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We would recommend that when the route is marked out in the field that a competent archaeologist accompanies the team in order to allow small readjustments to the route to be made around vulnerable features which might not be apparent at the scale of the map.

It is essential that if in the future any changes to the route alignment are made that the model is re-used with the new information which will affect the features in the proposed new section in order that vulnerable features are safe-guarded. It is also essential that the map marking key sensitive archaeological sites is used in conjunction with the detailed information available in the model results (see Annex C).

6.3.3 The Management Plan

The management plan process is summarised in Figure 6.3.3a. The aims of the plans and the survey data and its analysis have been outlined in previous sections of this report. Section 5 has introduced the concept of mitigation measures which may be implemented to lessen some of the impacts outlined in Section 5 from causing harm to the monument. Section 6.3 has related this concept to route alignment and highlighted where it may be desirable to instigate changes to the proposed route.

This section takes that route and seeks to identify a strategy for management of the proposed trail adjacent to archaeological features which may further lessen the impacts of potential visitor pressure.

Management Objectives and General Management Strategies

Management objectives serve to indicate how the aims of the research study are to be pursued. It is essential that the objectives are responsive to new information and changes in circumstances, thereby ensuring a degree of flexibility within the broader aims of the plan.

Based on review of available techniques (summarised very generally in Annex B), review of management routines tried at other sites on other trails (see Section 6.3.4) and discussions with manufacturers and distributors, general management strategies are outlined to achieve the objectives outlined below. In Section 6.3.4 the most important techniques are discussed in more detail. In Section 6.3.5 these are related to the range of archaeological sensitivity indices identified by the model.

The following objectives have been identified and general strategies for their achievement are summarised below each objective.
| Section 6 | Long and short term objectives in both specific terms and measurable objectives | Management objectives
| Section 3, 4 and 5 | Relationships between existing and additional objectives and control elements for implementing and potential management programs | Analysis
| Section 2 | A questionnaire for multiple comprehensive records of land and the management framework and the management context | Survey
| Section 1 and section 6.1 | Head Policy | Alms
| Report Reference | Comment | MPP

**Figure 0.0.0. Management Plan Process (MPP)**
Archaeology

- Sensitive alignment of the route to avoid particularly vulnerable features (see Section 6.2) especially where new sections to the route are created.
  - See Section 6.2

- Remedial action where features are already showing damage from the impact of visitors.
  - Consider route realignment.
  - Structural work to stone features.
  - Grass restoration including:
    - improved grass maintenance;
    - aeration - (care must be taken not to fork vulnerable archaeological remains);
    - reseeding;
    - resting turf;
    - consider geotextiles;
    - if feature closed off temporarily inform public why with signboard;
    - engineering solutions in badly eroded sections with steep gradients such as steps, revetments and erosion barriers;
    - drainage.

- Preemptive action to avoid unnecessary risk to vulnerable features.
  - Consider route realignment.
  - Path strengthening as above.
  - Strengthen control boundary hedges where appropriate.

- Sensitive marketing of the trail to avoid excessive influxes of visitors which might pose excessive threat to the monument.
  - Controlled marketing of trail both at home and abroad (NB 16% of whole way walkers on the Southern Upland Way (Ash 1984) were Dutch possibly mainly as a result of marketing in one outdoor equipment retailer in Amsterdam).

- Intensive management of path adjacent to vulnerable features and at pinch-points.
  - Grass restoration as above.
Consider natural stone.

Drainage by other means. Duckboards only if drainage problem not solvable by improving.

Consider wooden steps.

Construct a visual vyeor.

Where environmental solutions are required they must be sympathetic to the environment and not impact upon the ecology, the landscape or the heritage.

Drainage.

Small adjustments to route alignment.

Seedmixes for sustainable greening.

New footpaths.

Use minimum intervention techniques where possible when cleaning.

Signboard to explain why route has been temporarily closed.

Consider route realignment or temporary alternative route.

Consider steps etc. in areas with steep gradients.

Drainage.

Examine footpaths.

Take action to prevent further damage to seriously eroded patches of landscaping and landscape.

Archaeological features are near the surface.

Avoid surface intervention with the path which might erode vulnerable etc.

The signboards in car parks or on areas which are already lammac.

Besides them.

Sensitive use of signboards to decrease the risk of erosion patches of significance.

Keep path clear of large stones if they are of no archaeological significance.

Improve drainage.

Take action to prevent further damage to seriously eroded patches of landscaping and landscape.
- If gravel to be used use natural materials that blend in with the surroundings.

Recreation

- Avoid the creation of new extensive car parks and facilities which would increase visitor pressure in already busy areas.
- Consider small car parks to link National Trail with a network of circular walks away from the central section.
- Increase public rights of way network to allow more enjoyment of countryside where impacts to archaeology will be controllable.

- As above.
- Circular walks in Birdoswald and Gilsland area to encourage longer visits to this area to encourage day walkers away from the central section.

- Maintain the natural environment sought by long distance walkers.
- Sensitive guidebooks where philosophy of protection of archaeological heritage is paramount.

- Education to spread full meaning and importance of the monument in its entirety.

General

The instigation of the Hadrian’s Wall proposed National Trail allows unique opportunities for:

- Preemptive management to be undertaken to safeguard the monument before the trail is open.
- Monitoring of plots along the trail before it opens at well as an opportunity to allow detailed research to be carried out on the effects of monitored numbers of visitors to the path. Little such calibrated research has been reported to date.

The underlying principle of any management strategy should be that it is flexible and that the changing situation should be monitored routinely – frequently at more sensitive sites and at least 6 monthly along the trail when it first opens.
The wall where the aim should be to keep opaquing stipboards to a

The opportunity for much visitor management is fairly limited alone

4. Visitor Management

particularly important

of the sensitivity indices to determine where preemptive action is needed is

which erosion is imminent is already past. This alone the wall the use

there is visual evidence of declining plant cover the critical period in

Qumran et al. 1980) in research elsewhere have shown that by the time

Problem

Regular monitoring to define areas that are becoming worn before the

operation

be forthcoming to prevent disatisfaction and to encourage co-

senseless features for short times; this information to the public should

peak temporarily away from heavily trodden areas or coping off

difficult to achieve but there are some possibilities of reducing the

In a narrow corridor of land along the wall this may sometimes be

2. Recover / Real Period for the Grass

not appropriate as it can produce a very soft and easily worn surface.

subsiding a mechanical action by hand fixing. Above this point is

the root growth of the grass. A depth of at least 10 mm is required

should be aerated every two weeks to relieve surface compaction and

- caution - it was suggested that after heavy visitor usage the soil

- compacted grass and root structure

should be cut regularly between March and October to maintain a

- grass cutting - it was suggested that all grass areas subject to wear

1. Programmed Grass maintenance

ear in the first phase of study included:

At Stonedge (LTC 1989) recommendations for maintaining grass wear and

particular treatments where appropriate

in the field during interviews are not made. Costs are given for

always considerable but the most useful is reported here and in the absence of

suppliers and excessive distributions. Information from suppliers is

been compiled on other sites and detailed information from each

methods of reducing this

vulnerability to visitor pressure (see above). The methods of achieving this

a unsustainable grass worn adjacent to vulnerable features will lessen their

Introduction

Specific Information for Grassland Restoration and Strengthening 6.3.4
minimum (see Section 6.3.3) however low-key possibilities do exist (see 2 above).

5. A sand based medium for grass establishment

6. Use of some reinforcement to prevent soil compaction and erosion

Seeding and reinforcement are discussed in relation to the manufacturer’s information below. At Stonehenge it was agreed that a combination of the above points would probably be necessary for grass establishment and maintenance.

Reseeding

The main comments from the most helpful seed companies are listed below:

WM Johnson and Son Ltd
Boston
Lincolnshire
PE21 8AD

Mix

This firm suggest a fescue / bent mixture in their reclamation range mixtures for upland parts of the trail which have a lower sowing rate because their main purpose is to look acceptable at a distance or as a path rather than as a lawn. Such a mix is suitable for areas where there are low levels of nutrients and different types are available for varying soil conditions.

JR33 (Johnson Reclamation) would be particularly appropriate for upland areas and could be used with geotextiles.

At lower altitudes Johnson’s would recommend a mix which included slightly more broad-leaved native grass species such as smooth stalked meadow grass and crested dog’s tail.

Sowing

A suitable sowing rate would be 50 g/m².

Late spring or late winter would be suitable but the best take would probably be in April. If sowing is done too early temperatures may limit development.

Fertiliser

Fertiliser may be used pre-seeding and again once established. A suitable level would be 4 g/m² of nitrogen on mineral soils. The nitrogen helps to produce an immediate growth response. In upland areas it may be more appropriate to add fertiliser after germination to limit wash-off early in the year if it is cold and rainy. If fertiliser is used at low rates after germination
Worcestershire
Innsworth
Essex
Road
From Farm
Here Seed Ldt

Where their listed to comply with this:

Reserves do not meet the necessary regulations. Reliable companies will have
ensured it is a variety approved by MAF for certain commercial sheep's
species, rescue (Rescue grain) is included and a mix can be taken to


Species Sown

Above an important effect against erosion will act as a name to the grass

Johnson's. Suitable grasses may be successful. Geometric besides

Johnson's. Suggest grasses may be particularly valuable and in

planted in more with the landscape.

mix without much increase so that the path is not a blank green but would
are more suitable species. It lower levels they would again recommend a
Persea and bunt which are found naturally in the upland parts of the hill
affected to recover decrease rapidly and it does not withstand transplanting well

decrease the physical resistance of Persea to erosion from root and let

Persea does not always do well at higher elevations. As representatives

Central

Johnson's do not supply fertilisers.

The mix is more expensive if cover is included.

depending on the quantity in the mix £3.75 / kg without £3.25 with
if ceased does fail it are included the price would be slightly higher

Special mix £3.00 - £5.00 / kg depending on the stress required

£2.00 - £3.00 / kg

Typical costs would be:

Costs

existing levels or nutrients before recommendations can be made of application.

Johnson's would recommend some soil testing and analyses to determine the

the farmer

there will be no damage to the plan and they will only benefit from
Mix

For areas with heavier visitor pressure mixes with ryegrasses are recommended because of their ability to regrow and their success on amenity sites.

A typical mix would be PRO 70 which is used for sports fields and caravan parks and contains a mixture of:

50% Cert Lisabelle perennial ryegrass
25% Cert Boreal strong creeping red fescue
15% Cert Lifalla or Wilma Chewings fescue
5% Cert Limousine or Lipvater smooth stalked meadow grass
5% Cert Highland browntop bent

Sowing

Interseed suggested autumn sowing when fewer visitors would be walking on the path and it would have time to establish itself before the new influx of walkers.

An appropriate sowing rate would be 150 - 250 kg/ ha (1¼ - 2 cwt/acre).

Fertiliser

A preseeding fertiliser such as PRO-FERT 2 which is a granular fertiliser N:10 : P : 15 : K : 10. The application rate would be 50 - 70 g/m². In spring an additional fertiliser such as PRO-FERT 5 (20 : 10 : 10) at 35 - 50 g/m² should be added to give a boost and encourage new growth and recovery from winter damage.

A suitable autumn/winter fertiliser is PRO-FERT 9 (3 : 12 : 12) at 35 g/m². Emphasis should be placed on phosphate levels to enhance root development.

Costs

PRO 70: £52.00 / 25 kg

20% discount is available to a contractor and further discount for bulk buying.

PRO-FERT 2: £7.85 / 25 kg

PRO-FERT 5: £8.10 / 25 kg

PRO-FERT 9: £7.15 / 25 kg
Application rate: 50 g/m²
7:7:9 Granular

Sprin: BSH 5: Granular
Spring applications suitable for spring and winter would be:

an application rate of 70 g/m²,
for BSH 2 PRE-SEEDING 10:10 (low level of nutrients)
an application rate of 70 g/m²,
for BSH 1 PRE-SEEDING 6:9 (reasonable nutrient level)

useful, such as:

If the soil has only reasonable or low nitrogen levels a presoaker would be

Persil

Spring seeding was recommended to achieve a better rate of establishment.

For the seed a rate of 15 - 15 g/m² was suggested as appropriate.

expansion areas with little use and 15 for the prevention of bare ground.
A sowing rate of 8 - 15 g/m² is suggested whereas B would be suitable for

Somer

problems in using BSH A16 with georelayes.
but this has not been tried in this area but they would not enhance any
In the lowlands they have used BSH A7 sports ground mix with georelayes
and decreasing sheeps' and hard cases.
would need some attention such as removing cover, adding chewing's recipe
A suitable mix could be based on BSH A16 Country Parks Mix although it

Regions

at lower altitudes a georease / bent mix would be more suitable in the uplands
British Seed Houses suggest that although reaprasis is important of ramping

**Mix**

WAL SE
Cereals
Warrington
Pill Street
Bentley Industrial Estate
British Seed Houses

Trampling should replace the need for mowing.
Winter: BSH 8 : Granular Outfield 3 : 12 : 12
Application Rate : 50 g/m²

Costs

Typical costs would be:

<table>
<thead>
<tr>
<th>Product</th>
<th>Cost Per Kg</th>
<th>Total Per 25 Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSH A16</td>
<td>£77.30</td>
<td></td>
</tr>
<tr>
<td>BSH 1</td>
<td>£ 8.50</td>
<td></td>
</tr>
<tr>
<td>BSH 2</td>
<td>£ 9.65</td>
<td></td>
</tr>
<tr>
<td>BSH 5</td>
<td>£ 8.75</td>
<td></td>
</tr>
<tr>
<td>BSH 8</td>
<td>£ 8.80</td>
<td></td>
</tr>
</tbody>
</table>

Reinforcement

At Stonehenge LVC (1988) recommended that grass reinforcement material should be used to replace the most worn areas of grass.

Our discussions have confirmed its suitability for use for the trail in particularly eroded areas. It has been confirmed that it is suitable for small areas. The life of different textiles varies greatly depending on their composition. Where there is more plastic to the metre the density is increased and the geotextile is thus longer lasting. The life also depends on the type of plastic and also some are more resistant to UV light than others.

*Roffey Brothers*
*Throop Road*
*Throop*
*Bournemouth*
*Dorset*
*BH8 0DF*

The most useful geotextile information was from this company who market two types of grass reinforcement/soil erosion geotextiles; one with a resin backing (Nottsward) and one without (GR range).

This firm has been involved in several trials at other sites under pressure from visitors. On the Pennine Way early trials used 50 m lengths of 3.66 m wide rolls and their success led to more trials using 200 m lengths.

In the Three Peaks area near Ribble-Head Viaduct they conducted more trials and here they were looking for the most cost effective treatment and experimented with full width and half width mats. They found people did walk in single file on the narrower restored parts.

The mats were seeded with ryegrass which would not have been Roffey’s choice but this was chosen by the Yorkshire Dales National Park. The path was left over winter and was under snow for some time. By the following May / June the ryegrass had failed. Other indigenous plants had, however,
The following rates of application should be used:

- For very heavy use including vehicles:
  - CR1150

- Where people will be standing on grass:
  - CR3000

- Not tolerant of heavy trampling mainly for use in areas:
  - CR700

- Best results for situations where people walking in pools:
  - CR700

Typical mats include:

The material by applying the grass and root through and pulled it out. However, by applying the grass and root to the ground, cuts or breaks may occur. Sand is suggested because it is easier to work with. It is important to be too much to push into the pile of the mat. Another 10 kg of sand is added at one time if it would make the pile of the mat. Then the Norc Cannond should be added and 20 - 25 kg/m² sand. Norc Cannond

The method is generally to spread 10 kg of sand onto the mat and work it into the pile of sand. If 1.5 kg/m² Norc Cannond should be used. The water returning potometer may also be included to prevent the mats dry out.

Norc Cannond should be used to establish seeds. This is a special mixture, 183 m², and only done in order. The mats come in 50 m rolls (which covers 13 m²).

Part from CR1150 Noresand they are not made as for each type of mat, a resin backed Norc sand version could be made which
conditons

tried to help prevent serious complications and erosion under such
conditions. LEC suggested that although the LEC suggested the area might be susceptible
failure due to the back or early initiation. This has not been accurately
suggested that the area might be susceptible. Erosion was not

LEC concluded that although Norsward performed well and did prevent

integration was needed in the Norsward idea because of its sand construction.

in the manner with higher phosphorus (1:10) applied at a rate of 250 kg/ha. More

recommendation was made to apply two fertilizer applications one in April and a second

May high in

used was a pure Ryegrass - Johnson's Sportmaster mix grown at 40-50 cm

bank stabilization or expressing cut and not for roof drain use. The seed

Norsward. Other amendments were either too high or more suited for

only two materials desired as suitable: Norsward mesh elements and

Valesy's pornstar, Norsward. Norsward, Parnell, Rendone and Grass poster

Al Stonewall (LEC 1989) used several Frederick including Norsward,

General

in the near future.

COMMON CEREAL PATH. It is expected that the new product will be marketed

rocky ground and Co worked well. Shortly the product is to be tested on the

eased. The new system has been tried on sand and reuse of roadsides banks and

reduction of irrigation. The new system will also encourage the

market's desire to stabilize the surfacry which encourages the rapid establishment

Rockey Brothers Ltd have told us that the area are currently continuing trials on a

for 75mm

0.4200 Bag

COMMACORE N FERTILIZER

The price is 20 p/m? more with Norsward

GR 1050 Norsward

F9.82/m?

GR 1150

F9.83/m?

GR 700

Costs

required

controlled release fertilizer. The rate suggested is 35 kg/m2 and when

After establishing an Commacore N fertilizer can be used which is a coated
Management Routines at Heathrow as Predicted by the Model

6.3.54a

...and tasks should be undertaken... Georectors may have some limited use in wet or severely eroded areas

...strengthening and especially if the area is degraded... Peat in the uplands and with more vigorous at lower levels will reseed with suitable mixes high in native species such as Rese... Rehash reseed with suitable mixes high in native species such as Rese... Rehash reseed with suitable mixes high in native species such as Rese...

...visitor management will improve existing foot... basic management such as erection some fence... Visitor management will improve existing footpath... basic management such as erection some fences... Visitor management will improve existing footpath... basic management such as erection some fences... Visitor management will improve existing footpath... basic management such as erection some fences...

...but generally it can be concluded that... In the absence of field tables it is hard to make definite recommendations... but generally it can be concluded that... In the absence of field tables it is hard to make definite recommendations... but generally it can be concluded that... In the absence of field tables it is hard to make definite recommendations... but generally it can be concluded that... In the absence of field tables it is hard to make definite recommendations...

Conclusions

...on the exact type of grass which is chosen... Typical costs would be between £21.00/m² and £2.00/m² delivered depending on localised costs... on the exact type of grass which is chosen... Typical costs would be between £21.00/m² and £2.00/m² delivered depending on localised costs... on the exact type of grass which is chosen... Typical costs would be between £21.00/m² and £2.00/m² delivered depending on localised costs... on the exact type of grass which is chosen... Typical costs would be between £21.00/m² and £2.00/m² delivered depending on localised costs... on the exact type of grass which is chosen... Typical costs would be between £21.00/m² and £2.00/m² delivered depending on localised costs...

...we have no reports of the success of this product apart from publicity from... Provide extra reinforcement for the turf top... Increasing the humus content of the soil by the mesh and remains intact to grass growth. After grass growth has been established the creamMix decreases decomposition. By rain impregnation and nutrient and provides a good environment for seeds and plants... Provide extra reinforcement for the turf top... Increasing the humus content of the soil by the mesh and remains intact to grass growth. After grass growth has been established the creamMix decreases decomposition. By rain impregnation and nutrient and provides a good environment for seeds and plants...

General

Class 771
Chelmsford
72-74 Bath Road
Chelmsford Limited
Table 3.6c  Matrix to Predict Management Routine

<table>
<thead>
<tr>
<th>Visitor Numbers</th>
<th>Low (0 - 50,000)</th>
<th>Medium (50,000 - 100,000)</th>
<th>High (&gt;100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity Index</td>
<td>Routine Monitoring</td>
<td>Routine Monitoring</td>
<td>Routine Monitoring</td>
</tr>
<tr>
<td>Low</td>
<td>Routine Monitoring</td>
<td>Routine Monitoring</td>
<td>Routine Monitoring</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
<td>Consider Management Prescription</td>
</tr>
<tr>
<td>High</td>
<td>Management Prescription including Routine Monitoring</td>
<td>Management Prescription including Routine Monitoring</td>
<td>Management Prescription including Routine Monitoring</td>
</tr>
</tbody>
</table>

Routine monitoring of the trail is essential along the length of its route from its instigation and would provide an ideal opportunity for research (see Section 6.3.3). A variety of management prescriptions have been outlined above and in Annex B and the most appropriate one will depend on the form of the archaeological feature and also the landform of the trail adjacent to it. Simple low-cost routines can be carried out along the trail such as keeping it well-drained and immediate grass management at most vulnerable sites.

The model has identified 314 features with high sensitivity indices (220 with medium and 1280 with low). The features with high sensitivity indices are listed in Annex C.

Where erosion is already evident grass-restoration techniques should be experimented with immediately in order to identify the most suitable treatment for different parts of the trail. The absence of many similar research trials makes definitive judgements at this stage impossible.

However trials elsewhere such as at Stonehenge have been promising and both preemptive and restoration management should be possible along the length of the trail.

6.4  General Overview

The trail will pass through a variety of terrain ranging from lowland pasture and arable to the steep sections of the central section of the Wall within the National Park boundary as well as the urban areas through North Tyneside and Newcastle.

The management plans will have to take account of both the archaeological features and also the landscape through which the trail passes.
Curiously outnumbered

Limited from the model results (see Annex C) should be particularly
underscored as well as any pinch-point and these areas which may equally be
part where the real classes or runs on the monument will be particularly
the focus. The potential potential problem areas before they develop. Any
the management prescription and route monitoring will be essential along
the potential vulnerability of any anthropological feature will always underly

The potential vulnerability of any anthropological feature will always underly

be unique in allowing an opportunity for prescriptive management before the

There has been little recorded research from similar parts and this will

Certainly be a big asset in terms of management of the trail

management. Good drainage and a minimal presence of organic soils will

supplementary provides even the number of positions and the lack of much above

However, the grass swells and around the fort at Horseheads is

visitor pressure may accentuate erosion

section where steep gradients and thin soil combined with heavy

the edges of an eagle rock in the Mowrums where in the rugged craggy

A sustainable greenway path will be more easily sustainable for example at

community round green where would be more appropriate

where a separate path is do's and also more like the semi-natural

the lowland will stand but a very wide green lane in more upland areas

Different seed mixes will be appropriate for different landscapes. Whist a

which will require a flexible approach

unobtrusive anthropological features or adjacent to the trail is a challenge

B. The aim is establish a greenway along the length of the trail which is

cooperatives and these have been elevated briefly in this section and in Annex

A wide variety of management techniques exist for the management of
CONCLUSIONS

This study has assessed the impacts on archaeology of the proposed Hadrian’s Wall National Trail using a model which has been specifically developed to meet the aims of the project.

The model uses the available archaeological data and landform data and through a series of steps identifies first the inherent stability of any of the 1814 features identified in the Archaeological Baseline Study and then relates this index to the context of the trail. A sensitivity index for each feature is thus defined which may then be correlated with the predicted visitor numbers for any stretch of the trail in order to predict the management requirements for the trail adjacent to that feature.

The desk-based results for the assessment of the model look promising. The model is flexible and can be interrogated at any stage to produce particular data.

Whilst the model allows treatment of large quantities of data, it does so at the expense of fine detail for any site. However, it may always be used in conjunction with the detailed records for any part of the trail.

In the absence of much detailed previous visitor information, visitor numbers have been calculated as a worst cast scenario. It is likely that these figures are over estimates of what will be the real situation since the number of existing car parks severely limits access to the trail.

It is probable that many day walkers form the local area are those who are already using parts of the route at present (see Section 4.2.3).

However, up to 50,000 people may walk the full length of the trail annually and this will undoubtedly make the central section busier than it is at present.

Visitor numbers will be less away from the central section but are likely to remain high to Lanercost in the west and Chesters in the east because of the distribution of car parks.

The Wall is a complex linear monument with a wealth of valuable and vulnerable archaeological content. Those features most at risk may be those which are most difficult to identify such as a small earthwork in an arable field or where the temptation to the visitor to walk on the feature is too great to resist such as on stretches of the Vallum or Wall.

Where a reasonable turf cover may be maintained the feature will be less vulnerable apart from at the access points where slopes will make the feature more sensitive to erosion.
Harmony with the fabric and setting of the monument could be maintained along much of the length of the wall that is in numbers on different types of terrains. The potential of a new wall provides a unique opportunity to produce products which will be approved for use along all the wall. The reports detailed research programmes to assess the effects of known visits. Results from other studies have been assessed where appropriate and Reassess at other sites which is directly relevant to this wall is intended but recorded.

Where possible and immediate when first signs of wear and tear are particular the most vulnerable features. Management should be prepared for the path leading to restoration of the grass with a variety of techniques. A route even more may be most appropriate. Elsewhere management of impacts which have been outlined in the study. In the most vulnerable cases there exist a wide range of management techniques to mitigate those
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch</td>
<td>A ditch on the north side of the Wall.</td>
</tr>
<tr>
<td>Earthwork</td>
<td>Archaeological feature surviving as a raised platform, a mound or depression.</td>
</tr>
<tr>
<td>Fort</td>
<td>Main garrisoning points along the Wall.</td>
</tr>
<tr>
<td>Milecastle</td>
<td>Fortlets built on to the south side of the Wall at intervals of 1 Roman mile.</td>
</tr>
<tr>
<td>Military Way</td>
<td>Roman road running between the Wall and the Vallum, (as opposed to the Military Road built by General Wade in the 18th century).</td>
</tr>
<tr>
<td>Mithraeum</td>
<td>Temple of Mithras.</td>
</tr>
<tr>
<td>Pinchpoint</td>
<td>Difficulties of terrain may force walkers to take a particular confined route, or the nature of the archaeological feature itself may encourage walkers to walk into it through a limited space.</td>
</tr>
<tr>
<td>Presumed Line</td>
<td>As for subsurface feature but its position is not known exactly.</td>
</tr>
<tr>
<td>Quarry</td>
<td>Roman origin; a source of stone for the construction of the Wall.</td>
</tr>
<tr>
<td>Robber Trench</td>
<td>The impression left in the ground after the Wall foundation stones have been removed.</td>
</tr>
<tr>
<td>Subsurface Feature</td>
<td>Archaeological feature no longer visible on the surface but surviving beneath the topsoil.</td>
</tr>
<tr>
<td>Turret</td>
<td>Placed on the Wall at average distances of about 540 yards; two occur between each pair of Milecastles.</td>
</tr>
<tr>
<td>Vallum</td>
<td>Consists of a ditch with flanking mounds and runs along the south side of the Wall.</td>
</tr>
<tr>
<td>Vestigial Remains</td>
<td>Used to describe cases where only very slight traces of the feature are now visible; almost complete destruction of the feature has occurred.</td>
</tr>
</tbody>
</table>
Wall

Modern Consolidation

Wall as consolidated in the 20th century by the Ministry of Works and its successor bodies, characteristically stones are embedded in a new mortar.

Clayton Consolidation

Wall as consolidated by John Clayton in the 19th century. Characteristics include an artificial level top and no mortar used around facing stones.

West of the River Irthing the Wall was originally built of turf. Much of this was later replaced by a stone wall, but some lengths of Turf Wall still survive.
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