Denny to Wishaw Network Upgrade

Environmental Impact Assessment Report

Volume 3 Appendices

Appendix 7.4 - Antonine Wall World Heritage Site Heritage Impact Assessment (HIA)

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Environmental Impact Assessment Report
Volume 3, Appendix 7.4 Antonine Wall World Heritage Site HIA

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Appendix 7.4

1. Introduction

1.1 The Project

This document provides an assessment of the direct and indirect impacts on the Antonine Wall component of the Frontiers of the Roman Empire World Heritage Site (WHS). An assessment undertaken in line with the United Nations Educational, Scientific and Cultural Organization (UNESCO) *Guidance and Toolkit for Impact Assessments in a World Heritage Context* (2022) is required for any development that has the potential to result in impacts, either negative or positive, on a World Heritage Site. As such, this Heritage Impact Assessment (HIA) has been produced to support the Cultural Heritage assessment undertaken as part of a Section 37 application submitted for the Project due to its interaction with the WHS.

The Project consists of a number of elements including construction of the new section of overhead line (OHL) (referred to as 'WB Route') , reconductoring of existing overhead line, decommissioning of overhead line (referred to as the CB Route), diversions of a number of existing overhead lines, and upgrades to existing substations, although all substations fall outside of the WHS and its buffer. Full details of all works are detailed in Chapter 4: Project Description of the EIA Report.

Most of the works forming part of the Project do not have the potential to result in impacts on the WHS due to their distance from the WHS and its buffer, however, the following element are located within the WHS, its buffer, or the immediate surroundings, and therefore have the potential to result in impacts:

- Construction of a new 400kv overhead line (the 'WB Route');
- Decommissioning of an existing 275kv overhead line (the 'CB Route'); and
- Diversions of existing overhead lines (the 'AA Route' and 'SPD Works').

As such, this assessment focuses on the sections of the WHS that are crossed by the 'WB Route', 'CB Route', and AA Route'/'SPD Works', as well as the associated buffer, and Study Area (see Section 3 for details relating to the Study Area).

The baseline conditions for the WHS, as well as the assessment of likely construction and operational impacts resulting from the Project, are not described in detail in this document, with detailed information provided in the relevant chapters of the EIA Report. This document is supported by, and should therefore be read in conjunction with, the following technical reports and assessments:

- Volume 1, Chapter 2: Approach to EIA
- Volume 1, Chapter 3: Evolution of Design and Alternatives
- Volume 1, Chapter 4: Project Description
- Volume 1, Chapter 7: Cultural Heritage
- Volume 2, Figure 1.1: Overview of Denny to Wishaw Network Upgrade
- Volume 2, Figure 1.2: Project Location Plan

- Volume 2, Figure 3.1: Key Modified Preferred Route Options
- Volume 2, Figure 3.2: Route Options and 2021 Preferred Route Option
- Volume 2, Figure 3.3: Overview of the Modified Preferred Route Options
- Volume 2, Figure 4.1: Project Location Plan
- Volume 2, Figure 4.2: Project Works Plan
- Volume 2, Figure 4.3: Proposed Distribution Development Works Plan
- Volume 2, Figure 7.1: Designated Heritage Assets
- Volume 2, Figure 7.2: Non-Designated Heritage Assets
- Volume 3, Appendix 7.2: Site Photographs
- Volume 4, Visualisations

1.2 Legislation and Policy

The following legislation and planning policies are relevant to this Heritage Impact Assessment. Full descriptions of these can be found within the Cultural Heritage EIA Report chapter (Volume 1, Chapter 7).

Legislation

- Town and Country Planning (Scotland) Act;
- The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013;
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- Ancient Monuments and Archaeological Areas Act 1979; and
- Historic Environment Scotland Act 2014.

The WHS is also recognised by the Scottish Government under a series of international agreements, including the Convention Concerning the Protection of the World Cultural and Natural Heritage.

National Planning Policy

The principle national planning policy documents consist of:

- National Planning Framework 4 (NPF4);
- Historic Environment Policy for Scotland (HEPS);
- Our Past, Our Future - The Strategy for Scotland's Historic Environment; and
- Planning Advice Note (PAN) 2/2011 – Planning and Archaeology.

Local Planning Policy

- The Falkirk Local Development Plan 2, 2020; and
- North Lanarkshire Local Development Plan, 2022.

Guidance

- Chartered Institute for Archaeologists (CIfA) Standards and Guidance for Historic Environment Desk-Based Assessment; and
- United Nations Educational, Scientific and Cultural Organization (UNESCO) Guidance and Toolkit for Impact Assessments in a World Heritage Context.

2. Background

2.1 Inscription as a World Heritage Site

The Antonine Wall forms part of the 'Frontiers of the Roman Empire World Heritage Site' (WHS). This combined listing includes Hadrian's Wall to the south, as well as the Upper German- Raetian Limes in Germany. Originally the WHS was limited to Hadrian's Wall, which was inscribed in 1987. This inscription was revised in 2005, when the transnational Frontiers of the Roman Empire WHS was inscribed, initially in 2005 to include the Upper German-Raetian Limes in Germany, and then again in 2008 to include the Antonine Wall in Scotland.

The WHS is inscribed for its Outstanding Universal Value (OUV), defined as, "cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity" (UNESCO Operational Guidelines, paragraph 49). The Frontiers of the Roman Empire WHS is inscribed as a cultural Property under criteria (ii), (iii) and (iv) as defined in paragraph 77 of the Operational Guidelines:

(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; and

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

A retrospective Statement of Outstanding Universal Value (SOUV) for the WHS was adopted by UNESCO in 2016. The following sections reproduce relevant parts of the adopted SOUV for the Frontiers of the Roman Empire WHS. The SOUV explains the basis for the inscription, in terms of the way in which the WHS meets the Criteria, and the conditions of integrity and authenticity, and the protection and management systems that ensure its safeguarding. The following sections reproduce relevant parts of the adopted SOUV for the Frontiers of the Roman Empire WHS.

The 'Brief Description' regarding the Antonine Wall provided as part of the SOUV states:

The Antonine Wall is a fortified ensemble about 60 km long. It is the most advanced line of defence of the Roman Empire in the British Isles against the "barbarians" of the North. It forms part of the Empire's general system of defence or Limes, of which it constitutes the north-western part. It was built from 142 AD onwards by the Emperor Antoninus Pius, and was abandoned for military purposes in 164 AD in favour of Hadrian's Wall, an earlier and more southerly wall. It consists of a turf rampart on a stone base, and was originally 3 m to 4 m high. A ditch runs alongside it, and it also features military roads, forts, watchtowers and military camps.

The SOUV also provided further justification for the original inscription. These are provided below:

Criterion (ii): *The extant remains of the fortified German Limes, Hadrian's Wall and Antonine Wall constitute significant elements of the Roman Frontiers present in Europe. With their forts, fortlets, walls, ditches, linked infrastructure and civilian architecture they exhibit an important interchange of human and cultural values at the apogee of the Roman Empire, through the development of Roman military architecture, extending the technical knowledge of construction and management to the very edges of the Empire. They reflect the imposition of a complex frontier system on the existing societies of the northwestern part of the Roman Empire, introducing for the first time military installations and related civilian settlements, linked through an extensive supporting network. The frontiers did not constitute an impregnable barrier, but controlled and allowed the movement of peoples: not only the military units, but also civilians and merchants. Hence, they triggered the exchange of cultural values through movement of soldiers and civilians from different nations. This entailed profound changes and developments in the respective regions in terms of settlement patterns, architecture and landscape design and spatial organization. The frontiers still today form a conspicuous part of the landscape*.

Criterion (iii): *As parts of the Roman Empire's general system of defence the German Limes, Hadrian's Wall and the Antonine Wall have an extraordinarily high cultural value. They bear an exceptional testimony to the maximum extension of the power of the Roman Empire through the consolidation of its northwestern frontiers and thus constitute a physical manifestation of Roman imperial policy. They illustrate the Roman Empire's ambition to dominate the world in order to establish its law and way of life there in a long-term perspective. They witness Roman colonization in the respective territories, the spread of Roman culture and its different traditions – military, engineering, architecture, religion management and politics – and the large number of human settlements associated with the defenses which contribute to an understanding of how soldiers and their families lived in this part of the Roman Empire.*

Criterion (iv): *The fortified German Limes, Hadrian's Wall and the Antonine Wall are outstanding examples of Roman military architecture and building techniques and of their technological development, perfected by engineers over the course of several generations. They demonstrate the variety and sophistication of the Romans' responses to the specific topography and climate as well as to the political, military and social circumstances in the northwestern part of the Empire which spread all around Europe and thereby shaped much of the subsequent development in this part of the world.*

Further to the Criterion outlined above, the SOUV also includes a Statement of Integrity. The description for the Antonine Wall component of the WHS in the adopted SOUV of the Frontiers of the Roman Empire WHS is as follows:

'*The inscribed components convey the extraordinary complexity and coherence of the Frontiers of the Roman Empire in northwestern Europe. Although some parts have been affected by land use change and natural processes, the integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.*

About one third of the Antonine Wall is visible today as a complex series of earthworks and associated structures. Roughly another third lies in open countryside but its line is not visible. The final third lies under urban areas.'

The adopted SOUV describes the authenticity of the WHS relevant to the Antonine Wall component of the WHS as follows:

'The inscribed component parts have a high level of authenticity, with each having been verified through extensive study and research. The materials and substance of underground archaeological remains are well-preserved, as are upstanding and visible remains. The form and design of each representative part of the frontier and its associated structures are clear and comprehensible. Later development overlying parts of the frontier are treated as vertical buffer zones. There are a number of reconstructions of elements of the frontier such as forts and watchtowers. Reconstructions since 1965 are not considered as part of the serial property but also act as vertical buffer zones.

The remains of the Antonine Wall exist in a generally good condition and visible sections sometimes have significant heights and depths. Conservation and consolidation measures that have been carried out in the interest of better understanding and protection fit in with the setting of the property and do not diminish its authenticity.'

Antonine Wall WHS Management Plan

In line with the Operational Guidelines (Paragraph 108), the Antonine Wall WHS Management Plan 2014-2019 was published in 2016 and remains the current plan[1].

The Antonine Wall Management Plan does not provide a list of 'Attributes of OUV'. However, a review of the original listing as well as the management plan has been undertaken, and this review has identified a number of attributes in line with the UNESCO HIA Methodology[2].

Appendix A of this HIA provides an analysis of the values and attributes of the WHS (as identified in the 2014-2019 Management Plan) with reference to the 2022 UNESCO Guidance and Toolkit, Tool 1, Values and Attributes. This includes consideration of values relating to each of the attributes derived from the SOUV as presented in the 2014-2019 Management Plan, including the contribution made by the WHS's setting, including its buffer zone, and their integrity and authenticity, and the ability to appreciate those attributes. Based on this analysis, all attributes of OUV have been 'screened in' for consideration in the sensitivity analysis.

The Management Plan also provides an overview of the WHS buffer, how it was established, and its purpose. This notes:

"*The Buffer Zone was defined, on behalf of the Partners, by Land Use Consultants, using existing mapped features to protect the amenity and setting of the monument. It was envisaged in the first Management Plan, that any future amendments to the boundary or Buffer Zone of the WHS would be minor in scale, and this is still the case. However, should archaeological investigations, development work, or wider research programmes alter the*

[1] Antonine Wall Management Plan 2014-2019, available at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=f477ec1e-8366-4295-ac10-a5c900aab488, accessed 16th March 2026.
[2] UNESCO (2022) *Guidance and Toolkit for Impact Assessment,* UNESCO

understanding of the boundary or Buffer Zone (by changing our understanding of the location or scale of archaeological sites for example), then it may be necessary to amend these."

There have been no changes to the WHS buffer in the area of the Project, and as such the original definition of the buffer, and the reasons for its establishment and extent remain valid.

Antonine Wall Overview

The WHS is an extensive relict cultural landscape which displays the unifying character of the Roman Empire, through its common culture, but also its distinctive responses to local geography and political and economic conditions.

The WHS also has extraordinarily high cultural value as the barer of one of the most extensive civilizations in human history, which has continued to affect the western world and its peoples until today. It had an important effect on urbanisation and on the spread of cultures among remote regions.

The construction of the frontier reflects the complex technological and organisational abilities of the Roman Empire which allowed it to plan, create and protect a frontier of some 5000 km in length, with a garrison of tens of thousands of men, and to manage the social, economic and military implications of this frontier. A high degree of expertise is also visible in the technical mastery of stone and turf defensive constructions, in the construction of a strategic system of forts and camps, and in the general military organisation. The Antonine Wall is an outstanding example of the technological development of Roman military architecture and frontier defence.

Unlike other frontiers, the Antonine Wall was only in use for one generation in the 2nd century AD, it incorporated several technical and design components not seen on earlier Roman frontiers and was one of the last of the linear frontiers to be built by the Romans. As such the wall represents a snapshot of Roman military development at the high point of the Imperial expansion. The property is also a physical manifestation of change in Roman imperial foreign policy at the time. The Antonine Wall is one of the significant elements of the Roman Limes present in Europe, the Middle East and North Africa. It exhibits important interchanges of cultural values at the apogee of the Roman Empire, as Emperor Antoninus Pius was extending the limits of the empire to the farthest reaches of northwestern Europe.

The integrity of the WHS contributes to its OUV. The property includes all the upstanding and buried remains necessary for understanding its OUV and to demonstrate why it is an exceptional example of the use of artificial barriers, as an aspect of the military planning of the overall military frontier system of the Roman Empire. All the archaeological remains of the monument, within the present understanding of the Site, are contained within the property and, although the monument sits in a highly varied modern urban and rural landscape, the setting of the monument has been largely retained across the length of the Wall, allowing the mindset of Roman military planners and Roman engineers to be envisaged and its scale and setting appreciated.

The property also has a high level of authenticity. All remains of the property are known and proven through archaeological investigations as authentic Roman constructions, erected during the reign of Antoninus Pius. It is visible as a sometimes-impressive feature in the modern landscape for over one-third of its total length, while archaeological excavations undertaken over the last 100 years, have demonstrated that the rest survives in good condition as buried archaeology beneath both fields and urban areas. Given the short

duration of the frontier system, the materials are highly authentic to the primary use of the monument in the mid- to late second century AD.

3. Assessment Methodology

3.1 Supporting Assessment

This Heritage Impact Assessment accompanies the Chapter 7 of the EIA Report on Cultural Heritage. The EIA Chapter consists of an assessment of the likely significant effects of the Project on cultural heritage in EIA terms, and recommendations for additional mitigation measures as required.

3.2 Study Area

A number of different Study Areas were adopted for the different elements of the Project, however, as noted in the introduction only elements which had the potential to result on the attributes that convey the OUV of the WHS were considered for the HIA. The Study Area adopted for the EIA covered the area of the Project as well as a 500m study area (the 'Study Area') used to inform the baseline of the WB Route, and 250m for the other elements under consideration here. A wider study area of 2km from the WB Route was also adopted to assess impacts on the setting of heritage assets, and as such this includes the WHS, the WHS buffer, as well as possible assets in the wider area that may have a relationship with the WHS. Due to the other elements being associated with the removal of overhead line infrastructure, the Study Area adopted for setting impacts was 500m. these Study Areas were deemed suitable appropriate for the HIA.

This HIA focuses on the WHS as well as the associated buffer zone described above. This buffer zone has been "*defined to protect the immediate setting of the World Heritage Site; the adjacent environment that is part of, and contributes to the character, significance and understanding of the Wall. Definition of the Buffer Zone has been based on visibility to and from the WHS, and analysis of the land use setting, including urban areas*.[3]"

3.3 Consultation

Consultation has been undertaken with relevant heritage stakeholders throughout the routeing and siting work for the Project, as well as the assessment process. This is fully detailed in **Volume 1, Chapter 7**, Section 7.3.
Historic Environment Scotland (HES) has been the main point of contact relating to work associated with the WHS.
This work has aimed at reducing the potential for impacts through refining the design, which included locating new towers and compounds outside of the scheduled components that form the WHS, using existing access tracks where practicable, and developing non-intrusive methods of working where temporary access tracks are required within the WHS. The consultation process also involved initial discissions relating to the development of a methodology that will limit/remove potential impacts on scheduled components during the removal of the tower within the WHS which form part of the Construction Phase.
The Consultation with HES has also including agreeing viewpoint photography to support the assessment, with the visualisations provided in Volume 4.

[3] WHS Buffer definition available at https://www.antoninewall.org/protection-and-management/unesco-world-heritage-sites, accessed 16th March 2026.

3.4 Site Visit

A number of site visits have been undertaken as part of the assessment. These are detailed in Volume 1, Chapter 7, Section 3. This has included visits to the WHS, its buffer, and the surrounding landscape, and these have included site visits with stakeholders including HES.

3.5 Heritage Impact Assessment Methodology

The assessment of potential impacts to the WHS follows the Guidance And Toolkit For Impact Assessments In A World Heritage Context (UNESCO, 2022). The assessment consists of three stages which use Tools 1-3 from the UNESCO Guidance.

The first stage is the identification of Attributes which convey the OUV of the WHS. These values are inputted into the Tool 1 table, along with a description of the heritage values describing why the World Heritage property is considered to be exceptional, interesting, different or special, and the sources of information by which these were obtained.

The second stage of the assessment is to identify potential impacts in a table. The table (using Tool 2 from the 2022 UNESCO Guidance), see Appendix B) is used to express how proposed actions from the Project is likely to interact with one or more of the Attributes of the WHS property. These are divided into construction and operational impacts as decommissioning impacts have not been considered. The impacts for each are discussed as individual activities or actions, and includes both temporary and permanent impacts, as well as reversable and irreversible impacts, against each of the Attributes.

Stage 3 is used to evaluate the potential impacts though Tool 3 (from the 2022 UNESCO Guidance). This comprises a detailed consideration of how a proposed action will impact Attributes of the WHS property. Within this stage, the proposed action identified in Stage 2 and the Attributes from Stage 1 are placed within the Tool 3 table, along with a description of the potential impact. After this, the actions are characterised by their frequency, duration and reversibility. These are then considered in relation to the Attribute as well as the quality of change to the Attribute, whether positive or negative. Finally, the impact is evaluated with a score rating, either neutral, minor, moderate or major (either negative or positive). These are defined in the 2022 UNESCO Guidance as:

- **Neutral**: Research into the potential impact reveals that no change would occur to the Attribute.
- **Minor**: Research into the potential impact shows that the change would be negligible.
- **Moderate**: Research into the potential impact shows that there would be some change to the Attribute.
- **Major**: Research into the potential impact shows that there would be large change to the Attribute.

Impacts can be negative or positive, and are presented in the final column of Tool 3 in Appendix C, with a summary provided in Section 5 of this report, as well as the main Cultural Heritage chapter of the EIA.

The Impact Assessment covers construction and operational phases of the Project. No decommissioning phase is considered as this is not being included within the Project Description of the Scheme.

4. Baseline Conditions

4.1 Historical Information – The Antonine Wall

Introduction

The history and development of the Antonine Wall is well documented, and as such this section is designed to provide an overview of the monument, with a focus on the Wall within the Study Area. Furthermore, a more detailed baseline is provided in '**Volume 1 Chapter 7: Cultural Heritage**' of the EIA which this Appendix supports.

Geology, Landscape, and Topography

The Antonine Wall WHS, in the area of the Project, is located on an escarpment which would have originally commanded views over the lower lying land of the River Carron and the Bonny Water to the north, although these views are now limited due to extensive woodland along the ridge.

The solid geology of the Study Area is dominated by sedimentary deposits, with two main formations (both of which were formed in the Carboniferous Period) recorded. On the eastern side, Scottish Lower Coal Measures Formations formed between 319-318 million years ago dominate, while to the west Passage Formations formed between 328-328 millions years ago are prevalent[4].

Land use along the line of the Antonine Wall in the area consists of some pasture to the west of Rough Castle, while most of the Rough Castle site, as well as the land to the north, east and south is woodland.

Asset Overview

The Antonine Wall was built on the orders of Emperor Antoninus Pius following victory over northern enemies in AD142. The wall became the northernmost frontier of the Roman province of Britannia, expanding on the limits defined by Hadrian's Wall 20 years prior. The wall was in use for only around 20 years before it was abandoned in the AD160s.

The wall measures approximately 60km in length, from Bo'ness on the River Forth to Old Kilpatrick on the River Clyde. The frontier consists of a 3-4m high turf rampart fronted by a large ditch and outer mound. To the south of the rampart is the Military Way connected by a series of stone forts at approximately two-mile intervals; smaller fortlets are also located between these. The plans of the forts vary in size, plan and defensive arrangements, with annexes built to one side, highlighting the complexities of the frontier. There is also evidence of labour camps used for the construction of the wall located at regular distances along the wall. The WHS boundary comprises a 50m wide corridor starting 5m south of the ramparts in order to include all of the linear elements and associated surviving archaeology. Beyond this is a buffer zone surrounding the WHS to protect the setting of the property.

[4] BGS Viewer available at: BGS Geology Viewer (BETA), accessed 5th December 2025.

The setting of the Antonine Wall is formed by the surrounding landscape and associated archaeological remains, which establish an authentic defensive landscape. The setting has been partially urbanised – with modern buildings and industrial activities including open cast mining. However, there is a significant portion of the frontier which survives, with approximately 17km of the 60km wall remaining visible, mostly present as earthworks in the landscape.

Two scheduled components of the Antonine Wall fall within the site of the Project. These are, from west to east,:

- Antonine Wall, Rough Castle Fort, Annexe and Military Way (SM90013); and
- Antonine Wall, Rough Castle to Lime Road, And Field System (SM8244).

Rough Castle represents an exceptionally well-preserved section of the monument and includes Rough Castle Fort, as well as sections of wall and defensive ditches. At this site, the rampart, ditch and outer mound of the wall are clearly visible, as well as two expansions to the south. These are both approximately 8m square and just over 1m high, consisting of turf platforms on a stone base which were built against the southern side of the Antonine Wall rampart, and which appear to occur in pairs close to forts. These were likely used as watchtowers or signalling posts.

The defensive ditches are most visible to the west of the Fort, where they are located in more open land. Rough Castle Fort is relatively wooded, although this woodland becomes more dense to the north and east of the Fort. However, both LiDAR and field survey has noted that the Wall and associated ditches survive well in this woodland.

A review of baseline information, as well as consultation with HES, has also identified a number of assets within the Study Area that are potentially associated with the WHS, but are not part of the WHS. These include the following scheduled monuments:

- Wester Carmuirs, Roman Camp 640m ES of (SM3188). Within the WHS buffer, but 0.8km northeast of Rough Castle.
- Lochlands Roman Camps (SM4259). Outwith the WHS buffer, and 1.5km northeast of Rough Castle.
- Camelon Roman Forts (SM1746). Outwith the WHS buffer and 2km northeast of Rough Castle.

A lack of detailed fieldwork at these forts means that their date is not well understood and, as such, it is not clear if they had a definite link with the Antonine Wall/were contemporary with the Antonine Wall. However, some limited work at Lochlands has suggested at least some of the temporary forts that form this complex may have been in use while the Antonine Wall was in operation[5].

While remains of the Rough Castle complex are well preserved, it is clear that 19th and 20th century development has resulted in some loss of the Wall in this area. Mining activity, including numerous 'old shafts', is noted on 19th century mapping on and around the Wall to the east of Rough Castle, while an associated 'mineral line' crosses the Wall in the same area. Furthermore, opencast mining was undertaken in the area to the southeast of Rough

[5] For further details see HES listing: Lochlands Roman camps (SM4259), accessed 16th March 2026.

Castle, at Tentfield Plantation, in the later 20th century, although this area has been subject to landscaping since the open casting operations have been completed.

Other more recent additions to the landscape in this area include the Edinburgh to Glasgow Railway line to the south of Rough Castle, a second railway line and the Forth Clyde Canal, both of which are between 300m and 500 north of the WHS and within the WHS buffer, while the Falkirk Wheel is located approximately 500m to the northeast of the Site, in an area formerly used for mining.

Modern infrastructure is also apparent, with three overhead lines (CB, AA, and SAP Static Circuit: SP97213) crossing the Antonine Wall in the area of the Project, although SMC has been granted for the removal of one overhead line (SAP Static Circuit: SP97213), while another overhead line will be removed as part of the Project (the 'CB Route').

5. Assessment of Impacts

5.1 Impact Identification

As noted above, various elements of the Project have the potential to result in a number of permanent and temporary impacts to the WHS at both the Construction Phase and Operational Phase. The Decommissioning Phase has been excluded from the assessment). Potential actions that may result in imapcts have been identified are detailed using Tool 2 in Appendix 2, with a brief outline provided below:

Construction Phase

- Construction of new Towers associated with the WB Route;
- Decommissioning of existing Towers associated with the CB Route;
- Decommissioning of other existing overhead line works ('AA Route' and SPD Works');
- Construction of temporary works compounds at tower locations; and
- Construction of temporary access tracks.

Operational Phase

- Visual appearance of the new overhead line (WB Route).
- Changes to setting resulting from the removal of the existing overhead line (CB Route).

Impacts resulting from the Construction Phase are limited to the potential for physical impacts. While there is the potential for impacts resulting from a change to setting from aspects such as temporary compounds and trackway, these are considered to be minimal (and unlikely to result in a significant effect) and reversable as they are temporary. As such, temporary changes to the setting of assets that may affect the heritage value (significance) of assets, resulting from the Construction Phase, have been scoped out due to their temporary and reversable nature.

The potential changes to the setting of assets that may affect the heritage value (significance) of assets is, however, assessed for the Operational Phase. This assessment covers potential impacts resulting from the introduction of a new overhead line (the WB Route), as well as changes to setting resulting from the removal of the existing overhead line (the CB Route).

The assessment of the potential impacts on the Attributes of OUV, as well as the Integrity and Authenticity of the WHS, are provided in Appendix C. This utilises UNESCO Tool 3 to examine aspects such as the frequency and duration of the action, as well as the degree of change to the Attribute. In most cases the assessment has identified that impacts will be temporary and reversable, due to the temporary nature of most works, with most impacts assessed as Minor Negative or less. The only long term impact relating to the Operational Phase will be possible changes to the setting of the monument through the introduction of the new overhead line.

The following assessment synthesises the results of the assessment captured in Appendix C.

5.2 Construction Impacts

Construction of Temporary Works Compounds (WB Route)

Works associated with the WB Route will require the construction of localised temporary works compounds at each tower position. These will all be located outside of the WHS, although a number will fall within the WHS buffer.

Towers within the WHS buffer comprise Towers WB050 and WB051 to the south of the WHS, and Towers WB052 to WB056 to the north of the WHS.

Towers WB050 and WB051, south of the WHS, are both in an area that has been previously subject to open cast mining and, as such, all archaeological remains have been removed. Therefore, there will be **no impacts** on Attributes that convey the OUV of the WHS. This is defined as **NEUTRAL** in HIA terms.

Furthermore, there are no previously recorded assets within the areas of the proposed compounds for Towers WB052 to WB056, north of the WHS and, therefore, there will be **no impacts** on Attributes that convey the OUV of the WHS. This is defined as **NEUTRAL** in HIA terms.

There is the potential for previously unrecorded archaeological remains to be located in the areas of Towers WB052 to WB056 in the northern section of the WHS buffer. While a review of aerial photographs has not recorded any remains (i.e. cropmarks) in the area, evaluation trenching has not yet been undertaken to confirm the presence/absence of archaeological features (see 'Chapter 7: Cultural Heritage' of the main EIA for full discussion of the archaeological potential).

Based on current information, the archaeological potential for previously unrecorded archaeological remains is considered to be **low**. This is based on other archaeological features already being identified in the same area from cropmarks on aerial photographs. This demonstrates that buried archaeological remains do survive and have the potential to be identified through non-intrusive surveys, and yet have not been identified within the areas of the new pylons and associated works.

While most assets noted north of the Antonine Wall (within the WHS buffer) are associated with prehistoric activity, features of Roman date have been noted, and as a result there is the potential for previously unrecorded remains associated with the Antonine Wall to survive. Any remains would have the potential to be of local, regional, or national significance. Furthermore, while these remains would be in the WHS buffer and not within the WHS, any physical impacts could result in impacts to the OUV of the WHS, as well as its Integrity and Authenticity. It would, however, be unlikely that the Project would result in significant negative impacts, due to the scale of the construction works. As such, the level of impact on any previously unrecorded assets that might survive, that may contribute to Attributes of the OUV of the WHS, is determined to be '**Minor Negative Impact'** in HIA terms.

Construction of Temporary Works Compounds and Decommissioning of Towers (CB Route)

Works associated with the decommissioning of the CB Route will require the construction of localised temporary works compounds at each tower position.

A single tower is located within a scheduled component of the WHS, this being Tower CB035.

Towers within the WHS buffer comprise Towers CB033 and CB034, south of the WHS, and Towers CB036 to CB038 north of the WHS.

Scheduled Monument Consent (SMC) for the works required to remove Tower CB035 are being progressed with Historic Environment Scotland (HES), with SMC being granted for the construction of an access track (SMC reference number 300083166 as well as evaluation excavations near the pylon base (SMC reference number 300083166)[6]. These confirm that the access track required for the removal will be constructed in such a way that impacts on the WHS will be avoided/mitigated as agreed with HES.

While it is assumed that the original construction of the four tower legs will have removed archaeological deposits, HES have requested that archaeological evaluation trenches are excavated by hand at each tower leg to confirm the presence/absence of archaeological remains, prior to the removal of the concrete foundation. This work has been agreed as per SMC reference number 300083166).

With these measures in place, it is considered that impacts on archaeological remains that might survive and that may contribute to Attributes of the OUV of the WHS, is '**Minor Negative Impact'** in HIA terms.

The remaining towers (Towers CB033 and CB034 south of the WHS, and Towers CB036 to CB038 north of the WHS) are all located within the WHS buffer, but in areas where previously recorded archaeological remains have not been identified.

There is the potential for previously unrecorded archaeological remains to be located in the areas of works. While a review of aerial photographs and LiDAR has not recorded any remains in the area, evaluation trenching has not yet been undertaken to confirm the presence/absence of archaeological features.

Based on baseline information, the archaeological potential is considered to be **low**. This is based on other archaeological features already being identified in the same area from cropmarks on aerial photographs or through analysis of LiDAR. This demonstrates that buried archaeological remains do survive and have the potential to be identified through non-intrusive surveys.

While most assets noted north of the Antonine Wall are associated with prehistoric activity, features of Roman date have been noted and, as a result, there is the potential for previously unrecorded remains associated with the Antonine Wall to survive. Any remains would have the potential to be of local, regional, or national significance. Furthermore, any physical impacts could result in impacts to the OUV of the WHS, as well as its Integrity and Authenticity. It would, however, be unlikely that the Project would result in significant impacts, due to the scale of the construction works. As such, the level of impact on any previously unrecorded assets that might survive and that may contribute to Attributes of the OUV of the WHS, is determined to be '**Minor Negative Impact'** in HIA terms.

[6] All documents available at Antonine Wall, Rough Castle fort, annexe and Military Way - Evaluation of the area for the proposed trenches in advance of dismantling and removal of Tower CB035 (300083166), accessed 17th March 2026.

Construction of Temporary Access Tracks (WB, CB Routes, AA Route, SPD Works)

The Project will require a number of temporary access tracks. In most cases shared tracks will be used that will service both the WB Route and the CB Route to limit the potential for physical impacts, and as a result they have been considered together.

In most cases, the temporary access tracks will be located outside of the WHS, but within the WHS buffer. These have been located to avoid previously recorded archaeological sites. As such, there will be **no impacts** on the Attributes that convey the OUV of the WHS when considering previously recorded assets. This is defined as **NEUTRAL** in HIA terms.

A new temporary access is proposed to access CB035 to aid its removal has been granted SMC by HES (SMC reference number 300086054). This methodology agreed for the construction of the track means that there will be no impacts resulting from the temporary access. As such there will be **no impacts** on the Attributes that convey the OUV of the WHS when considering previously recorded assets. This is defined as **NEUTRAL** in HIA terms.

There is the potential for previously unrecorded archaeological remains to be located in the areas of temporary access tracks within the WHS buffer. While a review of LiDAR and aerial photographs has not recorded any remains in the area, evaluation trenching has not yet been undertaken to confirm the presence/absence of archaeological features.

Based on current information, the archaeological potential is considered to be **low**. This is based on other archaeological features being identified in the same area from cropmarks on aerial photographs. This demonstrates that buried archaeological remains do survive and have the potential to be identified through non-intrusive surveys.

While most assets noted north of the Antonine Wall are associated with prehistoric activity, features of Roman date have been noted, and as a result there is the potential for previously unrecorded remains associated with the Antonine Wall to survive. Any remains would have the potential to be of local, regional, or national significance. Furthermore, any physical impacts could result in impacts to the OUV of the WHS, as well as its Integrity and Authenticity. It would, however, be unlikely that the Project would result in significant impacts, due to the scale of the construction works. As such, the level of impact on any previously unrecorded assets that might survive and that may contribute to Attributes of the OUV of the WHS, is determined to **'Minor Negative Impact'** in HIA terms.

Construction of New Towers (WB Route)

The Project incudes the construction of eight new towers within the WHS buffer, consisting of Towers WB050 and WB051 south of the WHS and Towers WB052 to WB056 north of the WHS.

Towers WB050 and WB051, south of the WHS, are both in an area that has been previously subject to open cast mining and as such all archaeological remains have been removed. As such, there will be **no impacts** on Attributes that convey the OUV of the WHS. This is defined as **NEUTRAL** HIA terms.

Furthermore, there are no previously recorded assets within the areas of the proposed compounds for Towers WB052 to WB056 north of the WHS, and as such there will be **no impacts** on the attributes of the OUV of the WHS. This is defined as **NEUTRAL** in HIA terms.

There is the potential for previously unrecorded archaeological remains to be located in the areas of Towers WB052 to WB056 in the northern section of the WHS buffer. While a review of aerial photographs has not recorded any remains in the area, evaluation trenching has not yet been undertaken to confirm the presence/absence of archaeological features.

Based on current information, the archaeological potential is considered to be **low**. This is based on other archaeological features being identified in the same area from cropmarks on aerial photographs. This demonstrates that buried archaeological remains have the potential to be identified through non-intrusive surveys.

While most assets noted north of the Antonine Wall are associated with prehistoric activity, features of Roman date have been noted, and as a result there is the potential for previously unrecorded remains associated with the Antonine Wall to survive. Any remains would have the potential to be of local, regional, or national significance. Furthermore, any physical impacts could result in impacts to remains that contribute to Attributes of the OUV of the WHS, as well as its Integrity and Authenticity. It would, however, be unlikely that the Project would result in significant impacts. As such, the level of impacts on any previously recorded assets that might survive, and contribute to Attributes of the OUV of the WHS, is determined to be '**Minor Negative Impact'** in HIA terms.

5.3 Operational Phase

Potential impacts resulting from the Operational Phase are limited to changes to the setting of the WHS that may alter its heritage value (significance) resulting from the introduction of the WB Route towers, and the removal of the CB Route.

While a review of temporary impacts resulting on setting from short term works such as repair and maintenance was undertaken, this did not identify any significant impacts due to the temporary nature of works.

Introduction of Towers and Associated Wirescape (WB Route)

The Antonine Wall, in the area of the Project, survives as an earthwork on the top of an escarpment overlooking the lower ground to the north. While the earthworks that form the monument can be seen and appreciated from within the scheduled component, views of the remains from the wider landscape are not possible due to the extensive woodland that surrounds the remains. Furthermore, the ridge or escarpment on which it is located is only appreciable through changes in the height of the woodland that covers the area.

Key Attributes of OUV for which views to and from the Antonine Wall are important include Attributes 1, 3, and 6, which cover aspects such as its original prominence and functional setting as a frontier, as well as associations between the Wall and other related assets (see Appendices A-C).

While the introduction of a new overhead line would result in a new element in the landscape, the towers and associated wirescape would not result in impacts through changes to setting. This is partially a result of aspects such as the distance between the components of the WHS (i.e. the intervisibility between Roman assets north of the Wall and

the Wall itself), as well as screening provided by topography and woodland which help limit aspects such as long ranging views.

Furthermore, the ability to span the WHS with towers either side of the monument means that the limited views that are currently possible along the monument in some locations (i.e. from the west of Rough Castle Fort looking east along the defences) will not be severed as there will be no new towers within the monument. Instead, the powerlines will oversail the scheduled components , with the appearance of overhead lines being reduced due to the extensive tree cover.

As such, the level of impact on Attributes of OUV as a result of changes to setting through the introduction of a new overhead line is considered to be '**Minor Negative Impact'** in HIA terms.

Removal of Towers (CB Route)

The Project will also result in the removal of the CB Route. This overhead line runs through the WHS with one tower located within the scheduled component west of Rough Castle. The current positioning of this tower within the WHS partially severs views along the Roman defences when looking east-west, as well as views into Rough Castle when viewed from the west. It is also positioned close to the alignment of the military road south of the Wall which linked the Roman features and was key to the functional setting of the Wall. As such, the removal of the tower, which currently negatively affects the setting of the monument, would improve the setting of the WHS and Attributes of OUV where setting is a contributing element.

As such, the level of impact on Attributes of OUV as a result of changes to setting through the removal of an overhead line of a pylon from within the WHS as well as an overhead line that crosses it is considered to be '**Moderate Positive Impact'** in HIA terms.

Removal of Towers (SPD Works)

The Project will also result in the removal of two steel lattice towers (BBFK003 and BBFK004) and one wooden pole (SP97222) of the SAP Static Circuit: SP97213. This infrastructure forms part of the distribution network in the area and fall within Scheduled Monument SM8244 which is a component of the WHS. The smaller height of these poles/pylons means that they currently have a limited impact on the setting of the monument due to the extensive woodland in the area. However, their positioning within the WHS means that if he woodland was cleared their visual appearance could result on the functional setting of the Wall as they would partially interrupt views along the monument. As such, the removal of the pole/pylons, which currently negatively affects the setting of the monument, would improve the setting of the WHS and Attributes of OUV where setting is a contributing element.

As such, the level of impact on Attributes of OUV as a result of changes to setting through the removal of the pylons and wood poles from within the WHS ,as well as an overhead line that crosses it, is considered to be '**Moderate Positive Impact'** in HIA terms.

5.1 Summary of Likely Impacts

A summary of likely impacts resulting from the Construction and Operational Phases are provided in Table 5-1and Table 5-2 respectively.

Table 5-1: Summary of potential impacts resulting from the Construction Phase.

	Elements of the Project that have the potential to create an impact during the Construction Phase				
WHS Attributes	Temporary Compounds	SPD Works	Removal of overhead line	Construction of overhead line	Temporary Access Tracks
1	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
2	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
3	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
4	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
5	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
6	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
7	Neutral	Neutral	Neutral	Neutral	Neutral
8	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
Integrity	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
Authenticity	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact
WHS Collectively	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact	Minor Negative Impact

Table 5-2: Summary of potential impacts resulting from the Operational Phase

	Elements of the Project that have the potential to create an impact during the Operational Phase		
WHS Attributes	Introduction of WB Towers	Removal of CB Towers	SPD Works

1	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
2	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
3	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
4	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
5	Neutral	Neutral	Neutral
6	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
7	Minor Negative Impact	Neutral	Neutral
8	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
Integrity	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
Authenticity	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact
WHS Collectively	Minor Negative Impact	Moderate Positive Impact	Moderate Positive Impact

6. Mitigation

Initial consultation has been undertaken with stakeholders regarding mitigation, and this is detailed in Volume 1, Chapter 7, Table 7.1.
Archaeological evaluation trenching will be undertaken prior to any works taking place to inform the development of a detailed mitigation strategy. This is likely to include works such as full excavation, strip, map, and record, archaeological monitoring, and preservation in situ. Consultation with stakeholders has confirmed as a minimum, all areas of the WHS buffer will require archaeological monitoring during any works that required stripping unless it can be demonstrated that the ground has been previously disturbed (i.e. the former open cast site south of the WHS).

For works within the scheduled monument area of the WHS, an application for SMC will be submitted which will include a detailed proposal for site specific mitigation. As such, mitigation will be agreed as part of the SMC application and in pre-application consultation with HES.

All mitigation works will be agreed with the relevant Local Authority Archaeological Advisor, and HES (in the case of WHS and buffer zone), once full details of the construction works have been agreed and prior to works commencing.

Table 6-1: Potential Impacts

Potential Impact	Impact Score
Permanent direct impacts to buried archaeological remains	Minor negative impact
Permanent (for lifespan of project) setting changes from the presence of the pylon towers and cables within the WHS buffer (WB Route)	Minor negative impact
Permanent setting changes from the removal of the pylon towers and cables within the WHS boundary and buffer (CB Route)	Moderate positive impact
Removal of AA Route and SPD Works	Moderate positive impact

7. Summary and Conclusions

This HIA has been undertaken to assess the likely impacts on the Antonine Wall element of the Frontiers of the Roman Empire World Heritage Site, in support of the Cultural Heritage Environmental Impact Assessment chapter. A number of potential impacts to the WHS have been identified. These include the potential for permanent direct physical impacts to buried archaeological remains during the Construction Phase, although this has been minimised by the siting of the towers away from known archaeological features and beyond the WHS boundary. Programmes of archaeological mitigation may be required to identify/evaluate buried remains prior to construction to limit physical impacts on archaeological remains.

There is also the potential for both negative and positive setting changes to the WHS from the Project and Attributes of OUV that include a setting element. Negative impacts are considered to be limited to permanent setting changes from the presence of the WB Route towers and cables crossing the WHS during the Operational Phase. There would be a permanent positive setting change from the removal of the CB Route, particularly Tower CB035 which is located within the WHS boundary. All impacts would be localised to a small area of the WHS.

The Attributes of OUV that may be affected by physical impacts are Attributes 1-8, and mitigation could include full excavation, archaeological monitoring, or strip, map, and record. Attributes 1-4, and 6-9 have the potential to be suffer impacts as a result of changes to their setting. No further mitigation is available to mitigate impacts relating to setting.
In the case of the construction of the new CB Route, impacts are assessed as being no greater than Minor Negative. Impacts resulting from the removal of the CB Route are assessed as being no greater than Minor Negative, but largely Moderate Positive (in HIA terms).

The impact on the integrity of the WHS resulting from permanent physical impacts as well as impacts as a result of changes to its setting resulting from a new overhead line is assessed as Minor Adverse in HIA terms for most elements of works. The removal of the existing CB Route (including a tower within the WHS) will result in a Moderate Positive impact.

The impact on the authenticity of the WHS resulting from physical impacts as well as impacts as a result of changes to setting resulting from a new overhead line is assessed as Minor Adverse in HIA terms. The removal of the existing CB Route (including a tower within the WHS) as well as a wooden pole and two pylons associated with the SPD works within the WHS will result in a Moderate Positive.

Overall, it is assessed that the impact of the WB Route (i.e. the new overhead line) on the OUV would be a Minor Negative due to the change being negligible.

The impact of the removal of the CB Route and the SPD Works on the OUV would be a Moderate Positive. This is largely a result of the removal of the overhead line (the CB Route) which currently has elements (i.e. one tower) within the WHS, and which is located in a more open and visible part of the WHS and buffer. While the infrastructure associated with the SPD Works as less visually intrusive, the decommissioning works will result in the removal of infrastructure from the WHS, thereby resulting in a Moderate Positive.

Appendix A: Analysis of heritage values and attributes of the WHS with reference to the 2022 UNESCO Guidance and Toolkit, Tool 1, Values and Attributes

Appendix A: Analysis of heritage values and attributes of the WHS with reference to the 2022 UNESCO Guidance and Toolkit, Tool 1, Values and Attributes

Table 1: Analysis of heritage values and attributes of the WHS with reference to the 2022 UNESCO Guidance and Toolkit, Tool 1, Values and Attributes

Tool 1 Heritage
Values and Attributes

Frontiers of the Roman Empire WHS
The Antonine Wall was inscribed on the UNESCO World Heritage List in 2008. The Antonine Wall joined the Upper German-Raetian Limes in Germany and Hadrian's Wall as an extension of the trans-national Frontiers of the Roman Empire World Heritage Site. The WHS is inscribed for its Outstanding Universal Value (OUV) as a cultural Property under criteria (ii), (iii) and (iv) as defined in paragraph 77 of the Operational Guidelines: *(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;* *(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; and* *(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.* **References:** 1) World Heritage Committee (UNESCO), 2008. World Heritage Committee Thirty-second session. Quebec City, Canada. Report. WHC-08/32.COM/24rev 2) World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19) 3) Antonine Wall Partnership (2014), Antonine Wall Management Plan 2014-2019.

Level of recognition	**Heritage Values**	**Attributes**	**Sources of information**
Outstanding Universal Value	<u>Form and significance</u> The extant remains of the fortified German Limes, Hadrian's Wall and Antonine Wall constitute significant elements of the Roman Frontiers present in Europe. *Evidential values:* *- Technological: The Antonine Wall represents the most developed frontier in the Roman Empire, further developing on earlier structure including Hadrian's Wall.* *- Construction: Survival of distance slabs and known labour camps along the Antonine Wall provide understanding of the division of labour used by the soldiers in the construction of the wall.* *- group value: the Antonine Wall frontier is significant in the wider group of the Frontiers of the Roman Empire WHS.* *- scale: the planning and construction of the Wall gives an insight into the organisational abilities of the Roman army, in particular the very high level of its skills in surveying, engineering and logistics.* *- rarity: Antonine Wall represents the northern most frontier of the Roman Empire, and includes features not seen in other linear frontiers, such as annexes to forts.* *Historical values:* *- documentation: from contemporary Roman accounts* *- associative value: a direct link with the*	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19), The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	Emperor Antoninus Pius and his political policies of expansion in the mid-2nd century; and antiquarian interest from the 17th century onwards; *- illustrative value: as part of the FRE, the Antonine Wall illustrates the history, character and culture of the Roman Empire.*		
	<u>Technological evidence</u> The forts, fortlets, walls, ditches, annexes, linked infrastructure and civilian architecture exhibit an important interchange of human and cultural values through the development of Roman military architecture, extending the technical knowledge of construction and management to the very edges of the Empire. *Evidential values:* *- Technology: The Antonine Wall, in use for one generation, provides a snap shot of Roman military development at the high point of the Imperial expansion.* *- scale: the planning and construction of the Wall gives an insight into the organisational abilities of the Roman army, in particular the very high level of its skills in surveying, engineering and logistics.* *Historical values:* *- documentation: contemporary Roman accounts and the survival of distance slabs and known labour camps highlight the division of labour; itineraries and cartographic depictions from the medieval period and antiquarian research from the post-medieval period onwards.* *- associative value: the building of The Antonine Wall represents a physical manifestation of change in Roman imperial foreign policy of Emperor Antoninus Pius.* *- illustrative value: the history, character and culture of the Roman Empire and the complex technological and organisational abilities of the Roman Empire.*	2. In its engineering and construction, it illustrates the technological and organisational ability of the Roman Empire and is a reflection of the way that resources were deployed by the Roman army.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*
	<u>The frontier system</u> The Antonine Wall was built on the orders of Emperor Antoninus Pius following victory over northern enemies in AD142. The wall became the northernmost frontier of the Roman province of Britannia, expanding on the limits defined by Hadrian's Wall 20 years prior. It constituted the main element in a controlled military zone across northern Britain and extends 60km from Bo'ness on the River Forth to Old Kilpatrick on the River Clyde. The Wall consisted of a 3-4m high turf rampart fronted by a great ditch. To the north a wide, low mound or glacis was formed from material tipped out from the ditch. Forts were placed along the Wall at approximately 3 km intervals and many had annexes attached to one side. These forts were connected via the Military Way, a road running alongside the	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	wall. Additionally, fortlets lay between the forts, thought to serve as beacon platforms. It illustrates an ambitious and coherent system of defensive constructions built at the height of the Empire and is outstanding for its construction and engineering. *Evidential values:* *- Technology: The Antonine Wall, in use for one generation, provides a snap shot of Roman military development at the high point of the Imperial expansion.* *- scale: the planning and construction of the Wall gives an insight into the organisational abilities of the Roman army, in particular the very high level of its skills in surveying, engineering and logistics.* *- group value: individual sites are inter-related both spatially and functionally.* *Historical values:* *- documentation: contemporary Roman accounts, and itineraries and cartographic depictions in the medieval period and antiquarian research from the post-medieval period onwards.* *- associative value: the building of The Antonine Wall represents a physical manifestation of change in Roman imperial foreign policy of Emperor Antoninus Pius.* *- illustrative value: the plan to build the Wall and its structures bears witness to the history, character and culture of the Roman Empire, its ambition and power and its complex technological and organisational abilities.* *Aesthetic values:* *- setting: taken together, the remains of the frontier and their landscape setting provide a rich aesthetic experience.*		
	<u>Development and occupation of the frontier</u> The Antonine Wall is an outstanding example of Roman military structure and building techniques and of their technological development, perfected by engineers at the height of the Roman Empire. The Antonine Wall represents the most developed frontier which further expanded on the construction techniques used at Hadrian's Wall. These developments are also unique in that they were not incorporated into later alterations of Hadrian's Wall or the German frontier. The Wall demonstrates the variety and sophistication of the Romans' responses to the specific topography and climate as well as to the political, military and social circumstances and thereby shaped much of the subsequent development in northern Britain. Given the short occupation of the wall, it provides a rare glimpse into an unchanged Roman frontier at a time of the furthest military expansion within the Roman province of Britannia. This forms a complementary and contrasting study to other longer occupied frontiers, which have been altered over time. This can help to	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	better understand the development of Roman frontiers. *Evidential values:* *- complexity and scale of the frontier.* *- group value: individual sites are inter-related both spatially and functionally. The Antonine Wall can also be compared to longer occupied frontier sites such as Hadrian's Wall.* *- archaeological evidence: research, including survey, geophysics and excavation, has shown that the Site contains a wealth of evidential material that forms the basis of our understanding of the frontier's function and development, its environmental context, and its material culture.* *- landscape value: the geology and morphology of the landscape directly influenced the location of the frontier* *Historical values:* *- documentation: contemporary Roman accounts, and itineraries and cartographic depictions in the medieval period and antiquarian research from the post-medieval period onwards.* *- associative value: the building of The Antonine Wall represents a physical manifestation of change in Roman imperial foreign policy of Emperor Antoninus Pius.* *- illustrative value: the history, character and culture of the Roman Empire.* *Aesthetic values:* *- setting: taken together, the remains of the frontier and their landscape setting provide a rich aesthetic experience.*		
	<u>Archaeological remains</u> The property includes both visible remains and buried archaeological features. Their state of survival has been researched in many areas. Over a third of the 60km length of the wall remains visible. Several areas of the frontier have been built over or altered from industrial activity including open cast mining, but where significant archaeological remains have been proven to exist, they have been included in the property. *Evidential values:* *- archaeological evidence: research, including survey, geophysics and excavation, has shown that the Site contains a wealth of evidential material that forms the basis of our understanding of the frontier's function and development, its environmental context, and its material culture. In addition to its exposed and buried structures, the WHS contains a great deal of environmental evidence.* *Communal values:* *- academic value: the Site's value as a research resource includes reconsideration of the records of excavations and surveys, the further study of the visible structures, and of the finds that have been recovered over several centuries.* *- educational value: the many and complex issues related to protecting, conserving and valuing the Wall, and its status as a WHS, provide a wide range of learning*	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	opportunities.		
	<u>Landscape setting of the frontier</u> The form and design of the Antonine Wall, in particular its linear character, and its architectural and military elements which are still easy to understand and its location and setting in the landscape can be clearly appreciated, despite modern developments and industrial activity. The landscape also remains important to the local community for, history education and recreation. *Evidential values:* *- landscape value: the presence of the Wall has had a lasting effect on the landscape and perceptions of it, and on the evolution of ways of life.* *- scale: when it was complete, The Antonine Wall would have dominated the landscape and its upstanding earthwork remains are still a significant element in the modern countryside.* *Historical values:* *- illustrative value: the plan to build the Wall and its structures bears witness to the ambition and power of the Roman Empire and its complex technological and organisational abilities* *Aesthetic values:* *- setting: taken together, the remains of the frontier and their landscape setting provide a rich aesthetic experience.* *Communal values:* *- recreational value: the Site's high level of authenticity, its surrounding landscape, and the constant development of its presentation to meet modern expectations, all contribute to its value as a destination for visitors.* *- economic value: The wall contributes to the economic, educational and social values of today's society for the local community.* *- educational value: The frontier provides an important historic monument for local schools supported through local organisations, helping to ensure better protection of the wall through wider understanding.*	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	Economic impact of the frontier The extant remains of The Antonine Wall reflect the imposition of a complex frontier system on the existing societies of northern Britain, introducing for the first time military installations and related civilian settlements, linked through an extensive supporting network. The frontier did not constitute an impregnable barrier but controlled and allowed the movement of peoples: not only the military units, but also civilians and merchants, triggering exchange of cultural values through movement of soldiers and civilians. Archaeological remains of civilian settlements have been identified as well as artefacts of civilians. For example, tombstone for the son of a trader from the eastern end of the Empire recorded near Bar Hill. *Evidential values:* *- complexity: archaeological remains of civilians found in relation to the wall.* *- group value: this includes the relationship of the Roman frontier works to the landscape and settlement patterns onto which they were imposed, and their subsequent influence on the development of that landscape; the clustering of civilian settlements around forts, and the initial exclusion of civilian structures from the area between the Wall and the Vallum.* *- landscape value: the presence of the Wall has had a lasting effect on the landscape and perceptions of it, and on the evolution of ways of life.*	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*
	Influence of the Wall on landscape development The frontier did not constitute an impregnable barrier but controlled and allowed the movement of peoples: not only the military units, but also civilians and merchants, triggering exchange of cultural values through movement of soldiers and civilians. This entailed profound changes and developments in terms of settlement patterns, landscape design and spatial organization. The frontier still today forms a conspicuous part of the landscape. *Evidential values:* *- group value: the relationship of the Roman frontier works to the landscape and settlement patterns onto which they were imposed, and their subsequent influence on the development of that landscape.* *- landscape value: the presence of the Wall has had a lasting effect on the landscape and perceptions of it, and on the evolution of ways of life.* *Aesthetic values:* *- setting: taken together, the remains of the frontier and their landscape setting provide a rich aesthetic experience.*	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	Associated sites Some associated features of the wall including some areas of the forts and other structures are not formally included in the WHS but remain protected through the provisions of the Town and Country Planning Act 1990. However, such features and areas which are not covered by the WHS boundary may nevertheless contribute to the attributes of OUV of the WHS. *Evidential values:* *- archaeological evidence: un-investigated or undiscovered archaeological deposits have high potential to develop further understanding of the frontier.* *(evidential and historical value)* *- group value: the relationship of the Roman frontier works to the landscape and settlement patterns onto which they were imposed, and their subsequent influence on the development of that landscape.* *- landscape value: the presence of the Wall has had a lasting effect on the landscape and perceptions of it, and on the evolution of ways of life.*	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*
	Integrity The Antonine Wall retains its integrity as in includes all elements of a Roman linear frontier system. The remains are in a good state of preservation surviving as part of a landscape which still contains visible traces of the Roman military presence. Although the landscape has been highly industrialised in the past, the value of the frontier has been known since the 17th century and had been preserved through years of antiquarian and archaeological documentation, as well as protected as a heritage resource for the last 100 years. The setting of the monument has been largely retained across the length of the Wall allowing the mindset of the Roman engineers to be envisaged and its scale and setting appreciated. *Evidential values:* *- archaeological evidence: research, including survey, geophysics and excavation, has shown that the Site contains a wealth of evidential material that forms the basis of our understanding of the frontier's function and development, its environmental context, and its material culture. In addition to its exposed and buried structures, the WHS contains a great deal of environmental evidence.* *- group value: individual sites described above are inter-related, both spatially and functionally.*	The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Level of recognition	Heritage Values	Attributes	Sources of information
	<u>Authenticity</u> The inscribed component parts have been verified through extensive study and research. The materials and substance of underground archaeological remains are well-preserved and have been verified through archaeological investigations as authentic Roman constructions, erected during the reign of Antoninus Pius. It is visible as a sometimes-impressive feature in the modern landscape for over one-third of its total length, while archaeological excavations undertaken over the last 100 years, have demonstrated that the rest survives well as buried archaeology beneath both fields and urban areas. Given the short duration of the frontier system, the materials are highly authentic to the primary use of the monument in the mid to late second century AD. Currently displayed elements of the frontier have been undertaken on the basis of full documentation through modern excavation. Recent interventions are conservation orientated and kept to a minimum. *Evidential values:* *- archaeological evidence: research, including survey, geophysics and excavation, has shown that the Site contains a wealth of evidential material that forms the basis of our understanding of the frontier's function and development, its environmental context, and its material culture. In addition to its exposed and buried structures, the WHS contains a great deal of environmental evidence.* *- group value: individual sites described above are inter-related, both spatially and functionally.* *Communal values:* *- academic value: the Site's value as a research resource includes reconsideration of the records of excavations and surveys, the further study of the visible structures, and of the finds that have been recovered over several centuries.* *- educational value: the many and complex issues related to protecting, conserving and valuing the Wall, and its status as a WHS, provide a wide range of learning opportunities.* *- recreational value: the Site's high level of authenticity, its surrounding landscape, and the constant development of its presentation to meet modern expectations, all contribute to its value as a destination for visitors.* *economic value: The wall contributes to the economic, educational and social values of today's society for the local community.*	The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	*World Heritage Committee (2016) Adopted Retrospective Statement of Outstanding Universal Value. (Decision 40 COM 8E; WHC/16/40.COM/19),* *The Antonine Wall Management Plan 2014-2019.*

Appendix B: Elements of the new OHL (WB Route) and the decomissioning of an exisiting OHL (CB Route), as well as AA Route diversions/SPD Works that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines)

Appendix B: Elements of the new OHL (WB Route) and the decomissioning of an exisiting OHL (CB Route), as well as AA Route diversions/SPD Works that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines)

Table 2: Elements of a new OHL that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines): Construction

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Establishment of temporary site access and works compounds for the new towers (WB route) as well as the removal of the existing towers (CB route) towers and changes to existing towers (AA route), could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative value. There is also the potential for	Excavation for and installation of new pylon tower bases (WB Route) could have a permanent effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.	Works to remove the existing pylon towers (CB Route and SPD works) could have a temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire and a symbol of a common heritage, in terms of its landscape value, scale, and illustrative values.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
	permanent effects as a result of physical impacts on archaeological remains.						
2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire and is a reflection of the way that resources were deployed by the Roman army.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army. There is also the potential for permanent impacts as a result of physical impacts on	Excavation for and installation of new pylon tower bases (WB Route) could have a permanent effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	Works to remove the existing pylon towers (CB Route and SPD Works) could have temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
	archaeological remains.						
3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected. There is also the	Excavation for and installation of new pylon tower bases (WB Route) could have a permanent effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.	Works to remove the existing pylon towers (CB Route and SPD Works) could have temporary and permanent effects on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships; the relative completeness of the system as a whole would not be affected.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
	potential for permanent impacts as a result of physical impacts on archaeological remains.						
4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a permanent effect on the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience.	Erection of new pylon towers could have a temporary effect (WB Route) on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
	experience. There is also the potential for permanent impacts as a result of physical impacts on archaeological remains.	rich aesthetic experience.				rich aesthetic experience.	rich aesthetic experience.
5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a direct physical impact on archaeological remains and a permanent effect on the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a permanent effect on the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Laydown and assembly of new pylon towers (WB Route) is unlikely to result in any direct physical impact on archaeological remains, nor would it affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Erection of new pylon towers (WB Route) is unlikely to result in any direct physical impact on archaeological remains, nor would it affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Layout and stringing of new overhead cable (WB Route) is unlikely to result in any direct physical impact on archaeological remains, nor would it affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) are unlikely to have any direct physical impact on the archaeological remains as these would likely have been truncated during the establishment of the temporary sites.	Works to remove the existing pylon towers (CB Route and CPD Works) are unlikely to have a direct physical impact on the archaeological remains as these would likely have been truncated during the construction of the towers.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values.	Excavation for and installation of new pylon tower bases (WB Route) could have a permanent effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values.	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values. Any effect would be temporary during the erection process but permanent for the lifespan of the scheme once the towers are erected.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values. Any effect would be temporary during the erection process but permanent for the lifespan of the scheme once the towers are erected.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values.	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. The setting of the WHS is important to its landscape value which, together with its scale, expresses the power and ambition of the Roman empire, underpinning its recreational and economic values.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value. There is also the potential for permanent impacts as a result of physical impacts on archaeological remains.	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a permanent effect on the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS embodied in the settlements associated with the frontier, including their complexity, group value and landscape value.
8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and	Erection of new pylon towers (WB Route) could have a temporary effect on the ability to appreciate the evidential and aesthetic values	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the ability to appreciate the evidential and	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
the subsequent development of the landscape, both in open country and in urban areas.	to appreciate the evidential and aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including the setting. There is also the potential for permanent impacts as a result of physical impacts on archaeological remains.	permanent effect on the ability to appreciate the evidential and aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	to appreciate the evidential and historical values of the WHS that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	appreciate the evidential and historical values of the WHS that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.
9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas	Impacts not expected as works limited to more rural areas/locations outside of the urban areas

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
which is worthy of protection.							
Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a direct physical impact on archaeological remains and permanent and temporary effects on the evidential values that demonstrate the integrity of the WH property, respectively the archaeological evidence and the spatial and functional relationships between	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a permanent effect on the evidential values that demonstrate the integrity of the WH property, notably the archaeological evidence.	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property.	Erection of new pylon towers (WB Route) could have a temporary effect on the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property.	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property.	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS that demonstrate the integrity of the WH property, respectively the archaeological evidence and the spatial and functional relationships between components of the inscribed property.	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS that demonstrate the integrity of the WH property, respectively the archaeological evidence and the spatial and functional relationships between components of the inscribed property.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
been included in the property.	components of the inscribed property.						
<u>Authenticity</u> The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Establishment of temporary site access and works compounds (WB, CB and AA Routes) could have a direct physical impact on archaeological remains and permanent and temporary effects on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. The form and design of the	Excavation for and installation of new pylon tower bases (WB Route) could have a direct physical impact on archaeological remains and a permanent effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic values. The form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the	Laydown and assembly of new pylon towers (WB Route) could have a temporary effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. The form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the landscape and the	Erection of new pylon towers (WB Route) could have a temporary effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. The form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the landscape and the ability to	Layout and stringing of new overhead cable (WB Route) could have a temporary effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. The form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the landscape and the	Works to remove temporary site access and works compounds (WB, CB and AA Routes) could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. The form and design of the Antonine Wall, its linear character, architectural and	Works to remove the existing pylon towers (CB Route and CPD Works) could have a temporary and permanent effects on the ability to appreciate the evidential and historical values of the WHS that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values.

ATTRIBUTES OF OUV	CONSTRUCTION: Establishment of temporary site access and works compounds, (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Excavation for and installation of new pylon tower bases (PERMANENT IMPACTS)	CONSTRUCTION: Laydown & assembly of new pylon towers (TEMPORARY IMPACTS)	CONSTRUCTION: Erection of new pylon towers (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Layout and stringing of new overhead cable (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of temporary site access and works compounds (TEMPORARY & PERMANENT IMPACTS)	CONSTRUCTION: Removal of existing pylon towers (TEMPORARY AND PERMANENT IMPACTS)
	Antonine Wall, its linear character, architectural and military elements and its location and setting in the landscape and the ability to appreciate these would not be diminished.	landscape and the ability to appreciate these would not be diminished.	ability to appreciate these would not be diminished.	appreciate these would not be diminished.	ability to appreciate these would not be diminished.	military elements and its location and setting in the landscape and the ability to appreciate these would not be diminished.	

Table 3: Elements of a new OHL (WB Route) and the decomissioning of an exisiting OHL (CB Route) that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines): Operation

ATTRIBUTES OF OUV	OPERATION: Inspection & maintenance (planned works to apparatus in situ) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: The presence of the pylons and cables. (WB Route) (PERMANENT IMPACTS FOR LIFESPAN OF PROJECT)	Operation The removal of the visual appearance of an existing OHL (the CB Route and SPD Works) from the landscape.
1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, illustrative values and communal values. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire, and a symbol of a common heritage, in terms of its landscape value, scale, illustrative values and communal values. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and historical values of the WHS as a frontier designed and constructed to protect the Roman Empire.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and historical values of the WHS in terms of its scale and complexity, which demonstrate the technological and organisational ability of the Roman Empire and the way that resources were deployed by the Roman army.	

ATTRIBUTES OF OUV	OPERATION: Inspection & maintenance (planned works to apparatus in situ) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: The presence of the pylons and cables. (WB Route) (PERMANENT IMPACTS FOR LIFESPAN OF PROJECT)	Operation The removal of the visual appearance of an existing OHL (the CB Route and SPD Works) from the landscape.
3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships, due to change to their settings; the relative completeness of the system as a whole would not be affected. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships, due to change to their settings; the relative completeness of the system as a whole would not be affected. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and aesthetic values embodied in the complexity and variety of the elements of the frontier system, most notably in their inter-relationships, due to change to their settings; the relative completeness of the system as a whole would not be affected.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience. Temporary changes to the setting of components of the inscribed property during operation would not diminish these values. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience. Temporary changes to the setting of components of the inscribed property during operation would not diminish these values. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and aesthetic values of the remains of the frontier, including the wealth of archaeological evidence, and its landscape setting, which taken together provide a rich aesthetic experience.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.

ATTRIBUTES OF OUV	OPERATION: Inspection & maintenance (planned works to apparatus in situ) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: The presence of the pylons and cables. (WB Route) (PERMANENT IMPACTS FOR LIFESPAN OF PROJECT)	Operation The removal of the visual appearance of an existing OHL (the CB Route and SPD Works) from the landscape.
5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	Inspection and maintenance activities are unlikely to have direct impact on archaeological remains and would not affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	Overhaul and repair activities are unlikely to have direct impact on archaeological remains and would not affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	The presence of the pylon towers and the position of the cables are not expected to have direct impact on archaeological remains and would not affect the evidential and communal values embodied in the buried structures, artefacts, ecofacts, and data about the palaeo-environment that form the corpus of retrievable archaeological information.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) on the ability to appreciate the evidential, historical, aesthetic and communal values embodied in the setting of the WHS.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value, due to change to their settings. Any effect would be transient and localised.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value, due to change to their settings. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential values embodied in the settlements associated with the frontier, including their complexity, group value and landscape value, due to	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.

ATTRIBUTES OF OUV	OPERATION: Inspection & maintenance (planned works to apparatus in situ) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: The presence of the pylons and cables. (WB Route) (PERMANENT IMPACTS FOR LIFESPAN OF PROJECT)	Operation The removal of the visual appearance of an existing OHL (the CB Route and SPD Works) from the landscape.
			change to their settings.	
8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential and aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and aesthetic values that demonstrate the influence of the frontier zone on the subsequent development of the landscape, including its setting.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Inspection and maintenance activities could have a temporary effect on the ability to appreciate the evidential values represented by the associated sites that do not form part of the WHS inscription, due to change to their settings. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the ability to appreciate the evidential values represented by the associated sites that do not form part of the WHS inscription, due to change to their settings. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential values represented by the associated sites that do not form part of the WHS inscription, due to change to their settings.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.

ATTRIBUTES OF OUV	OPERATION: Inspection & maintenance (planned works to apparatus in situ) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus) (TEMPORARY / TRANSIENT IMPACTS)	OPERATION: The presence of the pylons and cables. (WB Route) (PERMANENT IMPACTS FOR LIFESPAN OF PROJECT)	Operation The removal of the visual appearance of an existing OHL (the CB Route and SPD Works) from the landscape.
Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Inspection and maintenance activities could have a temporary effect on the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property. Any effect would be transient and localised.	Overhaul and repair activities could have a temporary effect on the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property. Any effect would be transient and localised.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential values that demonstrate the integrity of the WH property, notably the spatial and functional relationships between components of the inscribed property.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.
Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Inspection and maintenance activities could have a temporary effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. Any effect would be transient and localised: the form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the landscape and the ability to appreciate these would not be diminished.	Overhaul and repair activities could have a temporary effect on the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values. Any effect would be transient and localised: the form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and setting in the landscape and the ability to appreciate these would not be diminished.	The presence of the pylon towers within the buffer of the WHS and cables stretching across the WHS would have a permanent effect (for the lifespan of the Project) to appreciate the evidential and communal values that demonstrate the authenticity of the WH property, notably the archaeological evidence and academic, educational, recreational and economic values and its setting. The form and design of the Antonine Wall, its linear character, its architectural and military elements and its location and the ability to appreciate these would not be diminished.	The removal of the visual appearance of the Towers associated with the OHL, one of which falls within the WHS, as well as the wirescape associated with them.

Appendix C: Elements of the new OHL (WB Route) and the decomissioning of an exisiting OHL (CB Route and SPD Works) that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines)

Appendix C: Elements of the new OHL (WB Route) and the decomissioning of an exisiting OHL (CB Route and SPD Works) that may interact with one or more attributes of the WHS (with reference to Tool 2 of the 2022 UNESCO HIA Guidelines)

Table 5: Assessment of imapcts resulting from Construction Phase activities

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Establishment of temporary site access and works compounds (Construction)	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Potential physical and setting changes to the WHS during construction. Site access routes would pass through the WHS for tower WB051and CB035, although utilizing existing tracks. While a construction compound would be located within the WHS for the removal of tower CB035 and within the buffer zone for towers CB033-CB038, AA001B- AA005, and WB050-WB056. Physical impacts may be limited by the previous open cast mining within the landscape, while works within the WHS will be non-intrusive.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	the system as a whole.									
Establishment of temporary site access and works compounds (Construction)	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	Potential physical impacts to the buried archaeological remains within the WHS and surrounding landscape.	Once	Short term	Reversible	Irreversible	Permanent	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	No change	No change	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Establishment of temporary site access and works compounds (Construction)	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Potential physical and setting changes to the WHS during construction.	Once	Short term	Reversible	Reversible	Temporary	Some change	Negative change	Minor negative impact
Establishment of temporary site access and works compounds (Construction)	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Potential physical impacts to the buried archaeological remains within the WHS and surrounding landscape.	Once	Short term	Reversible	Irreversible	Permanent	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Establishment of temporary site access and works compounds (Construction)	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Potential physical impacts to the buried archaeological remains within the WHS and surrounding landscape.	Once	Short term	Reversible	Irreversible	Permanent	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS. Evidence of open cast mining in the area of the WB Route (Tower WB051 and WB052) is likely to have truncated buried archaeology in this area, although deep foundations may impact deeply buried archaeology.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Excavation for and installation of new pylon tower bases	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS..	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Temporary setting changes arising from the construction equipment and associated noise.	Once	Short term	Reversible	Reversible	Temporary change	Negligible change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Excavation for and installation of new pylon tower bases	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Excavation for and installation of new pylon tower bases	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	archaeological remains have been proven to exist they have been included in the property.									
Excavation for and installation of new pylon tower bases	<u>Authenticity</u> The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Permanent physical impacts arising from the removal of buried archaeological remains within the buffer zone of the WHS.	Once	Short term	Irreversible	Irreversible	Permanent change	Some change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	reflection of the way that resources were deployed by the Roman army.									
Laydown & assembly of new pylon towers	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There is not expected to be any impact to the buried archaeological remains caused by the laydown and assembly of the pylon towers	Once	Short term	Reversible	N/a	N/a	None	N/a	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Laydown & assembly of new pylon towers	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Laydown & assembly of new pylon towers	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.									
Laydown & assembly of new pylon towers	<u>Authenticity</u> The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Impacts would be temporary setting changes due to increased noise and light and the presence of construction machinery within the WHS and buffer zone.	Once	Short term	Reversible	Reversible	Temporary	Negligible change	Negative change	Minor negative impact
Erection of new pylon towers	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Erection of new pylon towers	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There would be no expected impact to the archaeological features of the WHS from the erection of new pylon towers	Once	Short term	Reversible	N/a	N/a	None	N/a	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Erection of new pylon towers	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. Also permanent setting changes to the setting of the WHS during the lifespan of the Scheme from the presence of the pylons in the buffer zone.	Continuous	Long term	Reversible	Reversible	Permanent change	Some change	Negative	Minor negative impact
Erection of new pylon towers	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Erection of new pylon towers	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Some change	Negative change	Minor negative impact
Erection of new pylon towers	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS.	Once	Short term	Reversible	Reversible	Temporary change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage	Temporary setting changes during construction for the erection of new pylons and cables within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact

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	[in respect of inscription as part of the Frontiers of the Roman Empire].									
Layout and stringing of new overhead cable	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	5. The retrievable archaeological information that survives – in the form of buried structures,	There would be no expected impact to the archaeological features of the WHS from the stringing of new overhead cable	Continuous	Long term	Reversible	N/a	N/a	None	N/a	Neutral

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	artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.									
Layout and stringing of new overhead cable	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS and through the wider landscape.	Continuous	Long term	Reversible	Reversible	Permanent change	Some change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact

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	is worthy of protection.									
Layout and stringing of new overhead cable	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact
Layout and stringing of new overhead cable	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Temporary setting changes during construction for the erection of new pylons within the buffer zone of the WHS. The impact would also be permanent for the lifespan of the Scheme due to the cables passing across the WHS.	Continuous	Long term	Reversible	Reversible	Permanent change	Negligible change	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Removal of temporary site access and works compounds (Construction)	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Removal of temporary site access and works compounds (Construction)	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There is not expected to be any physical impacts to the archaeological remains from the removal of the site access and compound as any remains would likely have been truncated during the establishment of the temporary sites.	Once	Short term	Reversible	N/a	N/a	Neutral	N/a	Neutral
Removal of temporary site access and works compounds (Construction)	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Removal of temporary site access and works compounds (Construction)	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)
Removal of temporary site access and works compounds (Construction)	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the	Temporary setting changes due to increased noise and construction machinery and activities within the WHS and buffer zone. Following the removal of the access sites and compounds, the setting of the WHS would be restored.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative change (Temporary) Positive change (following removal)	Minor negative impact (Temporary) Minor positive impact (Permanent)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	frontier and its architectural and military elements are readily appreciated in the landscape.									
Removal of existing pylon towers	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary and permanent	Some	Positive (Permanent change) Negative (Temporary change)	Moderate Positive Impact (Permanent) Minor negative change (Temporary change)
Removal of existing pylon towers	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)
Removal of existing pylon towers	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Removal of existing pylon towers	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)
Removal of existing pylon towers	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There is unlikely to be impacts on the archaeological remains as any buried remains would likely have been truncated during construction.	Once	Short term	Reversible	N/a	N/a	None	N/a	Neutral
Removal of existing pylon towers	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)
Removal of existing pylon towers	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)
Removal of existing pylon towers	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
	landscape, both in open country and in urban areas.									
Removal of existing pylon towers	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)
Removal of existing pylon towers	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION (Once / intermittent / continuous)	DURATION OF ACTION (Short-term / long-term)	REVERSIBILITY OF ACTION (Reversible / irreversible)	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE (Reversible / irreversible)	LONGETVITY OF CHANGE TO THE ATTRIBUTE (Temporary / permanent)	DEGREE OF CHANGE TO THE ATTRIBUTE (None / negligible / some / large change)	QUALITY OF CHANGE TO THE ATTRIBUTE (Positive / negative change)	EVALUATION OF IMPACT (Neutral / minor / moderate / major impact (negative and positive))
Removal of existing pylon towers	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Temporary setting changes during the removal of the pylons causing increased noise and construction machinery. Changes in setting resulting from the removal of towers and wire scape covered in the Operational Imapcts.	Once	Short term	Reversible	Reversible	Temporary	Some	Negative (Temporary change)	Minor negative change (Temporary change)

Table 6: Assessment of Imapcts resulting from the Operational Phase of the WB Route and the CB Route (as well as the SPD Works)

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Inspection & maintenance during operation (planned works to apparatus in situ)	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the	There is not expected to be any impacts on buried archaeological remains from the operational works.	Intermittent	Short term	Reversible	N/a	N/a	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
	palaeo-environment – is still extensive and is a significant attribute of the OUV.									
Inspection & maintenance during operation (planned works to apparatus in situ)	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Inspection & maintenance during operation (planned works to apparatus in situ)	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Inspection & maintenance during operation (planned works to apparatus in situ)	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Inspection and maintenance activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There is not expected to be any impacts on buried archaeological remains from the operational works.	Intermittent	Short term	Reversible	N/a	N/a	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Overhaul & repair (planned or responsive works such as renewal and replacement of apparatus)	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Overhaul and repair activities could have a temporary setting change to the WHS although any effect would be transient and localised.	Intermittent	Short term	Reversible	Reversible	Temporary	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
The presence of the pylons and cables	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect of inscription as part of the Frontiers of the Roman Empire].	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent (for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
	deployed by the Roman army.	would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.								
The presence of the pylons and cables	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	There is not expected to be any physical impacts to the archaeological remains due to the presence of the pylons and cabling in the landscape. Any impacts would have occurred during construction.	Continuous	Long-term	Reversible	N/a	N/a	None	N/a	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
The presence of the pylons and cables	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
	represent an associated attribute of considerable significance which is worthy of protection.	landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.								
The presence of the pylons and cables	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
The presence of the pylons and cables	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	The presence of the pylon towers during the operation of the Scheme would result in a permanent change to the setting of the WHS (during the lifespan of the Scheme) from the addition of modern infrastructure into the landscape. The alignment of the cabling across the WHS would also interrupt views looking east and west along the WHS. The pylons and cables would only cross a small section of the WHS.	Continuous	Long-term	Reversible	Reversible	Permanent(for the lifespan of the Scheme)	Some	Negative change	Minor negative impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	1. The Antonine Wall is a frontier which was designed and constructed to protect the Roman Empire. It is a symbol of a common heritage [in respect	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
	of inscription as part of the Frontiers of the Roman Empire].									
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	2. In its engineering and construction it illustrates the technological and organisational ability of the Roman Empire, and is a reflection of the way that resources were deployed by the Roman army.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	3. The Antonine Wall displays the complexity and variety of the elements of the frontier system, their inter-relationships, and the relative completeness of the system as a whole.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	4. The Antonine Wall provides an understanding of a rare, unchanged frontier construction and technology from the 2nd century AD due to its relatively short occupation.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	5. The retrievable archaeological information that survives – in the form of buried structures, artefacts, ecofacts, and data about the palaeo-environment – is still extensive and is a significant attribute of the OUV.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Neutral	Neutral	Neutral

ELEMENT OF PROPOSED ACTION	ATTRIBUTE	DESCRIPTION OF POTENTIAL IMPACT	FREQUENCY OF ACTION	DURATION OF ACTION	REVERSIBILITY OF ACTION	REVERSIBILITY OF CHANGE TO THE ATTRIBUTE	LONGETVITY OF CHANGE TO THE ATTRIBUTE	DEGREE OF CHANGE TO THE ATTRIBUTE	QUALITY OF CHANGE TO THE ATTRIBUTE	EVALUATION OF IMPACT
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	6. The setting of the WHS offers the opportunity to understand and appreciate Roman military planning and operations.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	7. The settlements associated with the frontier illustrate the impact and attraction of the Roman economy.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Neutral	Neutral	Neutral
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	8. The course and extent of the frontier zone, its massive size, and its infrastructure, all influenced the subsequent development of the landscape, both in open country and in urban areas.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	9. Extensive stretches of the frontier within urban areas, and some other discrete associated elements, are not included in the WHS but they represent an associated attribute of considerable significance which is worthy of protection.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	Integrity The integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact

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	where significant archaeological remains have been proven to exist they have been included in the property.									
Removal of existing OHL resulting in a removal of the presence of the pylons and cables	Authenticity The authenticity of the property is demonstrated through the extensive research and good preservation and conservation of underground and visible remains. The form and linear character of the frontier and its architectural and military elements are readily appreciated in the landscape.	Removal of the existing OHL (CB Route) including removal of a tower from within the WHS, towers from the WHS buffer, and the loss of the associated wires cape.	Continuous	Long-term	Irreversible	Reversible	Permanent	Some	Positive change	Moderate positive impact