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A11.1 CULTURAL HERITAGE – DETAILED ASSESSMENT

11.1 INTRODUCTION

St Helena is a place of rare archaeological and historic value and the construction of the airport has the potential to disturb known sites and undiscovered archaeology. This includes the possibility of impact upon sites that in a UK context would be afforded statutory protection, as well as others of lesser value. In addition, there may also be long-term, operational impacts, either of a physical or visual nature.

This assessment aims to determine whether and to what extent the project proposals could affect the island's cultural heritage and whether any suitable mitigation measures could be proposed.

11.2 METHODOLOGY

This section outlines the methodology applied to the cultural heritage assessment. It concerns the following: assessment standards; a definition of the study area; sources of information consulted; site survey methodology; assessment criteria (value, condition and effects).

11.2.1 Legislation, standards and guidance

In the absence of a comprehensive framework for assessing the value of heritage resources in St Helena, the following UK legislation and guidance has been adopted:

- Ancient Monuments and Archaeological Areas Act 1979
- Planning (Listed Buildings and Conservation Areas) Act 1990
- PPG 15: Planning and the Historic Environment
- PPG 16: Archaeology and Planning
- Institute of Field Archaeologists' Standards and Guidance: Standing Building and Structures (2001)
- RCAHM(E) 1991: Recording Historic Buildings – a descriptive specification
- Department of Transport/Welsh Office/Scottish Office Design Manual for Roads and Bridges Vol. 11 Section 3 Part 2, Paragraph 3.4 (Cultural Heritage)

The assessment methodology as a whole conforms to the Institute of Field Archaeologists' Standards and Guidance for Archaeological Desk-Based Assessments (revised 2001)

In preparing this assessment reference has been made to existing St Helenian legislation relating to cultural heritage. This is primarily to be found within the Land Planning and Development Control Ordinance (1998) and the subsequent St Helena Land Development Control Plan (LDCP; 2007). These are concerned with the protection and management of built heritage, which is to say standing inhabited historic structures ('Listed Buildings') and Conservation Areas.

The LDCP draws heavily on Crallan's inventory of built heritage. Although this list has been updated since its original composition in 1974, it does not incorporate many of the elements that would now be expected to appear in a UK county-based Heritage Environment Record (HER). These omissions are wide ranging, for example structures that are of historic value but not worthy of Listing, and buried archaeology. The inventory

also conflates Listed Buildings with non-occupied historic structures that should have a separate designation as Scheduled Ancient Monuments.

11.2.2 Study area

The baseline review comprises information on the cultural heritage resource within and around the proposed project. The land available for the contractor's operations (hereafter the 'airport development area'; ADA) is addressed in detail, and all cultural heritage sites within its boundary are considered. A small number of sites immediately outside the ADA have also been included in the assessment. This is either because they are potentially at risk from damage during construction, or because they may be affected by the airport's operation, whether physically or in terms of their historic setting. All sites considered within the assessment area shown on Figures 11.1a to 11.1e in Volume 3 of this ES.

11.2.3 Sources Consulted

The baseline survey involved review of readily available archaeological and historical information from database, documentary and cartographic sources. The principal sources of information were as follow:

- Saint Helena National Trust
- Saint Helena Government Archives
- The National Archives, Kew
- The British Library

All texts, maps and electronic sources consulted in the writing of this chapter are listed in section 11.9.1 below.

11.2.4 Acknowledgements

Faber Maunsell would also like to acknowledge the input of the following individuals and organisations to this study: Bill Clements (Fortress Study Group); Len Coleman (SHG); Barbara George; Cathy Hopkins; Ben Jeffs; Neil Maylan (Glamorgan Gwent Archaeological Trust); Geraillt Nash (Museum of Welsh Life, St Fagans); Alexander Schulenburg (Friends of St Helena); Edmund Simons (AOC Archaeology); Nick Thorpe; Stéphane Van de Velde; Annsofie Witkin (Bristol University).

11.2.5 Site Visit

A visit to St Helena was undertaken during May and June 2007. This involved a comprehensive walkover of the ADA, the objective of which was to assess the character and condition of known heritage sites and to search for previously unrecognised remains. The visit also involved less intensive work within the broader study area, which focused on known sites and key heritage viewpoints.

During the same visit, evaluation trenching was undertaken within Rupert's Valley, principally in order to define the location of the freed slave cemeteries and to determine the condition of the burials within these graveyards. A single trench was also dug behind Rupert's Lines to determine the character of the buried archaeology in this location (see section 11.9.1).

11.2.6 Site Identification

Although many of the monuments in St Helena are well known, as yet there has been no attempt to catalogue heritage remains on an island-wide basis. Crallan's 1974 inventory is mainly concerned with the historic buildings of Jamestown, and whilst it does take other parts of the island it is far from comprehensive and neglects archaeological sites and monuments. A small number of sites also exist as a GIS layer within the St Helena Environment Information System (SHEIS), but these data are very much incomplete.

For this reason it has been decided to create a new database specifically for the air access project. Within this database, sites are identified by a number prefixed CH (for Cultural Heritage). It is intended that this database will form the basis of a Heritage Environment Record (HER) for St Helena, although it is far from comprehensive island-wide in its present form.

11.2.7 Assessment Criteria

11.2.7.1 Cultural Heritage Value

The heritage aspects of the St Helena LDCP rely heavily on Crallan's inventory of historic structures, which assigned a value to the selective list of features that it incorporated. However, for the reasons stated above the inventory is not considered to be provide an appropriate or adequate framework for assessment.

The assessment of site status and value undertaken within this chapter does not, therefore, always take forward the status assigned by Crallan's inventory. This is particularly true where unoccupied monuments are concerned. Moreover, other differences arise where it was felt that Crallan's background as an architect had led him to underestimate the importance of utilitarian structures that had significant historical associations.

Cultural heritage sites discussed within this study are categorised in accordance with the only available criteria that are nationally agreed within the UK; these are set out in the Department of Transport/Welsh Office/Scottish Office Design Manual for Roads and Bridges Vol. 11 Section 3 Part 2, Paragraph 3.4 (Cultural Heritage):

- Category A: (UK national importance) Scheduled Ancient Monuments (SAMs) or archaeological sites and remains of comparable quality, assessed using the Secretary of State's criteria; Grade I and Grade II* Listed Buildings; Grade I and Grade II* Parks and Gardens of special historic interest;
- Category B: (UK regional importance)
- Archaeological sites and remains which, while not of national importance, fulfil several of the Secretary of State's criteria and are significant remains in the regional context; Grade II listed buildings; Grade II Parks and Gardens of special historic interest; Conservation Areas;
- Category C: (UK local importance)
- Archaeological sites and remains comparable to those listed in UK county Sites and Monuments Records (SMR) or other sources which are either of very low potential or of minor importance; areas of local importance can be designated by local planning authorities; buildings of special local interest;
- Category D: (UK low importance)
- Site types that are unremarkable and are often commonly-found within the locality; areas in which investigative techniques have produced negative or minimal evidence of antiquity, or where large-scale destruction of deposits has taken place.

To these an additional category has been added:

- Category U: unknown

This category applies to a site or feature where data are insufficient to allow a judgement to be made on character, age, extent or rarity.

The Secretary of State's criteria for the scheduling of ancient monuments are set out below in section 11.9.4. SAMs will always be of national importance and should be preserved in situ within an appropriate setting (as protected under the Ancient Monuments and Archaeological Areas Act 1979; setting is rendered a material concern by PPG16, paras 8 and 27). The Planning (Listed Buildings and Conservation Areas) Act 1990 defines and provides equal protection for all Listed Buildings, although these buildings are graded in importance, from Grade I (most important), II* and II. Buildings listed at Grade I are described by English Heritage as being 'of paramount importance to the nation' whilst those listed at II* are of 'outstanding interest'. Such buildings are therefore considered within this assessment to be of national importance (Category A). Structures listed at Grade II are usually considered as being of a slightly lower Category B importance, although on occasion they may be considered as having either Category A or Category C importance.

The term 'non-statutory' is used for sites which would not be afforded statutory protection in the UK context. The assessment of the importance of non-statutory sites is essentially a subjective exercise based upon the experience of the project specialist. Values assigned to these sites are given both in relation to their individual importance and to their context within the wider landscape.

11.2.7.2 Condition of cultural heritage sites

The condition of individual sites has a bearing on the value of the sites themselves and on the value that they impart within a wider historic landscape context. The condition of sites is recorded using the following criteria:

- Intact
- Near intact
- Damaged
- Near destroyed
- Destroyed
- Restored
- Moved (usually finds)
- Not known

The last of these categories (Not known) is often applied to buried sites which have been identified through limited excavation, or inferred from surface finds.

During this study, the condition of all cultural heritage sites within the ADA and its environs was ascertained by field inspection.

11.2.7.2 Effects on the cultural heritage resource

The magnitude of the predicted change has been described using the criteria outlined in Table 11.1.

Table 11.1: Cultural heritage: criteria for significance levels

Magnitude of change	Description of change
Major negative	Complete destruction of the site or feature; Alteration resulting in a fundamental negative change in our ability to understand and appreciate the resource and its historical context and setting.
Moderate negative	Significant damage to the site or feature; Alteration resulting in a significant negative change in our ability to understand and appreciate the resource and its historical context and setting.
Minor negative	Limited damage to the site or feature; Alteration resulting in a small decrease in our ability to understand and appreciate the resource and its historical context and setting.
Negligible	Insignificant change or no material change to the site or feature. No real change in our ability to understand and appreciate the resource and its historical context and setting.
Minor positive	Limited physical improvement to the site or feature; Alteration resulting in a small increase in our ability to understand and appreciate the resource and its historical context and setting.
Moderate positive	Significant physical improvement to the site or feature; Alteration resulting in a significant positive change in our ability to understand and appreciate the resource and its historical context and setting.
Major positive	Fundamental physical improvement to the site or feature; Alteration resulting in a fundamental positive change in our ability to understand and appreciate the resource and its historical context and setting.
Unknown	Uncertain change, normally applying to an area in which the extent, character and quality of preservation of archaeological remains is not known. Also applies where the project design is inadequate for effects to be accurately determined.

The overall significance of effect has been described using the matrix below (Table 11.2) which describes the relationship between the value of the receptor and the magnitude of the predicted impact.

Table 11.2: Cultural heritage: overall significance of effects

Magnitude of change	Site value			
	A (National)	***B (Regional)***	***C (Local)***	***D (Low)***
Major	Severe (adverse) Extreme (positive)	Major	Moderate	Minor
Moderate	Major	Moderate	Moderate / Minor	Minor / Neutral
Minor	Moderate	Moderate/Minor	Minor	Minor / Neutral
Negligible	Minor / Neutral	Minor / Neutral	Neutral	Neutral

11.3 CULTURAL HERITAGE CONTEXT

11.3.1 AD 1502 - 1659

St Helena was discovered by the Portuguese in 1502, prior to which date it has no known history of human habitation. As such, its history and archaeology belongs exclusively to the post medieval period.

For much of the 16th century the island remained the preserve of the Portuguese, although as early as the 1530s it had been visited by French vessels. During these early years – and indeed up to the middle of the 17th century – there was little by way of a permanent population, notable exceptions being an escaped political prisoner by the

name of Dom Fernando Lopez (between 1515 and his death in 1546) and a group of slaves who escaped from a passing ship at some date prior to 1557 (Gosse 1938, Ch. 1).

The more common use of the island was as a provisioning station and rendezvous point for ships on their return from the East Indies – a role that St Helena would continue to fulfil well into the 19th century. During the initial decades after its discovery, visits were more or less on an annual basis, most being by the yearly Portuguese trade fleet returning from the East Indies. Stores of food and water could be re-stocked, whilst sick sailors were left there temporarily to recuperate. Despite the very limited extent of settlement, even at this early stage the consequences of human intervention on the natural environment were disastrous, as described briefly below (section 11.3.4).

The English had become aware of the island's existence by around 1580, and their first visit was that of Thomas Cavendish in 1588. During the following year it was also revealed to the Dutch, through Jan Huyghen van Linschoten who was a Dutch pilot with a Portuguese fleet. In writing about his visit, Cavendish was able to describe a chapel and a small number of houses in Chapel Valley (now the site of Jamestown). These presumably represent some of the very earliest structures to be built in the James Valley but no trace of them is now recorded. It is, however, possible that archaeological remains of these buildings still survive, either as part of more recent structures or buried below ground.

Building work of a different nature was undertaken in the island's interior during the 16th century, and these structures may have proved more durable in the modern landscape. These relate to pastoral activities, as for example described in 1638 by the English traveller Peter Mundy. He noted a large drystone-walled enclosure in Lemon Valley that is best interpreted as a stockade for pigs, and which Gosse (1938, 31) attributes to the Portuguese. This enclosure was not searched for during the present study, but another stockade of similar character was identified near Bradleys (CH06). The date of this latter feature is not certain, but as discussed below it is clearly several centuries old (section 11.4.3; Figure 11.12 in Volume 3 of this ES). It may well be, therefore, that these are the oldest monument type to survive on St Helena.

Livestock farming has remained a core economic activity on the island up to the present, and evidence for it survives from all periods. Features mainly comprise smaller stock compounds and animal folds (all undated) which can be found in ruinous form at numerous locations: two such examples exist within the ADA on Prosperous Bay Plain (CH33; CH86; Figure 11.2 in Volume 3 of this ES).

From the 1580s there followed a period during which ships belonging to all the major European nations competing for Asian trade called at St Helena, as well as those of lesser players such as the French and the Danes. This era of disputed possession was accompanied by vandalism and minor damage to the few buildings that were present, fuelled by both national and religious divisions (Gosse 1938, Ch. 1 & 2). By 1625 (the date of the so-called battle of Chapel Valley; Gill 1975) these conflicts were becoming more serious in scale, and same year saw the first attempt at fortification of the island, by the Portuguese. The Dutch formally annexed the island in 1633 but their ambitions for sovereignty were never realized. Instead was the English, under the auspices of the East India Company, who established a permanent settlement in 1659.

11.3.2 AD 1659 - 1800

The advent of English occupation marked the beginning of the organised defence of the island, a subject discussed in more detail below (section 11.3.5). This reflected the fact that St Helena's role in the expansion of English power and commerce in Asia during the 17th and 18th centuries was extremely significant. Given the Dutch possession of the Cape until 1795, for many years St Helena was the only victualling station available to English shipping in the South Atlantic, as well as a place where convoys could be assembled prior to their return into hostile European waters. Historical records show many hundreds of vessels visiting the island every year. This appears to be a fact which many modern histories of the East India Company fail to grasp (e.g. Lawson 1987; Philips 1940).

In a sideshow to the Second Anglo-Dutch War, the island was briefly occupied by the Dutch between January and May 1673; it was then recaptured by the English and has remained in their possession ever since. In December of the same year Charles II granted the East India Company all rights of sovereignty over St Helena, which it retained for the next century and a half. During the early years of the settlement it numbered only a few hundreds but over the course of the 18th century it gradually climbed to a figure above 3,000: the population comprised the garrison, settlers, freedmen and slaves, the latter group normally the most numerous.

In contrast to the preceding period, St Helena's 18th century history is not defined by military events, but by the consolidation of settlement in this remote outpost. Correspondence between the island's governor and the directors of the East India Company finds a continuous theme: concern with profit and investment return from London, set against the practical reality of maintaining a settlement in so distant a location on the part of the governor. The latter difficulties should not be underestimated, historical records showing periodic epidemics, droughts and mutinies of the garrison throughout the century. These took place alongside continual concerns over day-to-day issues such as food supply and civil law and order.

One notable role of St Helena was as the site for meteorological study. Edmund Halley visited the island in 1676 to map the stars of the southern hemisphere and to observe the transit of Mercury. He was followed by other eminent scientists such as Neville Maskelyne (1761) and Manuel Johnson, the latter a long-term resident of the island in the 1820s and 30s and later director of the Radcliffe Observatory, Oxford (Tatham 1974). Several observatory sites have been used, most in the centre of the island around Hutts Gate and Longwood, with another on Ladder Hill.

11.3.3 The 19th and 20th centuries

The key event in St Helena's history is inevitably considered to be Napoleon's exile there between 1815 and 1821. In addition to becoming the temporary focus of European affairs, the island also found its population doubled by the additional garrison established there during these years. The existing barracks were inadequate to cope with such numbers and a new camp was therefore established on Deadwood Plain (CH01). Napoleon's time on the island is discussed in numerous sources (e.g. Blackburn 2000), but the monuments with which he is associated (principally The Briars and Longwood House) lie well outside the ADA for the airport.

Following the death of Napoleon, the population fell back to its more usual level and the island once again slipped into obscurity. Worse was to come, as the British Government took over administration of the Island in 1833, it becoming an official Crown Colony in April 1834. This turn of events proved a body-blow to St Helena's fortunes, not least because it took place alongside the abolition of the East India Company's trading monopolies that included the India and China tea trade.

St Helena's history is intrinsically bound up with the issue of slavery. As previously noted, the mainstay of the 17th and 18th century population were slaves, and so the prohibition of their import in 1792 was an important cultural development on many levels. In 1818 all children born of slaves on the island were declared free, whilst in 1832 the East India Company purchased the freedom of the remainder.

In 1807 Parliament passed The Abolition of the Slave Trades Act, making it illegal for British subjects or ships to engage in slave transportation, whilst The Emancipation of Slaves Act (1833) heralded the imminent end of slavery within the empire. However, British efforts to abolish the Atlantic slave trade were to be much more prolonged. Other European nations (notably Spain and Portugal), the United States and Brazil were slower to adopt the same stance and so for much of the 19th century Britain pursued a dual approach of diplomacy and naval enforcement in support of its anti-slavery policy (Lloyd 1949).

The Royal Navy's West African Squadron was established on a permanent footing in 1814, its remit being to patrol the South Atlantic in search of illegal slaving operations – i.e. those of British subjects or of other nations with whom treaties had been established (Ward 1969). Slavers found to be acting unlawfully were commandeered and brought to judgment before Mixed Commission (dual nationality) or British Vice Admiralty Courts. Most of the Squadron's activities were focused on the African coast, and historical records would suggest that the majority of captured ships were taken to Sierra Leone for trial. However, winds and currents sometimes dictated that prizes were taken instead to St Helena, where a Vice Admiralty Court was established in 1840. Other courts existed at St Paul de Loanda (Angola), Tortola (British Virgin Islands) and the Cape of Good Hope.

The Vice Admiralty court at St Helena operated from 1840 to 1865, and during this period a very large number of slaves were brought to the island aboard captured vessels. The absolute number is unclear, but it is calculated that over 15,000 individuals were landed between 1840 and 1850 alone (Gill & Teale 1999, 289). A station was established in Rupert's Valley to accommodate the freed slaves (the 'Liberated Africans Depot'; CH42), from which most were either returned to Africa, 'enlisted' in the Army or shipped onwards to the Caribbean as labourers. However, the conditions in which the slaves had been shipped were often appalling, as widely documented by records of the 'Middle Passage' from Africa to the West Indies and America (e.g. Klein 1978). Contemporary accounts from St Helena graphically describe the conditions of those landed at the depot, for example that of Bishop Gray (quoted in Cannan 1992, 47). Significant numbers died on ship or after landing on St Helena and large cemeteries grew up in Rupert's Valley (see below, section 11.4.1.6).

Condemned slave ships were beached and broken up, providing a valuable supply of bulk timber for the island, which by that date had become extremely scarce. However, an unwelcome consequence for St Helena came about through the destruction of a Brazilian

slaver brought to the island by HMS Cruiser in 1840. White ants or termites were present in the timber and the introduction of these insects proved disastrous. Although some masonry structures existed on St Helena at that time, many buildings were of timber: by 1860 the termites had reduced most of Jamestown to ruins and were beginning to spread more widely across the island. The problem has never entirely gone away, and there are records of termites having rendered Plantation House uninhabitable by 1928, and St Paul's was condemned as unsafe in 1939 (Gill & Teale 1999). St Helena is now characterized by the almost complete absence of timber buildings, and generally only hardwood features survive within the termite areas.

The West African Squadron was withdrawn from St Helena in 1869, and the Liberated Africans' Depot was finally closed in 1874. By this date the island's fortunes were in serious decline. The advent of the steamship, and of refrigeration, meant that it was no longer necessary for vessels to call at St Helena, whilst the opening of the Suez Canal in 1869 meant that much traffic from India and the Far East no longer used the Atlantic seaways. Where in the 1840s it was common for over 1,000 ships to have called annually, by 1890 this figure had fallen to 200. Mail steamers to and from the Cape ceased to call at the island after 1889, further emphasizing its isolation. As a whole, these developments undermined the island's long-standing strategic importance: this was most obviously signified by the withdrawal of its small remaining garrison in 1906, although a military presence was re-established during both the First and Second World Wars.

The remoteness of the island led to is use as a POW camp during the Boer War, over 4,500 prisoners being held on camps at Deadwood Plain (CH02) and Broad Bottom between 1900 and 1902 (George 1999; Jackson 1902). The need to supply such large numbers of people with fresh water led to the construction of a desalination plant at Rupert's Bay, the chimney stack of which still survives in the compound behind the Lines (CH65; Figure 11.9 in Volume 3 of this ES). The plant was connected to the camp at Deadwood by a pipeline, which ascended the steep hillside above the bay to the summit of Rupert's Hill and then followed Bank's Ridge to a point a little below Flagstaff (CH04). The metal pipe itself no longer remains but some structural traces still survive and its line is roughly adopted by the 'Pipe Path' (Figure 11.11 in Volume 3 of this ES).

The presence of the Boer prisoners brought with it an improvement in communications, as the island was provided with a submarine telegraph cable, first to Cape Town in 1899 and subsequently to Britain via Ascension Island (Denholm 1994). Rupert's Bay was chosen as the landing point for the cable, with one of the former buildings belonging to the Liberated Africans' Depot (CH66) being adapted as the cable house. The Eastern Telegraph Company's depot also included several buildings immediately behind Rupert's Lines, together with a narrow gauge railway for the landing of supplies. All of these features have now gone, but the cable itself has never been removed and was encountered during the archaeological evaluation undertaken for this project.

After the decline of the Atlantic sailing routes, the island's subsequent economic history is one of attempts to address the issue of its financial dependency. It has certainly made significant strides forward from the nadir of the 1930s, when social and economic conditions were extremely poor. Initiatives have included whaling, flax production, tourism, forestry and fishing, although only the latter has truly proved successful. The proposed airport is, in many ways, a continuation of this process.

11.3.4 Man and the environment

Whilst St Helena preserves a large number of fine historic monuments, the human legacy on the environment has in many ways been devastating (see Ashmole & Ashmole 2000, Ch.7). The earliest seafarers left goats and pigs on the island, with the intention that they would breed and thus provide a ready source of fresh meat for subsequent visiting ships. In this they were successful but the increasing number of animals denuded many areas of natural vegetation, with the corollary of large-scale erosion.

Once the island was settled, further land was laid bare by animal grazing, whilst the once abundant woodlands were reduced not only by livestock but by their felling for building and as fuel for heating, tanning, distilling and the production of lime. Attempts to manage this problem can be seen from the late 17th century, for example the culling of wild herbivores, prohibitions against the felling of trees, and the fencing or walling off of the native woodlands. However, such attempts were sporadic and largely ineffective, and the human era on St Helena has witnessed the decline, and in some cases the extinction, of native flora and fauna.

This decline has been accompanied, and to some extent caused by, the introduction of non-endemic fauna (including the herbivores and termites already mentioned, plus species such as cats and rats) and flora (of which flax is a prominent example in the island's interior). Conservation efforts are now well in train, but it remains the case that the 'natural' environment of St Helena is one that has, over a short historical time-frame, been heavily influenced by human activity.

11.3.5 Military monuments

From early on in the English occupation, attempts were made to fortify the island against attack (see Teale 1974 Vol II). The first permanent defences were built in Jamestown in 1660, whilst some other batteries such as those at Lemon Valley were in existence by the time of the Dutch invasion of 1673. The success of the Dutch prompted more comprehensive attempts to protect many of the likely routes of invasion. This was achieved by the construction of new batteries, and also by the novel method of blocking off the valley mouths with curtain walls. This programme was not realized quickly, and indeed St Helena's defences continued to evolve up to the time of the Second World War (Figure 11.3 in Volume 3 of this ES).

The historical records do not always enable a precise chronology to be established for certain sites, but it is clear that some of the valley-mouth walls (or 'platforms', to use the contemporary term) have their origins in the late 17th century. There are references to 'Banckes Platform' (i.e. Bank's Lines) in 1678, whilst a fort of some description at the mouth of Rupert's Bay belonged to the same period: both are shown on Seller's map of 1675. Other platforms, such as those across Sandy Bay, seem likely to have been built during the first decades of the 18th century. Some walls, such as those across Thomson's-, Friars-, Old Woman's- and Breakneck Valleys were simply curtains, with little by way of accompanying batteries (Figure 11.3 in Volume 3 of this ES).

Damage from the sea, by floods, or simply arising from neglect, ensured that construction work on most military sites continued through much of the 18th and 19th centuries. The existing masonry of Rupert's Lines, for example, belongs to the period post-1787 (though

perhaps with earlier dated material still in situ), and many defensive locations around the island preserve remains that span several centuries. As well as the Lines, more standard batteries were established at many locations during the late 17th and 18th centuries. Precise dating of many is not possible, but batteries at Sampson's, Saddle and Bunkers Hill (CH139, CH137 & CH08), within or near the ADA, were probably established during this period.

The building of defences was accompanied by the development of a system of military communication (Denholm 1994). The system began in the 1670s as a simple arrangement of alarm guns placed at prominent viewpoints: the approach of a hostile ship was signalled by the firing of a gun at one location, then relayed by the others back to Jamestown. A document of 1678 indicates that alarm guns were present at Rupert's, Bank's, Flagstaff, Prosperous Bay, Lemon Valley and High Peak. These were augmented by other sites during the 18th century, and pertinent to the present study was the establishment of the signal station above Prosperous Bay Plain (CH59), which according to Denholm (1994, 4) was built in 1770 to supersede the original alarm point in the bay itself.

Supplementing the Lines, batteries and signal stations were a number of lesser military sites, usually watch points for personnel on picket duty. These sometimes appear on historical maps but are rarely if ever mentioned by text sources. Some at least took the form of roofed drystone huts (such as the ruin to the south of Holdfast Tom; CH110) but other structures appear to be nothing more than uncovered watch platforms. Examples of the latter can be seen at a precarious location on the cliff edge above Sandy Point (CH48) and other probable features of similar character were found in Sharks Valley (CH79; CH80) and at Gill Point (CH37): many others doubtless await discovery.

Military communications have always been a central concern on St Helena, and the Napoleonic Wars brought about the introduction of a more advanced visual telegraph system based on flags or semaphore (Teale 1974, Vol II, 201). The same period also prompted the construction of further defences – particularly around the coast – a process that was spurred on by Napoleon's exile on the island and paranoia that he might be rescued. These additions include distinctive 'Martello'-style musketry towers (as at Thomson's Valley and Prosperous Bay), as well as batteries such as those in Powell's Valley and on Egg Island – surely some of the bleakest postings in the whole of the British Empire. Cock's and Barne's maps of 1804 and 1811 respectively show most of this system in place.

The semaphore signal network remained active until 1867 when it was replaced by an electric telegraph station, by which time most sites in the east and south of the island had ceased to be maintained. This system was in turn replaced by a telephone system after 1886, which included a connection to the Prosperous Bay Signal Station – a feat achieved by a 6km stretch of line and poles from Longwood. The present building at this location, built to house the telephone equipment and provide living quarters for its operator, dates to 1887.

The military network of communications and defences was effectively abandoned in 1906 with the withdrawal of the garrison. Nevertheless, there were brief revivals during both the First and Second World Wars which brought about some addition to the island's defences, though not within the present Study Area. Of later note, however, is the

Diplomatic Wireless Station (DWS) established in 1965. The station was centred on Longwood, with a power station at what is now Bradleys Government Garage (CH34) and two separate groups of transmission masts, one on Deadwood Plain and the other on the edge of Prosperous Bay Plain to the southeast of Cook's Bridge. These masts were still in existence in 1983, but have since been dismantled: the concrete mast bases still survive, however (CH49-56 and CH57-58; Figure 11.2 in Volume 3 of this ES).

St Helena's military positions were linked by a system of roads and tracks. This network was extremely extensive – doubtless hundreds of miles in total – and represented a very significant input of labour over several centuries. Precise dating of these features is not possible, but assuming that they are contemporary with the monuments which they connect, some at least must have their origins in the late 16th or early 17th century. It is likely that a number of the paths around the coastal cliffs, such as those linking Jamestown to Rupert's Bay and onwards to Banks Valley, served as an extension of the Lines themselves, affording positions from which musketry could be brought to bear on an attacking force.

Often traversing difficult terrain, the tracks usually comprise levelled platforms of beaten earth and rough stone, carried over gullies by drystone revetments. Unfortunately, many of the original tracks have been destroyed by erosion or have been erased by more recent road surfacings. However, a significant number still survive, although the state of preservation varies greatly and long stretches of pristine track are now rare. Fine examples within the Study Area include that leading from the battery above Fishers Valley (CH35; the most complete feature of this type), and more fragmentary stretches around Cook's Bridge (CH09) and the Prosperous Bay Signal Station (see Figures 11.12, 11.13 and 11.14 in Volume 3 of this ES). The tracks within Sharks Valley, by contrast, are now barely recognisable for most of its course (CH85; Figure 11.2 in Volume 3 of this ES).

As a whole, the military remains of St Helena are an extremely valuable resource. In terms of their wider context, the batteries on St Helena find some parallels elsewhere, similar sites having been identified in the Caribbean in locations such as St Eustatius, Dutch West Indies. Some of the Zulu War towers in South Africa also bear some similarity to the later fortifications (E. Simons, pers. comm.). Martello towers are an empire-wide phenomena that are found in Britain and Ireland, plus former possessions that include Canada, Sierra Leone, South Africa, Sri Lanka and Australia (Clements 1999; Sutcliffe 1972). France erected similar towers along its own coastline, whilst the United States government also built a number of Martello towers along its east coast, copying the British design with some modifications.

Defensive lines of the type found on St Helena are internationally rare. A few parallels exist, for instance the Lines of the Torres Vedras, Portugal, built in 1809-11 during the Peninsular War (Fletcher 2003), and the late 19th century Victoria Lines in Malta (the latter included on the Tentative List of World Heritage Sites). Both examples are comparable in that they comprise defensive walls and emplacements intended to control and direct enemy movement, and there are architectural and typological similarities. However, such comparison is otherwise rather superficial, as their landscape and historical context is quite distinct from the Lines of St Helena. Moreover, the extremely early date of the St Helena defences makes them particularly interesting, whilst the use of walls to block valley mouths, island-wide in such comprehensive fashion, is almost

certainly unique. Their survival as a coherent group, often in locations into which modern elements do not intrude, adds further value.

11.4 EXISTING BASELINE: AREA-BY-AREA DESCRIPTION

This section describes the individual cultural heritage sites within the ADA, plus in its environs that are judged in section 11.6 below to be potentially affected by the Project. The formal evaluation of status and value is undertaken in the following section (11.5).

For convenience, this discussion is broken down into five basic geographical zones:

1 - Rupert's Bay and Rupert's Valley
2 - Rupert's Hill, Bank's Ridge, Deadwood, Longwood and Bottomwoods
3 – Bradleys Government Garage, Bradleys and Cook's Bridge
4 - Prosperous Bay Plain
5 - Sharks Valley, Dry Gut and Gill Point

These zones have been arbitrarily chosen, and are intended to provide the reader with an easy means of locating a given site. They are not meant to conform to the Landscape Character Zones identified in Landscape and Visual Impact - Chapter 10, Volume 2 - nor do not arise from any characterization of the historic landscape.

Full information about all of these sites can be found below in the gazetteer (section 11.9.4).

11.4.1 Rupert's Bay and Valley

Rupert's Valley is the location in which cultural heritage remains (i.e. built features and buried archaeology) are most prevalent within the ADA. The main interests comprise, in chronological order: Rupert's Lines (17th century and later military structures); Liberated Africans' Depot and cemeteries; Boer War desalination plant; Eastern Telegraph Company depot.

11.4.1.1 Rupert's Bay

Rupert's Bay has been the focus of maritime activity for several centuries, probably second only to Jamestown in its importance as a landing place. No wreck sites are recorded within the bay, but the potential for maritime archaeology has to be considered.

The only information on this subject comes from a marine survey of the bay that was undertaken in 2006, applying a combination of bathymetry, side-scan sonar and sub-bottom profiling (Tritan Surveys 2006). This survey identified various ropes or chains scattered on the seafloor within the bay, as well as showing scouring features and anchor drag marks that have left linear scars along the seafloor (see Figure 14.1, Volume 3).

The same survey also identified a clump of low-relief, moderate reflectivity features, which could either be archaeological or a natural component of the sea-floor. In either case, these features occur in water depth greater than or equal to 15m, and thus well outside the area which the proposed wharf will impact upon.

11.4.1.2 Rupert's Lines (CH72)

Recommended status: SAM

Defences were first established here from a very early date in the period of English occupation, in c.1678 as shown on Sellers' map. There are historical records in 1702 on resolutions to build a new fort here which was 'almost finished' in 1708. Flooding and heavy rainfall led to this structure having to be rebuilt after 1787 and the curtain wall that exists in the modern day principally relates to this renovation. However, the core of the structure may well include elements of the very earliest phases of the defences (Figure 11.4 in Volume 3 of this ES).

The fortifications originally spanned the entire mouth of the bay, a length of c. 250m. They remained intact through into the 20th century, as shown on the map of Rupert's Valley (c. 1900; see Figure 11.9 in Volume 3 of this ES) and by the undated photograph reproduced by Teale (1974, Vol. II, 196). These depict a continuous curtain wall, turning through three angles, pierced by embrasures for cannon and a central portcullised entrance, and with a central projecting v-shaped bastion. Since that date the middle portion of the curtain has been destroyed by erosion (a process now halted by the emplacement of rock armour), whilst the rear side of the wall has also deteriorated (in particular the wall-walk behind the parapet). The masonry has been heavily restored in many places, whilst lean-to structures now stand against the seaward side of the wall. Despite all of these issues, the Lines remain one of the best preserved of the coastal defences on the island: relatively complete, and in contrast to Bank's Battery, they are not at risk from further erosion.

Military buildings once stood behind the curtain but have long since been destroyed above ground. These were doubtless similar to those that still survive at Bank's Lines – barracks, magazines, store buildings and other ancillary structures. The full plan of these is not known, but a magazine is marked on a map surveyed in 1920.

The 2007 archaeological evaluation found the old cobbled surface belonging to the 17th to 19th century levels at 0.5m below the existing ground surface (see section 11.9.1.1; Figure 11.16 in Volume 3 of this ES). This surface was probably exposed until relatively recent times, as a concrete salt pan from c. 1960 cuts into it. There is, therefore, a good possibility that traces of the former barracks, magazines and other buildings belonging to the Lines still survive, albeit only at foundation level.

Leading northeast from Rupert's Lines is the historic path from Rupert's Valley to Banks Battery (CH45). The route survives intact, but the fabric of the original path has been greatly eroded. Other tracks lead southwards from Rupert's Bay around the coastal cliffs to Jamestown (CH44).

11.4.1.3 Liberated Africans' Depot (CH42)

Recommended status: non-statutory A

This depot – effectively a holding station and hospital for slaves rescued by the West African Squadron – was established in 1840 and remained in operation until 1874. It occupied ground behind Rupert's Lines and its layout is best illustrated by Melliss' map of 1861 (Figure 11.7 in Volume 3 of this ES). It comprised a variety of structures: rectangular

barrack-type buildings (probably in the area now occupied by the disused fish processing plant); behind these, a narrow building labelled as a hospital; a second hospital (possibly beneath the fuel storage tanks); and various unlabeled buildings. Although less comprehensive than Meliss' map, a War Office drawing of 1885 provides plans, sections and elevations of the main buildings in meticulous detail (National Archives, WO 78/2344; Figure 11.5 in Volume 3 of this ES). Today the only surviving element of the depot is the long narrow building ('No. 1' on the 1885 plan) that was later to be adapted for use as a cable house by the Eastern Telegraph Company (CH66).

11.4.1.4 Boer War Desalination Plant (CH65)

Recommended status: SAM

This seawater desalination plant was constructed to supply water for the Boer POWs held in the camp on Deadwood Plain. The plant was completed and its furnace tested, as shown by a contemporary photograph: however, according to the St Helena Guardian (24th August 1901) it was only ever trialled and was never put into operation.

Only the chimney stack now survives, standing within the fuel storage compound (Figure 11.9 in Volume 3 of this ES). The chimney, c. 10m high, is built from local brownish-yellow brick with some decoration achieved by the use of reddish (more oxidized) brick in the highest registers. The stack as a whole is intact but in poor condition, with serious cracks in the brickwork evident on one side in particular. Metal straps have recently been placed around the chimney, but these are unlikely to keep it standing in the long term. Indeed, the removal of the uppermost courses has only been forestalled by the possibility of more comprehensive work on the chimney as part of the mitigation programme for the airport. It is not known whether any internal elements also survive.

Despite its poor condition and utilitarian function, the chimney is of considerable significance in terms of St Helena's built heritage. It is one of only a very small number of brick-built structures on the island – virtually all other buildings being of stone – and moreover it is a physical reminder of an important episode in St Helena's recent history.

11.4.1.5 Eastern Telegraph Company Depot

Recommended status: non-statutory B/C

The depot at the landing point for the submarine telegraph cable was established on land behind Rupert's Lines in 1899, on land formally used for the Liberated Africans' Station. Its layout is shown on a map of the bay c.1902, and included a cistern and store for the cable, a coal store and a narrow gauge railway for the landing of supplies (Figure 11.9 in Volume 3 of this ES). The only building still standing is a structure that first belonged to the slave station ('No. 1'; CH66). The duplexed telegraph cables ran through a tunnel in the centre of Rupert's Lines (the part now eroded) to the cable house, and ultimately on to The Briars. The cable core (CH70) can still be seen above ground on the seaward side of Rupert's Lines, and was encountered at a depth of 0.91m beneath the modern ground surface during the archaeological evaluation behind the Lines in 2007 (Figure 11.16 in Volume 3 of this ES).

11.4.2.6 Rupert's Valley Freed Slave Cemeteries (CH39, CH40, CH41)

Recommended status: SAM

These burial grounds contain the remains of slaves freed by the West African Squadron and held in the Rupert's Bay depot between 1840 and 1874. Documentary evidence indicates that over 15,000 slaves were landed at Rupert's during the period 1840-1850 alone (Gill & Teale 1999, 289). The period from the mid-1850s is less well documented and so it is difficult to accurately comment on the numbers landed during these latter years. However, the West African Squadron remained extremely active up until 1865, and indeed operated more ships than it had previously. A figure of 30,000 slaves landed over the depot's entire lifetime would seem a reasonable estimate.

Calculations of the mortality rate for the Middle Passage show ship-board deaths of slaves to have varied between 10% and 45% (e.g. Miller 1981; Tattersfield 1998). The death rate of those landed in Rupert's Valley is not recorded, but it is clear from contemporary descriptions that when a slave ship was brought in dozens of burials were required immediately and many more would follow in subsequent weeks. When Bishop Gray visited the depot there were 600 slaves present, 300 of whom were in hospital, and there had been 21 burials that week (Cannan 1992, 52). Taking our notional number of 30,000 landed slaves and adopting a mortality rate of 10%, it is possible to infer that around 3000 burials might be present in the valley, interred in a combination of individual- and mass graves.

The 'cemeteries' are not orderly burial grounds. Rather, they should be considered as zones in which large numbers of bodies were interred in unplanned fashion. Their location is only partially understood, although two are shown on Melliss' plan of 1861 and another on an 1872 version of Palmer's map (Figure11.7 in Volume 3 of this ES). During this project, burials were encountered at three locations by the ground investigation test pits, whilst the 2007 archaeological evaluation attempted to test the map evidence and to define the limits of the cemeteries (presence and absence) more precisely (Figure 11.15 in Volume 3 of this ES). The findings of the evaluation are summarized below, and will be published separately in due course.

These ground investigations, along with records of stray discoveries of graves during earlier construction work, indicate that Melliss' 1861 map is reasonably accurate. However, great caution is needed in this interpretation, because it is clear that the graveyards were unplanned, the prime need being to get large number of corpses below ground as quickly as possible. The graveyards' locations seem to have been quickly forgotten: even by 1872 Palmer's map failed to depict the cemeteries shown by Melliss in 1861. Importantly too, Melliss' map, whilst detailed, was drawn 21 years after the Liberated Africans' depot was opened and over a decade before the last burials took place.

Rupert's Valley was not formally developed until 1857 under the auspices of Governor Hay, and indeed Melliss' 1861 map was drawn up to portray the proposed layout and land allotments for much of this newly-planned settlement (so-called 'Haytown'; Gill & Teale 1999, 293). Prior to this date the valley was largely empty, and in the 1840s and 50s there seem to be no constraints that would have prevented burials taking place throughout the entire lower valley. It is unclear why, therefore, are they only recorded in these three discrete zones. The only discernable considerations would have been the need to create cemeteries where the burials would not be washed out by flooding, and where the ground

was least rocky. It is an open question, therefore, whether supposedly 'empty' areas are genuinely devoid of burials, and it is possible that burials in fact exist in most locations between the depot at the coast and the modern quarantine station.

Figures 11.6 and 11.8 in Volume 3 of this ES show the available data for the cemeteries' location: their content can be summarised as follows:

- Cemetery 1 (CH39): Marked on Melliss' map of 1861, inland from Rupert's Bay on the southwestern side of the road. The same map labels an area to the south of the original cemetery as 'addition to graveyard since 1851'. The whole comprises an extensive graveyard on the lower valley slopes on either side of the white bungalow (the last property on the right side of the road as one heads out of the valley). The 2007 evaluation (a single small trench) found two complete skeletons at 0.9m depth, with much other disarticulated bone at 0.5m. Whilst digging the trench for the fuel pipeline on the very edge of the road, workmen have also disturbed other burials
- Cemetery 2 (CH40): Marked on Melliss' 1861 map, between the prison (CH75) and the well house (CH76). This is an important point, as the 1872 version of Palmer shows a cemetery above the old well house. Melliss' map labels it as 'Old African Graveyard', indicating that it had become disused by this date. Geotechnical test pits have encountered burials from this cemetery at two locations, at depths between 0.5m and 1.2m: within the fuel farm (TP/R5) and on the ground further to the SE (TP/B1). Other burials were disturbed by workmen during the construction of the power station.
- Cemetery 3 (CH41): Marked on an 1872 version of Palmer's map. This is not an accurate survey, but the cemetery is shown up-valley from the old well house, and so it must be in a different position to the graveyard around the prison marked by Melliss. The poor surveying of the Palmer map, coupled with the fact that the well house has been destroyed, makes precise positioning of this third graveyard uncertain. It most probably lay some 250m southeast of the Mid-Valley BFI, and it may be that the burial encountered by geotechnical test pit TP/B3 was part of this cemetery.
- Negative evidence: three trenches dug during the archaeological evaluation between the new church and the fuel farm, each down to a depth of 1m, encountered no burials. A little bone was present, but this seems to have been washed downstream from the cemetery above the fuel farm. Other bone was found by workmen building the new church but not, it is believed, actual burials.

These graveyards belong to a key era in Britain's late colonial history, reflecting the period during which the empire moved from slave trading to active deterrence. The Rupert's Valley cemeteries preserve physical evidence of this episode, which has the potential to compliment (and to test the accuracy of) the abundant historical records on the subject. Moreover, the archaeological resource of the cemeteries holds a great deal of information that written records often omit, for example the age, sex and origin of the freed slaves: they also inform about issues such as diet, illness and disease (see section 11.9.2).

The international historical importance of these graveyards cannot be over-stated. Between 1519 and 1867 in excess of 11 million Africans were captured and shipped to the Americas, but the Rupert's Valley cemeteries may preserve the only large burial group of slaves who did not survive the Atlantic crossing. They are of national (i.e. St Helenian) value, and international importance in the UK, the West African homelands, and in the destination countries for the late slave trade (e.g. the West Indies, USA, Cuba and Brazil). They are believed to be extremely rare and their research potential is vast: despite the extensive historical records, no physical assemblage of first-generation slaves is known to have been studied. The only comparable surviving cemetery of which the author is aware is a small and short-lived graveyard on Ascension Island, whilst others presumably existed in Sierra Leone and at other locations where Vice Admiralty or Mixed Commission courts were held. Whether any of these cemeteries now survive is not known: the political situation in Sierra Leone makes the country inaccessible, and likely to remain so for many years to come.

11.4.1.7 Prison (CH75) and Well house (CH76)

Recommended status: non-statutory C and D

The prison is a roofless masonry building, built in 1853-4, which now survives in poor condition between the two tank compounds of the Mid-Valley Bulk Fuel Installation (Figure 11.10 in Volume 3 of this ES).

There has been some confusion over the identity of this building, which is a matter of no small importance because it is key to understanding the location of the slave cemeteries in the upper part of Rupert's Valley. Two structures existed near this location in the mid-19th century, one the prison and the other a well house, of which only one now survives. On the modern OS 1:10,000 map the building now within the Mid-Valley BFI is erroneously labelled as 'Well House (ruin)', and is similarly named on earlier maps such as the 1920 Admiralty survey. However, the evidence is conclusive for this structure being the prison. The well house, which is shown on original editions of Palmer's map (1850-2) and by Melliss' survey of 1861 (though disused by this latter date), lay approximately 250m to the southeast (Figure 11.7 in Volume 3 of this ES). It has since been destroyed and its precise position can only be surmised.

11.4.1.8 Bunkers Hill Battery (CH08)

Recommended status: non-statutory B

This poorly preserved battery stands high up on the hillside, at the northern point of Bunkers Hill on the edge of the ADA. Its date is not known, but the name (with associations to the American War of Independence) suggests that it was established during the late 18th century.

11.4.1.9 Jamestown Church Gravestones (CH74)

Recommended status: non-statutory B

Lying in a pile near to the modern church are a group of gravestones that have been relocated from Jamestown. Approximately 25 gravestones are present, complete or in fragments (Figure 11.10 in Volume 3 of this ES). The earliest date seen was 1789, the latest the 1870s. The inscriptions provide a wealth of historical detail and are of significant value: one dated 1843, for example, is practically the life story of a Scots naval captain who was ultimately shipwrecked and who died en route to St Helena. These gravestones are found together with a large pile of rough-squared building stones, formerly the spire of Jamestown church, demolished in 1980.

11.4.1.10 Boer Road (CH03)

Recommended status: non-statutory D

This is the name given to an unmetalled track leading through upper Ruperts Valley, past the Quarantine Station and ultimately climbing up to Deadwood (Figure 11.10 in Volume 3 of this ES). The name is derived from historical connections with the Boer War prisoners of 1900-1902, but the road itself has no archaeological significance.

11.4.2 Haul Road from Upper Rupert's Valley to the Airport site

11.4.2.1 Boer War desalination pipe (CH04)

Recommended status: non-statutory B

The haul road coincides with the course of the Boer War-era water pipe on Rupert's Hill and Banks Ridge, an interesting, though now ephemeral feature. It should be considered as being integral to the desalination plant and Prisoner of War camp (CH65 and CH02).

The pipe no longer survives, but the route of the embankment or channel in which it was retained can be traced almost continuously from Rupert's Hill along Banks Ridge towards Deadwood for a distance of c.1.1km (Figure 11.11 in Volume 3 of this ES). The feature takes several forms: a low bank, often extremely indistinct, up to 1m wide and 0.2m high; a shallow channel c.0.6m wide, defined by two lines of stones that can rise to several courses when crossing gullies; as a slot cut into the duricrust, c.0.25m wide and 0.1m deep; in some locations the course is only indicated by many thousands of small fragments of the pipe itself. None of these indications of the pipe can be found for the first kilometre of its route, from the desalination plant to the western side of Rupert's Hill, nor for the final 750m from the eastern part of Banks Ridge to Deadwood Plain. Both of these sections are on steep, overgrown terrain which may serve to mask any traces of the structure: equally, however, it may never have been completed over these sections. The so-called 'Pipe Path' adopts the approximate course of the pipe itself, but does not precisely match its route.

On Rupert's Hill, 40m to the north of the pipe, is a rectilinear structure 13.8m long (N-S) x 11.6m wide (E-W) (CH71). Map evidence shows it to have been a 19th century animal shelter, and therefore it has no association with the later water pipe.

11.4.2.2 Napoleonic barracks / Boer War POW Camp (CH01 / CH02)

Recommended status: SAM

A Prisoner of War camp was occupied at Deadwood between 1900 and 1902. The site is now open plain with no indication on the ground surface that the camp was once present. Most prisoners were housed in tents, although contemporary photographs indicate that a few timber structures were also present (Figure 11.12 in Volume 3 of this ES). Archaeological remains of these structures are likely to be ephemeral, but the topsoil is probably rich in artefacts. The area is now covered by slight ridge and furrow earthworks running parallel to the slope (E-W), which indicate that the ground has been ploughed at some date: an 1872 version of Palmer's map marks ground here as arable.

The exact location of the camp for the additional garrison stationed on St Helena during Napoleon's exile is not known. However, it is likely to have occupied roughly the same ground as the Boer War camp.

11.4.2.3 Deadwood Plain as a sporting venue

No status recommended

Deadwood was once a focus of sporting activity on the island. There are records of race meetings (presumably foot races) held from the 1850s through into the 20th century, and a racetrack is marked here on an 1872 map. The only physical reminder of this period is a concrete cricket wicket set amidst a small patch of levelled ground (CH10).

11.4.2.4 Diplomatic Wireless Station (DWS)

Recommended status: B/C

From the 1960s until the late 1980s, a government transmission station was present in the centre of the island (as shown on the 1:10,000 OS map for the island of 1983). The main buildings were at Longwood, with transmission masts on Deadwood Plain (20 in number) and Prosperous Bay Plain (total number unknown). The complex now known as Bradleys Government Garage was originally the power plant for the station (CH34). The masts have since been dismantled, but the concrete bases still remain in situ (Deadwood – CH12-31; Prosperous Bay Plain – CH57-58) as does the transmission station (CH32; Figure 11.2 in Volume 3 of this ES).

11.4.3 Cooks Bridge and Bradleys

Recommended status: SAM (CH07); non-statutory B (CH06); non-statutory C (CH05 and CH09)

There is a concentration of features around Bradleys and Cook's Bridge that are of archaeological significance (Figure 11.12 in Volume 3 of this ES). Bradleys is clearly a site of some importance, although the reason for that significance is not explained by any of the historical sources read for this project. Certainly it represents an area where a large number of drystone walls and paths converge (not mapped during this project), as well as being the site of what appears to be a sizeable military defence. Some form of enclosure is shown on Palmer's map of 1850-52, but is not labelled.

The existing track (CH09) leading down onto the Plain from Bradleys Government Garage (and being adopted by the haul road) is of traditional drystone build, is in good condition in places, and includes a small bridge (CH05).

A group of important ruins exist a short distance to the east of the proposed haul road. One feature appears to be a battery set on the end of a small promontory that juts out eastwards into Fisher's Valley (CH07). Although the promontory is natural, it has been augmented on its northern side by a substantial masonry wall, infilled behind – the effect being the creation of an elongated level platform c.80m long and 9m wide. It is a well executed piece of work that remains in superb condition. The promontory has clear views for c. 700m eastward, and would have been an ideal position from which to control the strategically important route leading from the coast at Prosperous Bay. The site appears on Palmer's map of 1850-2, but it is not listed in any inventory of batteries: as such its precise purpose and date remain uncertain.

A separate group of walls, set immediately to the east within Fisher's Valley, seems to relate to a large animal corral (CH06). Similar stockades are described by early travellers such as Peter Mundy in 1637, and whilst this particular feature is not dated, one wall is cut by a substantial erosion gully that could be several centuries old. The wall must pre-

date the gully, and the corral may therefore be one of the earliest structures built on the island. It stretches a point to suggest a 16th century (Portuguese) origin, although this is possible: more certainty about the history of Bradleys would be an aid to the interpretation and dating of this feature.

11.4.4 Prosperous Bay Plain

Sites are sparse within and around the land designated for the runway site, but a few are present – the ruins of small buildings, animal shelters and trackways. The margins of the Development Site contain more significant military remains, and it is these which are described below.

11.4.4.1 Prosperous Bay Signal Station (CH59 – CH62)

Recommended status: SAM

A signal station was probably first built here about 1770, referred to in records as 'Alarm House' (as distinct from the house in the Alarm Forest that now bears this name). Initially relying on alarm guns, during the Napoleonic period a more rapid telegraph system using flags was introduced, and continued until the electric telegraph rendered the semaphore system obsolete in 1866. The period of the alarm guns is reflected by the survival around the summit of a magazine (CH60) and a levelled gun platform (CH62). The present building (CH59) marks the return to use of the site in 1887, when it formed part of the newly-established military telephone network (Figure 11.14 in Volume 3 of this ES). It is now ruinous, but its original form is beautifully illustrated on a contemporary ‘as executed’ architect’s drawing. A well-defined and in places excellently preserved revetted track leads up from the plain to the signal station (CH61).

The whole of the summit on which the signal station stands should be considered as worthy of scheduling in a UK context, an area which would the gun platform, magazine and the path in its entirety.

11.4.4.2 Fishers Valley Tower and Path (CH35 and CH36)

Recommended status: SAM

This feature comprises the ruins of a rectilinear building (8.9m x 5.9m) and a levelled (possibly a gun) platform close to the cliffs on the southern edge of Fishers Valley (Figure 11.13 in Volume 3 of this ES). The date of this site is not known, the earliest map evidence for it being Palmer’s 1850-52 survey where it is labelled as an ‘Old Guard House’. The building is associated with a track some 140m long, leading down from Prosperous Bay Plain. This feature is extremely well-preserved and coherent: the drystone retaining wall on the western side is commonly 2m high, and is in particularly good condition for the uppermost (northern) 30m stretch. A lower retaining wall exists on the east side of the path, creating a level surface 2m wide. The path fades out after it emerges onto the level ground of the plain, but originally it linked up with the Prosperous Bay Signal Station.

The path and tower should be considered as part of a single archaeological feature: the path is the longest and best-preserved example of traditional track seen during the field

visit. It is a survival of the network of tracks that used to lace much of the island, a resource that has now been much reduced by human and natural erosion.

11.4.5 Sharks Valley, Dry Gut and Gill Point

Recommended status: non-statutory C and D
Minor sites survive in these locations, although they are infrequent: watch houses; shelters for both soldiers and animals; and revetted tracks linking the various military watchtowers (Figure 11.2 in Volume 3 of this ES). Sharks Valley exhibits the remnants of tracks on both sides of the stream, though the preservation is extremely poor and only in a few places do they survive in coherent form. It is clear, however, that there was a formal route down to the sea from a point relatively high up the valley – presumably originating from Levelwood. Various other fragments of drystone wall within the valley – highly ruinous – were perhaps shelters associated with military watch platforms (CH79; CH80). A ruinous stockfold (CH 86) stands above Sharks Valley on the hill intended for the airport's water supply break tank (Figure 11.2 in Volume 3 of this ES).

Dry Gut is devoid of features other than a ruined stockfold (CH33), but Gill Point preserves the fragments of former drystone structures, presumably relating to military watch points (CH37).

11.5 EXISTING BASELINE: STATUS AND EVALUATION

11.5.1 International Designations

No World Heritage Sites or sites included on the Tentative List of future nominations for World Heritage Sites issued by the Secretary of State for Culture, Media and Sport are located on St Helena. The closest World Heritage Site is Gough Island.

11.5.2 National Statutory Designations

11.5.2.1 Scheduled Ancient Monuments

The sites within the ADA that in a UK context would be considered as Scheduled Ancient Monuments are listed below in Table 11.3. Also included within this table are several sites that lie immediately outside the ADA boundary, or in locations which coincide with proposed structures such as Remote Obstacle Lights (ROLs).

Table 11.3: SAMs within the study area

ID	Name	Zone	Summary	Status / Value	Condition
CH02	Deadwood Boer POW Camp	2	Prisoner of war camp on Deadwood Plain occupied between 1900 and 1902. The site is now open plain **Partly within ADA**	SAM / A	Destroyed
CH07	Bradleys Structure 2	3	Natural promontory on the 300m contour adapted as a strategic site **Outside ADA**	SAM / A	Intact

ID	Name	Zone	Summary	Status / Value	Condition
CH35	Fishers Valley Path	4	Well preserved stone-built path leading from Prosperous Bay Plain to the battery or lookout station on the cliff edge 150m to the N **Within ADA**	SAM / A	Intact
CH36	Fishers Valley Martello Tower	4	Remains of a rectilinear building and gun platform close to the cliffs on the S edge of Fishers Valley **Within ADA**	SAM / A	Damaged
CH39	Liberated Africans' Cemetery 1	1	Burial ground for African slaves landed on St Helena between 1840 and 1865. In use in 1861, having been extended in 1851. This is the lowest of the known graveyards in the valley **Partly within ADA**	SAM / A	Intact
CH40	Liberated Africans' Cemetery 2	1	Burial ground for African slaves landed on St Helena between 1840 and 1865. Located around the Mid-Valley BFI **Partly within ADA**	SAM / A	Intact
CH41	Liberated Africans' Cemetery 3	1	Burial ground for African slaves landed on St Helena between 1840 and 1865. Located near the former well house, roughly between the Mid-Valley BFI and quarantine station **Within ADA**	SAM / A	Intact
CH59	Prosperous Bay Signal Station	4	Signal station on the summit above King and Queen Rocks, established 1770. Present building dates to 1887, abandoned in 1906 **Outside ADA, but location coincides with position of ROL**	SAM / A	Damaged
CH60	Prosperous Bay Signal Station Magazine	4	Small ruinous rectilinear structure on the slopes below the signal station. Probably a magazine **Outside ADA, but location coincides with position of ROL**	SAM / A	Damaged
CH61	Prosperous Bay Signal Station path	4	Well-defined path leading from Prosperous Bay Plain up to the Signal Station **Partly within ADA**	SAM / A	Damaged
CH62	Prosperous Bay Signal Station, gun platform or battery	4	Platform for alarm guns or battery, c.200m SW of the later signal station building **Outside ADA, but location coincides with position of ROL**	SAM / A	Not known
CH65	Rupert's Bay desalination plant	1	Seawater desalination plant constructed to supply water for the Boer POWs held in the camp on Deadwood Plain **Within ADA**	SAM / A	Damaged
CH72	Rupert's Lines	1	Lines at the mouth of Rupert's Valley, first occupied in the 17th century. The present walls date to the earlier 18th century (c. 1702-8), extensively renovated after 1787 **Within ADA**	SAM / A	Damaged
CH73	Rupert's Battery	1	Two ruined batteries on the ledge of Munden's Hill overlooking Rupert's Line fortifications, of 18th or 19th century foundation. **Outside ADA**	SAM / A	Damaged

11.5.2.2 Listed Buildings

There are no sites within the ADA that would be considered as Listed Buildings in a UK context. Table 11.4 lists two sites that are present on the margins of the ADA within lower Rupert's Valley. These are included because they are considered within the assessment of operational effects (section 11.6.3).

Table 11.4: Listed Buildings within the study area

ID	Name	Zone	Summary	Status / Value	Condition
CH38	Hay Town House	1	Domestic house in Lower Rupert's Valley, dated to 1861	LB II / B	Intact
CH66	Rupert's Bay Freed Slave Depot, 'Building No. 1'	1	19th century building, originally part of the Liberated Africans' Depot and later used as a cable house by the Eastern Telegraph Company. 'Building No. 1' on War Office plan of 1885	LB II / B	Intact

11.5.2.3 Conservation Areas

There are no conservation areas within the ADA or on its margins. However, the proposed haul road passes 500m to the north of the Longwood Conservation Area, which includes Napoleon's house and a number of other important structures (Figure 11.2 in Volume 3 of this ES). Given the international historical significance of this area, the potential indirect effects upon it are considered below (section 11.6.3).

11.5.3 Non-Statutory Designations

Table 11.5 lists the sites and monuments within the ADA that would be considered as non-statutory sites within a UK context. The table also includes a number of sites which lie outside, but on the margins of, the ADA.

Table 11.5: Non-statutory cultural heritage sites within the study area

ID	Name	Zone	Summary	Value	Condition
CH01	Barracks	2	Barracks site for troops stationed on Deadwood Plain during Napoleon's captivity on St Helena 1815-21. **Partly within ADA**	C	Destroyed
CH03	Boer Road	1 - 2	Track leading along upper Ruperts Valley, then climbing up to Deadwood. The name derives from historical connections with the Boer War prisoners of 1900-1902, but the road itself has no archaeological value. **Within ADA**	D	Intact
CH04	Boer War desalination pipe	2	Route of the iron pipe intended to carry water from the desalination plant at Rupert's Bay to the Boer War POW camp on Deadwood Plain. The pipe itself has been removed but traces of this structure still survive. **Within ADA**	B	Damaged / Near Destroyed
CH05	Bradleys Bridge	3	Well preserved, traditionally-built drystone bridge across a small gut. **Within ADA**	C	Intact

ID	Name	Zone	Summary	Value	Condition
CH06	Bradleys Structure 1	3	Extensive length of walling c.300m below Cook's Bridge, primarily on the S side of Bradleys Valley but with other fragments on the N side. Likely to be an animal (possibly a pig) corral. Date unknown but features of this type are noted from as early as the 16th century. **Outside ADA**	B/C	Damaged
CH08	Bunkers Hill Battery	1	Ruinous battery on the NW end of Bunkers Hill, probably late 18th century in origin. **Within ADA**	B	Near Destroyed
CH09	Cooks Bridge road	3	Historic road leading from the area around Bradleys Government Garage onto Prosperous Bay Plain, now adopted by the modern track. Includes the crossing at Cook's Bridge. **Within ADA**	C	Near Destroyed
CH12 to CH32	Deadwood Plain transmission mast bases 1 - 20	2	Concrete transmission mast bases, part of the former DWS station **Two elements (CH20 & CH21) within ADA**	C	Damaged
CH33	Dry Gut sheepfold	5	Drystone animal shelter. Highly ruinous. **Within ADA**	D	Near Destroyed
CH34	DWS Power Station	2	Former power plant for the DWS transmission station, now known as Bradleys Government Garage and used as housing. **Outside ADA**	C	Damaged
CH37	Gill Point minor sites	5	Drystone structures, presumed to be the remnants of military picket stations. **Within ADA**	C	Damaged / Near Destroyed
CH42	Liberated Africans' Depot	1	Depot for the housing and treatment of African slaves freed by the Royal Navy West African Squadron and landed on St Helena between 1840 and 1865. Finally closed in 1874. **Within ADA**	A	Near Destroyed
CH43	Path from Longwood Estate to Bradleys	3	Post Box Walk, partly adopting traditional trackway. **Outside ADA**	C	Intact
CH44	Path from Rupert's Bay to Jamestown	1	Historic stone-built track connecting Rupert's Bay to Jamestown. Highly ruinous. **Outside ADA**	C	Near Destroyed
CH45	Path to Banks Battery and Lines	1	Stone-built path along the cliff edge, linking Rupert's Valley with Banks Valley Bay and continuing to the defences at Banks Point and Repulse Point. **Partly within ADA**	C	Damaged
CH48	Prosperous Bay Plain Structure 1	4	Small coastal lookout platform, precariously situated on the cliff edge with extensive views along the coast particularly to the S. A small path leads down to it, branching from the larger track from the Prosperous Bay Signal Station. **Outside ADA**	C	Damaged
CH49 to CH56	Prosperous Bay Plain transmission masts 1 - 8	4	Concrete transmission mast bases, part of the former DWS station. **Partly within ADA**	C	Damaged

ID	Name	Zone	Summary	Value	Condition
CH63	Ruin to the E of Bradleys Government Garage	4	Highly ruinous rectilinear stone structure, probably an animal shelter. **Within ADA**	D	Near Destroyed
CH64	Rupert's Bay cable tanks	1	Store and cistern for submarine telegraph cables, immediately behind the central-south part of Rupert's Lines. Shown on 1902 map of Rupert's Bay. **Within ADA**	C	Destroyed
CH67	Rupert's Bay jetty	1	Jetty used for the landing of Eastern Telegraph Company's supplies. **Within ADA**	D	Intact
CH68	Rupert's Bay magazine	1	Magazine marked on the 1902 map of Rupert's Bay, shown as an irregular enclosure. Located behind the northern end of the defences, c. 40 behind the Lines. **Within ADA**	C	Destroyed
CH69	Rupert's Bay miniature railway	1	Narrow gauge railway associated with Eastern Telegraph Company, used for transporting goods from the jetty to the store buildings behind Rupert's Lines. **Within ADA**	B/C	Destroyed
CH70	Rupert's Bay telegraph cable	1	Submarine telegraph cable, installed by the Eastern Telegraph Company between 1899 and 1902. **Within ADA**	C	Damaged
CH71	Rupert's Hill Structure 1	2	Rectilinear structure, marked as a sheepfold on 1872 map. **Within ADA**	C	Damaged
CH74	Rupert's Valley gravestones	1	Gravestones relocated from Jamestown and now lying in a pile near to the modern church. Approximately 25 gravestones, complete or in fragments. Earliest date seen 1789, latest 1870s. Found together with a large pile of rough-squared building stones, formerly the spire of Jamestown church, demolished in 1980. **Within ADA**	B	Damaged
CH75	Rupert's Valley Prison	1	Prison built 1853-4. Now a roofless masonry structure surviving in poor condition between the two tank compounds of the Mid-Valley BFI. **Outside ADA**	C	Damaged / Near Destroyed
CH76	Rupert's Valley Well House	1	Well House shown on various 19th century maps including Palmer 1850-2 and 1872 version; Melliss 1861. Disused by 1861 and now destroyed. **Within ADA**	D	Destroyed
CH77	Sharks Valley 1	5	A small stretch of drystone wall on the N side of Sharks Valley, c. 5m above the existing track. Most probably a lookout point. Below (downstream) from this point, the remnant of a stone-built track can be traced for a few tens of metres. **Within ADA**	C	Near Destroyed
CH78	Sharks Valley 2	5	Stone-built track extending for c. 50m on the S side of the valley. **Within ADA**	C	Damaged

ID	Name	Zone	Summary	Value	Condition
CH79	Sharks Valley 3	5	Two fragments of drystone wall, highly ruinous. Perhaps shelters associated with watch platforms. **Within ADA**	C	Near Destroyed
CH80	Sharks Valley 4	5	Ruins of a small rectilinear (or square) building on the S side of the Sharks Valley. Perhaps a shelter for a military watch-point. **Within ADA**	C	Near Destroyed
CH81	Sharks Valley 5	5	Stretch of revetted track on the S side of the valley. Forms part of the track presently in use. **Within ADA**	C	Near Destroyed
CH82	Sharks Valley 6	5	Stretch of revetted track on N side of the valley, surviving in much-damaged form for a length of 15m. **Within ADA**	C	Near Destroyed
CH83	Sharks Valley 7	5	Very fragmentary patches of dry stone wall on the N side of the valley, of which little sense can be made. Some, though not all, could have been part of a track. **Within ADA**	C	Near Destroyed
CH84	Sharks Valley 8	5	Short stretch of drystone wall on the S side of the valley, probably part of a track. **Within ADA**	C	Near Destroyed
CH85	Sharks Valley tracks (general entry)	5	Fragmentary remains of drystone-built track or tracks that can be seen in places on both the N and S sides of Sharks Valley over a distance of c. 1.5km. **Within ADA**	C	Damaged / Near Destroyed
CH86	Structure on Creeper Hill (site of break-tank)	4	Highly ruinous drystone structure on the eastern side of the hill, partly utilising a natural outcrop. Probably an animal shelter. **Within ADA**	D	Near Destroyed
CH154	Woody Ridge flax mill	5	Ruined structure dating to the (possibly) 1950s, on the N side of the road leading from Sharks Valley **Outside ADA**	C	Damaged

11.5.4 Potential archaeological sites

The ADA has some potential to preserve buried archaeological sites that have not yet been discovered.

The greatest potential exists in Rupert's Valley, which has been the focus of activity since the 17th century and is known to preserve buried remains behind the Lines and within the cemeteries: there is also at least one 'lost' site, namely the well house (CH76). There is no historic map which shows the layout of the late 17th century fort at Rupert's Bay, or of the military buildings that belonged to later phases, whilst the full extent of the African graveyards may not be known. As such, there should be an expectation that buried archaeological remains may be encountered within both the upper and lower parts of the valley.

Deadwood Plain, with its association with the Napoleonic barracks and Boer POW camp, has the potential to preserve a large number of artefacts within the topsoil, and perhaps the traces of some ephemeral structures.

Elsewhere, particularly on Rupert's Hill, Banks Ridge and Prosperous Bay Plain, known sites are sparse and mostly comprise above-ground drystone structures. Such sites stand on the ground surface rather than cutting into it, the rocky environment not lending itself to the digging of foundations. The greatest potential is in the vicinity of the known military sites such as the Prosperous Bay Signal Station (CH59) and Fishers Valley Tower (CH36), though lesser features may also yield finds. Defensive sites were often augmented by ephemeral structures and wattle screens: archaeological features such as post holes or sill beam slots may still preserve traces of these, and revealing them would enable a fuller picture to be gained of how each complex looked and functioned. The ground surface may also retain military and domestic artefacts, which would be particularly useful for the dating of sites which do not feature in the historical record.

The area of earthworks for the airport itself is not considered to have potential for preserving undiscovered below-ground archaeology.

A strategy for addressing potential archaeological sites can be found within the discussion of mitigation below (section 11.7).

11.6 ASSESSMENT OF EFFECTS

The sections that follow consider the potential effects of the project on cultural heritage. The remit of this chapter is limited to the footprint of development, which effectively restricts discussion to cultural heritage features within the ADA, plus a small number of sites in its immediate vicinity. The wider long-term implications of the airport's presence on St Helena's heritage resource are not considered, though as noted in the conclusion to this chapter, it is an issue which will require both study and management.

In keeping with other chapters within this document, effects are considered under the broad sub-headings of 'temporary' and 'permanent and operational'. However, cultural heritage presents an unusual case, since temporary effects can rarely if ever occur. It is standard practice for impacts upon the cultural heritage resource to be assessed under three basic headings: direct physical (which occur during construction), and indirect physical and visual (which arise from long-term operation). This structure is adopted below.

The assessment of effects is based upon the reference designs developed by Atkins. The ADA is clearly delimited and development will not occur beyond its boundaries. However, the nature of some works within the ADA have yet to be precisely defined, and the fine detail – for example engineering methods or the depth of groundworks – can have major implications for the level of impact on cultural heritage remains. Where the outcome remains unclear the assessment reflects this situation, either by scoring the effect as 'unknown', or by giving a predicted range for the magnitude of change.

A summary of effects (ordered by site) containing the quantification of significance and magnitude of impact, can be found at the end of this section in Table 11.8. The residual effects, after mitigation, are listed in Table 11.9.

11.6.1 Construction effects (temporary)

Because of the nature of the cultural heritage resource, the effects of any development are nearly always of a permanent character. Construction groundworks are destructive, as indeed is archaeological excavation, whilst the indirect physical and visual changes brought about by the presence of the airport and its infrastructure are also permanent. There are no temporary effects on cultural heritage arising from the project.

11.6.2 Permanent effects (direct physical)

In generic terms, permanent construction effects on cultural heritage are as follows:

- Intrusive groundworks that extend down to the level of archaeological features and horizons
- Compression of fragile buried archaeological features. Human burials are the most pertinent example for this project; other feature types (e.g. stone building foundations) are more robust and consequently less vulnerable
- Damage to or destruction of standing heritage features (whether inhabited buildings or non-occupied structures). This may occur either because of deliberate demolition, or unintentional events

With regard to the last of these effects, all sites of national or regional importance will be protected throughout the construction works by fencing: this has been taken into account in the impact assessments that follow. Mitigation to reduce the significance of the potential effects is described in section 11.7.

11.6.2.1 Rupert's Bay

The construction of the permanent wharf will not impact upon any known archaeology on the sea bed. However, the construction of the temporary wharf on the southwestern arm of Rupert's Bay may impact upon a battery site (CH73) on the cliffs immediately above the shoreline (<10m from the limit of development), which has a recommended status of SAM. Protective fencing will be used where necessary to prevent any effect on this site.

11.6.2.2 Rupert's Lines / Liberated Africans' Depot

The principal area of potential impact is in Rupert's Valley, where the limited space available for the landing stage, lay down areas and haul road coincides with significant standing remains and buried archaeology. The upstanding remains of Rupert's Lines are clearly vulnerable, whilst the creation of the landing stage behind the curtain wall – which entails the removal of the existing BFI and presumably an element of ground clearance and levelling – brings potential risks to buried archaeology. As discussed above, map evidence shows that buildings belonging to the Lines and to the Liberated Africans' Depot once stood in this area (section 11.4.1.2), whilst the 2007 evaluation demonstrated that the old cobbled surface survives only 0.5m below the present ground surface. The magnitude of effect cannot be quantified at the present time, and is thus given as Unknown. However, mitigation will be put in place to address whatever impacts arise from this aspect of the project.

11.6.2.3 Boer War Desalination Chimney

This chimney stands in the area needed for the landing stage: even if attempts were made to leave it in situ (where it would be a permanent obstacle), it is unlikely to survive

the vibrations caused by construction traffic. The significance of impact is Severe adverse (derived from a major change to an A-value site).

11.6.2.4 Liberated Africans' Cemeteries and Upper Rupert's Valley

The haul road, up to the point past the Power Station where it climbs from the valley floor, also has the potential to cut into buried archaeology, namely the freed slave cemeteries. Once again, these remains lie at extremely shallow depth, and groundworks will only have to extend 0.5m down before disturbing graves. Even if no intrusive groundworks are undertaken, should the road pass over graves, the construction (and use of) the route will severely damage the burials through compression. The general alignment of the haul road is set out in the Reference Design, but the actuality of any impact on archaeology will depend on its precise footprint and design. The same issues apply to the road in the upper valley that will lead to the new BFI, and to any construction compounds or lay down areas that are established.

The significance of impact is extremely difficult to quantify, in large part because the position of the cemeteries is only partially understood. The graveyard closest to the bay (CH39) has largely been removed from the ADA, though from necessity the haul road may require a small amount of land-take along its southwestern edge. The upper valley cemeteries (CH40 and CH41) lie close to, or within, the area of impact of the haul road and BFI access: there may be greater effects here, depending on the distribution of burials. No attempt is made to quantify the magnitude of effect at this stage, since it effectively remains Unknown. However, mitigation will be put in place to address whatever impacts arise from this aspect of the project.

Other possible impacts within Rupert's Valley relate to rock clearance operations on the valley slopes, and to general traffic movement and construction activities. Fencing or other protective measures will ensure that no site or monument is affected by these operations.

11.6.2.5 Haul Road from Rupert's Hill to Prosperous Bay Plain

Away from Rupert's Valley there are far fewer constraints relating to buried archaeology, and potential impacts are mainly restricted to standing features. On Rupert's Hill and Banks Ridge the haul road will coincide at several points with the remnants of the Boer War desalination pipeline. This impact is Minor-Moderate adverse (derived from a minor change to a B-value site).

Where the haul road runs parallel to the Boer War POW camp on Deadwood Plain, the ADA allows for land-take outside the existing road-line. This ground may be rich in surface artefacts of the Boer period, and possibly also of the Napoleonic era if it was indeed the site of the 1815-21 camp. The significance of impact will depend on the extent (and actuality) of any land-take: however, it is unlikely to be greater than Minor adverse (a negligible change to an A-value site). One or two of the DWS mast bases on the fenceline may also be lost (CH30 and CH31); taking them to be part of a larger group of features (20 in total), the significance of impact is Minor adverse (derived from a minor change to a C-value group of sites)

The haul road will also necessitate the replacement of the traditional drystone track around Cook's Bridge with a more modern roadway, which survives in patches over several hundred metres. The significance of impact is Moderate adverse (derived from a severe change to a C-value site).

In the same area, accidental deviation from the ADA could potentially bring about damage to two monuments around Bradleys: animal corral CH06 and battery CH07. Protective fencing will be used where necessary to prevent any effect on these monuments.

11.6.2.6 Airport site

Known sites are sparse on Prosperous Bay Plain, and so despite the extensive earthworks for the airport there are few physical impacts. The main concern is with two sites on the fringes of the ADA.

The Martello tower above Fisher's Valley (CH36) lies extremely close to the airport earthworks boundary, and whilst it will not be directly damaged by bulldozing (and possible blasting), the vibrations from these activities are quite capable of destroying this fragile drystone ruin. The path leading down to the tower from the plain (CH35) will certainly be partially destroyed, as some of it lies within the earthworks boundary The significance of impact here is Severe adverse (derived from a major change to an A-value pair of sites).

A Remote Obstacle Light is to be placed on the hill summit presently occupied by the Prosperous Bay Signal Station (CH59-CH 62) (see section 11.6.3.2). The site group is worthy of SAM status. The position presently indicated for the ROL avoids all of the historic features, although variation of the design is quite possible here and there is provision for temporary work areas. The path leading from the plain to the signal station may also be altered or destroyed during the emplacement of the ROL. Depending on the final position of the ROL and any impact on the path to enable its construction, the range of significance of impact is predicted between Neutral to Severe adverse (derived from a negligible to major change to an A-value group of sites).

Another impact (of far less concern) relates to the removal of mast bases of the DWS on Prosperous Bay Plain to make way for a contractor's compound to the south of Fishers Valley: this is only a possibility, as a different location may be chosen. If the compound does necessitate removal then the significance of impact will be Moderate adverse (derived from a major change to a C-value group of sites). This scoring perhaps overstates the case, since other examples of this monument type exist on Deadwood Plain and the loss of all of these features on the plain is a worst case scenario.

11.6.2.7 Water supply

The infrastructure for water supply in Sharks Valley will introduce impacts upon the rather fragmentary archaeological remains in this location. Design details are lacking, but it seems probable that elements of the historic track and picket stations will be damaged or erased by the abstraction works, pipeline and improved access track. The present design data are not adequate for the magnitude of change to be determined. However, the range of significance of impact will be Minor to Moderate adverse (derived from a minor to major change to C-value sites). The stockfold on the hill summit to be occupied by the break

tank (CH86) is to be avoided by the development and there will be no impact upon this feature.

A large corridor is also reserved within the ADA at the lower (seaward) end of Dry Gut for a temporary seawater pipeline, should this be required during construction. The actual working width will be kept to a minimum, but there exists the possibility that the pipeline will impact upon the minor archaeological features that exist close to the coast and at Gill Point (CH37). The range of significance of impact is expected to be between Minor- and Moderate adverse (derived from a minor to major change to C-value sites).

11.6.2.8 Direct physical effects: summary

Table 11.6 summarises the direct physical effects of the project upon the known cultural heritage resource, both above and below ground.

Table 11.6: Permanent effects (direct physical) on cultural heritage

Scheme Element Activity	**Affected sites (Name, ID, Status, Value)**	**Potential Impact**
Temporary wharf	Rupert's Battery, CH73 SAM, A	Damage or destruction of feature during wharf construction
Landing Area behind new wharf Groundworks associated with construction of wharf and landing area Removal of existing BFI General activities, particularly vehicle movement	Rupert's Lines , CH72 SAM, A	Accidental damage to the fabric of the Lines Damage to buried archaeological remains of associated military structures
	Liberated Africans Depot, CH42 SAM, A	Damage to buried archaeological structural remains
	Boer War desalination chimney, CH65 SAM, A	Intentional demolition of structure to make way for landing area compound; or, Accidental damage/destruction if left in situ
	Path from Rupert's Bay to Banks Battery and Lines Non statutory, B/C	Frustration of access to historic route around the coast
Rupert's Valley: new buildings, storage compounds and lay down areas Intrusive groundworks, e.g. levelling works Construction of buildings on slab foundation, or laying down of heavy materials	Rupert's Valley Cemeteries, CH39-41 SAM, A	Disturbance of burials during groundworks Destruction of fragile archaeology through compression
Rupert's Valley: operations within ADA on upper hillslopes (e.g. rock clearance operations)	Bunkers Hill Battery, CH08 Non statutory, B	Accidental damage or destruction

Scheme Element Activity	**Affected sites (Name, ID, Status, Value)**	**Potential Impact**
Haul Road (including access route to new BFI)	Rupert's Valley Cemeteries, CH39-CH41 SAM, A	Disturbance of burials during groundworks Destruction of fragile archaeology through compression
	Rupert's Valley Gravestones, CH74 Non statutory, B/C	Accidental damage or destruction
	Boer War Desalination Pipe, CH04 Non statutory, B	Removal of some stretches of pipe route, where crossed by haul road Accidental damage to other parts of the monument: movement of vehicles etc Disruption of what has formerly been a continuous linear feature: the haul road will cut across it in several locations
	Boer War POW Camp, CH01 SAM, and Napoleonic Barracks, CH02 Non-statutory B	Land-take from W edge
	DWS mast bases, CH30, CH31 Non-statutory, C	Removal from fence boundary on haul road edge
	Ruins around Bradleys: Enclosure CH06, Non-statutory, B Battery CH 07, SAM, A	Accidental damage to the monuments: movement of vehicles etc
	Track from Bradleys Government Garage to Prosperous Bay Plain, CH09 Non-statutory, C	Track to be destroyed
Remote Obstacle Lights ROL structure Temporary work area for ROL Access route used to move materials for ROL construction	Prosperous Bay Plain Signal Station and related elements, CH59-CH62 SAM, A	Potential damage to the main structure and outlying features (magazine, gun platform, path)
Runway construction	Fishers Valley Tower & Path, CH35-36 SAM, A	Severe damage to path, possibly also to tower, during earth moving operations
	Dry Gut stockfold, CH33 Non-statutory, D	To be destroyed during earth moving operations
Water supply Water abstraction works (180m AOD) and pipeline in Sharks Valley Upgraded track to enable access	Features in Sharks Valley, CH77-85 Non-statutory, C and D	Damage or destruction to fragmentary remains of drystone paths, watch platforms and shelters (abstraction pipeline and upgraded track)
	Stockfold on Creeper Hill Non-statutory D	Destruction or damage arising from construction of break tank

Scheme Element Activity	**Affected sites (Name, ID, Status, Value)**	**Potential Impact**
for machinery into Sharks Valley Break-tank above Sharks Valley Seawater abstraction pipe in Dry Gut down to Gill Point	Dry Gut Valley and Gill Point minor sites, CH37 Non-statutory C	Damage or destruction to fragmentary remains of drystone paths, watch platforms and shelters. Arises from seawater abstraction pipeline
Contractors compound	DWS Transmission masts, CH49-CH56 Non-statutory C	To be destroyed if compound located in this area of Prosperous Bay Plain

11.6.3 Operational effects (indirect physical and visual)

The airport's long term operation has the potential to impact upon cultural heritage features within the ADA, and to some degree on sites outside its boundaries. Operational impacts can take two principal forms – indirect physical and indirect visual. Published non-statutory guidance (presently applicable only in Wales) usefully characterises these impact types as part of the ASIDOHL methodology (Assessment of the Significance of Impact of Development On Historic Landscapes; Cadw 2007).

Indirect physical effects are characterised as:

- An increased risk of exposure, erosion, disturbance, decay, dereliction or any other detrimental physical change to elements, consequent to development
- related to the above, the likelihood of increased management needs to maintain elements as, for example, through altered habitats, water levels, increased erosion, new access provision, etc., consequent to development
- The severance, fragmentation, dislocation or alteration of the functional connections between related elements, for example, a field system becomes 'severed' from its parent farmstead by an intervening development
- The frustration or cessation of historic land use practices, for example, it becomes more difficult or impossible to manage an area in a traditional manner as a result of development
- The frustration of access leading to decreased opportunities for education, understanding or enjoying the amenity of elements, consequent to development

Indirect visual (non-physical) effects are categorised as:

- Visual impact on elements from which a development can be seen (considered up to its maximum height). Impacts can be on 'views to' or 'views from' given elements, and should be assessed with particular reference to key historic viewpoints and essential settings. In some cases, key historic viewpoints may no longer be identifiable, but it may be possible to make reasonable assumptions on the basis of archaeological or historical information. Key viewpoints should also include those that have subsequently become acknowledged as such, for example, as depicted in artists' drawings and paintings, or as features on popular routes or trails
- Impact on the visual connections between related elements, by occlusion, obstruction, etc. For example, what might have been an essential line of sight between historically linked defensive sites becomes blocked or impaired by an intervening development
- Conversely, the creation of inappropriate visual connection between elements not intended to be inter-visible originally, by the removal of intervening structures, barriers, shelters, screening or ground
- Visual impact of the development itself considering: (i) its form – the scale, number, density, massing, distribution, etc. of its constituent features; (ii) its appearance – the size, shape, colour, fabric, etc. of its constituent features, in relation to the existing historic character of the area

UK legislation and guidance makes clear the importance of 'historic setting'. The environment of a Scheduled Ancient Monument is rendered material by government guidance (PPG16 paras 8 & 27). The setting of a Listed Building is a material consideration by dint of statute Sections 16 and 66 (1) of the Planning (Listed Buildings

and Conservation Areas) Act 1990. PPG 16 also indicates that the historic setting of important non-statutory sites may also merit consideration.

However, despite this perceived importance, there is no accepted methodology for the assessment of visual effects on cultural heritage features, nor for 'setting' criteria. For the purpose of this study, setting is considered under four basic rubrics:

- Intrinsic visual interest – the visual qualities of the archaeological features themselves as seen from other points
- Topographic setting – the visual relationship of the archaeological features to the surrounding topography and to such major elements as hills, river valleys etc.
- Landuse setting – the visual relationship of the archaeological features to the landuse and particularly those elements of the current landuse which had remained unchanged or were similar to those which existed at the time the features were occupied/in use
- Group setting – the visual relationship of the features to other visible archaeological remains in the vicinity, in terms of both contemporary and diachronic ('palimpsest') groupings or patterning

(These rubrics are taken from Colcutt (1999), who makes a detailed discussion of the setting of cultural heritage features in a planning context).

Mitigation to reduce the significance of the potential effects is described in section 11.7.

11.6.3.1 Indirect physical impacts

The creation of the landing stage in Rupert's Bay has the potential to obstruct or entirely sever the historic route that leads northwards around the cliffs to Banks Valley. As discussed elsewhere in this document (Roads, Traffic and Footpaths, Chapter 12, Volume 2) this path also has important amenity value. If severed, the significance of impact will be Moderate adverse (derived from a major change to a C-value site).

As outlined above under construction impacts, the haul road on Rupert's Hill and Banks Ridge cuts across the line of the Boer War desalination pipeline. In addition to the actual physical loss, the presence of the haul road will have the effect of severing what is presently a coherent linear feature in three or more places: this affects a visitor's ability to interpret the feature. The road will also afford easier access to this area, and visitors could easily erode much of this ephemeral feature. The significance of impact is Moderate adverse (derived from a moderate change to a B-value site).

The establishment of the airport on Prosperous Bay Plain may impede access to both the Signal Station and the Martello tower above Fishers Valley (if indeed the latter survives construction). The implications of this severance relate to the ability to maintain or restore these sites, and to the possibility of their being visited by either St Helenians or visitors to the island. There is an intrinsic link between public accessibility and maintenance, since a lack of public interest often results in a monument's neglect. Whilst it is certainly true that neither site – the Martello tower particularly – is visited by more than a few people annually, the signal station would certainly retain amenity value and could be made an attraction for more adventurous tourists.

The Post Box Walk to the Prosperous Bay Signal Station has been re-routed around the northern limit of the airport boundary. Whilst access will remain possible, the new cliff-edge route is difficult, precipitous and will surely discourage many visitors from attempting

it. The significance of impact is therefore Major adverse (derived from a moderate change to an A-value site).

The airport earthworks are certain to render the Martello Tower site virtually inaccessible – effectively condemning it to long-term decline. The significance of impact on this monument is therefore Severe adverse (derived from a major change to an A-value site).

11.6.3.2 Indirect visual impacts ('setting')

As is evident from criteria listed above (section 11.6.3), not all upstanding heritage features have a 'historic setting', and so it follows that not all are vulnerable to visual change within their environs. Some features can continue to be appreciated and interpreted within landscapes that are radically different to the original setting.

One of the key concerns is the setting of Rupert's Lines. Although much damaged and set amidst an industrial complex, enough of its setting is retained for this monument to be understood for its original function – i.e. as a valley-mouth fortification. The visitor can still readily interpret the Line's importance as the closest man-made structure to the sea, blocking access to the valley behind.

The development of the landing area behind the Lines is unlikely to introduce significant change, as it essentially replaces the existing set of industrial structures with another. Indeed, depending on the design, it may represent a minor improvement.

The main impact arises from the new wharf, which will impact upon views of the front of the monument, for example from the Shears, or from elevated positions such as Munden's Hill (see Figure 11.6 in Volume 3 of this ES). The present jetty projecting from the gap in the Lines is a comparatively transparent structure, but the new wharf is on an altogether greater scale. It will bisect the bay, represents major landscape change, and compromises the historic setting of the Lines to a very great extent. The significance of this visual effect is predicted as Severe adverse (derived from a major change to an A-value site). This situation brings the importance of other comparable sites on the island to the fore, particularly Lines such as those in Banks- and Lemon Valley which retain original masonry (in contrast to Sandy Bay) and whose historic setting remains pristine.

Within Rupert's Valley itself, the Listed structures of Hay Town House and 'Building No. 1' will not have meaningful setting alteration: they already exist next to a road and in an environment where industrial structures are present. A variety of other monuments that overlook Rupert's Valley – principally the military sites on Munden's Point and Sampson's and Saddle Battery – will also have views of the scheme, but their setting is also unaffected. The key views for Munden's batteries are out to sea (as evidenced by the military range plan of 1901-24; National Archives, WO78/5401), whilst those of Sampson's and Saddle are also not significantly altered.

Within the valley and across the ADA as a whole, the new-built or improved roads have the potential to detract from the traditional landscape, which in many senses can be considered as the 'historic environment'. However, mitigation for the appearance of these roads and other design elements is addressed in the chapter for Landscape and Visual Impact – Chapter 10, Volume 2, and so this aspect is not pursued further here.

The only other major issue of setting relates to the airport site. Earthworks for the runway will severely impact upon the Fishers Valley Martello tower and path, which has already been mentioned above under direct and indirect physical effects: additionally, its setting will be so radically altered from the present as to be unrecognisable, leading to a significance of impact of Severe adverse.

The Prosperous Bay Signal Station occupies a dominant position in the landscape, with broad views in every direction. The building of the airport on the resculptured plain below will undoubtedly introduce major change to these views. However, whilst this is a very significant alteration in purely landscape terms, the historic setting of the monument as regards 'views from' is not significantly compromised (though this comment is qualified in the paragraph below). It will retain its key sightlines, for example to other parts of the signal network at Gregory's, Flagstaff, Sugar Loaf, Halley's Mount and Long Range (see Denholm 1994, 6), whilst its own lookout zone, across Prosperous Bay, is also unaffected by the development.

Whilst this is the case, the decision to site a Remote Obstacle Light (ROL) at this location is a major concern. By its nature the ROL must be highly visible, and must occupy a prominent location. In addition to any physical effects arising from its construction (section 11.6.1), the presence of such a structure will greatly detract from the historic setting of the monument, in particular the 'views to' the site from close and middle distances. It might also impede some of the longer distance views from the monument noted in the preceding paragraph. The visual effect of the ROL is evaluated as being of Severe adverse significance.

Despite lying outside the ADA, the potential visual effect on the Longwood Conservation Area has also been included within the cultural heritage assessment because of its international significance. It was concluded, in conjunction with the broader Landscape and Visual Impact Assessment (see Chapter 10, Volume 2) that the key elements of the conservation area – Longwood House, Longwood Farmhouse, the lodges – do not have extensive views of the scheme. The haul road may be visible from certain locations, but Longwood House itself appears to be shielded from all elements of the scheme. As such, the conservation area is considered to be unaffected by the scheme in terms of its historic setting.

11.6.4 Effects summary

Table 11.8 lists the predicted effects of the development on individual cultural heritage sites. Only those sites are listed where an impact is predicted, or where data are presently insufficient to allow a judgement to be made. All omitted sites are considered unaffected by the development. The residual impacts after the enactment of the proposed mitigation are listed in Table 11.9.

Table 11.8: Magnitude and significance of effects, cultural heritage

Statutory sites

ID, Name, Status	Value	Magnitude of change	Significance of effect	Comments
CH02 Boer POW Camp SAM	A	Negligible	Minor adverse	Direct physical effect (construction) *If no land-take for the haul road, significance of effect is neutral*

ID, Name, Status	Value	Magnitude of change	Significance of effect	Comments
CH07 Bradleys Structure 2 SAM	A	None	None	Direct physical effect (construction) *Score relates to possible accidental damage*
CH35 Fishers Valley Path SAM	A	Major	Severe adverse	Direct physical effect (construction) *Path to be destroyed*
CH36 Fishers Valley Martello Tower SAM	A	Major	Severe adverse	Score applies to all effect types: direct physical (construction); indirect physical; visual (operation)
CH39 Liberated Africans' Cemetery 1 SAM	A	Unknown	Unknown	Direct physical effect (construction) *Majority of area excluded from ADA; some land-take possible from the NE edge for the haul road*
CH40 Liberated Africans' Cemetery 2 SAM	A	Unknown	Unknown	Direct physical effect (construction) *Haul road*
CH41 Liberated Africans' Cemetery 3 SAM	A	Unknown	Unknown	Direct physical effect (construction) *Access road to new BFI*
CH59-CH62 Prosperous Bay Signal Station and related features (path, magazine and gun platform) SAM	A	Unknown	Unknown	Direct physical effect (construction) *Position of ROL may be altered; temporary work area not defined; extent to which path will be affected by airport earthworks and during ROL construction unclear*
		Moderate	Major adverse	Indirect physical effect (operation)
		Major	Severe	Indirect visual effect (operation) *Alteration to historic setting resulting from emplacement of ROL*
CH65 Rupert's Bay desalination plant SAM	A	Major	Severe	Direct physical effect (construction) *Structure assumed to be demolished/destroyed*
CH72 Rupert's Lines SAM	A	Unknown	Unknown	Direct physical effect (construction) *Score relates to (i) possible accidental damage to upstanding monument, and (ii) potential effect from intrusive groundworks on buried archaeological features*
		Major	Severe	Indirect visual effect (operation) *Alteration to historic setting resulting from presence of new wharf*

Non-statutory sites

ID, Name	Value	Magnitude	Significance	Comments
CH01 Barracks	C	Negligible	Minor - Neutral	Direct physical effect (construction) *Possible land-take from western edge of site*
CH04 Boer War desalination pipe	B	Minor	Minor adverse	Direct physical effect (construction)
		Moderate	Moderate adverse	Indirect physical effect (operation)
CH05 Bradleys Bridge	C	Major	Moderate adverse	Direct physical effect (construction)
CH06 Bradleys Structure 1	B/C	None	None	Direct physical effect (construction) *Score relates to possible accidental damage*

ID, Name	Value	Magnitude	Significance	Comments
CH08 Bunkers Hill Battery	B	None	None	Direct physical effect (construction) *Potential damage during rock clearance operations*
CH09 Cooks Bridge road	C	Severe	Moderate adverse	Direct physical effect (construction)
C30 and CH32 Deadwood Plain transmission mast bases	C	Minor	Minor adverse	Direct physical effect (construction) *Possible removal of 2 out of the 20 mast bases on Deadwood Plain*
CH33 Dry Gut sheepfold	D	Major	Minor adverse	Direct physical effect (construction) *Feature to be destroyed by airport earthworks*
CH37 Gill Point minor sites	C	Minor - Major	Minor – Moderate adverse	Direct physical effect (construction) *Potential effect from seawater abstraction pipe*
CH42 Liberated Africans' Depot	A	Unknown	Unknown	Direct physical effect (construction) *Potential effect from intrusive groundworks on buried archaeological features*
CH45 Path to Banks Battery and Lines	C	Major	Moderate adverse	Indirect physical effect (operation)
CH49 to CH56 Prosperous Bay Plain transmission masts 1 - 8	C	Major	Moderate adverse	Direct physical effect (construction) *Possible removal if contractor's compound located in this area*
CH66 Liberated Africans Depot	B	Unknown	Unknown	Direct physical effect (construction) *Potential effect from intrusive groundworks on buried archaeological features*
CH67 Rupert's Bay jetty (The Shears)	D	Major	Minor adverse	Direct physical effect (construction) *Possible removal for temporary wharf*
CH68 Rupert's Bay magazine	C	Unknown	Unknown	Direct physical effect (construction) *Potential effect from intrusive groundworks on buried archaeological features*
CH70 Rupert's Bay telegraph cable	C	Unknown	Unknown	Direct physical effect (construction) *Potential effect from intrusive groundworks on buried archaeological features*
CH74 Rupert's Valley gravestones	B	None	None	Direct physical effect (construction) *Score relates to possible accidental damage*
CH76 Rupert's Valley Well House	D	Unknown	Unknown	Direct physical effect (construction) *Potential effect from intrusive groundworks on buried archaeological features*
CH77 to CH85 Sharks Valley 1-8	C	Minor - Major	Minor – Moderate adverse	Direct physical effect (construction) *Potential effect from water abstraction works and pipeline*
CH86 Stockfold	D	None	None	Direct physical effect (construction) *Site of water abstraction break-tank to avoid this location*

Table 11.7: Operational effects (indirect physical and visual) on cultural heritage

Scheme Element(s)	Affected sites (Name, ID, Status, Value)	Effect
New wharf, Rupert's Bay	Rupert's Lines , CH72 SAM, A	Indirect physical: none Indirect visual: alteration to historic setting
Landing area behind Rupert's Lines	Path from Rupert's Bay to Banks Battery and Lines Non statutory, B/C	Indirect physical: potential severance Indirect visual: none
Haul Road	Boer War Desalination Pipe, CH04 Non statutory, B	Indirect physical: severance, increased exposure Indirect visual: none
Airport earthworks	Fishers Valley Martello Tower & Path, CH35-36 SAM, A	Indirect physical: frustration of access; implications for maintenance Indirect visual: alteration to visual setting
Airport earthworks **Remote Obstacle Light**	Prosperous Bay Plain Signal Station and related elements, CH59-CH62 SAM, A	Indirect physical: frustration of access; implications for maintenance Indirect visual: alteration to visual setting

11.7 MITIGATION

11.7.1 Introduction

The following sections outline the mitigation required for cultural heritage. They deal in turn with the measures necessary to address the airport's temporary physical effects (during construction), and its permanent and long-term operational effects.

11.7.1.1 Data gaps and their implications

The preceding assessment of effect demonstrates that key details of the design have yet to be determined. The ADA encompasses a great deal more land than will ultimately be used for construction, and significantly more information is needed on a variety of aspects.

What follows is a statement of the principles that will apply to the cultural heritage mitigation. The precise remit for the archaeological work will be set out in a separate written scheme of investigation (WSI), which will be produced in response to the final design. This process is usual within the UK context: a WSI for archaeological works would be a normal condition of planning consent for any complex development (PPG16 para 30).

11.7.1.2 Methods of preservation and field investigation

There is a presumption in favour of preservation in situ of nationally important archaeological remains, whether scheduled or not (PPG16, paragraph 8). In some cases, unscheduled remains of local and regional importance will also be considered worthy of

preservation in situ. Where possible, the results of an assessment such as this should influence the design of a development in order to protect monuments and remains.

Preservation 'by record' may also be considered as an option for mitigation. For buried archaeology this implies excavation, whilst standing features are recorded by a combination of drawn, photographic and written record.

Preservation by record is always considered less satisfactory than retention in situ, because archaeological features or deposits are to be disturbed. As such there will always be a residual impact when this is undertaken.

Where below-ground archaeological works are proposed, the following terms are applied:

- Watching brief. Monitoring of contractor's groundworks, with a contingency to stop construction work for an agreed period, enabling the archaeologist to clean and record features as they are revealed
- Excavation. Controlled investigation of areas of known archaeology or archaeological potential. Such work will take place (and must be completed) prior to the contractor beginning work in each area. The footprint of the archaeological investigation will usually take in the area of groundwork intrusion, plus an appropriate buffer

Within the mitigation strategy outlined below, there is a preference shown for advanced excavation as opposed to watching brief. This is considered to be the best option for all parties: it is a less reactive approach that enables better and more comprehensive recording of archaeological remains; equally, archaeological constraints are mitigated prior to the contractor's arrival, minimising the risk of delays to the construction programme.

11.7.1.3 Post excavation analysis and publications

Post-excavation analysis of archaeological material (including any human remains), and publication of the project's findings as a whole, are a mandatory, integral, part of the cultural heritage mitigation. This is a key, expected, part of any project that falls under PPG16. Without a permanent, accessible record, the excavation work in particular is rendered meaningless, as personnel move on and the site archive is mislaid, dispersed or deteriorates over time. This is a hard-learned lesson from the era of 'rescue archaeology' prior to the advent of PPG16, during which many sites were dug in advance of development, only for all record of them to be lost. In any case, the archaeological significance of this project argues for the widespread publication of the findings. A Council for British Archaeology monograph or similar would be a suitable vehicle for publication.

Other forms of dissemination, more accessible to the general public – both St Helenians and tourists alike – should also be generated and would provide good publicity for the project. This can be considered as an optional enhancement measure.

The client's responsibilities are limited in respect of post-excavation. Publication must be to a standard model, which describes the project's findings and sets them within their archaeological and historical contexts. Some degree of finds analysis is inherent in such work. However, certain research is over and above what can reasonably be required, and other sources of academic funding may be sought for these aspects. The skeletal analyses described below are a case in point: hand-specimen examination would be considered mandatory, but scientific testing (e.g. for DNA) would not. Similarly, short-term

retention of the skeletons to allow hand-specimen analysis must be facilitated by the client, but he would not be expected to fund the establishment of a permanent collection.

The post-excavation strategy is predicated on the principle that a minimum of archaeological material will be taken off-island.

11.7.2 Mitigation measures: temporary effects during construction

No temporary effects have been identified for cultural heritage, and consequently no mitigation measures are required for this aspect.

11.7.3 Mitigation measures: permanent and operational effects

11.7.3.1 Rupert's Bay

No mitigation is required here with regard to sea-bed archaeology.

During construction of the temporary wharf on the southwestern side of the bay, then appropriate measures (e.g. protective fencing) will be put in place to protect Rupert's Battery (CH73; Munden's Point) from accidental damage.

11.7.3.2 Rupert's Lines and Liberated African's Depot

Protective fencing will be put in place to ensure that the construction of the permanent wharf and landing area will not result in the deliberate removal of, or accidental damage to, the upstanding fabric of Rupert's Lines.

As described above, the 2007 evaluations proved that the cobbled surface belonging to the 17th to 19th century survives in patches at 0.5m below the existing ground surface in the area behind the Lines. Other parts of the ground have clearly been built up in recent times, notably beneath the BFI tanks: the removal of such built up ground does not raise any concerns.

Raising of the ground level, rather than intrusive groundworks, will be considered for the creation of the landing area. Compression of buried remains is not considered a risk, and such an approach would negate the need for archaeological works here. However, where groundworks are intrusive and extend to historic horizons then archaeological excavation will be required.

These excavations will, where possible, be undertaken prior to the contractor's arrival. Only where this approach is physically impossible will archaeological work coincide with construction activities. (Such a scenario will only arise in the area that is presently beneath the BFI tanks, as any archaeological work must await the removal of the tanks by the contractor). The construction programme will accommodate the time required for these archaeological works.

Given the scale of the new wharf and the extent of adverse visual change, it is not possible to directly negate the permanent effect on the historic setting of Rupert's Lines. Nevertheless, some improvement of Rupert's Lines will be undertaken to improve its architectural integrity, with consequent benefits to its historic setting and amenity value.

These recommendations, which coincide with those outlined elsewhere in the ES (Chapter 10), comprise:

- stabilisation and restoration of the wall-walk behind the parapet
- replacement of the lean-to structures presently standing against, and fixed into, the wall on the seaward side with free standing structures

These are works that may take place after the completion of the contractor's operations in this area.

A Monument Management Plan should be established in order to ensure the preservation of this site over the long term.

11.7.3.3 Path to Banks' Battery

Access to the historic route from Rupert's Valley to Banks Battery (CH45), which begins immediately behind Rupert's Lines, will be maintained. If the landing area leads to severance, a new access to the cliff path will be created.

11.7.3.4 Boer War Desalination Chimney

This structure is untenable in its present location. It is already in poor condition and seems unlikely to survive the construction process: even if it were to remain it would be in the way of the contractor's operations. Moreover, its long term prospects in a do-nothing scenario are bleak: there will be no public access to the building, and (as presently) it will lack amenity value in this location.

Given the historical importance and architectural rarity of this building in the St Helenian context, it is recommended that this structure be preserved. This will be achieved by the chimney being dismantled in controlled fashion and rebuilt elsewhere. The following is recommended:

- Prior to commencement of the contractor's works on the landing stage, the chimney will be recorded, dismantled and securely stored
- The chimney will be rebuilt to an agreed timescale, thus ensuring that it will go back up and not merely remain in storage
- The chimney's new location will be chosen so that it retains its historical context, which is to say that it will remain within the lower part of Rupert's Valley. The structure would lose all meaning if, for example, it was translocated to Jamestown

11.7.3.5 Rupert's Valley Cemeteries

The burials are at risk from two factors: disturbance by groundworks, and damage through compaction. The 2007 evaluation proved that the graves are at shallow depth, are desiccated and highly fragile, such that they are already partially crushed from the weight of the overlying rock. Such compaction destroys important evidence: delicate bones such as the skull and pelvis provide the key for ageing and sexing skeletons for instance.

The legislation that is relevant to archaeological excavation and analysis of human remains is presently the subject of government review. However, English Heritage and the Church of England's Guidance for best practice for treatment of human remains

excavated from Christian burial grounds in England (2005) remains current at this time. The mitigation outlined below adopts the principles set out within this guidance.

The following approach is recommended:

- That as much as possible of the known cemetery zones are taken out of the contractor's working area, so as to prevent any disturbance or compression of graves
- Advance excavation will be undertaken in areas which have reasonable potential to contain graves and which will be affected by construction groundworks or have been chosen for lay-down areas, storage and working compounds
- A watching brief will be undertaken on groundworks in all parts of Rupert's Valley not subject to prior excavation

This approach enables all parties to be satisfied: the risk of unexpected delays to the construction programme is minimised; reasonable archaeological conditions will be met; controlled and sensitive exhumation can be undertaken. The actual scope of archaeological work will be defined by written scheme of investigation.

The advance excavation will be carried out by UK-based archaeologists. However, it is intended for the watching brief to be undertaken by St Helenians who have worked alongside these professionals during the course of the main excavations. Such training is a key element of the mitigation outlined below (section 11.7.5): by equipping St Helenians with these skills it limits the amount of time that UK archaeologists will need to be present; moreover, in the long-term it will enable basic archaeological work on the island to be undertaken without recourse to outside specialists.

Should burials be found during the watching brief, construction work in that specific area will cease whilst the cleaning, recording and exhumation takes place.

In accordance with current UK legal and archaeological practice, the process of excavation, analysis and reburial will take the following course:

- Permission to excavate in potential cemetery areas will be obtained from SHG in advance of any archaeological work. This mirrors practice in the UK where an application for a burial licence may be required under the provisions of the Burial Act (1857; Section 25)
- Other parties, such as the bishop of St Helena, will also be informed of the possibility that human remains may be exhumed
- PPG16 allows for the scientific analysis of human remains within a defined framework of research. In keeping with UK practice, any excavated skeletons may be retained in appropriate storage until adequately analysed. A provision for retention up to five years is standard, but all efforts will be made to shorten this time-frame
- Because of its future research value, consideration will be given to the permanent retention of part or all of the assemblage: this too has UK precedents (for example, skeletons from the cemeteries at Spitalfield, London, have been retained due to their scientific potential)
- It is thought inappropriate for the assemblage of human remains to be taken off-island for examination, and therefore an osteoarchaeologist (bone specialist) will be an essential part of the archaeological team that undertakes the project mitigation
- Nevertheless, full scientific analysis on St Helena is not possible and therefore permission for samples to be taken for analysis will be obtained from SHG. Normally the sample will comprise two teeth from each skeleton. This will enable DNA analysis to be undertaken, and also other tests for example those relating to isotopic variation. These can inform about many aspects of the freed slaves, from diet and disease to the precise origin of their homeland. However, such testing is over and above the client's responsibility, and is the type of project that would be achieved with external research funding
- A procedure for reburial, as adopted for previous exhumations (e.g. in 1984 from the Power Station) will be agreed in advance of excavation

11.7.3.6 Other interests in Rupert's Valley

Protective fencing will be put in place to ensure that Bunkers Hill Battery (CH08) is not damaged during construction.

The Jamestown church gravestones will be re-erected in the curtilage of the new church in Rupert's Valley and will be protected by fencing from accidental damage during construction.

11.7.3.7 Boer War desalination pipe

An input into the precise route of the haul road across Banks Ridge is required to ensure that the best-preserved parts of this feature remain intact. Nevertheless, some short stretches will be destroyed as the haul road crosses its line, and where this is the case it will be cleaned and recorded to an appropriate standard.

As a whole, the feature is fragile and will be protected during construction by being fenced off under archaeological supervision.

As described above, the haul road has two indirect physical effects on this feature: it will interrupt the course of the pipe at several locations, and introduces the possibility that it may be eroded as a result of increased accessibility (e.g. to tourists). The issue of severance cannot be fully addressed through mitigation, although it is noted that the design makes provisions to ensure that the 'pipe path' recreational route is not obstructed.

The temporary fencing recommended during construction is not an appropriate measure over the long term, as it would represent an unwelcome detraction from the pipeline's setting. Nevertheless, the feature is extremely ephemeral in places and is certainly prone to human erosion, particularly if the area starts to attract more visitors.

A plausible measure would be to define the recreational 'pipe path' more clearly than at present, and to bring the archaeological feature to greater prominence through information signage and perhaps also interim markers. Over the long term the success of this strategy will need to be monitored: if a failure then fencing may be the only alternative to the loss of the feature.

A Monument Management Plan will be established in order to ensure the preservation of this feature over the long term.

11.7.3.8 Deadwood Plain

If there is land-take from the western margins of Deadwood Plain, then a watching brief will take place in order to identify and recover any archaeological artefacts preserved in the topsoil that relate to the Napoleonic barracks and Boer War POW camp.

11.7.3.9 Ruins around Cooks Bridge and Bradleys

The collection of features around Bradleys will require a combination of archaeological recording and protection during construction.

The existing track (CH09) being adopted by the haul road is of traditional drystone build and is in good condition in places. This includes the small bridge CH05. The track and bridge will be destroyed by the construction of the haul road and will be recorded prior to this event

The important ruins to the east of the haul road, animal corral CH06 and battery CH07, are not directly affected by the scheme. However, they will be fenced off to avoid accidental damage during construction.

11.7.3.10 Prosperous Bay Signal Station and related sites

The recommended status for this site group is Scheduled Ancient Monument: this designation extends to all elements: the 1887 building (CH59), the earlier magazine (CH60), gun platform (CH62), and the access track from the plain (CH61). Impacts primarily relate to the placing of a Remote Obstacle Light at this location, which has implications for the physical state of the SAM and for its historic setting.

Given its severe effect on the monument's setting, in the first instance the need for an ROL here must be re-evaluated. However, if safety considerations require that an ROL be present, then its placement will be made in consultation with the project's archaeological advisor. This presents an opportunity to limit the potential impacts on the monument. Physical alteration to the historic path leading from the plain up to the Signal Station will be avoided.

The mitigation possible for the visual impact of the Remote Obstacle Light is limited. The residual impact will be high wherever it is positioned and in a UK context the statutory body (e.g. English Heritage) would be expected to view this aspect of the development extremely unfavourably.

The extent of change is such that the monument will require full recording, to RCAHME Level 4. This level includes a detailed written, drawn and photographic record, which extends to the environs and setting of the monument, and includes a wider assessment of its historical and architectural context.

The extent to which the presence of the airport will frustrate public access to the monument (with consequent continued neglect to its fabric) has yet to be established. No stabilisation or restoration has been undertaken since its abandonment in the early 20th century, and so in effect any neglect is simply a continuation of the present situation.

A Monument Management Plan will be established in order to ensure the preservation of this site over the long term.

11.7.3.11 Fishers Valley Martello Tower and Path

The airport earthworks will lead to the destruction of the historic path, and possibly also of the Martello tower itself (see section 11.6.2.6). At the very least, the setting of the tower will be irrevocably altered, whilst there are concerns regarding long-term frustration of access and consequent structural deterioration. Although these latter issues relate to operational impacts, the mitigation for the path and tower are dealt with as a whole in this section.

A full building record, to RCAHME Level 4, is required regardless of whether the monument is to remain or be destroyed.

Should the tower survive, a Monument Management Plan will be established in order to ensure its preservation over the long term.

11.7.3.12 Prosperous Bay Plain

The few sites on the plain will be recorded where the development requires their removal. This applies to the stockfolds in Dry Gut (CH33) and above Sharks Valley (CH86) and to the DWS transmission mast bases to the south of Bradleys (CH49-CH56).

11.7.3.13 Sharks Valley, Dry Gut and Gill Point

Minor sites survive here – watch houses, shelters for both soldiers and animals, revetted trackways linking the various military watchtowers. The impact on these features, arising from water abstraction operations, is not yet clear. An archaeological input into the final design is required, offering the opportunity to protect the historic features through micrositing of the abstraction works, pipeline and access track. Preservation by record of any features to be destroyed will be an acceptable alternative solution, though one that is far less ideal.

11.7.4 Enhancement opportunities

The mitigation programme for cultural heritage offers considerable enhancement opportunities.

The potential benefits mainly relate to education and training. The mitigation programme requires the presence of archaeologists from the UK, carrying out excavation, building recording and enacting measures to protect sites from damage. During this exercise, opportunities for the training of St Helenians will be taken wherever possible. Such training cannot be comprehensive, and for some years to come there will need to be a reliance on UK-based expertise. Nevertheless, training will provide the island with individuals who have the basic techniques to investigate, record and protect the cultural heritage resource.

The training of St Helenians in the excavation and recording of human remains is imperative for the project mitigation, since it allows the UK archaeologists to leave the island before the watching brief in Rupert's Valley is undertaken. There would be significant, unnecessary, cost implications if a UK specialist is retained for the purposes of a sporadic (and possibly unproductive) watching brief. However, such training requires material to work with: should insufficient burials be unearthed during the excavations, a small area within cemetery 1 will be opened up on the site of the 2007 evaluation Trench 4.

Public awareness and support plays a key role in the preservation of the archaeological and historic environment. Outreach into the community will therefore be considered as an integral part of the mitigation programme. This can include presentations to schools and to the wider public, and in the longer term the production of accessible literature.

11.7.5 Programming and management

Mitigation specific to each archaeological feature has been outlined above. However, the project as a whole will conform to the framework set out by Managing Archaeological Projects version 2 (MAP 2) (English Heritage 1991).

One key issue is the programming of the advanced archaeological work. The distribution of burials in Rupert's Valley, though now understood more clearly, cannot be predicted with certainty. Given the circumstances which gave rise to the cemeteries and the ad hoc nature of the burial process, graves may exist where not expected. As such, the precise duration of the excavations is difficult to determine. Rupert's Valley is the point at which construction activities will begin, and so it is imperative to have as much as possible of the archaeological work here finished before the contractor's arrival.

It is therefore recommended that the archaeology be addressed as soon as is practicable, and the following points are emphasised:

- Continuity of personnel from the evaluation phase is essential: the character of the archaeology is highly unusual, as is the working environment of the island
- The main skills required within the archaeology team are as follow: project management; excavation; human bone analysis; building recording; building material analysis; landscape archaeology; GIS; CAD; post-excavation analysis and publication
- In order to keep the size of the team to a minimum, it should comprise archaeologists who are multi-skilled. Depending on the precise nature of the mitigation, a team of three or four is likely to be needed, training and assisted by a small number of St Helenians

11.7.6 Mitigation summary

Table 11.9: Summary of mitigation and residual impacts*

Permanent effects (direct physical)

Site *Effect*	**Mitigation measure**	**Extent to which impact mitigated**	**Residual impact**	**Monitoring requirements**
Rupert's Lines CH72 *Accidental damage*	Monument to be fenced off	Fully	None	No monitoring required
Rupert's Lines CH68 *Intrusive groundworks to create landing area*	Option to raise ground levels to be investigated.	Fully	None	Archaeological requirements to be defined by Written Scheme of Investigation (WSI)
	Excavation and watching brief on intrusive groundworks	Substantially	Minor adverse)	
Boer War desalination chimney CH65 *Destroyed*	Recorded, dismantled and rebuilt at a different location	Fully	Major Beneficial	No monitoring required
Rupert's Valley cemeteries CH39-CH41 *Intrusion into, or compression of*	Archaeological input into micrositing of haul road, lay down areas etc. Excavation in areas of potential impact	Substantially	Minor adverse	Archaeological requirements to be defined by WSI

Site *Effect*	**Mitigation measure**	**Extent to which impact mitigated**	**Residual impact**	**Monitoring requirements**
Bunkers Hill Battery CH08 *Accidental damage*	Monument to be excluded from ADA and/or fenced off	Fully	None	To be carried out under archaeological supervision. No monitoring required thereafter
Rupert's Valley gravestones CH74 *Accidental damage*	Site to be fenced off	Fully	None	Fencing to be carried out under archaeological supervision. No monitoring required thereafter
Boer War desalination pipe CH04 *Removal of stretches of pipeline for haul road*	Archaeological input into micrositing of haul road. Recording in areas of impact	Substantially	Minor adverse	Archaeological requirements to be defined by WSI
Accidental damage	Site to be fenced off	Fully	None	To be carried out under archaeological supervision. No monitoring required thereafter
Napoleonic barracks CH01 and Boer War POW camp CH02 *Land-take from W edge*	Watching brief during groundworks	Fully	None	Archaeological requirements to be defined by WSI
Battery CH07 and animal corral CH06 *Accidental damage*	Site to be fenced off	Fully	None	Fencing to be carried out under archaeological supervision. No monitoring required thereafter
Cooks Bridge road CH09 and bridge CH05 *Destroyed for haul road*	Features to be recorded prior to haul road construction	Partly	Minor adverse	No monitoring required
Prosperous Bay Signal Station CH59-CH62 *Construction of ROL*	Archaeological input into siting of ROL and construction method. Sites to be fenced off	Unknown	Unknown	Fencing to be carried out under archaeological supervision. No monitoring required thereafter
Fishers Valley Martello tower and path CH35-CH36 *Tower potentially severely damaged or destroyed by airport earthworks. Part of path to be destroyed*	Recording prior to earthworks Monument Management Plan (MMP) established if site survives	Slightly	Moderate adverse	No monitoring required
Dry Gut stockfold CH33 *Destroyed by airport earthworks*	Recording prior to earthworks	Substantially	None	No monitoring required

Site *Effect*	**Mitigation measure**	**Extent to which impact mitigated**	**Residual impact**	**Monitoring requirements**
Sharks Valley stockfold CH86 *Possible impact from break-tank*	Archaeological input into siting of break-tank. Sites to be fenced off	Fully	None	Fencing to be carried out under archaeological supervision. No monitoring required thereafter
DWS transmission masts CH49-CH56 *Possibly destroyed for construction compound*	Recorded prior to construction	Fully	None	No monitoring required
Sharks Valley sites CH77-CH84 *Water abstraction works*	Archaeological input into siting of abstraction features. Recording of any sites to be affected. Other sites to be fenced off if necessary	Substantially	Minor adverse to Neutral	Fencing to be carried out under archaeological supervision. No monitoring required thereafter

Operational effects (indirect physical and visual)

Site *Effect*	**Mitigation measure**	**Extent to which impact mitigated**	**Residual impact**	**Monitoring requirements**
Rupert's Lines CH72 *Alteration to historic setting arising from new wharf*	Removal of freestanding structures; consolidation of masonry	Partly	Moderate adverse	No monitoring required
Path to Banks' Battery CH45 *Possible severance of access*	Access to be maintained or reinstated	Fully	None	No monitoring required
Boer War desalination pipe CH04 *Interruption of formerly continuous route*	Measures to be put in place to ensure that the pipeline route can be walked without obstruction	Substantially	Slight adverse	No monitoring required
Increased ease of access promoting erosion	MMP to be established and enacted	Fully	None	Long-term monitoring required according to the terms of the MMP
Prosperous Bay Signal Station CH 59-CH61 *Alteration to historic setting: ROL*	Monument and its broader context to be fully recorded prior to construction	Slightly	Major- to Moderate adverse	No monitoring required

** Key to predicted success of mitigation:*
Fully – impact fully mitigated and no effects predicted
Substantially – mitigation would be largely successful at reducing impact
Partly – mitigation would be successful at reducing impacts, but some effects likely
Slightly – mitigation would be largely unsuccessful

11.8 CONCLUSION

11.8.1 Summary discussion and overall residual impact

St Helena's cultural heritage, both in terms of buried archaeology and standing features, are judged to be rare and extremely valuable. The ADA incorporates a large number of sites, whose values span international importance to mere local interest. Nevertheless, they should be seen as a whole: without the lower grade sites, the major monuments lose much of their historic and landscape context.

The St Helenians, for whom the monuments around them are commonplace, may not always appreciate the uniqueness of this resource, which is considerable even within a global context. The concern of this chapter for its preservation could, therefore, seem more than a little abstract when set against more obvious social concerns. However, as well as having great intrinsic worth, cultural heritage will form one of the key means of marketing the island for future tourism. It is a rich resource that requires protection.

Despite the scale of the airport project, its impacts on the cultural heritage resource are manageable: ongoing input into the design, combined with a programme of excavation, recording and on-site protection, offers a means by which most of the potential impacts can be mitigated to a very large extent. Table 11.9 demonstrates that residual impacts arising from the construction phase are generally minor adverse or neutral, with only one national-value monument (the Fisher's Valley tower and path) retaining a moderate adverse effect. The impact on the Prosperous Bay Signal Station is not clear at this stage, and here cultural heritage concerns may take second place to engineering or safety priorities.

A different conclusion applies to some of the visual impacts, which in a few cases are very significant and will prove more difficult or impossible to mitigate.

Nevertheless, with appropriate archaeological input into the final design, and with the mitigation strategy in place, the residual impact on cultural heritage as a whole will be **Minor adverse**.

11.8.2 Long term issues for cultural heritage

The airport's presence on the island will have major implications for St Helena's heritage resource. One stated purpose of the airport is to bring in significant numbers of tourists, estimated to rise to as many as 58,000 by 2033 (OTD/DFID Project Memorandum, January 2005). Unless adequately managed, the potential outcomes for cultural heritage are simple to predict: greater pressure on the main sites; erosion of these and some of the others that are more remote; destruction or inappropriate alterations of historic buildings to make way for new development.

In order to meet this challenge in the future, the wider issue of heritage management on St Helena needs to be addressed. This will have to combine a number of strands, in order to create an appropriate organisational and legislative framework. Education and outreach needs to run parallel to these initiatives so that the issue is seen to have relevance, both culturally and economically.

An essential first stage must be to compile an inventory of the island's cultural heritage resource – in effect to create a Heritage Environment Record (HER) comparable to that used by UK counties. Crallan's 1974 inventory, whilst ahead of its time, provides neither an adequate nor comprehensive record. A modern HER would enable the resource to be properly understood in spatial terms, provide the baseline against which assessment of future development could take place, and enable priorities to be agreed for protection and restoration. The data gathered on sites and monuments within the ADA already goes some distance towards this goal for the north of the island.

11.9 SUPPLEMENTARY DATA

11.9.1 Summary of the 2007 archaeological evaluations

The following paragraphs describe, in brief, the trial evaluations carried out within Rupert's Valley during May 2007. Photographs of the evaluation areas and the findings from Trenches 1 and 4 can be found in Figures 11.15 and 11.16 in Volume 3 of this ES.

An archive for the evaluation is retained by Faber Maunsell, and its findings will be published in due course.

GPS coordinates are given for the trench locations, as in most instances there were no obvious features from which to measure off. However, it should be noted that the GPS unit consistently showed an accuracy of +/- 10m, significantly reducing the usefulness of these data. The centrepoint of each excavation is presently marked on the ground by a stone cairn labelled with the trench number: in reality this offers the best means by which they can be precisely located.

11.9.1.1 Trench 1

Location
This trench was located behind Rupert's Lines, on the landward (SE) edge of the car park, alongside the bank of made ground. The trench ran parallel to the line of the defences. The trench was 9m long and 1.6m wide, with its centre at coordinates 209105, 8238603.
It should be noted that buried fuel pipes run through this area – a constraint for further excavation.

Purpose
The objective here was to establish whether archaeological remains relating to the military lines, Liberated Africans' Depot or Eastern Telegraph Cable Station still survived in situ.

Results
The majority of the trench was excavated down to 0.5m beneath the modern made ground surface, at which point a cobbled surface survived in good condition within the eastern part of the trench. The cobbling was of good quality and careful construction, and is comparable to that seen at other military sites such as Bank's Battery. In the western part of the trench the cobbled surface was cut into and destroyed by a concrete slab, which is believed to have been a salt pan for the adjacent fish-processing plant: it probably dates to the c. 1960s.

The salt pan prohibited excavation within the western half of the trench, but a box section was excavated in the eastern part, cutting through the cobbled surface down to a depth of c. 0.9m. This section demonstrated a lack of complex stratigraphy, i.e. that there were not multiple re-surfacings of the cobbling, simply a single layer of laid stone. However, at 0.91m the duplexed telegraph cable was encountered, at the base of a narrow trench that had been cut through the cobbling. The cable prevented any excavation below this depth.

Comments

No dating evidence was found, but it is a reasonable assumption that the cobbled surface relates to the military phase of Rupert's Lines. There does not seem to have been a great deal of build-up of the ground surface behind the Lines, and so the depth of the cobbling would also fit with this interpretation. If the cobbling is younger – perhaps part of the Liberated Africans' Depot – then any surface belonging to the Lines has either been destroyed or is far more deeply buried. Both possibilities seem unlikely.

The evaluation indicates potential for further archaeological features to survive here. However, the made ground above the cobbling is comparatively recent (i.e. 1960s onwards) and so any historic structures will have been exposed for many years after becoming disused. Given the continued use of this area, they are likely to have been badly damaged or more probably removed, and only foundations are likely to survive.

11.9.1.2 Trenches 2,3 and 5

Location

These trenches were located in the flat area of land between the modern church and the Mid-Valley BFI. Their details are as follow:

- Trench 2: 10m long x 1.6m wide. Aligned NNE-SSW. NNE end of trench at coordinates 209348,8237988
- Trench 3: 5m long x 1.6m wide. Aligned E-W. W end of trench at coordinates 209328,8237989
- Trench 5: 8m long x 1.6m wide. Aligned NNW-SSE. NNE end of trench at coordinates 209372.

Purpose

These trenches were intended to determine whether any freed slave burials existed in this area. Bone had been found by workmen during the construction of the new church, though the descriptions given suggested that these bones were disarticulated fragments rather than whole burials. This area of ground will be crossed at some point by the haul road.

Results

The findings of these trenches were almost entirely negative. Trench 2 was excavated down to a depth of 1m, through ground that was extremely stony, including cobbles and small boulders – material that had doubtless tumbled down to the valley floor from the hillsides above. No bone or other archaeological material was recovered from the trench.

Trench 3 was aborted at only 0.2m depth, as the excavation encountered frequent boulders in excess of $1m^3$ dimensions. These could not be moved by the JCB, and the prospect of burials having been dug here seemed remote.

Trench 5 lay roughly in the centre of the valley, and was positioned five metres from the stream that meanders through this area. The top 0.2m excavated was similar to the highly stony material dug out of Trenches 2 and 3, but beneath this were deposits of a light, fine gravel, though small boulders were still interspersed with this material. No burials were found, but a fragment of human bone was found at <0.10m depth, with more fragments

(including small pieces of skull) at 0.30m depth. The trench was boxed out here, but no other finds were made.

The trench was abandoned at 0.8m depth, when the fill once again became extremely stony.
Comments

The findings here would suggest that this area was not used as a graveyard. There is, of course, the caveat that the three trenches represent only a very small percentage of the total area and could easily have missed individual graves or even sizeable multiple grave pits. Nevertheless, the stony character of the ground argues against this having been a suitable area in which to dig graves by hand – though of course many of the boulders dug out during the evaluation have probably fallen in the 150 years since the Liberated Africans' Depot closed.

There is no indication of the level of the mid-19th ground surface. If burials exist at depths of greater than 1m (i.e. below the level reached by the evaluation), then given the compression damage seen in Trench 4 any bone would be severely crushed.
The bone found within Trench 5 appears to be incorporated within fluvial deposits, and is best interpreted as material that has been washed downstream from the known graveyards above the Mid-Valley BFI. A similar situation probably accounts for the bone reported from the church construction groundworks.

11.9.1.3 Trench 4

Location
This trench was excavated on the lowest terrace above the existing road. The site lies in the lower part of Rupert's Valley, past the white bungalow which is the last property on the right (SW) side of the road as you head away from the coast. The trench was located at coordinates 209202, 8238158, and was orientated NE-SW (parallel to the slope, at 90 degrees to the line of the valley).

Purpose
The objective of this trench was straightforward: to test the accuracy of Melliss' 1861 map, which showed this area as the location of the lower of the two graveyard sites.

Results
The make-up of the trench was a light sandy loam, with frequent inclusions of angular pebble- and cobble-sized rock. The rock was particularly frequent at shallow depth, but became less so at depths of c.0.5m and more. The ground here was significantly easier to excavate than in the trenches dug in the vicinity of the church (Nos. 2, 3 and 5).
Disarticulated human bone was found in the southwestern part of the trench, at 0.45m depth on its northern edge, with more bone protruding from the baulk. This half of the trench was kept at this level, whilst the northeastern (downslope) half was excavated to greater depth. At 0.9m the lower parts of two skeletons were found, and the trench was boxed out to the southeast in order to uncover the remains in full.

The burials were immediately next to one another, lying parallel and orientated NW-SE, that is to say at right angles to the slope and parallel to the line of the valley. The upslope (SW) burial (hereafter 'A') was slightly overlain by the second skeleton (hereafter 'B'). The

bodies were placed in the grave in a supine position, but neither was lying completely flat, their heads being slightly raised and tucked onto the chest – presumably propped up on rocky material that had not been removed from the grave or pit in which they were interred. Skeleton B was also slightly flexed. The arms seem to have been positioned straight at the sides, though only the left arm of Skeleton A was fully exposed.

Both skeletons were fully articulated. The major bones survived, though some of the smaller elements such as the lower ribs did not appear to have done so. The condition of the bone was quite poor, and in many cases the cortical surface was lost. Elements such as the pelvis and vertebrae were in particular fragile condition. Both skulls were crushed and fragmentary – an indication of the vulnerability of these remains to compaction. However, the jawbones and teeth were in a better state of preservation.

Both individuals were approximately 1.40m – 1.50m tall, and the fact that the epiphysis of the femur of Skeleton B was unfused reinforces the interpretation that these individuals were juveniles or young adults. Both had evidently been interred together, and given the very small size of the trench it may well be that other bodies are present, part of a multiple grave.
The requirement not to leave the trench open overnight precluded further investigation, either of these burials or of the remainder of the trench. The skeletons were cleaned, recorded and photographed, then carefully re-buried.

Comments
There seems little doubt that Trench 4 was indeed placed within the lower graveyard marked by Melliss. This small trench proves not only the presence of burials, but demonstrates that they survive in such a state as to preserve valuable archaeological data. They lie at shallow depth, and are clearly at risk from compression.
The resource is not stable: over time it is expected that further degradation of the bone, coupled with compression from the overlying rock, will gradually worsen the burials' preservation.

11.9.1.4 Trenches 6 and 7

Location
These trenches were located above the Mid-Valley BFI, in the general area in which the 2006 geotechnical test pits had located burials in two places. Although numbered separately, these trenches are effectively one and the same: they were cut at 90 degrees to the line of the valley, and took in a swathe of ground that sloped down into the valley floor. One was directly below the other, and the only reason that the trench was not continuous was because it would have cut through the track that links the BFI to the quarantine station.

- Trench 6: Orientated NNE-SSW. NNE end at coordinates 209571, 8237777 Trench 7: Orientated NNE-SSW. NNE end at coordinates 209575, 8237789
- Trench 7: Orientated NNE-SSW. NNE end at coordinates 209575, 8237789

Purpose
The two evaluation trenches were placed in the ground equidistant between the known burials, with the intention of finding out whether the entire area contained graves.

Results
Neither trench revealed any bone or other archaeological material, despite being dug to a depth of 1.5m.

Comments
The trenches were dug before the discovery of the 1872 version of Palmer's map. Until that point, it was assumed that the burials found during in the 2006 geotechnical test pits, one close to the fuel farm (TP/B1) and the other some 200m further up the valley (TP/B3), were part of a single cemetery. In fact, the map evidence suggests that there may have been two graveyards, one around the BFI and the other further up the valley. Trenches 6 and 7 were placed in the area in between, which may do much to explain why no archaeological material was found.

Once again, however, two small trenches do not constitute proof that the area was not used for burial.

11.9.2 Comments on the Rupert's valley burials excavated June 2007, and generated observations on the potential of the graveyards.

The following comments relate to the two skeletons uncovered during the 2007 evaluations in Rupert's Valley (as shown in Figure 11.15 in Volume 3 of this ES). The text is edited from information kindly supplied by Annsofie Witkin, specialist in post-medieval osteoarchaeology, Bristol University.
The remains are in a poor condition but there is nevertheless valuable information to be gained. From the photos it is possible to tell that both individuals are in their late teens or early 20s. The individual with the mandible suggests female. This illustrates that even at the level of superficial inspection the burials preserve valuable data.

The specific information that could be gained from a full analysis of such remains would include:

- Age: Can be estimated from adult remains via dental attrition, cranial suture closure and the degeneration of various sites such as the auricular surface of the pelvis. Age of subadults can be estimated from fusion patterns of the bones and dental development
- Sex: Can be determined from the skull, hip and to a lesser extent the measurement of joint diameter from the ball joints of the femur and humerus
- Stature: Can be calculated from longbone length, but this is likely to be heavily compromised due to the fragmented nature of the bones
- Dental pathology: Teeth are very resilient to degradation and are a great source for investigating health. The features pertaining to health and diet are caries and calculus. For general health in childhood, the presence of enamel hypoplasia (growth arrest lines on the enamel) is a general indicator of periods of childhood stress such as illnesses and starvation
- Skeletal pathology: The presence of any pathological lesions is likely to be somewhat compromised by the condition of the bone. It all depends if the cortical surface of the bones are intact. From the photographs it appears that the outer surface is present but does suffer dorm fissuring and the cranial bones on the images seem heavily eroded. However, there is still scope for gaining information. The potential includes infectious disease, metabolic disorders such as anaemia, trauma (fractures), congenital malformations, neoplasms and joint disease (increases with age and considering that the assemblage will probably consist of young individuals, there is probably very little of this. Also, the areas of the joints are the first to degrade in adverse soil conditions so again this will limit the scope for finding joint disease.). It will however be impossible to pick up the particular disease that the individuals died from, since short term infections would not have left any traces on the bones
- Metrical data: Obtaining metrical data for the calculation of indices (investigation of bone morphology) from the remains is likely to be heavily compromised
- Non-metric traits: These are natural skeletal variations of the skeleton that stems from a genetic or environmental predisposition. The condition of the bones is likely to limit the scope here, but there is still some potential.

In addition, there is also the wider context to consider. It is understood that there are slave cemeteries in the United States that have been excavated, but we are unaware of any analysis of a large-scale assemblage of slaves who failed to reach to America. This makes the assemblage unique at the present time, and of very great importance. Though the remains on an individual level are poor, the overall picture of the population group would provide unparalleled information which would add greatly to the knowledge of this time period. This is especially so given that it is possible in this instance to compare osteological data against existing shipping documents, thus testing the demographic profile of the slave cargo.

The condition of the remains will certainly compromise some of the analysis. However, this will also enable more rapid analysis, limiting time and cost inputs. Also, due to the arid conditions on the island, bones will not have to be washed and dry brushing is all that is required. If the remains are very fragile, this is recommended. This will again speed up processing and analysis.

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11.9.3.5 Cartographic sources

* Maps for St Helena for sources located within the British Library can be found in the St Helena Virtual Library, albeit in low-resolution format.

Date	Title / summary	Scale	Location and Reference
1596 (Subsequent reprints through to 1638)	*Insula D. Helenæ; Vera effigies et delineatios Insulæ Sanctæ Helenæ; Sancta Helena*. Three maps to accompany Jan Huyghen van Linschoten's *Itinerario: Voyage ofte schipvaert van Jan Huyghen van Linschoten naar Oost ofte Portugaels Indien ... 1579-1592*. An English text edition of the *Itinerario* was published in London in 1598, entitled *Iohn Huighen van Linschoten his Discours of Voyages into ye Easte & West Indies*.	-	British Library 569.g.23
1598	*Sancta Helena*. Map of St Helena to accompany a miniature world atlas by Barent Langenes, published in Middelburg *Caert-Thresoor, inhoudende de tafelen des gantsche Werwlts Landen, met beschryvingen verlicht ... nu alles van nieus ... toegereet*.	-	British Library Maps C.39.a.2
1601	*Insula D. Helenæ*. Copy of the plate from Linschoten's *Itinerario*, in De Bry's *India Orientalis* (Volume III).	-	British Library G6609.(3); 569.i.4.(3); 986.h.19.(3)
1675 (Subsequent reprints through to 1716)	*A New Mapp of the Island of Saint Hellena*. In John Seller's *Atlas Maritimus, or the Sea-Atlas; being a book of maritime charts, describing the sea-coasts, capes, headlands ... in most of the known parts of the World. E*ngraved by Samuel Thornton.	-	British Library Maps C.8.d.5
1732	*St. Helena*. In Herman Moll's *Atlas minor: or, a set of sixty-two new and correct maps of all the parts of the world*.	-	British Library Maps K.Top.117.130.1

Date	Title / summary	Scale	Location and Reference
1764	*Plan de l'Isle Ste Helene; Plan de la forteresse et bourg, de lisle de Ste Helene*. In J. N. Bellin's *Petit atlas maritime. Recueil de cartes et plans des quatre parties du monde, etc.*	-	British Library 454.g.1-5
1781	*Map of the north and north-west coast of St Helena: bird's eye view of the cliffs from 'Isles de l'Est' to West Point*. With reference table. Inset: *Plan de la Ville & Rade de St e Hèlenee en Juillet 1781 par Mr. Laffitte, Ingenieur des Colonies*: bird's-eye view of Jamestown and its anchorage, showing the steepness of the hills surrounding the town and the dominant position of two defence works, one at Munden's Point; a ship at anchor lies off the town. With two views of the coast: 'Vue de la partie de... St. Heline Coté N.E.' and 'Vue de la partie de l'isle Ste. hélene Côté N.O.'. The latter view shows the appearance of Jamestown from the sea, and the roads leading to the cliffs surrounding the town.	2.5cm to 64 toises [1:4989] *1 toise = 1.949m	National Archives MPH 1/251
19th cent. and earlier	Misc. documents and maps, including pencil and ink sketch maps, views, diagrams, other drawings and notes. Many probably produced as part of Captain Edmund Palmer's 1850-1852 survey of the island and some are copies of earlier sketches, produced following the discovery of Saint Helena by Europeans in 1502.	Various	National Archives CO 700/ST. HELENA8a1-5
1815 and 1817	*This geographical plan of the Island and Defences of Saint Helena* … dedicated by permission to Field Marshal His Royal Highness the Duke of Kent and Strathearn by Lieut. R.P. Read.	1:9050	National Archives CO 700/ST.HELENA1c National Maritime Museum G214:25/2 (1)
1838	(5) *Plan of the Summit of Rupert's Ridge...shewing the position of the Batteries and Lines of Defence ...,* showing alterations proposed by the Committee. (7) *Sketch of High Knoll, Ruperts and Banks Ridge from the high ground above...*	1" to 200ft [1:2400]	National Archives MPG 1/635/ 5 and 7
1839	Volume containing 21 maps and plans of properties, etc, in Saint Helena. By G W Melliss, Colonial Surveyor. Originally accompanying a despatch from Governor Middlemore, July 1839 (8988/40); this despatch is not filed in the volume.	Various	National Archives CO 700/ST.HELENA8 (not available to view)
1845 (May)	*St Helena. Plan of the Commissariat Coal Yard shewing the Site of the proposed Shed for the Navy Coals.* (Jamestown wharf).	1" to 40 ft [1:480]	National Archives MPH 1/863/1
1845 (December)	*St. Helena. Sketch of the Lines at Ruperts Valley, shewing the proposed Site for the Shed for the Coals for Her Majesty's Steamers*. Reference table to buildings.	1" to 60 ft [1:720]	National Archives MPH 1/863/2

Date	Title / summary	Scale	Location and Reference
1846 (January)	*St. Helena. Sketch of Rupert's Valley shewing a proposed Boundary Line between the Ordnance and Colonial Property'. Reference table to buildings.* The map also shows the boundary line proposed in Luxmoore's letter of 26 January 1846 to the Governor.	1" to 60 ft [1:720]	National Archives MPH 1/863/3
1850-1852	*Military Sketch of the Island of St. Helena.* Relief map. Reference table to defences. Coastal views. By Captain Edmund Palmer, Royal Artillery.	7" to 1 mile [1:9051]	National Archives CO 700/ST. HELENA8a/4/105
1852	(16) *Sketch shewing the present boundary between the Ordnance and Colonial property in Ruperts Valley together with the proposed boundary*. Plan also showing allocation of foreshore. Reference table to military buildings. Signed by G W Melliss, Surveyor and Civil Engineer, and W Forbes, Lt Col RE, 18 May 1852. Endorsed: enclosure no 1 in despatch no 25 of 1852. (17) *Sketch of Ruperts Valley shewing boundary between the Ordnance & Colonial property*. Unfinished plan copied from that enclosed in despatch no 43 of 26 January 1846 from R C Pennel, Colonial Secretary.	1" to 60ft [1:720]	National Archives MPH 1/882/16-17
1857-60	*Military Sketch of the Island of St. Helena*. Two different editions of a relief map showing roads, paths and walled enclosures. Reference tables to symbols. Insets to item (1) only: two views showing Jamestown from the anchorage and Sandy Bay. Surveyed by Captain Edmund Palmer, Royal Artillery, 1850-1852.	5" to 2 miles [1:25,344]	National Archives CO 700/ST. HELENA9 See also: CO 700/ST. HELENA10 WO 78/2354 WO 78/4037
1861	*St Helena. Plan of Ruperts Valley, Divided into Building Lots. Prepared to accompany the colonial engineer's report dated 16th October 1861.* Surveyed by W. Melliss?	Unknown	St Helena Museum No reference
1863	Map to accompany T.E. Fowler's book Views of St Helena	-	St Helena Archives
1872	*The Island of St. Helena enlarged from Palmer's Military Sketch and revised by the Royal Engineers 1872.* Detailed map on twelve joined sheets, showing buildings, fields, place names, roads and tracks, altitudes, hill-shading, etc.	5" to 1 mile [1:12,672]	National Archives WO 78/612 St Helena Archives
1879, corrected to May 1908	*Island of St. Helena from a Survey by Captain Edmund Palmer, Royal Artillary, 1852.* Inset: 'View of the Island from off James Bay Anchorage'.	5" to 2 miles [1:25,210]	National Archives MPI 1/385
1881	*Map of St Helena showing landing places destroyed.*	1" to 2100yds [1:75,600]	National Archives MPG 1/867/5
1881	Map of Jamestown and environs, St Helena, showing site, range, traverse and proposed armament for Munden's Point Battery overlooking James Bay.	1" to 700yds [1:25,200]	National Archives MPG 1/867/6

Date	Title / summary	Scale	Location and Reference
1885	*St. Helena. Rupert's Valley. Buildings taken over from the Liberated African Department.* One sheet of plans, elevations and sections, showing a dispensary, store, cooking yards and other buildings. Reference table to building materials. Inset: site map; scale: 1 inch to 60 feet [1:720].	Plans: 1" to 15ft [1:180] Other: 1" to 10ft [1:120]	National Archives WO 78/2344
1887	*Prosperous Bay: Plan and sections of Signal and Telephone Station.*	Map: 5": 1 mile [1:12,672] Plans: 1":15ft [1:180] Elevations: 1":10ft [1:120]	National Archives WO 78/3302
c.1900	Mundens Hill. Battery. Revision for 2-6".Q.F. Guns.	1" to 10ft [1:120]	National Archives WO 78/4019
1902	*St Helena: Rupert's Valley.*	5": 300ft [1:3600]	St Helena Archives
1901-24	*St Helena: Defences 1901 – 24.*	5" to 2 miles [1:25,344]	National Archives WO 78/5401
1904	*Atlantic Ocean: Saint Helena.* Detailed map of the island. showing relief and waterways. Reference table to contours, roads, tracks and telegraph lines.	5" to 2 miles [1:25,344]	National Archives WO 78/2450
1904	Sixteen manuscript, plans and maps, of batteries: Munden's Hill Battery and Munden's Point Battery.	Various	National Archives WO 78/4957
1904-41	St Helena (military map), IDWO 1853a.	1:25,000	British Library
1936	Ordnance Survey, St Helena with defence overprint, IDWO 1853a	1:25,000	British Library
1972	Ordnance Survey, St Helena DOS 976, MOD IDWO 1853a	1:25,000	British Library
1983	Ordnance Survey, St Helena series G 891 (DOS 360)	1:25,000	British Library Maps 69570.(15)
1990	Ordnance Survey, St Helena series G 891 (DOS 360)	1:25,000	British Library Maps X.853

11.9.4 Secretary of State's Criteria for the Scheduling Ancient Monuments (from PPG16, Annex 4)

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

(i) Period: all types of monuments that characterise a category or period should be considered for preservation.

(ii) Rarity: there are some monument categories which in certain periods are so scarce that all surviving examples which still retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and a regional context.

(iii) Documentation: the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.

(iv) Group Value: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

(v) Survival/Condition: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.

(vi) Fragility/Vulnerability: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings.

(vii) Diversity: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.

(viii) Potential: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

11.9.5 Cultural Heritage site gazetteer

Note on spatial information:

System: DOS 71/4 Astro
Projection: Transverse Mercator
False Easting: 500000.000000
False Northing: 10000000.000000
Meridian of origin: -3.000000 (3° W of Greenwich)
Latitude of origin: 0.000000 (equator)
Scale Factor at origin: 0.9996
Linear Unit: metres

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH01	Barracks	211906	8237542	None	C	Destroyed	Gosse 1938, 276.	Barracks (1815): entry derives from original SHG data, which gives no further information about this site. It is known that several hundred troops were barracked at Deadwood during Napoleon's captivity, and presumably the entry refers to this camp. As with the Boer War POW camp, there are no indications on the ground surface of the existence of such a camp - and certainly not of any permanent structures. However, the topsoil probably contains abundant small artefacts from this period.
CH02	Boer POW Camp	211906	8237555	SAM	A	Destroyed	George, B. 1999, *Boer Prisoners on St Helena 1900-1902*; Jackson 1902.	Prisoner of war camp on Deadwood Plain occupied between 1900 and 1902. The site is now open plain with no indication on the ground surface that the camp was once present. Most prisoners were housed in tents, although contemporary photographs indicate that a few timber structures were also present. Archaeological remains of these structures are likely to be ephemeral, although the topsoil is probably rich in artefacts. The area is now covered by slight ridge and furrow earthworks running parallel to the slope (E-W), which indicate that the ground has been ploughed at some date: the ground here is marked as arable on several versions of Palmer's map

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								(1850-2 and 1872).
CH03	Boer Road	209305	8238084	None	D	Intact	No reference	Track leading along upper Rupert's Valley, then climbing up to Deadwood. The name derives from historical connections with the Boer War prisoners of 1900-1902, but the road itself has no archaeological value.
CH04	Boer War desalination pipe	210727	8238255	None	B	Damaged / Near Destroyed	No reference	Route of the iron pipe intended to carry water from the desalination plant at Rupert's Bay to the Boer War POW camp on Deadwood Plain. Whilst the plant was tested in 1901, it was never used and therefore the pipe probably never carried water. The pipe no longer survives, but the route of the embankment/channel in which it was retained can be traced almost continuously from Rupert's Hill along Banks Ridge towards Deadwood for a distance of c.1.1km. The feature takes several forms: a low bank, often extremely indistinct, up to 1m wide and 0.2m high; a shallow channel c.0.6m wide, defined by two lines of stones that can rise to several courses when crossing gullies; as a slot cut into the duricrust, c.0.25m wide and 0.1m deep; in some locations the course is only indicated by many thousands of small fragments of the pipe itself. None of these indications of the pipe can be found for the first kilometre of its route, from the desalination plant to the W side of Rupert's Hill, nor for the final 750m from the E part of Banks Ridge to Deadwood Plain. Both of these sections are on steep, overgrown terrain which may serve to mask any traces of the structure: equally, however, it may never have been completed over these sections. The so-called 'Pipe Path' adopts the approximate course of the pipe itself, but does not precisely match its route.
CH05	Bradleys Bridge	214501	8235100	None	C	Intact	No reference	Well preserved, traditionally-built drystone bridge across a small gut. Courses of rough stone masonry standing up to 1m high. Metal-lined culvert.
CH06	Bradleys Structure 1	214892	8234894	None	B/C	Damaged	Gosse 1938, p.31; National Archives (map) CO 700/ST. HELENA8a/4/105	Extensive length of walling c.300m below Cook's Bridge, primarily on the S side of Bradleys Valley but with other fragments on the N side. The main body of the wall emerges from the valley floor and follows a natural crest on the 290m contour for a distance of c.140m: at one

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								point it is broken by a large erosion gully, which provides a *terminus antequem* for the structure and suggests it may be several hundred years old. The wall is built of neat drystone courses and stands 0.9m wide and up to 0.9m high for most of its length: the lack of fallen material indicates that this is close to its original height unless robbing has reduced it (unlikely). The W end of the valley is closed off by a short stretch of right-angle turning wall, with other fragments of drystone masonry on the N side of the valley. The interpretation of the feature is as a large animal corral, probably for pigs, created by augmenting the natural topography by the building of low walls. Such features are recorded on the island as far back as the later 16th century, the first examples being attributed to the Portuguese.
CH07	Bradleys Structure 2	214791	8234880	SAM	A	Intact	?National Archives (map) CO 700/ST. HELENA8a/4/105	Natural promontory on the 300m contour adapted as a strategic site. The S side is defined by the sheer, natural cliff, whilst the N side has a tall retaining wall, infilled behind - the effect being to create an elongated level platform c.80m long and 9m wide. The retaining wall is built with good quality masonry, which at the E end stands 1.8m tall and which reduces in height as the promontory merges into the broader body of land at 300m OD to the W. There is a slightly elevated platform at the E terminus of the promontory: the revetment steps in at this point and is of separate build to the main body of the wall. The promontory has clear views for c. 700m eastward, and would have been an ideal position from which to control the strategically important route leading from the coast at Prosperous Bay. The E end of the promontory was presumably the site of a gun emplacement.
CH08	Bunkers Hill Battery	209716	8237533	None	B	Near Destroyed	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	This Battery is shown on both Cocks Map of 1804 and Barnes Map of 1811, but it could well date back to an earlier period as it was probably named to signify the Battle of Bunker Hill fought in 1775 between the American colonists and a British Army force during the American War of Independence. The Melliss List of Guns for 1825-

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								36 only give one 24 pounder Carronade for this Battery, but that does not mean other guns were not there during an earlier period. The Palmer Military Map of 1850 indicates both the Battery and platform together with a small building, the ruins of which still exist, and the fortification had a reference number. The 1922 Admiralty Map shows the Battery as a ruin. The circular Battery has a very ruined appearance, but the shape is still evident in the old breastwork wall rising about c.3m up from cliff rock. All the upper wall has fallen off covering the platform with loose stones and nearby is an old stone building with very little of its walls standing. The platform on the western ledge is c.50m long by 3m wide with a retaining wall which is in a better condition than the Battery. There does not seem to be any other purpose for this rubble filled platform other than for gun emplacements, in spite of the wall not being carried up to a parapet as was usual.
CH09	Cooks Bridge road	215009	8234754	_	C	Near Destroyed	No reference	Historic road leading from the area around Bradleys Government Garage onto Prosperous Bay Plain, now adopted by the modern track. Includes the crossing at Cook's Bridge. The original stone built track only survives in places, particularly where it is carried over small guts and erosion gullies by drystone embankments.
CH10	Deadwood Plain cricket wicket	211706	8236272	None	C	Intact	No reference	Concrete cricket wicket amidst small area of levelled ground. Date and significance unclear. May be associated with the Boer War POW camp?
CH11	Deadwood Plain Meridian Pillar	211976	8236510	None	D	Not known	No reference	Old Meridian Pillar shown on Deadwood Plain at 1534ft. Present condition unknown.
CH12	Deadwood Plain transmission mast base 1	211750	8237019	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH13	Deadwood Plain transmission mast base 10	211838	8236382	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH14	Deadwood Plain transmission mast base 11	211848	8236571	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH15	Deadwood Plain transmission mast base 12	211889	8236647	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH16	Deadwood Plain transmission mast base 13	211669	8236685	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH17	Deadwood Plain transmission mast base 14	211655	8236618	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH18	Deadwood Plain transmission mast base 15	211634	8236547	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH19	Deadwood Plain transmission mast base 16	211606	8236472	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH20	Deadwood Plain transmission mast base 17	211578	8236432	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH21	Deadwood Plain transmission mast base 18	211567	8236335	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH22	Deadwood Plain transmission mast base 19	211615	8236330	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH23	Deadwood Plain transmission mast base 2	211794	8236915	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH24	Deadwood Plain transmission mast base 20	211638	8236150	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH25	Deadwood Plain transmission mast base 3	211761	8236808	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH26	Deadwood Plain transmission mast base 4	211747	8236816	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH27	Deadwood Plain transmission mast base 5	211770	8236721	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH28	Deadwood Plain transmission mast base 6	211764	8236635	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH29	Deadwood Plain transmission mast base 7	211742	8236550	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH30	Deadwood Plain transmission mast base 8	211713	8236471	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH31	Deadwood Plain transmission mast base 9	211823	8236476	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH32	Deadwood Plain Transmission Station	211796	8236279	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	DWS Transmission Station, now a domestic house.
CH33	Dry Gut sheepfold	216369	8232989	None	D	Near Destroyed	No reference	Drystone animal shelter.
CH34	DWS Power Station	214839	8235246	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Former power plant for DWS transmission station, now known as Bradleys Government Garage and used as housing.
CH35	Fishers Valley Path	216101	8235332	SAM	B	Intact	National Archives (map) CO800STHELENA8a5	Path on the southern edge of Fishers Valley, leading down from Prosperous Bay Plain to the lookout station or battery on the cliff edge below. The path runs for a length of 140m and the feature as a whole is extremely well-preserved and coherent. The drystone retaining wall on the W side is commonly 2m high, and is in particularly good condition for the uppermost (N) 30m stretch. A lower retaining wall exists on the E side of the path, creating a level surface 2m wide. The path fades out after it emerges onto the level ground of the plain, and its course from this point is unclear.
CH36	Fishers Valley Martello Tower	216160	8235457	SAM	B	Damaged	National Archives (map) CO800STHELENA8a4	Remains of a rectilinear building and gun platform close to the cliffs on the southern edge of Fishers Valley. Dimensions of the building 8.9m x 5.9m. Well built drystone rubble courses, width 0.6-0.7m thick, comprising an external and internal face of boulder-sized rock, infilled with smaller stone. Maximum height of surviving masonry 1.6m (SW corner), though much lower in the N part of the structure (0.6m). Immediately below this building to the N is a level platform - part artificial, created by the construction of a retaining wall on the sheer cliff edge. Although no cannon exist here, it is assumed that the site was a Martello Tower or lookout station. Date unknown: labelled on Palmer's map of 1850-52 as 'Old Guard House'.
CH37	Gill Point minor sites	217201	8232760	None	C	Damaged / Near Destroyed	No reference	

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH38	Hay Town House	209172	8238365	LB II	B	Intact	Crallan 1974, *Listing and Preservation of Buildings of Architectural and Historic Interest.*	Attractive two-storey, three bay house in good condition. Metal-roofed veranda on the N side; main entrance centrally-placed on the W side; sashed windows. Corrugated metal roof. A building plaque on the NW corner of the house reads "Hay Town, 1862, GDB". A detached range of outbuildings stand on the N side of the house. The building stands within a low-walled rectangular enclosure and adjoining this to the NW is a walled garden some 75m x 40m, which now stands empty. Hay Town was named after Sir E.H. Drummond Hay, Governor 1856-63, who started to establish housing in Rupert's Valley.
CH39	Liberated Africans' Cemetery 1	209202	8238158	SAM	A	Intact	Melliss' map of Rupert's Valley, 1861.	Burial ground for African slaves freed by the Royal Navy West African Squadron and landed on St Helena between 1840 and 1865. The graveyard is shown on a map of Rupert's dated 1861, on the W side of the road leading through the lower part of the valley. The same map labels an area to the S of the original cemetery as 'addition to graveyard since 1851'. The location shown on the map has been proved to be broadly accurate by limited evaluation excavation, which found multiple burials at a depth of 0.9m, with much disarticulated bone at 0.5m depth. Previously, other bone has been found here by workmen during the laying of the fuel pipeline. The map may not show the full extent of the cemetery, since slaves continued to be landed in the valley in large numbers until 1865.
CH40	Liberated Africans' Cemetery 2	209508	8237870	SAM	A	Intact	Melliss' map of Rupert's Valley, 1861.	Burial ground for African slaves freed by the Royal Navy West African Squadron and landed on St Helena between 1840 and 1865. The cemetery is shown on a map of Rupert's dated 1861, above the prison (the existing structure between the two tank compounds of the mid-valley Bulk Fuel Installation. The 1861 map labels it as 'Old African Graveyard', indicating that it had become disused by this point in favour of the cemetery further down the valley. Geotechnical test pits have encountered burials from this cemetery at several locations, at depths

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								between 0.5m and 1.2m: within the fuel farm (TP/R5) and on the ground further to the SE (TP/B1 and TP/B3). Other burials were disturbed by workmen during the construction of the power station and the new church.
CH41	Liberated Africans' Cemetery 3	209646	8237727	SAM	A	Intact	1872 version of Palmer's map	Burial ground for freed African Slaves, marked on an 1872 version of Palmer's map, on which it is labelled 'Burial Ground, Liberated Slaves'. It is shown further up the valley than either of the two graveyards depicted by Melliss in 1861. Its precise location and boundary is difficult to surmise, but the 1872 map shows it as being above the old wellhouse (itself since destroyed and its position only approximately known). Assuming the map to be correct, this nevertheless suggests that this graveyard is distinct from that denoted by CH41, which lies between the Prison and Wellhouse. The area of the cemetery coincides with a burial found during test-pitting in 2006 (TP/B3).
CH42	Liberated Africans' Depot	209148	8238627	None	A	Near Destroyed	Melliss' map of Rupert's Valley, 1861; National Archives (map) WO 78/2344; National Archives (documents) WO 32/7211 and CO318/151.	Depot for the housing and treatment of African slaves freed by the Royal Navy West African Squadron and landed on St Helena between 1840 and 1865. The depot was located in the area immediately behind Rupert's Lines, at a time when the defences were presumably considered obsolete: it was about this time that the lines were broken through on their western side to provide road access from the coast. The 'African Establishment', as shown on the 1861 map of Rupert's Valley, comprised a variety of structures: rectangular barrack-type buildings (probably in the area now occupied by the disused fish processing plant); behind these, a narrow building labelled as a hospital; a second hospital (possibly beneath the fuel storage tanks); various unlabeled buildings. The only surviving element of the depot is the long narrow building that was later to be adapted for use as a cable house. The depot was finally closed in 1874.
CH43	Path from Longwood Estate to Bradleys	211700	8235076	_	C	Intact	No reference	Post Box Walk, partly adopting traditional trackway.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH44	Path from Rupert's Bay to Jamestown	209046	8238516	_	C	Near Destroyed	No reference	Historic stone-built track connecting Rupert's Bay to Jamestown. Highly ruinous.
CH45	Path to Banks Battery and Lines	209152	8238579	None	C	Damaged	No reference	Stone-built path along the cliff edge, linking Rupert's Valley with Banks Valley Bay and continuing to the defences at Banks Point and Repulse Point. Much eroded, but stretches of the stone-retained path still survive in places, for example on the S side of the valley above Banks Lines. Connected to both Rupert's Bay and Jamestown by stone-built tracks, the former now eroded to the point of being highly unsafe, the latter still passable.
CH46	Path to Saddle and Sampson's Battery	209482	8236956	_	C	Damaged / Near Destroyed	No reference	Historic track from Field Road along the spine of Munden's Hill to Saddle and Sampson's Battery.
CH47	Prosperous Bay Plain distribution hub	215350	8234660	None	C	Unknown	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Distribution point for power to the DWS transmission station masts on Prosperous Bay Plain. Shown on 1983 1:10,000 OS map. The site was not visited during the 2006 Airport assessment.
CH48	Prosperous Bay Plain Structure 1	216656	8234848	None	C	Damaged	No reference	Small coastal lookout platform, precariously situated on the cliff edge with extensive views along the coast particularly to the S. A small path leads down to it, branching from the larger track from the Prosperous Bay Signal Station.
CH49	Prosperous Bay Plain transmission mast 1	214927	8234390	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH50	Prosperous Bay Plain transmission mast 2	215017	8234444	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH51	Prosperous Bay Plain transmission mast 3	214983	8234563	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH52	Prosperous Bay	214877	8234549	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
	Plain transmission mast 4							station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH53	Prosperous Bay Plain transmission mast 5	214806	8234468	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH54	Prosperous Bay Plain transmission mast 6	214819	8234423	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH55	Prosperous Bay Plain transmission mast 7	214815	8234395	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH56	Prosperous Bay Plain transmission mast 8	214997	8234309	None	C	Damaged	No reference	Concrete transmission mast base, part of the former DWS station. Four tapered concrete blocks, each 4ft high, 4ft square at the base and 3ft square at the top. Four 1" steel threaded bolts on top of each block.
CH57	Prosperous Bay Plain transmission masts (group 1)	215500	8234350	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Group of transmission masts shown on 1983 OS map.
CH58	Prosperous Bay Plain transmission masts (group 2)	215800	8234600	None	C	Damaged	Ordnance Survey 1983, St Helena series G 891 (DOS 360)	Group of transmission masts shown on 1983 OS map.
CH59	Prosperous Bay Signal Station	216828	8235247	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II. National Archives (plan) WO 78/3302.	A signal station was probably first built here about 1770, referred to in records as 'Alarm House' (as distinct from the house in the Alarm Forest that now bears this name). Initially relying on alarm guns, from the Napoleonic period a more rapid telegraph system using flags was introduced, and continued until the electric telegraph rendered the semaphore system - and the signal station - obsolete in 1866. The period of the alarm guns is reflected by the survival around the summit of a magazine

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								and a levelled gun platform. The present building marks the return to use of the site in 1887, when it formed part of the newly-established military telephone network. It was abandoned in the first years of the 20th century and is now ruinous; however, its original form is beautifully illustrated on a contemporary 'as executed' architect's drawing. The telephone station comprises a well preserved stone building on the summit above King and Queen Rocks, standing on a partly artificial terrace with its NE wall built into (and partly incorporating) a natural outcrop. Dimensions 13.4m x 5.0m, standing to the original roof height of 2.5m. Built of mortared rubble masonry with cut stone quoins and door and window jambs, the latter of a yellow or red gritty rock that serves as a freestone. Remnants of white paint over the external surfaces. Blocked window in the SE wall. Wooden window and door lintels, some replaced by metal lintels over the doorways. Internal features include two stone-built partition walls, an oven with brick voissoirs and a low staircase. Single pitch roof is now lost: original material used was slate, replaced by corrugated iron. A well-defined and in places excellently preserved revetted track leads up from the Plain to the signal station.
CH60	Prosperous Bay Signal Station Magazine	216793	8235215	SAM	B/C	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Small rectilinear structure, c. 50m to the SSW of, and below, the Prosperous Bay Signal Station. Dimensions 2.4m x 2.65m, standing to a maximum height of 1.25m. Mortared rubble stone courses, 0.45m thick. Probably open-fronted on the NW: neat quoins of gritty yellowish-orange coloured stone on this side - the same material used in door jambs and quoins in the nearby Signal Station. Probably store building or magazine: Denholm's plan labels it as the latter. Must date to the period after 1770.
CH61	Prosperous Bay Signal Station path	214422	8232667	SAM	B	Damaged	No reference	Well-defined path leading from Prosperous Bay Plain up to the Signal Station.
CH62	Prosperous Bay	216663	8235171	SAM	B/C	Not known	Denholm n.d., South	Platform for alarm guns, c. 150m SW of the Signal

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
	Signal Station, gun platform or battery						Atlantic Fortress; Teale 1974 Vol II. National Archives (plan) WO 78/3302.	Station. Shown on map by Denholm. Must date to the period after 1770.
CH63	Ruin to the E of Bradleys Government Garage	215339	8235380	None	D	Near Destroyed	No reference	Rectilinear stone structure, highly ruinous. Dimensions 10m x 8.5m with an opening/entrance on the N side. Drystone construction, using a mixture of large boulders (mostly in the lowest course of masonry) and a variety of angular stone down in size to cobble grade. Wall width c. 0.8m. Structure stands to a maximum height of 0.65m and it is likely that the walls never stood above 1m. Probably an animal shelter.
CH64	Rupert's Bay cable tanks	209125	8238624	None	C	Destroyed	SHG Archives	Store and cistern for submarine telegraph cables, immediately behind the central-south part of Rupert's Lines. Shown on 1902 map of Rupert's Bay.
CH65	Rupert's Bay desalination plant	209141	8238614	SAM	A/B	Damaged	George, B. 1999, *Boer Prisoners on St Helena 1900-1902.*	Seawater desalination plant constructed to supply water for the Boer POWs held in the camp on Deadwood Plain. The plant was completed and its furnace tested: according to the *St Helena Guardian* (24th August 1901), the plant was only used as a trial and was never put into operation. Only the chimney stack now survives, standing within the fuel storage compound. The chimney, c. 10m high, is built from local brownish-yellow brick with some decoration achieved by the use of reddish (more oxidized) brick in the highest registers. The stack as a whole is intact but in poor condition, with serious cracks in the brickwork evident on one side in particular. Metal straps have recently been placed around the chimney, but these are unlikely to keep it standing in the long term. It is not known whether any internal elements may also survive (for example a condensing boiler).
CH66	Freed Slave Depot, Building No.1	209100	8238430	LB II	B	Intact	Denhom 1994, *Signal Gun to Satellite*, p.56; Crallan 1974. National Archives (map) WO78/2344; National Archive (document)	Long narrow building, stone walls exposed, to which various 20th century structures were later added. It is thought to have been built as part of the Liberated Africans' Depot and though its original purpose is not clear it has been suggested (Denholm, *Signal Gun to Satellite*, p.56) to have been a barracks. A document in

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
							WO 32/7211.	the National Archives at Kew records the transfer of ownership of a barracks building - presumably this structure - to the War Office in 1884. The building was adapted in 1899 as a cable house by the Eastern Telegraph Company, and the map of Rupert's Valley of 1902 shows the cable passing directly through, or under, this building. By the 1970s the building had become the offices of the Fisheries Corporation. Its present use is not known.
CH67	Rupert's Bay jetty	209049	8238623	None	D	Intact	No reference	Jetty used for the landing of Eastern Telegraph Company's supplies. Largely unchanged from its original form: an unremarkable concrete structure, now used for the loading an unloading of fishing trawlers.
CH68	Rupert's Bay magazine	209190	8238660	None	C	Destroyed	SHG Archives	Magazine marked on the 1902 map of Rupert's Bay, shown as an irregular enclosure.
CH69	Rupert's Bay miniature railway	208998	8238601	None	B/C	Destroyed	Signal Gun to Satellite, p.57; map in SHR Archives.	Narrow gauge railway associated with Eastern Telegraph Company, used for transporting goods from the jetty to the store buildings behind Rupert's Lines. No trace of the track survives. Likely to have been the only railway to-date on the island. Shown on 1902 map of Rupert's Bay.
CH70	Rupert's Bay telegraph cable	209099	8238606	None	C	Damaged	Signal Gun to Satellite, p.57	Submarine telegraph cable, installed by the Eastern Telegraph Company between 1899 and 1902. The duplexed cables ran through a tunnel in the centre of Rupert's Lines (the part now eroded) to the cable house, and ultimately on to The Briars. The cable core can still be seen above ground on the seaward side of Rupert's Lines, and was encountered at a depth of 3ft (0.91m) beneath the modern ground surface during the archaeological evaluation behind the Lines in 2007.
CH71	Rupert's Hill Structure 1	210292	8238268	None	C	Damaged	National Archives (map) WO 78/612.	Rectilinear structure, labelled as a sheepfold on an 1872 version of Palmer's map. Crude drystone construction using large cobble- and boulder-sized rock in rough courses. In places the wall stands to 1.2m high, which appears to be close to the original height, and 0.7m thick: elsewhere the walling is much tumbled. Dimensions 13.8m long (N-S) x 10.6m wide (E-W), though the N wall is stepped in by c. 4m mid-way along its length, narrowing

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								to an open-fronted entrance at the W end that is 6.4m wide. A small internal partition is built against the E wall. A few rusted metal sheets are present (1.8m x 0.87m), with nail holes showing that these were formerly part of the roof. The Boer War Pipe runs 40m to the S of this structure, but there is no association between these two features.
CH72	Rupert's Lines	209103	8238618	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Records of 27th June 1678 state that outguards kept in Rupert's Valley were to be continued and the site had 8 guns. The earliest reference to show a fort here was the Seller Map of 1682, but the present defensive lines date to the earlier 18th century (c. 1702-8), extensively renovated after 1787. On the Barnes Map of 1811, the fortification is referred to as Rupert's Line and additional batteries are shown well back from the line, their position being where the new fuel storage tanks are now situated. On the Read Map of 1815 and 1818 the Line is called Rupert's Fort. The surviving defences are now somewhat fragmentary: a part of the W Line was broken for access (possibly in the 1840s, as shown on the Palmer Military Map of 1850), whilst the central section has been lost to coastal erosion. Nevertheless, there is an extensive stretch of the wall surviving in a well-preserved state. Various military structures existed behind the Lines and some have been destroyed relatively recently, including a magazine shown on a map surveyed in 1920. The cobbled surface survives at a depth of 0.5m beneath the modern ground level, as proven by excavations in 2007.
CH73	Rupert's Battery	208799	8238695	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	On the ledge of Munden's Hill overlooking Rupert's Line fortifications there are two old ruined battery sites which are believed to be those referred to as Rupert's Lines Hill in the Melliss List of Guns for 1825-36. At this early time, Munden's Hill was often wrongly called Rupert's Hill. These two batteries were shown on the Palmer Military Map of 1850 which included an old magazine and guardhouse that are now both ruins. Not visited during the 2007 Airport assessment.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH74	Rupert's Valley gravestones	209288	8238043	None	B	Damaged	No reference	Approximately 25 gravestones of 18th and 19th century date relocated from Jamestown and now lying in a pile near to the modern church. Found together with a large pile of rough-squared building stones, formerly the spire of Jamestown church, demolished in 1980.
CH75	Rupert's Valley Prison	209515	8237905	None	C	Damaged / Near Destroyed	Melliss' map of Rupert's Valley, 1861.	Prison built 1853-4, now a roofless masonry structure surviving in poor condition between the two tank compounds of the Mid-Valley BFI. Dimensions 15m x 25m. There is some confusion over the identity of this building, because two structures existed near this location in the mid 19th century and only one now survives. The building is erroneously labelled on the modern OS 1:10,000 map as 'Well House (ruin)', and is similarly named on earlier maps e.g. the 1920 Admiralty survey. All the evidence points to this being the prison.
CH76	Rupert's Valley Well House	209593	8237706	None	D	Destroyed	Melliss' map of Rupert's Valley, 1861.	Well house marked on original editions of Palmer's map (1850-2), but disused by Melliss' survey of 1861. Now destroyed and its precise position can only be approximately surmised.
CH77	Sharks Valley 1	214374	8232656	None	C	Near Destroyed	No reference	A small stretch of drystone wall on the N side of the valley, c. 5m above the existing track. Most probably a lookout point. Below (downstream) from this point, the remnant of a stone-built track can be traced for a few tens of metres.
CH78	Sharks Valley 2	215355	8232397	None	C	Damaged	No reference	Stone-built track extending for c. 50m on the S side of the valley. Typical style of drystone rubble courses, which where carrying the track over a small gully survives to a height of 11 courses (1.5m high). This remnant of track is terminated at the E end by a large rock slide.
CH79	Sharks Valley 3	215467	8232412	None	C	Near Destroyed	No reference	Two fragments of drystone wall, built slightly off 90 degrees from the direction of the valley. Highly ruinous, but enough survives to demonstrate that the walling did not form part of the same structure, nor are they a continuation of the path to the W (ID: Sharks Valley 1). Perhaps shelters associated with watch platforms: the site has a reasonable, though not complete, view of the valley mouth where it opens to the ocean.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
CH80	Sharks Valley 4	215226	8232326	None	C	Near Destroyed	No reference	Ruins of a small rectilinear (possibly square) building on the S side of the valley, above the present track. Very tumbled drystone construction, utilising all sizes of rock. Perhaps a shelter for a military watch-point: the site has good views for several hundred metres downstream as far as the next interlocking spur.
CH81	Sharks Valley 5	215123	8232301	None	C	Near Destroyed	No reference	Stretch of revetted track on the S side of the valley, surviving in very good condition - up to 2m high - though only for a length of c. 4m. Forms part of the track presently in use.
CH82	Sharks Valley 6	214867	8232369	None	C	Near Destroyed	No reference	Stretch of revetted track on N side of the valley, surviving in much-damaged form for a length of 15m.
CH83	Sharks Valley 7	214394	8232650	None	C	Near Destroyed	No reference	Very fragmentary patches of dry stone wall on the N side of the valley, of which little sense can be made. Some, though not all, could have been part of a track.
CH84	Sharks Valley 8	214389	8232617	None	C	Near Destroyed	No reference	Short stretch of drystone wall on the S side of the valley, probably part of a track.
CH85	Sharks Valley tracks (general entry)	215637	8232434	_	C	Damaged / Near Destroyed	No reference	Fragmentary remains of drystone-built track or tracks that can be seen in places on both the N and S sides of Sharks Valley over a distance of c. 1.5km. Condition varies from very good to extremely poor. Individual elements of these tracks are described by Sharks Valley 2,4,5,6,7,8.
CH86	Structure on Creeper Hill (site of break-tank)	214398	8232982	None	D	Near Destroyed	No reference	Highly ruinous drystone structure on the eastern side of the hill, partly utilising a natural outcrop. 5m in length, with three short arms of walling creating an 'E' shape. Maximum surviving height of the structure is <1m, and was never much greater. Probably an animal shelter.
CH87	Alarm Hill	210229	8234942	None	_	_	_	Shown on 1:25,000 map.
CH88	Alarm House	210236	8234944	_	_	_	Denhom 1994, *Signal Gun to Satellite*, p.3.	Two-storey 4 bay house on prominent site. Crallan suggests that the present house dates no earlier than 1760 (contra. Teale II.2.2 who suggests an original building of 1707, replaced in 1716). Certainly there are historical records for the building of an alarm house at or near this location in 1707, part of the alarm gun network.
CH89	Banks Battery	209729	8239645	SAM	A	Damaged	Denholm n.d., *South*	Defensive lines, with several surviving buildings and a

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
							Atlantic Fortress; Teale 1974 Vol II.	lime kiln in the area behind. The Lines have been partially eroded by the sea, which is rapidly cutting back the soft deposits on which the cobbled pavement and buildings stand. The defences comprise a curtain wall approximately 3m thick, stretching completely across the valley entrance, with the north end flanked by a narrow wall angled to the cliffs. The main wall was about 5m high above the foreshore, and contained a series of gun embrasures but there are only two surviving. Most of the main platform is still intact in spite of serious erosion where the curtain wall has been destroyed, and several gun emplacements paved with Portland Stone slabs are still in fair condition. An arched storm water tunnel runs beneath the platform at the northern end where a portcullis was installed but all the stonework is now in a state of ruin. At the southern end of the platform several caverns have been built into the cliff to serve as magazines and a furnace for heating shot. The array of old ruined stone buildings situated at the rear were ancillary facilities which must have included living quarters. Known originally as "Banckes Platform" the first reference to it is in the Records of 27th June 1678 when mention was made that it had 3 guns, and outguards were stationed there on a day and night rotation system. Shown on Sellers' Map of 1682, there is no doubt that it was the site of the first fortification in this sector of the island, but the ultimate thick curtain wall - a relic of which can be seen today - was not completed until the period 1700-1740.
CH90	Banks Valley Battery	209937	8239675	None	B/C	Unknown	No reference	Ruined battery on the hillslope overlooking Banks Valley Bay. No further information available. Not visited during the 2007 Airport assessment.
CH91	Boer Cemetery	208802	8234460	SAM	B	Intact	_	Burial ground for Boer prisoners held on the island between 1900 and 1902.
CH92	Briars Pavillion	209379	8235931	_	_	_	_	Napoleon's first residence on St Helena.
CH93	Buttermilk Point Battery	209843	8240085	SAM	A	Intact	Denholm n.d., *South Atlantic Fortress*;	The origins of Buttermilk Point Batteries are shown in the Records of October 5th 1778 when a road from Banks' to

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
							Teale 1974 Vol II.	Buttermilk Point and a Battery were proposed. The Buttermilk Point Batteries consist of an Upper Battery, and a two-tier Lower Battery
CH94	Cason's Gate	207673	8232798	_	_	_	_	Lookout station.
CH95	Cockburn's Battery	202756	8232823	_	_	_	_	No information entered.
CH96	Cox's Battery	215138	8237335	_	_	_	_	There do not appear to be any records available for Cox's Battery except a reference on Barnes Map of 1811 which shows it in error as being the furthest inland of two batteries, the other being Gregory's Battery. It seems that Cox's Battery was probably built during Governor Beatson's term of office, at some time between 1808 and 1811 when it was first shown on a map. The Palmer Military Map of 1850 does not show any Battery in the position of Cox's although it gives a battery further inland for the position of Gregory's without naming it. Both the 1922 Admiralty Map and the modern map of St. Helena show both batteries in the area as ruins. Certainly today Cox's Battery is a ruin, but the loose stones to the breastwork indicate that it was a semicircular shape. The Melliss List of 1825-36 gave this battery as having one 12 pounder and one 24 pounder carronade with two wooden platforms
CH97	Diana's Peak	210430	8232718	_	C	Intact	Signal Gun to Satellite, p.53; SHG Archives	Abandoned gun near the track to Diana's Peak, suggested to be c. 1750-1800 in date.
CH98	Dockyard	210979	8239797	_	U	N/A	No reference	Place-name labelled on 1990 edition 1:25,000 map. Significance of the name unknown.
CH99	Dutch Battery / Turks Cap Battery	215150	8237611	_	_	_		As confirmed by island Records and also mentioned by T. H. Brooke in his "History of Island of St. Helena" published in 1823, fortifications were commenced at Turks Cap Valley in 1734 and on 24th July of the same year it was recorded that the Battery for 8 guns, a Guard House and Powder Room were nearly finished. However a slightly later Record of 17th September 1734 gives Governor Pyke as stating that the Turks Cap Battery was

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								well advanced but with the Longboat being lost it could not be completely finished until three longboat loads of lime had been delivered.
CH100	Flagstaff alarm gun post	212536	8238560	_	_	_	Text source	No information entered.
CH101	Gregory's Battery	214597	8237227	_	_	_	_	By the time Gregory's Battery was built the old Turks Cap Battery below had long been in ruins, and thus Gregory's was then the only effective fortification to prevent a landing at Turks Cap Bay. Cocks Map of 1804 shows Gregory's Battery together with a telegraph station in the near vicinity, a rather interesting addition as the telegraph system had only been introduced by Governor Patton in 1803. The Battery is now in a very reduced condition, the walls having fallen off to almost ground level where these are seen as being of semicircular form. In 1825-36 the Melliss List showed that Gregory's Battery had one 9 pounder and one 12 pounder Garris Guns on two wooden platforms.
CH102	Half Moon Battery	209730	8239741	SAM	A	Intact	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	First mentioned in the Records of 1693 under the original name of King William's Fort. It is referred to in the Records of 1717, and again in a Report of the Island. Defences dated 1st May 1734, describing King William's Fort as "being built on the hill above Bankses Platform which was the first to be built there". In Major Rennell's Report of 26th November 1777 this fortification had lost its original name of King William's Fort and was named Bank's Upper Battery (also called Purling's Battery). The present name of Half Moon Battery does not seem to appear until the 19th century when it was referred to as such in the Melliss List of Guns for 1825-36
CH103	Halley's Mount lookout station	210510	8233861	_	_	_	_	No information entered
CH104	Halley's Observatory	210524	8233928	_	B	Not known	Gosse 1938, p.81	Site of Edmund Halley's observatory, 1677-1678.
CH105	High Hill signal post	204201	8231803	_	_	_	_	Listed as active in 1815. Ruins of guard house present

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CH106	High Knoll Fort	208639	8235958	_	A	Intact	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	The first defence works at High Knoll were built in 1790 during Governor Robert Brooke's term of office. Several prints and sketches of this Fort were made during its early years, but mostly it was shown from a distant view, one of the best and clearest being drawn by Captain Barnett and published 31st July 1806 (British Library). It shows the Fort consisting simply of a high square structure having two outer towers and stone ramparts. The present fortification dates to the later 19th century, a plaque above the arched entrance has a date of 1874 for this particular element.
CH107	High Peak alarm gun post	209110	8231792	_	_	_	_	No information entered
CH108	Holdfast Tom Battery	215647	8236205	SAM	U	Unknown	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Battery site, as confirmed on Barnes Map of 1811. The crest of Holdfast Tom has now been modified to a substantial ledged area and the edging has been reinforced with stonework. There is evidence of other walling that once existed but is now just a large pile of stones. In the Melliss List of Guns for 1825-36, Holdfast Tom Battery was recorded as having one 12 pounder Carronade but there is no gun there now. Marked on Palmer's 1850-2 map as 'old guard house' and on the modern OS map as 'ruin'. Not visited during the 2007 Airport assessment.
CH109	Holdfast Tom path	215510	8235862	None	B/C	Damaged	No reference	Remains of a path on the N side of a small gut, leading uphill from the gut and following the line of the cliff. Typical drystone construction in a reasonable state of preservation. Presumably this path linked Holdfast Tom Ruin 1 (possibly guard house) and the Holdfast Tom Battery.
CH110	Holdfast Tom Ruin	215561	8235792	None	C	Damaged	No reference	Stone ruins to the SW of a small gut, comprising a main structure and several other walls in its vicinity. The main structure is a narrow rectilinear building, with dimensions c. 22m x 7.5m. Drysone construction in rough rubble courses, 1m wide and standing to a maximum height of 1.5m. There is a large amount of fallen stone, suggesting the original height was considerably greater. The plan

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								may have been four cells of roughly equal size: certainly there is a central division. Entrance at N end, 2.5m wide. The building must have been a dwelling, presumably with a military function - i.e. a guard house. This is probably the structure marked on Palmer's map of 1850-2. Little sense can be made of the low fragments of wall to be found near to the main building, to its S and W: the former of these survives as three sides (possibly of a roughly rectilinear building or compound) but only to a maximum of two courses of drystone rubble. Pottery sherds are present around the ruins, including blue/white glazed domestic pottery (possibly 19th century) and pieces of a large storage vessel, of thick red pottery with remnants of glaze on the interior surface.
CH111	Jamestown wreck 1	207824	8238682	_	U	Damaged	No reference	Shipwreck site shown on modern OS map.
CH112	Jamestown wreck 2	208249	8238260	_	U	Damaged	No reference	Shipwreck site shown on modern OS map.
CH113	Jefferies Battery	215786	8236396	SAM	U	Unknown	No reference	Battery below Holdfast Tom. No further information available.
CH114	Lemon Valley alarm gun post	205993	8236120	_	_	_	_	No information entered
CH115	Long Range lookout station	211751	8230898	_	_	_	_	No information entered
CH116	Longwood Entrance Lodges (Longwood Gate)	211651	8235149	LB II	B	Intact	Crallan 1974, *Listing and Preservation of Buildings of Architectural and Historic Interest.*	Two small buildings, thought to belong to the 18th century, either side of gate piers mark the entrance to Longwood Avenue and emphasize the importance of the approach to Longwood House.
CH117	Longwood Farm House(Bertrand's Cottage)	212185	8235347	LB II*	B	Intact	Crallan 1974, *Listing and Preservation of Buildings of Architectural and Historic Interest.*	It is believed that Longwood Farmhouse was built in 1817 for General Henri Gratien Bertrand, Napoleon's Grand Maréchal. After the departure of the French, the Bertrand's house became a farmhouse for the Company owned farm at Longwood. In 1829 the farm was broken up and leased to a private tenant. Longwood Farmhouse consists of a main block under a very large gable roof,

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								with back projections under a shed roof at the south, and an independently roofed sunroom on the north and kitchen on the west. There are dormers to rooms in the roof space, but this floor is currently inaccessible, due to the staircase having rotted and been removed. The main block has seven bays at the front, though these are unevenly distributed. The three central ones correspond to the central sunroom and are closer together. The sunroom has casement windows with semi-circular heads. The rest of the house has sash windows. The layout of the first floor consists of three equally sized rooms running along the front, with a hallway and smaller rooms along the back and under the shed roof.
CH118	Longwood House	212249	8235220	LB I	A	Intact	National Archives (drawings) CO 700/ST. HELENA1 and WO 78/2507/6.	Residence of Napoleon from December 1815 to his death in May 1821. Heavily restored.
CH119	Longwood Signal Station	212291	8235236	None	C	Destroyed	Denhom 1994, *Signal Gun to Satellite*, p.9-10.	Visual telegraph signal station built within the grounds of Longwood House c.1840. The station was a square tower-like structure whose location is described as having been 'off the NE corner of the veranda'. Condition unknown but assumed destroyed.
CH120	Man and Horse lookout station	202394	8229784	_	_	_	_	No information entered
CH121	Maskelyne's Observatory	210439	8234108	_	U	U	_	Observatory located on the ridge behind Alarm House, used by Dr Nevil Maskelyne in 1761 to observe the transit of Venus. Site not visited during the Airport assessment.
CH122	Middle Point Battery	209769	8239933	SAM	A	Intact	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Proceeding north along the coastal path from Half Moon Battery, the Middle Point Battery is only about c.60m distant, and its purpose was to give supporting fire in the event of any ship refusing to send in their boat for permission to proceed. Of 7m diameter semicircular shape, the Battery wall is based directly on cliff rock, and rises to 4 feet above platform level but there is no gun embrasure in the wall. It is almost certain that this Battery was built in 1778 during the same period as Buttermilk Point Batteries. There is no apparent reference to it in

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
								any of the Reports on Defences, except the Melliss List of Guns for 1825-36 which gave it as having one 18 pounder Howitzer with a single platform. This battery is in a fairly well preserved condition.
CH123	Munden's Battery	208528	8238597	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Extensive fortifications and point, so-called after Sir Richard Munden who recaptured the island from the Dutch in 1673. The site was used as a battery from the late 17th century, two guns being placed here immediately after the island's recapture. New building work was enacted from 1708, and records state on December 19th 1710 that the 'Castle' at Munden's Point was finished. Some very early imaginative sketches do show the Battery of that time as resembling the appearance of a small castle. A road from James Fort to Munden's Battery was completed in 1713 and this road is still used today as a path. Throughout the 18th century there were a number of reports on the battery, with varying opinions on its effectiveness. Read's map of 1815 gave the site's name as Munden's Fort, while in the Melliss List of Guns for 1825-36 it was termed Munden's Battery and listed as having twelve-24 pounder Garris Guns, three 6-inch Carronades, and two 13-inch mortars, with a total of 17 stone platforms. From 1834 following the East India Company's withdrawal, Munden's Battery along with most other fortifications suffered a decline, but in 1853 it was included in the Report on Fortifications by Captain Stace of the Royal Engineers as amongst those to be kept in a state of efficiency during peacetime. With the new defence strategy to protect Jamestown Harbour, Munden's Battery was armed with three 7-inch R.M.L. guns of 7 tons, all of which were mounted in a casemate at the western end of the Battery. The casemate type of fortification at Munden's Battery was subsequently modified for installing two pedestal-mounted 6-inch R.B.L. guns for which the circular bedplates and holding-down bolts can still be seen. This fortification of casemated form is now the main relic of Munden's Battery. The shore over

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								100 feet below Munden's Battery was the dumping place for obsolete guns, and in 1985 when there were still ten of these strewn amongst the rocks, they consisted of seven smooth-bore cannons of 6-inch calibre dating early 19th century, and three R.M.L. of 6 inch calibre dating from about 1860. None of these old guns could have been used in the casemated main Munden's Battery, but they were certainly mounted at earlier sites of the Battery.
CH124	Munden's Hill East Battery	208813	8238491	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	One of two batteries built on Munden's Hill in 1886 as part of the new defence strategy to defend Jamestown from sea attack. Lying nearby this Battery is a large R.M.L. (rifled muzzle loading) gun dated 1872. By the end of the 19th century the R.M.L. guns had almost become obsolete, and probably about the time of the 1914-18 World War the batteries on Munden's Hill were rebuilt to mount R.B.L. (rifled breech loading) guns of 6-inch calibre. This battery, of comparatively modern form, has a circular sunken platform in which the holding down bolts can still be seen for mounting the pedestal type gun. The breastwork of stone blocks is semi-circular in shape, spayed down at the front and overlaid with concrete or cement rendering. Several ammunition lockers are positioned around the platform rear, while shells were raised by two hand-operated conveyors from underground magazines. Access to the underground compartments is via a well constructed long flight of concrete steps flanked by a splendid masonry wall. It is a very extensive arrangement of rooms and compartments all in very good order, and much of the conveyor equipment including the chain drive and manual operating handle for the shell hoists are still intact. A short distance from the Battery is a very small covered structure containing a stone pillar that was used for mounting some range-finding apparatus to determine directional bearings for the gun. A small three-roomed building with a chimney is within 50m of the Battery, and was probably built as quarters late 19th century when the earlier battery was active.

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CH125	Munden's Hill West Battery	208645	8238309	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Battery contemporary with, and almost identical in design to, Munden's Hill East Battery. In an identical manner as for the East Battery, the West Battery was built on the same site to replace the fortification in which an old 1865 R.M.L. gun was mounted, but again as for the East Battery its later pedestal-mounted R.B.L. gun has been removed.
CH126	Munden's House	208605	8238503	LB II	B	Near Destroyed	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Two-storey building known as Munden's House which was probably built in the late 19th century as a guardhouse. The cliff it is situated on has become undermined by the sea and the building is now considered unsafe. Between 1957 and 1961 Munden's House was used to house three political prisoners from Bahrain who were sent into captivity on St. Helena. Munden's Battery was specially modified at this time to include barbed wire screening, security gates, and the entrance to its tunnel was sealed up.
CH127	Napoleon's Tomb	210620	8234203	_	_	_	_	Shown on 1:25,000 map
CH128	Observatory 1892-1924	210696	8233948	_	_	_	_	Shown on 1:25,000 map
CH129	Observatory 1925-1976	210750	8233976	_	_	_	_	Shown on 1:25,000 map
CH130	Old Flax Mill	210601	8233766	_	_	_	_	Shown on 1:25,000 map
CH131	Plantation House	208202	8234579	_	_	_	_	Shown on 1:25,000 map
CH132	Plantation, White Gate visual telegraph	208330	8234591	_	_	_	_	No information entered
CH133	Prosperous Bay Battery, Magazine	216107	8236301	SAM	A	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	The well built semicircular shaped Prosperous Bay Battery and its separate Martello Tower are situated on the mound of a high cliff at the western end of the rough shoreline entrance to Fisher's Valley. There was formerly another Martello Tower at the eastern end but it has long been destroyed by coastal erosion. Island Records of 27th June 1678 indicate that outguards had been kept and would continue to be kept at Prosperous Bay, while

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								the same record states that two small guns were kept there. In 1717 it was recommended that 4 men and 1 officer be on constant duty at Prosperous Bay and one man at Keigwin's Landing Place which is in the same area. A List of Guns at the various batteries in 1727 gave Prosperous Bay as having four, which shows the important consideration for having it fortified, and yet a Report on the Defences of the Island, dated 1st May 1734, stated with reference to Prosperous Bay "there hath never been any guns here", seeming to be an error because the foregoing records state that there were guns. Prosperous Bay Battery is of a type that belongs to an early period, very likely built during the early 19th century to form part of fortifications during the period of Napoleon's captivity on the island. The Melliss List of Guns for 1825-36 show Prosperous Bay Battery as having one 8 inch Howitzer and one 9 pounder Garris Gun with two wooden platforms. It is on the Palmer Military Map of 1850 but doubtful if it was operational then, while the 1922 Admiralty Map endorses it as a ruins.
CH134	Remains of the wall of Great Wood	213049	8236633	SAM	B	Unknown	Ashmole & Ashmole 2000, 149-155.	Fragmentary survival of the wall that was built with the intention of protecting the Great Wood - the remnants of natural forest on the island, occupying the area of Deadwood Plain, Longwood and Bottom Woods - from goats and cattle. The main attempt at enclosure was undertaken between 1723 and 1727 - a controversial, expensive and ultimately unfinished project.
CH135	Repulse Point Battery	209795	8240038	SAM	A	Intact	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Repulse Point Battery is the next Battery to be reached after Middle Point c. 60m further, and is of a similar level and size. Without any reference in the records the origins of this Battery can also be tied to the same period of 1778 as for Buttermilk Point Battery
CH136	Sabine's Observatory; St Matthew's Church; Longwood	212009	8235238	LB II	B	Unknown	Gosse 1938, 316; Crallan 1974, *Listing and Preservation of Buildings of Architectural and*	Originally built in 1840 by Gen. Sir Edward Sabine as a meteorological observatory; later used as a church (up to 1973). Present condition and use unknown. Possibly now called Longwood Cottage.

ID	Name	X	Y	Status	Value	Condition	Main References	Full Description
	Cottage						*Historic Interest.*	
CH137	Saddle Battery	209185	8237589	SAM	B	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	This twin Battery was very likely built during the Napoleonic Wars, as although it was not shown on Cocks Map of 1804 it is shown on Barnes Map of 1811. The Palmer Military Map of 1850 shows Saddle Battery together with a reference number but in spite of its comparatively good order it would surely have ceased to be an active Battery long before the end of the 19th century. Situated towards the southern end of Munden's Hill, just below the ridge on the eastern slope overlooking Rupert's Valley and at a height of 270m above sea level, Saddle Battery was obviously built for the same reason as Bunker's Hill Battery, to defend Rupert's Valley if Rupert's Line had been taken by an enemy, and it was very well placed for that purpose. It was likely called Saddle Battery because it is close to the saddle of Munden's Hill ridge.
CH138	Saddle Point, Lookout House	217403	8235270	_	_	_	_	Built 1770.
CH139	Sampson's Battery	209213	8237544	SAM	B	Damaged	Denholm n.d., *South Atlantic Fortress*; Teale 1974 Vol II.	Large semicircular battery built facing the upper end of James Valley, its three stone-formed gun platforms allowing for a bearing on both Rupert's Valley and lower James Valley, including Jamestown. Its date of origin can be coupled with Saddle Battery between 1804 and 1811.
CH140	Sandy Bay Lines	209018	8229252	_	_	_	_	No information entered
CH141	Sandy Bay Lines limekiln	209071	8229348	_	_	_	_	Shown on 1:25,000 map
CH142	Sandy Bay lookout station	209120	8229155	_	_	_	_	No information entered
CH143	Sandy Bay Valley ruins 1	208760	8230060	_	_	_	_	Shown on 1:25,000 map
CH144	Sandy Bay Valley ruins 2	208792	8230229	_	_	_	_	Shown on 1:25,000 map
CH145	Sellers Map artillery park	211831	8237185	_	_	_	SHG Archives	Artillery park to the NW of Longwood Farm, probably on Deadwood Plain, marked on Seller's map of 1815. Precise location unknown.

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CH146	Southwest Point visual telegraph	201306	8230176	_	_	_	_	No information entered
CH147	St Matthew's Church	210621	8233906	_	_	_	_	Shown on 1:25,000 map
CH148	St Paul's Cathedral	208267	8234434	_	_	_	_	Shown on 1:25,000 map
CH149	Sugar Loaf Hill lookout station	210248	8240037	_	_	_	_	Mentioned in 1717 as one of the places where outguards were kept, and there is much evidence of the ruins of the old walled up track that rises to the summit. A military telegraph system was introduced to the island by Governor Patton in 1803, and as confirmed on Barnes Map of 1811, Sugar Loaf Hill was one of the telegraph stations.
CH150	Sugar Loaf Point quarry	210704	8240007	_	D	Unknown	SHG Archives	Limestone quarry marked on Palmer's map of 1850-2. Precise location unclear: perhaps on the coast?
CH151	Telegraph Marker Board, Munden's Battery	208556	8238537	None	C	Intact	Denhom 1994, *Signal Gun to Satellite*, p.46.	Large wooden signboard on the site of Munden's Battery. Large white letters on a black background, giving notice to shipping of the presence of the submarine telegraph cable; c. 1900.
CH152	Thompson's Bay battery ruin 1	202364	8231374	_	_	_	_	Shown on 1:25,000 map
CH153	Thompson's Bay tower ruin	202360	8231603	_	_	_	_	Shown on 1:25,000 map
CH154	Woody Ridge Flax Mill	212364	8233374	_	C	Damaged	No reference	Abandoned flax mill; concrete block construction belonging to the 1940s or 1950s.
CH155	Woody Ridge Road, stockyard	213975	8234056	None	C	Unknown ?Destroyed	SHG Archives	Stockyard marked on Palmer's map of 1850-2, on the edge of Dry Gut. Location not well-defined and the area not visited during the 2007 Airport assessment.