnerable areas in the future will continue to be within the National Park. A combination of thinner soils and poorer vegetation, altitude and higher rainfall coupled with the levels of use has caused a small number of localised problem areas, particularly on steep slopes above 10-15°. As a result 4 miles of the route require repairs to halt further wear of the path surface, and 1 mile of existing hard surfaces need upgrading. In some cases these measures are necessary in order to protect archaeological features of the Wall, and in others to limit further spread of erosion. Repairs to the path surface are likely to include a combination of vegetation management and improved drainage, and in a few cases stone steps and pitching on steep slopes.

At Heddon common, 0.5 miles of the route will require new surfacing and drainage to stabilise and improve the path surface.

5.4 **Cumbria** (32 miles 39.5% of the route)

The survey indicates that the proposed route is in excellent condition with 16 miles of path surfaces within east Cumbria and the Eden valley showing little
or no sign of wear whatsoever. A further 9.5 miles are hard surfaced and in excellent condition.

3 miles of the route shows localised evidence of wear due to stock poaching, poor drainage and lack of maintenance which in some cases will require hard surface treatments. A further 3.5 miles of hard surfaces along lanes and footpaths need upgrading and improved drainage.

6. CREATING AND ESTABLISHING THE NATIONAL TRAIL

6.1 The creation of the proposed Hadrian's Wall Path will be undertaken by each of the four local highway authorities across the route, 100% grant aided by the Countryside Commission. This will involve a significant amount of effort, commitment and co-operation from a wide variety of agencies and individuals in order to successfully establish the route on the ground. It will take a 5 year programme of work to establish and bring up to standard the 81 mile National Trail, thereafter a planned maintenance programme will be brought into action to manage the route.

The scale and nature of the work to be done varies significantly across the route, and will involve each local highway authority approaching the task ahead with a different set of priorities and objectives. A more detailed assessment of these objectives and a breakdown of costs for each of the local highway authorities is set out in appendix three.

6.2 The main areas of work to be undertaken in order to establish the route on the ground are:

Path Construction and repair

The aim is to bring the whole route up to a high standard of repair in order to provide a robust and sustainable path surface appropriate to the landscape setting and to safeguard the archaeological features of the Wall. Broadly there are three types of work to be undertaken. These are:

- Preparation of new path surfaces across farmland where none currently exist. This will include levelling of the surface in places, vegetation clearance, localised drainage and surfacing of wet areas and very steep slopes.

- Repairs to existing sections of grass covered footpaths along popular parts of the route. This will involve mainly vegetation management and drainage to sustain the grass cover.

- Repairs to existing sections of hard surfaced footpath along popular parts of the route. This will include repairs to stone pitching and steps, aggregate path surfaces, drainage improvements etc.
Bridges, crossings and other structures along the route

A significant number of new stiles, gates and bridges will be required in order to provide a suitable means of crossing at field boundaries, ditches and rivers to open up the route. This will include two substantial footbridges across the river Irthing and Cam Beck in Cumbria. There will also be a need for repairs to boundaries at the point of crossing and sections of wayside fencing to separate the Trail from farmland. In addition the entire route will need appropriate signing and interpretation.

Creating new sections of the Trail

There will be a considerable amount of work involved in order to establish 26.5 miles of new rights of way across farmland in order to open up sections of the Trail. This will include detailed negotiations with owners and occupiers of the land, preparation of footpath creation agreements or orders, payment of compensation, definitive map work and rectification of existing misalignments.

6.3 The cost of establishing the proposed 81 mile Hadrian’s Wall path will be in the order of £1.5 million. Cost estimates are derived from the detailed findings of this survey and current 1993 prices for a broad variety of countryside work. Overall these costs are divided between two major elements:

Capital Costs (76%)

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<tr>
<th>Description</th>
<th>Cost</th>
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<tr>
<td>path construction and repair</td>
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</tr>
<tr>
<td>crossings and structures</td>
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<tr>
<td>Footbridges</td>
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<td>Compensation</td>
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Legal work, administration and project management costs (24%)

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<td>Trail Development Officer</td>
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£1139,000

£361,000
Cost estimates to establish and manage the National Trail:

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<tr>
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<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City &amp; North Tyneside</th>
<th>Total</th>
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<tr>
<td>Path construction and repair</td>
<td>185,000</td>
<td>294,000</td>
<td>33,000</td>
<td>512,000</td>
</tr>
<tr>
<td>Crossings &amp; structures</td>
<td>64,000</td>
<td>114,000</td>
<td>13,000</td>
<td>191,000</td>
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<tr>
<td>Major footbridges</td>
<td>250,000</td>
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<tr>
<td>Legal work</td>
<td>21,000</td>
<td>49,000</td>
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<td>Compensation to landowners</td>
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<td>130,000</td>
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<td>186,000</td>
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<td>Administration</td>
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<td>82,000</td>
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<td>100,000</td>
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<tr>
<td><strong>Total</strong></td>
<td>(48%)</td>
<td>(48%)</td>
<td>(4%)</td>
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<td>676,000</td>
<td>669,000</td>
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**Annual Maintenance Costs**

<p>| | | | | |</p>
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<td>40,000</td>
<td>44,000</td>
<td>10,000</td>
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APPENDIX ONE - A SUMMARY OF THE SURVEY FINDINGS IN CHART AND TABULAR FORM.

**PUBLIC ACCESS**

- 33% New Access Required
- 13% Cycleway
- 13% Public Road
- 3% Other
- 1% Bridleway
- 37% Footpath

**Public Access**

<table>
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<tr>
<th>Public Access</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N.Tyneside</th>
<th>Total (miles)</th>
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<tr>
<td>New access required</td>
<td>8.0</td>
<td>18.5</td>
<td>-</td>
<td>26.5</td>
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<tr>
<td>Footpath</td>
<td>17.0</td>
<td>12.5</td>
<td>0.5</td>
<td>30.0</td>
</tr>
<tr>
<td>Bridleway</td>
<td>-</td>
<td>1.0</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>Public road</td>
<td>6.0</td>
<td>4.0</td>
<td>0.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Cycleway</td>
<td>-</td>
<td>-</td>
<td>10.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Other (eg. RUPP, BOAT)</td>
<td>1.0</td>
<td>-</td>
<td>1.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Total length of trail</td>
<td>32.0</td>
<td>36.0</td>
<td>13.0</td>
<td>81.0</td>
</tr>
<tr>
<td></td>
<td>39.5%</td>
<td>44.5%</td>
<td>16.0%</td>
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### LAND USE

![Pie chart showing land use distribution.]

- **36%** Rough Grazing
- **15%** Improved Grazing
- **20%** City/Urban Fringe
- **11%** Rural Lane/Village
- **4%** Arable
- **3%** Woodland
- **6%** Saltmarsh
- **3%** Other

### Land Use Table

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Cumbria</th>
<th>Northumber -land</th>
<th>Newcastle City N.Tyneside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Grazing</td>
<td>9.5</td>
<td>20.0</td>
<td>-</td>
<td>29.5</td>
</tr>
<tr>
<td>Improved grazing</td>
<td>6.5</td>
<td>5.5</td>
<td>0.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Arable</td>
<td>-</td>
<td>3.5</td>
<td>-</td>
<td>3.5</td>
</tr>
<tr>
<td>Woodland</td>
<td>0.5</td>
<td>2.0</td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td>Saltmarsh</td>
<td>5.0</td>
<td>-</td>
<td>-</td>
<td>5.0</td>
</tr>
<tr>
<td>City and Urban Fringe</td>
<td>3.0</td>
<td>1.0</td>
<td>12.5</td>
<td>16.5</td>
</tr>
<tr>
<td>Rural lanes and villages</td>
<td>6.0</td>
<td>3.0</td>
<td>-</td>
<td>9.0</td>
</tr>
<tr>
<td>Other</td>
<td>1.5</td>
<td>1.0</td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32.0</td>
<td>36.0</td>
<td>13.0</td>
<td>81.0</td>
</tr>
</tbody>
</table>
## TERRAIN (SLOPE)

<table>
<thead>
<tr>
<th>Terrain (slope)</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat or gently undulating (less than 5°)</td>
<td>17.0</td>
<td>7.5</td>
<td>11.0</td>
<td>35.5</td>
</tr>
<tr>
<td>Undulating with defined slopes (5° - 9°)</td>
<td>13.0</td>
<td>18.5</td>
<td>2.0</td>
<td>33.5</td>
</tr>
<tr>
<td>Defined slopes (10° - 15°)</td>
<td>1.7</td>
<td>8.5</td>
<td>-</td>
<td>10.2</td>
</tr>
<tr>
<td>Steeper slopes (greater than 15°)</td>
<td>0.3</td>
<td>1.5</td>
<td>-</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>32.0</td>
<td>36.0</td>
<td>13.0</td>
<td>81.0</td>
</tr>
</tbody>
</table>
GROUND CONDITIONS - (SOILS)

<table>
<thead>
<tr>
<th>Soils under grass covered path surfaces</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tynside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral soils</td>
<td>18.5</td>
<td>21.5</td>
<td>0.5</td>
<td>40.5</td>
</tr>
<tr>
<td>Mineral soils and rock</td>
<td>-</td>
<td>7.0</td>
<td>-</td>
<td>7.0</td>
</tr>
<tr>
<td>Organic soils</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rock</td>
<td>0.5</td>
<td>0.5</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

| Man made path surfaces                 | 13.0    | 7.0            | 12.5                         | 32.5          |

| Total                                  | 32.0    | 36.0           | 13.0                         | 81.0          |
GROUND CONDITIONS (DRAINAGE)

<table>
<thead>
<tr>
<th>Drainage of path surfaces</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City &amp; N. Tyneside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free drained</td>
<td>17.5</td>
<td>28.0</td>
<td>0.5</td>
<td>46.0</td>
</tr>
<tr>
<td>Impeded</td>
<td>1.5</td>
<td>1.0</td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td>Saturated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Surface drained</td>
<td>13.0</td>
<td>7.0</td>
<td>12.5</td>
<td>32.5</td>
</tr>
<tr>
<td>Total</td>
<td>32.0</td>
<td>36.0</td>
<td>13.0</td>
<td>81.0</td>
</tr>
</tbody>
</table>
## Types of Path Surface

![Pie chart showing percentages of different path surfaces: 60% Grass, 15% Aggregate, 9% Tarmac, 13% Pavement, 3% Other, 1% Steps.]

<table>
<thead>
<tr>
<th>Types of path surface</th>
<th>Cumbria</th>
<th>Northumber -land</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarmac surface</td>
<td>3.5</td>
<td>-</td>
<td>3.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Aggregate surface</td>
<td>5.0</td>
<td>2.5</td>
<td>4.5</td>
<td>12.0</td>
</tr>
<tr>
<td>Pavement</td>
<td>2.4</td>
<td>4.4</td>
<td>4.9</td>
<td>11.7</td>
</tr>
<tr>
<td>Steps</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Other types of hard surfaces</td>
<td>2.0</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td>Grass covered path surfaces</td>
<td>19.0</td>
<td>29.0</td>
<td>0.5</td>
<td>48.5</td>
</tr>
<tr>
<td>Total</td>
<td>32.0</td>
<td>36.0</td>
<td>13.0</td>
<td>81.0</td>
</tr>
</tbody>
</table>
### Condition of the Path Surface

<table>
<thead>
<tr>
<th>Condition of the path surface</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sign of wear</td>
<td>5.5</td>
<td>13.0</td>
<td>-</td>
<td>18.5</td>
</tr>
<tr>
<td>Light evidence of use</td>
<td>10.5</td>
<td>11.0</td>
<td>-</td>
<td>21.5</td>
</tr>
<tr>
<td>Less than 25% vegetation loss</td>
<td>-</td>
<td>2.0</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td>Greater than 25% vegetation loss</td>
<td>2.6</td>
<td>2.5</td>
<td>0.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Evidence of vegetation and soil loss</td>
<td>0.4</td>
<td>0.5</td>
<td>-</td>
<td>0.9</td>
</tr>
<tr>
<td>Man made path surfaces in good order</td>
<td>9.5</td>
<td>5.5</td>
<td>10.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Man made path surfaces requiring minor repair</td>
<td>3.5</td>
<td>1.5</td>
<td>2.5</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32.0</strong></td>
<td><strong>36.0</strong></td>
<td><strong>13.0</strong></td>
<td><strong>81.0</strong></td>
</tr>
</tbody>
</table>
### Condition of Gates, Stiles and Bridges

- **37%** New crossing needed
- **39%** In good order
- **10%** Major repair needed
- **13%** Minor repair needed

<table>
<thead>
<tr>
<th>Gates, Stiles and Bridges</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In good order</td>
<td>54</td>
<td>98</td>
<td>9</td>
<td>161</td>
</tr>
<tr>
<td>Minor repair required</td>
<td>28</td>
<td>25</td>
<td>2</td>
<td>55</td>
</tr>
<tr>
<td>Major repair required</td>
<td>29</td>
<td>12</td>
<td>-</td>
<td>41</td>
</tr>
<tr>
<td>New means of crossing required</td>
<td>52</td>
<td>99</td>
<td>1</td>
<td>152</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>163</td>
<td>234</td>
<td>12</td>
<td>409</td>
</tr>
</tbody>
</table>
CONDITION OF BOUNDARY CROSSING POINTS

76% In good order

7% Major repair needed

17% Minor repair needed

<table>
<thead>
<tr>
<th>Boundaries eg. walls, fences, hedges</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In good order</td>
<td>125</td>
<td>176</td>
<td>10</td>
<td>311</td>
</tr>
<tr>
<td>Minor repair required</td>
<td>24</td>
<td>42</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>Major repair required</td>
<td>14</td>
<td>16</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>234</td>
<td>12</td>
<td>409</td>
</tr>
</tbody>
</table>
WAYMARKING

- 68% New work required
- 4% Repair needed
- 28% In good order

<table>
<thead>
<tr>
<th>Waymarking</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and North Tyneside</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In good order</td>
<td>33</td>
<td>28</td>
<td>-</td>
<td>61</td>
</tr>
<tr>
<td>In need of repair</td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>New waymarking required</td>
<td>32</td>
<td>103</td>
<td>15</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>136</td>
<td>15</td>
<td>219</td>
</tr>
</tbody>
</table>
OBSTRUCTIONS

68% Overgrown

24% Barbed or plain wire

8% Other

<table>
<thead>
<tr>
<th>Obstructions across the route</th>
<th>Cumbria</th>
<th>Northumberland</th>
<th>Newcastle City and N. Tyneside</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overgrown</td>
<td>11</td>
<td>31</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>Barbed or plain wire</td>
<td>7</td>
<td>8</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Other Obstructions</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>40</td>
<td>1</td>
<td>62</td>
</tr>
</tbody>
</table>
APPENDIX TWO. KEY FACTS ABOUT THE ROUTE FOR EACH LOCAL HIGHWAY AUTHORITY.

1. **Route Characteristics - Newcastle City and North Tyneside**

1.1 **Route Status**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing public rights of way</td>
<td>2 miles</td>
<td>15%</td>
</tr>
<tr>
<td>Cycleway (public open space)</td>
<td>10.5 miles</td>
<td>81%</td>
</tr>
<tr>
<td>Public road sections</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
<tr>
<td>New access required</td>
<td>none</td>
<td>-</td>
</tr>
</tbody>
</table>

1.2 **Land Use**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>City and Urban fringe</td>
<td>12.5 miles</td>
<td>96%</td>
</tr>
<tr>
<td>Improved grazing land</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
</tbody>
</table>

1.3 **Terrain (slope)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat or gently undulating (less than 5°)</td>
<td>11 miles</td>
<td>85%</td>
</tr>
<tr>
<td>Undulating with defined slopes (5° - 9°)</td>
<td>2 miles</td>
<td>15%</td>
</tr>
</tbody>
</table>

1.4 **Ground Conditions (soils and drainage beneath the path surface)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral soils under grass cover</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
<tr>
<td>Soils under hard surfaced paths</td>
<td>12.5 miles</td>
<td>96%</td>
</tr>
<tr>
<td>Free drained path surfaces</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
<tr>
<td>Surface drained</td>
<td>12.5 miles</td>
<td>96%</td>
</tr>
</tbody>
</table>

1.5 **Types of path surface**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass covered path surfaces</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
<tr>
<td>Hard surfaced path</td>
<td>12.5 miles</td>
<td>96%</td>
</tr>
<tr>
<td>eg. tarmac, pavement, aggregate, steps</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.6 **Condition of the path surface**

<table>
<thead>
<tr>
<th>Description</th>
<th>Distance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 25% vegetation loss of grass surfaces</td>
<td>0.5 miles</td>
<td>4%</td>
</tr>
<tr>
<td>Hard surfaced paths in good order</td>
<td>10 miles</td>
<td>77%</td>
</tr>
<tr>
<td>Hard surfaced paths requiring repair</td>
<td>2.5 miles</td>
<td>19%</td>
</tr>
</tbody>
</table>

1.7 **Boundary crossing points**

Boundaries encountered along the route
eg. fence, wall, road or river crossing.

12 No.
Existing gates, stiles and bridges in good order 9 No.
New means of crossing required or repair needed 3 No.

1.8 Waymarking and obstructions

New waymarking required 15 No.
Obstructions to the route 1 No.

2. Route Characteristics - Northumberland

2.1 Route Status

Existing public rights of way 13.5 miles 38%
Public road sections 4.0 miles 11%
New access required 18.5 miles 51%

2.2 Land Use

Rough grazing land 20 miles 5%
Improved grazing land 5.5 miles 15%
Arable land 3.5 miles 10%
Woodland 2.0 miles 6%
Urban Fringe 1.0 mile 3%
Rural lanes and villages 3.0 miles 8%
Quarry 1.0 mile 3%

2.3 Terrain (slope)

Flat or gently undulating (less than 5°) 7.5 miles 21%
Undulating with defined slopes (5° - 9°) 18.5 miles 51%
Defined slopes (10° - 15°) 8.5 miles 24%
Steeper terrain (greater than 15°) 1.5 miles 4%

2.4 Ground Conditions (soils and drainage beneath the path surface)

Mineral soils under grass cover 21.5 miles 60%
Mineral soils with rock outcrops 7.0 miles 19%
Bedrock at surface level 0.5 miles 2%
Soils under hard surfaced paths 7.0 miles 19%

Free drained path surface 28 miles 78%
Impeded surface 1 mile 3%
Surface drained 7 miles 19%
2.5 Types of path surface

- Grass covered path surfaces: 29 miles, 81%
- Hard surfaced paths: 7 miles, 19%
  eg. tarmac, pavement, aggregate, steps

2.6 Condition of the path surface

- No sign of wear whatsoever: 13 miles, 36%
- Light evidence of use: 11 miles, 31%
- Less than 25% vegetation loss of grass surfaces: 2 miles, 6%
- Greater than 25% vegetation loss of grass surfaces: 2.5 miles, 7%
- Evidence of vegetation and soil loss: 0.5 miles, 1%
- Hard surfaced paths in good order: 5.5 miles, 15%
- Hard surfaced paths requiring repair: 1.5 miles, 4%

2.7 Boundary Crossing Points

- Boundaries encountered along the route: 234 No.
  eg. fence, wall, road or river crossing
- Existing gates, stiles and bridge in good order: 98 No.
- New means of crossing required or repair needed: 136 No.

2.8 Waymarking and obstructions

- Existing waymarking in good order: 28 No.
- New waymarking required or repair needed: 108 No.
- Obstructions to the route: 40 No.

2.9 Wayside fencing alongside the route

- Total length of new fencing required: 9km

3. Route Characteristics - Cumbria

3.1 Route Status

- Existing public rights of way: 18 miles, 56%
- Public road sections: 6 miles, 19%
- New access required: 8 miles, 25%
3.2 Land Use

<table>
<thead>
<tr>
<th>Type</th>
<th>Miles</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough grazing land</td>
<td>9.5</td>
<td>30%</td>
</tr>
<tr>
<td>Improved grazing land</td>
<td>6.5</td>
<td>20%</td>
</tr>
<tr>
<td>Woodland</td>
<td>0.5</td>
<td>2%</td>
</tr>
<tr>
<td>Saltmarsh</td>
<td>5</td>
<td>15%</td>
</tr>
<tr>
<td>City &amp; Urban fringe</td>
<td>3</td>
<td>9%</td>
</tr>
<tr>
<td>Rural lanes and villages</td>
<td>6</td>
<td>19%</td>
</tr>
<tr>
<td>Scrub and heathland</td>
<td>1.5</td>
<td>5%</td>
</tr>
</tbody>
</table>

3.3 Terrain (slope)

<table>
<thead>
<tr>
<th>Type</th>
<th>Miles</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat or gently undulating (less than 5°)</td>
<td>17</td>
<td>53%</td>
</tr>
<tr>
<td>Undulating with defined slopes (5° - 9°)</td>
<td>13</td>
<td>41%</td>
</tr>
<tr>
<td>Defined slopes (10° - 15°)</td>
<td>1.7</td>
<td>5%</td>
</tr>
<tr>
<td>Steeper terrain (greater than 15°)</td>
<td>0.3</td>
<td>1%</td>
</tr>
</tbody>
</table>

3.4 Ground Conditions (soils and drainage beneath the path surface)

<table>
<thead>
<tr>
<th>Type</th>
<th>Miles</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral soils under grass cover</td>
<td>18.5</td>
<td>58%</td>
</tr>
<tr>
<td>Bedrock at surface level</td>
<td>0.5</td>
<td>2%</td>
</tr>
<tr>
<td>Soils under hard surfaced paths</td>
<td>13</td>
<td>40%</td>
</tr>
</tbody>
</table>

3.5 Types of path surface

<table>
<thead>
<tr>
<th>Type</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass covered path surfaces</td>
<td>19</td>
</tr>
<tr>
<td>Hard surfaced paths</td>
<td></td>
</tr>
<tr>
<td>eg. tarmac, pavement, aggregate, steps</td>
<td>13</td>
</tr>
</tbody>
</table>

3.6 Condition of the path surface

<table>
<thead>
<tr>
<th>Type</th>
<th>Miles</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sign of wear whatsoever</td>
<td>5.5</td>
<td>17%</td>
</tr>
<tr>
<td>Light evidence of use</td>
<td>10.5</td>
<td>33%</td>
</tr>
<tr>
<td>Greater than 25% loss of grass surfaces</td>
<td>2.6</td>
<td>8%</td>
</tr>
<tr>
<td>Evidence of vegetation and soil loss</td>
<td>0.4</td>
<td>1%</td>
</tr>
<tr>
<td>Hard surfaced path surfaces in good order</td>
<td>9.5</td>
<td>30%</td>
</tr>
<tr>
<td>Hard surfaced paths surfaces requiring repair</td>
<td>3.5</td>
<td>11%</td>
</tr>
</tbody>
</table>

3.7 Boundary crossing points

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundaries encountered along the route eg. fence, wall, road or river crossing.</td>
<td>163 No.</td>
</tr>
<tr>
<td>Existing gates, stiles and bridges in good order</td>
<td>54 No.</td>
</tr>
<tr>
<td>New means of crossing required or repair needed</td>
<td>109 No.</td>
</tr>
</tbody>
</table>

28
3.8  **Waymarking and obstructions**

- Existing waymarking in good order: 33 No.
- New waymarking required or repair needed: 35 No.
- Obstructions to the route: 21 No.

3.9  **Wayside fencing alongside the route**

- Total length of new fencing required: 2km
APPENDIX THREE: COSTS TO ESTABLISH THE NATIONAL TRAIL FOR EACH LOCAL HIGHWAY AUTHORITY.

1. **Newcastle City and North Tyneside**

1.1 **Path Construction and Repair**

£33,000

0.5 miles (0.8km) upgrade worn grass surface @ £10/metre (Repairs to a worn section of footpath between Newburn and Ryton Island which requires improved drainage and hard surfacing in places).

12.5 miles (20km) localised improvements to the cycleway @ £1.5/metre (Isolated repairs to the path surface, crossings and surface water drains along the length of the cycleway).

1.2 **Waymarking and Interpretation**

£13,000

Interpretation - £10,000
(Provision of appropriate interpretation at the start of the National Trail at Segedunum Roman Fort).

Waymarking - 15 No. @ £200 each (Provision of 15 new signs to be installed within the urban area of Tyneside).

1.3 **Administration**

£9,200

20% of capital costs (£46,000)
(Administration costs and overheads, supervision of direct labour and contractors, management of contracts etc).

1.4 **Total**

£55,200

2. **Northumberland**

2.1 **Path Construction and Repair**

£294,000

24 miles (39km) initial preparation of new path surfaces @ £2/metre (Preparations to establish new sections of the Trail within east Northumberland and localised improvement of sections of existing footpath in the Greenhead area eg. clearance of vegetation and drainage improvements).

4.5 miles (7.2km) minor repairs to grass surfaces @ £5.20/metre (Repairs to partially worn grass surfaces within the National Park, including vegetation management, and localised surfacing at pinch points).

0.5 miles (0.8km). **Major repairs to grass surfaces @ £60/metre** (Repairs and upgrading of more heavily worn grass surfaces within the National Park).
particularly on steep slopes, both to protect archaeological features and limit environmental damage. Eg. stone pitching and stone steps).

5.5 miles (9km) Minor repairs to hard surfaces £2/metre (Maintenance of existing footpaths within the National Park).

1.5 miles (2.4km). Major repairs to hard surfaces @ £10-40/metre (Upgrading of footpaths at Heddon on the Wall, and in the National Park which need attention to prevent further wear and protect archaeological features).

2.2 Crossings and structures along the Trail £83,000

Boundary repairs 58 No. @ £150 each (Repairs to the boundary itself eg. fence, wall, hedge at the point of crossing).

Crossings 136 No. @ £150 each.
(New gates and stiles required).

Small footbridges 5 No. @ £1,000 each.
(New footbridges required across small streams and field drains).

Wayside fencing alongside the route 9km @ £5/metre
(New fencing required to separate the path from farm land).

Obstructions to the route 40 No. @ £100 each
(Removal of various obstructions eg. scrub, vegetation, barbed wire etc.).

2.3 Waymarking and Interpretation £31,000

Waymarking 108 No. @ £100 each.
(Provision of 108 new signs or repairs to clearly waymark the route).

Interpretation £20,000
(Provision of appropriate interpretation along the route).

2.4 Legal Work £49,000

18.5 miles of new footpath to be created @ £2600/mile (costs associated with creating new public rights of way across east Northumberland).

2.5 Compensation £130,000

18.5 miles of new footpath to be created @ £7,000/mile (Potential cost of compensation to landowners where new public rights of way are created by agreement or order).
2.6 Administration

£82,000

20% of capital costs (£408,000)
(Administration costs and overheads, supervision of direct labour and contractors, management of contracts etc).

27. Total

£669,000

3. Cumbria

3.1 Path Construction and Repair

£185,000

16 miles (26km) Preparation of grass surfaces @ £2/metre (Preparations to establish new sections of the path at Birdoswald, Banks, Walton, Crosby on Eden, and Solway Coast, and improvements to existing footpath surfaces eg. clearance of vegetation and drainage improvements).

2.6 miles (4km) minor repairs to grass surfaces @ £5-10/metre (Repairs to partially worn grass surfaces within east and west Cumbria, including vegetation management, and localised surfacing at pinch points).

0.4 miles (0.7km) Major repairs to grass surfaces @ £10/metre (Repairs and upgrading of more heavily worn grass surfaces spread across Cumbria eg. aggregate surfacing, stone steps).

9.5 miles (15km) Minor repairs to hard surfaces @ £2/metre (Maintenance of existing footpaths across Cumbria).

3.5 miles (5.6km) Major repairs to hard surfaces @ £10/metre (Upgrading of existing footpaths across Cumbria which need attention to limit further wear).

3.2 Crossings and structures along the Trail

£44,500

Boundary repairs 38 No. @ £150 each.
(Repairs to the boundary itself eg. fence, wall, hedge at the point of crossing).

Crossings 109 No. @ £150 each.
(New gates and stiles required to open up the route).

Small footbridges 10 No. @ £1,000 each.
(New footbridges required across small streams and field drains).

Wayside fencing alongside the route 2km @ £5/metre (New fencing required to separate the path from farm land).

Obstructions to the route 21 No. @ £100 each.
(Removal of various obstructions).

3.3 **Waymarking and Interpretation**  
£19,500

*Waymarking 35 No. @ £100/each.*  
(Provision of 35 new signs to clearly waymark the route across Cumbria).

*Interpretation £16,000.*  
(Provision of interpretation board at the western end of the Trail at Bowness on Solway).

3.4 **Bridges**  
£250,000

*River Irthing crossing £200,000.*  
(Provision of new large span footbridge to cross the river)

*Cam Beck crossing £50,000.*  
(Provision of new small span footbridge to cross the river).

3.5 **Legal Work**  
£21,000

8 miles of new footpath to be created @ £2600/mile (costs associated with creating new public rights of way).

3.6 **Compensation**  
£56,000

8 miles of new footpath to be created @ £7000/mile (Potential cost of compensation to landowners).

3.7 **Administration**  
£100,000

20% of capital costs (£499,000).

3.8 **Total**  
£676,000