ENVIRONMENTAL STATEMENT
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A10.1 LANDSCAPE AND VISUAL AMENITY – DETAILED ASSESSMENT

The landscape and scenic quality of the island is one of St Helena's most valuable environmental resources. The landscape has undergone extensive change since the early settlers arrived and the natural environment with the indigenous and endemic plant communities has undergone extensive degradation. Nonetheless, this predominantly man-made landscape exhibits incredibly dramatic and spectacular scenery of the highest quality, displaying a diverse range of landscapes and habitats. It is also a unique and fragile landscape that is vulnerable to change. The protection, restoration and enhancement of it are therefore essential for the successful integration of the access proposals.

This technical appendix presents the baseline landscape character and visual amenity of the study area. It identifies the key landscape features and visual receptors (residents, visitors and users of the landscape) which will be impacted by the airport and its supporting infrastructure and assesses the temporary and long term impacts of the Airport and supporting infrastructure proposals on the landscape resource and visual amenity of the study area. It also identifies mitigation measures which will be undertaken to avoid, reduce or offset the potential landscape and visual impacts which could occur as a result of the proposed scheme described in Scheme for Assessment - Chapter 2 of Volume 2 of this ES and illustrated in Figures 2.1 to 2.18 in Volume 3 of this ES. Further details of mitigation requirements can be found in the Landscape and Ecology Mitigation Plan contained in Appendix 10.2 and the EMP.

Landscape and visual assessments are separate though linked procedures and are presented separately within this appendix.

LANDSCAPE

10.1 INTRODUCTION

The landscape section describes the key components, features and characteristics that make up the various landscape types found within the wider development area. It provides an evaluation of the implications of the airport and supporting infrastructure development in terms of direct impacts on key landscape components and features. It also considers the extent to which loss of features and the introduction of the proposed airport and supporting infrastructure, including the haul route and permanent access route, could influence perception of the landscape types and wider character of the study area.

10.2 METHODS

Dedicated work on the landscape and visual amenity elements of the EIA commenced in October 2005 with a visit to St Helena by a chartered landscape architect to undertake baseline data collection including landscape characterisation of the study area. This primarily informed the development of the reference design to ensure that landscape and visual amenity considerations were fully taken account of during the development of the

reference design. The landscape and visual assessment has been an ongoing process since 2005 with a subsequent visit to St Helena in May-June 2007, once the reference design was finalised to complete the assessment in parallel with the development of the landscape mitigation commitments.

The following section identifies the methodology used in the landscape assessment including definitions of scenic quality and value, sensitivity and magnitude of change as well as assessment criteria, along with details of the specific assessment tasks which have been undertaken.

10.2.1 Assessment Guidelines

The landscape assessment has been prepared with reference to the Guidelines for Landscape and Visual Impact Assessment (GLVIA), published by the Landscape Institute and the Institute of Environmental Management and Assessment in 2002 and the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 5.

The GLVIA guidelines acknowledge a relationship between the perception of landscape character and the experience of viewers (referred to as receptors – residents, people in their workplace, using recreational facilities, using the countryside etc).

GLVIA relies on an appreciation of the existing landscape, its sensitivity to change, a thorough understanding of the development proposals, the magnitude of change that will result from the construction and operation of the proposed development and the potential to mitigate impacts.

There are four key stages to the assessment:

- Recording and analysis of the character, quality, value and sensitivity to change of the existing landscape;
- An appreciation of the nature, form and features of the proposed development;
- An assessment of the magnitude of change likely to result from the development; and
- Evaluation of the significance of the changes identified based on magnitude of change and sensitivity.

10.2.2 Specific Assessment Tasks

The following assessment tasks have been undertaken during the assessment process:

- A review of existing information including the following documents:
  - Ashmole P & M (2000) St Helena and Ascension Island: a natural history. Antony Nelson, Oswestry UK
  - Cronk Q C B (1984). The historical and evolutionary development of the plant life of St Helena. Unpublished thesis, Cambridge University
  - Cronk Q C B (2000) The Endemic Flora of St Helena. Antony Nelson, Oswestry UK
  - Government of St. Helena (1993). Report on Sustainable Environment and Development Strategy and Action Plan for St Helena. Volume 2 Environmental Profile.
  - Kendle A. D. (1995) The Rehabilitation of the St Helena Crown Wastes. Report of a Desk Research Exercise and Proposals for Experimental Trials.
  - Weaver B. A Guide to the Geology of Ascension Island and Saint Helena.
- A review of current mapping, satellite imagery and data on landscape and conservation interests within the wider study area;
- Analysis of existing and proposed land use data and policies from the St Helena Land Development Control Plan (LDCP) (Approved 2007);
- Extensive consultation with SHG and other interested bodies on St Helena including St Helena National Trust;
- Site appraisal of landscape character areas and the key landscape, ecological and cultural components determining them. Site recording involving annotation of plans, supported by a photographic record of the area. A hand held GPS was also used to record locations of key landscape features including endemic flora;
- Drafting and description of landscape character areas including analysis of their sensitivity to change;
- Analysis of change in character and potential resultant effect on scenic quality and value related to impact on specific landscape elements and the potential composite change in identity engendered by the development proposals. The analysis takes into account mitigation measures;
- Development of landscape and ecological mitigation measures to ensure a cohesive and integrated approach to mitigation which reflects the intrinsic relationship between the landscape and ecology on the island; and
- Evaluation of the effects of the proposed change on the landscape character areas.

Since landscape and visual assessments are closely linked, the data collected has been used for both as appropriate.

The baseline survey and landscape characterisation covered a study area extending approximately 1- 2km either side of the development area.

10.2.3 Change Over Time

Landscape impacts change over time as mitigation, such as planting and restoration of habitat types as part of the proposals establish and mature; and as existing landscapes external to the development evolve. The assessment acknowledges change and reports on the impacts during the construction phase, year of opening and 15 years after scheme opening.

10.2.3 Landscape Character, Scenic Quality and Value

Landscape character is a composite of physical and cultural elements. Landform, hydrology, vegetation, land cover, land use pattern, cultural and historic features and associations combine to create a common ‘sense of place’ and identity which can be used to categorise the landscape into definable units (character areas). The level of detail and size of unit can be varied to reflect the scale of definition required. It can be applied at national, regional and local levels.

Scenic Quality relates to the intrinsic aesthetic appeal demonstrated by a character area, area feature or component within the landscape. An assessment of Scenic Quality has been carried out based on a five point scale and evaluated against the following criteria:

- Highest Quality - Contributing together to create a stimulating composition which is aesthetically and scenically outstanding; or which is an outstanding example in the area of well cared for "pure" and "undiluted" landscape or set of features;
- Very attractive - Contributing together to create a composition which is aesthetically and scenically pleasing; or which is a good example in the area of a reasonably well cared for "pure" landscape or set of features;
- Good Landscape - Contributing together to create a composition which is aesthetically and scenically unremarkable; or an area or set of features which is neutral or of mixed character;
- Ordinary Landscape - Contributing together to create a composition which is aesthetically and scenically bland; or which is an example of an unstimulating landscape or set of features; or with few or poorly related/ unrelated features;
- Poor Landscape - Contributing together to create a composition which is aesthetically and scenically very poor; or which is an example of monotonous, unattractive, visually conflicting or degraded landscape or set of features.

The values ascribed in the analysis of scenic quality are only related to landscapes in the local context of St Helena. Areas of different scenic quality do not necessarily correlate with landscape character areas.

Value is frequently addressed by reference to international, national, regional and local designations determined by statutory and planning agencies. On St Helena, the LDCP affords the landscape resource a level of protection through the NPA designation. Whilst these areas are not designated entirely on landscape grounds they do respect the intrinsic scenic quality of the areas they designate. However, the geographic extent of some of the proposed NPAs where scenic quality is a key criteria in the designation, do not always reflect the true extent of the valued landscape. Given that the landscape resource of St Helena is arguably not afforded sufficient designation, value can not be ascribed on this basis alone, especially as absence of such a designation, does not infer a lack of quality or value.

A landscape, may be valued by different communities of interest for many different reasons without any formal designation, recognising, for example, perceptual qualities such as scenic beauty, tranquillity or wildness; special cultural associations; the influence and presence of other conservation interests. Therefore factors such as accessibility and local scarcity can render areas of nationally (island wide) unremarkable quality, highly valuable as a local resource.

Value has therefore, been ascribed with consideration of proposed NPA status in conjunction with an understanding of the informal use of the various landscapes, informed by the two visits to the island and wherever possible through informal consultation with SHG, NGOs and residents.

10.2.4 Landscape Sensitivity to Change

The methodology used in this assessment adopts the terminology within current best practice of assessing "Sensitivity to Change" (GLVIA). The assessment of the landscape sensitivity to change remains specifically related to the proposal. The extent to which the landscape components, landscape areas will accommodate and tolerate the type of change which will be caused by the development proposed both during construction and during operation of the scheme is assessed by consideration of the following factors:

- The change proposed;
- The ability of the landscape components which are physically affected to accommodate the change proposed; and
- The ability of the wider landscape and its components to accommodate the change proposed.

It should be noted that although this assessment may be influenced by landscape value it is not necessarily the case that a highly valued landscape is also a highly sensitive one.

The landscape sensitivity has been evaluated on a relative basis within the study area and is described by a 3-point scale, using the following criteria:

- High Sensitivity: A landscape of particularly distinctive character susceptible to relatively small changes of the type proposed.
- Medium Sensitivity: A landscape of moderately valued characteristics reasonably tolerant of change of the type proposed.
- Low Sensitivity: A relatively unimportant landscape which is potentially tolerant of substantial change of the type proposed.

10.2.5 Assessment of Magnitude of Proposed Change

The magnitude of change caused by the development proposals both during the construction and the operation of the scheme, has been assessed using a 4-point scale and using the following criteria:

- High: Notable change in landscape characteristics over an extensive area ranging to a very intensive change over a more limited area;
- Medium: Moderate change in localised area;
- Low: Small or imperceptible change in landscape components;
- Neutral: No discernible change in any component.

10.2.6 Impact Criteria

The prime criteria used to evaluate the impact on landscape character comprise:

- The extent to which existing landscape components and features will be lost or modified by the proposals (such as lost woodland or modified landform);
- The existence of development within the landscape, similar to the form proposed (roads, OHLs) and its current role as a determinant of existing landscape character;
- The extent to which new or additional development of the type proposed will alter the balance and hence perception of the landscape character of the area.

Impacts can be detrimental where features or key characteristics such as established planting, endemic flora, unique landform, old buildings or structures have to be removed. Alternatively it can prove beneficial where derelict buildings or poorly maintained landscape features are repaired, replaced and maintained or there is the introduction of new tree planting and a landscape structure where none currently exists.

Account is taken of the effect that any mitigation measures, typically planting or landform are likely to have in minimising potentially detrimental impacts or improving the landscape composition of the area.

The findings are represented using a descriptive scale ranging from major - moderate - minor and adverse through neutral to an ascending scale of minor - moderate - major and beneficial.

Explanation of the impact ratings is provided below:

Major beneficial (positive) effect:
- The proposals constitute a major restructuring of a degraded landscape.

Moderate beneficial (positive) effect:
- The proposals significantly enhance the form and pattern of the landscape;
- They further national objectives to regenerate degraded countryside.

Minor beneficial (positive) effect:
- The proposals fit well with the scale, landform and pattern of the landscape;
- They incorporate measures for mitigation to ensure they would blend in well with the surrounding landscape.

Neutral effect:
- The proposals are well designed to complement the scale, landform and pattern of the landscape;
- They incorporate measures for mitigation to ensure that the scheme would blend in well with surrounding landscape features and elements;
- They avoid conflict with national policies towards protection of the countryside.

Minor adverse (negative) effect:
- The proposals do not quite fit the landform and scale of the landscape;
- They cannot be substantially mitigated for because of the nature of the proposal itself or the character of the wider landscape.

Moderate adverse (negative) effect:
- The proposals are out of scale with the landscape, or at odds with the local pattern and landform;
- Mitigation would not prevent the scheme from scarring the landscape in the longer term as some features of interest would be partly destroyed or their setting diminished;
- They are in conflict with policy for the protection of nationally recognised countryside (including proposed NPAs).

Major adverse (negative) effect:
- The proposals are at considerable variance with the landform, scale and pattern of the landscape;
- They are likely to degrade, diminish or even destroy the integrity of a range of characteristic features and elements or their setting;
- They would be substantially damaging to a high quality or highly vulnerable landscape;
- They are in serious conflict with policy for the protection of nationally recognised countryside (including proposed NPAs).

In terms of ratings for sensitivity, magnitude and impacts the thresholds represent points on a continuum. Where appropriate, intermediate ratings are used to indicate impacts at the higher or lower end of a particular threshold. For example, minor to moderate will represent an impact towards the higher end of the lower threshold. Moderate to minor will represent a rating at the lower end of the moderate threshold.

10.3 EXISTING CONDITIONS

10.3.1 Context

The character of the landscape relates to the natural processes and human activities that have worked over long periods to shape the land into its present condition, it is a composite of physical and cultural elements. Landform, hydrology, vegetation, land cover, land use pattern, cultural and historic features and associations combine to create a common ‘sense of place’ and identity which can be used to categorise the landscape into definable units (landscape character areas or zones).

St Helena has an incredibly diverse landscape, reflecting a complex topography and climate and an exceptionally important biodiversity resource. It is a volcanic island with many dramatic geological features which dominate the landscape. The fragility of the landscape resource is evident across the island with extensive barren areas and steep slopes which have undergone severe erosion, all of which were formally vegetated and sustained plant communities of indigenous flora.

Most physical features of the landscape vary with altitude, temperature, humidity, rainfall and the subsequent leaching and soil formation. The variable geology, local topographic effects of rainfall and variable slopes governing erosion rates have given rise to a complex pattern of physical features which define much of the current landscape. Figure 10.1, Volume 3 of this ES provides details of topography.

Much of the coast around St Helena comprises steep cliffs, rising in parts to more than 400m above sea level with a number of steep-sided valleys or guts dissecting much of the coastal landscape. Wave-cut rock reefs and shelves and occasional offshore stacks inhabited by nesting seabirds are also evident along the coastline. The interior of the island is deeply incised displaying a very folded and complex topography with large areas of level ground restricted to the north east of the island in the Deadwood Plain and Longwood areas and at Prosperous Bay Plain. The central ridge in the island, also known as the Peaks, forms the highest point (Diana's Peak) at 820m above sea level.

Landscape characteristics generally change in response to variations in altitude and corresponding climatic conditions. Vegetation around the coastal reaches of the island is sparse and dominated by exotic species such as prickly pear (Opuntia vulgaris) which provide extensive cover across the steep hill sides of exposed rock, boulders and loose scree. As the altitude of the slope increases other exotic species typically become more evident including wild currant (Lantana camara), wild mango (Schinus terebinthifolia) and wild pepper tree (Schinus molle). Although this habitat contains indigenous species such as samphire (Suaeda fruticosa) and purslane (Portulaca oleracea) the introduced species have gained dominance to the exclusion of the endemic and indigenous species. The central areas of the island are more luxuriant and contrast with the semi-arid desert landscape of the outer periphery. Pasture land and pockets of arable land are generally concentrated around Longwood and Deadwood with pockets of forest planting and extensive tracts of New Zealand flax (Phormium tenax) monoculture extending over the upper slopes, culminating in the remnant cloud forest of the central peaks.

There are three main population centres on the island, Jamestown, Half Tree Hollow and Longwood although a number of smaller settlements exist across the island.

10.3.2 Policy and Legislative Context

Legislation and policy pertinent to the landscape resource contained in the St Helena Land Development Control Plan (LDCP) (Approved 2007) is identified in Chapter 4. The following designations are, however, explained further below as they afford particular protection of the landscape resource.

Under the LDCP, the National Protected Area (NPA) designation recognises St Helena's outstanding scenic beauty and natural features, including geological, physiographical or

historic features as well as the unique flora and fauna with its high level of endemicity. Within the study area there are six proposed NPAs (refer to Figure 4.1) as follows:

- North-easterly Protected Area;
- Deadwood Plain;
- The Millennium Forest;
- Prosperous Bay Plain;
- Gill Point, George Island and Shore Island; and
- South East Protected Area

The LDCP states that 'inappropriate development will not be permitted in proposed NPAs except for development linked to the enjoyment and study of the area'. It also identifies that each proposed NPA will be designated under the National Parks Ordinance 2003 and will have its own management plan which will further determine what, if any, development can occur.

In addition to the proposed NPAs, the LDCP classifies peripheral areas of the island as Coastal Zone (refer to Figure 4.1, Volume 3 of this ES) where development is restricted to preserve the natural scenic beauty of these areas. Much of the study area is classified as Coastal Zone.

10.3.3 Historical landscape Context

The following provides a brief account of the historical landscape changes and in particular those associated with vegetation type and cover. This provides an understanding of the historic context within which the island's landscape has evolved.

Ever since the discovery of St Helena in 1502 by the Portuguese and the subsequent re-capture of the island (from the Dutch) by the British in 1673, the landscape has been subject to sustained degradation. The Portuguese left goats on the island to provide fresh meat for passing ships which initiated the destruction of the natural vegetation. The goats thrived in the absence of predators and the island's vegetation rapidly succumbed to the intensive grazing resulting in progressive fragmentation of the original vegetation cover. The outer two thirds of the island were arid and regeneration was slow resulting in a landscape devoid of vegetation and rapidly eroding. The unwitting destruction continued with the early settlers clearing much of the forest for fuel. The native vegetation survived longest in the wetter upper zones, until the rise of the New Zealand flax (Phormium tenax) industry in the middle of the last century. Despite the industry's collapse in the 1960s, the flax remains a dominant monoculture on many of the upper, steep slopes. Many endemic species of flora are now extinct with the remaining indigenous and endemic plants surviving in small isolated patches. Exotic and introduced species now dominate the landscape to the exclusion in many areas of native species.

The following description of the past vegetation communities is based on Quentin Cronk's work on the historical and evolutionary development of the flora of St Helena (1984), where further information particularly on species can be found. The Cronk mapping of the pristine endemic vegetation has also informed the landscape and ecological mitigation plan for re-establishment of endemic and indigenous plant communities.

Tree Fern Thicket (c.700 -820)
This is the only past vegetation type which still exists on the island to any real extent. It is found on the highest parts of the central ridge although it now contains numerous

introduced species. At this elevation the vegetation is frequently enveloped in mist which promotes a rich growth of epiphytes. The canopy height was probably 3 – 4m.

Cabbage Tree Woodland (c. 600 - 750m)
This would have been found on the richer soils, below the tree-fern thicket of the ridge tops. Only remnants of this vegetation type are left today.

Moist Gumwood Woodland (c.500 – 650m)
This would have covered the slopes of the central ridge where sufficient rainfall would have provided a greater species richness than in the summer-droughted gumwood woodland of lower altitudes.

Dry Gumwood Woodland (c. 300 – 500m)
Large areas of the island of mid-altitude would have once been covered by the drought resistant Gumwood. Two Gumwood species would have been present, Commidendrum robustum (Gumwood) and Commidendrum rotundifolium (Bastard Gumwood). Some small pockets of gumwood remain on the island.

Ebony – Gumwood Thicket (c. 100 – 500m)
In rocky and precipitous places, particularly on the sheltered western side of the island, Ebony (Trochetiopsis melanoxylon) was able to compete with the gumwood, forming a species rich community. Relict patches remain, particularly in the southwest of the island.

Scrubwood Scrub (c.1 – 350m)
On the periphery of the island, where rainfall is too low or exposure too high the very drought tolerant, salinity and wind tolerant scrubwood (Commidendrum rugosum) along with other species formed a low scrubby vegetation, which in places covered ground down to sea level. Small pockets of scrubwood remain on the island particularly on cliff areas and the more exposed, peripheral areas.

Saline semi-desert (c.0 – 250m)
In very dry areas and on level ground, such as Prosperous Bay Plain, where evaporation exceeds precipitation, the salinity of the soil would have been high. It is likely that in these areas even the salt-tolerant scrubwood would have had difficulty in establishing. The vegetation in these areas would have been dominated by native halophytes such as samphire and babies' toes which are still evident today in small dispersed clusters.

Refer to Appendix 10.3 for further details on past and present vegetation communities.

10.3.4 Landscape Character Areas

The study area has been sub-divided into a number of Landscape Character Areas where combinations of scale, landform, landcover, watercourses, settlements, frame scenes of distinct form and sense. The 14 Landscape Character Areas within the study area are identified in Figure 10.2, Volume 3 of this ES and are as follows:

- Landscape Character Area 1 – Rupert's Valley
- Landscape Character Area 2 – Deeply incised upper valleys and vegetated slopes
- Landscape Character Area 3 – Deadwood Plain
- Landscape Character Area 4 – Longwood
- Landscape Character Area 5 – Eroded slopes with extensive gully systems
- Landscape Character Area 6 – Prosperous Bay Plain
- Landscape Character Area 7 – Prosperous Bay and Lower Fisher's Valley
- Landscape Character Area 8 – Dry Gut
- Landscape Character Area 9 – Bencoolen
- Landscape Character Area 10 – Sharks Valley
- Landscape Character Area 11 – Stone Top ridges and peaks
- Landscape Character Area 12 – Upper Slopes covered by flax and woodland planting interspersed with settlements
- Landscape Character Area 13 – Steep eroded coastal slopes
- Landscape Character Area 14 – The Barn

Descriptions of the above Landscape Character Areas (LCAs) identifying their key features and characteristics including their form, quality, value and sensitivity are described below and illustrated on Figure 10.2, Volume 3 of this ES with illustrative photographs contained in Figure 10.3 Sheets 1-7 of this ES.

10.3.4.1 Landscape Character Area 1 Rupert's Valley

Refer to Figure 10.3 Photographs 1.1 – 1.8 in Volume 3 of this ES

Rupert's Valley is characterised by a narrow valley with steeply rising side slopes covered by boulders and scree and interspersed by occasional rocky outcrops. The lower valley sides are generally bare and exposed with the upper side slopes interspersed by scattered vegetation dominated by prickly pear and samphire. Eroded gullies along the upper slopes are dominated by bare soil and rocky substrates with opuntia scrub giving rise to non-native species such as wild mango and wild pepper tree. Tree planting is limited to the valley floor and is generally associated with the houses and gardens where a mixture of exotic tree and shrub planting exists. Bunker's Hill forms the south eastern extent of the character area and creates a prominent landform across which basalt lava flows are particularly well exposed and around which two narrow and steep sided valleys extend. Long views extend along the valley length with the sea forming a strong focus to views at Rupert's Bay.

A single track road runs along the narrow valley bottom a section of which is lined by a number of single storey properties which are set back from the road by a canalised river channel. The properties are generally brightly rendered, single storey buildings with corrugated roofs. Haytown House, an attractive two storey Georgian building lies at the western end of the properties and provides a focus to the built form. Gardens are generally orientated to the back of the properties adjacent to the steeply rising valley sides.

Rupert's Bay provides a relatively enclosed bay and is a well used recreational resource. Sheltered tables and seats line the fortification wall which encloses the back of the bay and a small jetty lies to the southern side of the bay. Commercial properties are clustered around Rupert's Bay where a number of warehouse units dominate views. The bulk fuel farm also forms a prominent feature and visually detracts from the setting of the bay. A number of historic features are visible within Rupert's Valley including the Boer desalination plant tower which forms a distinctive feature due to the use of brick, the

fortified wall built across Rupert's Bay, Saddle and Sampson's Batteries, the Liberated Africans' Depot and the Boer Road.

Sensitivity to Change: Medium

Landscape Scenic Quality: Good landscape with pockets of Very Attractive and Ordinary

Landscape Value: High around the bay and residential area, low elsewhere

10.3.4.2 Landscape Character Area 2 Deeply incised upper valleys and vegetated slopes

Refer to Figure 10.3 Photographs 2.1 – 2.7 in Volume 3 of this ES

This character area forms the upper part of Rupert's Valley which in turn becomes Sane Valley. It is a deeply incised valley with steep sided slopes which extend from an upper bowl, at the head of which lies Napoleon's tomb. An ephemeral water course runs along the densely vegetated valley floor where invasive species such as wild mango thrive. The steep valley sides are well vegetated with a mix of woodland scrub planting on the lower slopes interspersed by pockets of grazing land, which give rise to forest planting on the upper slopes where Eucalyptus and Acacia species dominate. Along the south eastern edge of this character area, flax becomes more prevalent particularly along the raised road side banks which creates a diffuse interface with LCA 13. Properties are limited to the upper slopes and ridgelines which define the outer edges of much of the character area and are either clustered or lie in isolated pockets. Views are generally contained by the steep sided slopes although dramatic views extend from the ridgeline which defines the south eastern edge of The Devils Punch Bowl.

Sensitivity to Change: Medium

Landscape Scenic Quality: Good Landscape – Very Attractive

Landscape Value: Medium

10.3.4.3 Landscape Character Area 3 Deadwood Plain

Refer to Figure 10.3 Photographs 3.1 – 3.8 in Volume 3 of this ES

This area is characterised by a wide, open and exposed landscape. It is an extremely visible area which can be seen from large parts of the island. This area is fairly unique in St Helena as it comprises one of the only elevated, plateau areas. The distinctive open and relatively flat plain contrasts sharply with the heavily folded topography of much of the adjacent landscape. The exposed and wind swept nature of this area is its defining character with the few remnant trees heavily wind pruned. Vegetation comprises a mixed grass sward pasture which is grazed by cattle and provides important habitat for the endemic Wirebird. The relatively flat Deadwood Plain slopes gently to the east from which a series of guts and eroded landform extend and rises towards Flagstaff Hill to the north which creates a strong focus and backdrop to views. Deadwood Plain was historically used for a Boer prisoner of war camp at the start of the twentieth century. Three wind turbines are located on Deadwood Plain and form distinctive built features.

Sensitivity to Change: High

Landscape Scenic Quality: Good Landscape – Very Attractive

Landscape Value: High

10.3.4.4 Landscape Character Area 4 Longwood

Refer to Figure 10.3 Photographs 4.1 – 4.8 in Volume 3 of this ES

Longwood is one of the larger communities on St Helena and has spread from its historic core centred on Longwood Avenue. Longwood Gate defines the western entrance to the settlement and is flanked by two gate houses with distinctive yellow gate piers. An avenue extends from Longwood Gate to Longwood House which provides the eastern focus and terminus to the avenue. Longwood House was Napoleon's last residence and the house and garden is maintained by the French Government and provides a much visited attraction. The avenue, house and gate form the core of the draft Conservation Area (refer to Figure 4.1, Volume 3). Residential development extends from the central, historic core to the north around Mulberry Gut and Longwood Farm, south along Longwood Hangings and east to Bottom Woods where the properties form the eastern built edge. Landform generally defines the built edge although individual properties continue to be built on the steeper and often eroded slopes particularly along the upper reaches of Fisher's Valley. Properties are almost entirely single storey and share a similar, simple architectural form comprising rendered facades and corrugated, low pitch roofs. Properties are more densely clustered around the central core and at Bottom Woods whereas more peripheral dwellings tend to be scattered with larger garden plots and small holdings. Large pockets of arable land lie to the north centred around Longwood Farm and Mulberry Gut and form the main area of arable land on St Helena. Vegetation is generally non-native and associated with gardens and property boundaries, although a line of endemic Commidendrum robustum (gumwood) lie between the bungalows at Piccolo Hill and Bilberry Field. Views within the central area are generally contained by the built framework although long views often extend out particularly to the north towards Deadwood Plain. Views are particularly expansive however, from the peripheral areas of Longwood and extend east towards PBP and north to the dramatic landforms of The Barn and Flagstaff Hill.

Sensitivity to Change: Medium

Landscape Scenic Quality: Very Attractive with pockets of Good Landscape

Landscape Value: Medium - High

10.3.4.5 Landscape Character Area 5 Eroded slopes with extensive gully systems

Refer to Figure 10.3 Photographs 5.1 – 5.8 in Volume 3 of this ES

This area covers extensive tracts of highly degraded land stretching from Sharks Valley in the south to Turk's Valley in the north. It is characterised by extensive, eroded slopes and deeply incised valleys where the weathered rock has resulted in the formation of colourful

substrates. The landform across this area is typical of the effects of a highly eroded and consequently folded topography. Although the amount of bare ground is variable throughout the area, vegetation is generally limited to the more invasive species such as creeper, prickly pear (Opuntia vulgaris), Wild Pepper (Cluytia pulchella), English aloe (Furcraea gigantean) and wild coffee (Chrysanthemoides monilifera) which are abundant in the guts, eroded gullies and exposed valley sides. A variety of forestry and other dryland species have also been planted to control erosion such as Acacia longifolia with Mimosa acacia which are also regenerating successfully on the upper, more densely vegetated slopes. The valley floors often contain fine soil and dust resulting in a greater density of vegetation, largely due to the intermittent water which flows along the ephemeral watercourses. The apparent lushness of the vegetation in such areas contrasts sharply with the eroded valley sides. This character area is largely uninhabited with the exception of the occasional property, building or road. There is a sense of wildness about this landscape which is accentuated by the changing weather conditions which have a strong bearing on the experience and perception of this landscape.

Sensitivity to Change: Medium

Landscape Scenic Quality: Good Landscape with small pockets of Very Attractive scenic quality

Landscape Value: Low - Medium

10.3.4.6 Landscape Character Area 6 Prosperous Bay Plain

Refer to Figure 10.3 Photographs 6.1 – 1.12 in Volume 3 of this ES

Prosperous Bay Plain (PBP) comprises an exposed semi-desert landscape and represents probably the largest area of relatively level ground on the island. Whilst PBP contains a surprising diversity of habitats influenced by substrate, wind, temperature and moisture level, the floristic diversity is low. Bare ground is prevalent in most areas of PBP with the substrate material variable and ranging from fine, dusty particles to small rocky outcrops. Vegetation cover is sparse and limited to a few dominant species such as the invasive prostrate forming creeper (Carpobrotus edulis) and on some of the more rocky areas samphire (Suaeda fruticosa) an indigenous species is more common. Low growing prostrate grasses are also common in some areas along with occasional bushes of wild tobacco (Nicotiana glauca). Isolated pockets of endemic species such as babies' toes (Hydrodea cryptantha) a succulent annual are also evident across the Plain.

Whilst the topography of PBP is broadly level compared with the highly folded landscape of much of the rest of the island, there are still a number of irregularities present in the landform. A lower lying depression to the east of the character area, known as the central basin is surrounded by a raised plateau to the south and east and a deep gorge to the north (LCA2). This contrasting landform is further emphasised by the extensive areas of ground disturbed by aggregate winning in the north of PBP. The east of PBP is fringed by a dramatic coastal landscape of steep, rugged cliffs where the occasional colony of tea plant (Frankenia portulacifolia) and scrubwood (Commidendrum rugosum) are evident.

Due to the expansive and open nature of PBP, the scale of the landscape appears large with views to the west focussing on the Peaks, whereas the dramatic form of King and

Queen Rocks and the trachyte dome of Great Stone Top dominate views to the north and south, respectively. Although PBP is a fairly barren and exposed landscape the harsh nature of the environment exhibits a unique scenic quality.

Sensitivity to Change: High

Landscape Scenic Quality: Very Attractive

Landscape Value: High

10.3.4.7 Landscape Character Area 7 Prosperous Bay and Lower Fisher's Valley

Refer to Figure 10.3 Photographs 7.1 – 7.4 in Volume 3 of this ES

The lower section of Fisher's Valley is characterised by a dramatic gorge with sheer slopes displaying some spectacular geological features. Extensive dykes intersect the volcanic breccia (angular boulders set in a fine grained matrix) along with sporadic, thin layers of ash separating some of the lava flows. Vegetation is sparse with samphire being the most prevalent species although iridescent mosses cluster around the stunning waterfalls which divide the gorge into two sections. Much of the streambed however, is dominated by thatching grass (Pennisetum macrourum) which extends up the valley gorge in a narrow sward forming a distinctive feature and striking contrast against the exposed rock. A lateral valley extends from Prosperous Bay in a south easterly direction towards the distinctive form of King and Queen Rocks. This valley is slightly wider than the narrow gorge of Fisher's Valley but nonetheless comprises a sharp, dramatic landscape with sheer, friable slopes contrasting with the dramatic linear dyke formations. Exposed rocky outcrops contrast with the finer substrate often associated with the eroded water channels and extensive gullies which intersect the slopes. The two valleys converge at Prosperous Bay which forms a sweeping semi-circular bay with a steep cobble foreshore with a sandy hinterland. A dramatic coastal landscape surrounds the bay with a number of Batteries visible. This character area exhibits outstanding scenic quality and remote wild land characteristics.

Sensitivity to Change: High

Landscape Scenic Quality: Highest Quality

Landscape Value: High

10.3.4.8 Landscape Character Area 8 Dry Gut

Refer to Figure 10.3 Photographs 8.1 – 8.7 in Volume 3 of this ES

This character area covers the lower section of Dry Gut which comprises a narrow, deep gorge. The steep side slopes are sparsely vegetated with rocky outcrops of varying sizes particularly evident along the upper sides of the gut. Vegetation is sparse and almost entirely limited to lichen covered rocks and invasive species such as creeper which occupy small pockets of the rocky side slopes. The valley floor contains large, smooth boulders which form a sandy and dusty river bed, evidence of the infrequent flows which run through the gut. The south eastern head of the gut reaches a dramatic waterfall and

pool (mostly dry other than during seasonal rain events) where views extend towards Gill Point and the sea. To the western end of the character area the narrow gorge opens out into a wide, open valley. Whilst views are generally contained by the steep sided gut, Bencoolen dominates views to the south. Despite a footpath running through the gut, this character area retains a strong sense of remoteness.

Sensitivity to Change: High

Landscape Scenic Quality: Very Attractive – Highest Quality

Landscape Value: High

10.3.4.9 Landscape Character Area 9 Bencoolen

Refer to Figure 10.3 Photographs 9.1 – 9.3 in Volume 3 of this ES

This character area covers the landform known as Bencoolen which forms part of the wider coastal landscape which defines the section of coast from Prosperous Bay in the north to Stone Top Bay in the south. This distinctive plateau shaped landform is defined by the steeply incised valleys of Dry Gut to the north and Sharks Valley to the south. The western slopes of Bencoolen are heavily eroded with extensive erosion gullies extending across the upper reaches of the Dry Gut valley. Despite the visual prominence associated with this character area it still retains a strong sense of remoteness with little if any sign of human interference.

Sensitivity to Change: High

Landscape Scenic Quality: Very Attractive

Landscape Value: High

10.3.4.10 Landscape Character Area 10 Sharks Valley

Refer to Figure 10.3 Photographs 10.1 – 10.10 in Volume 3 of this ES

This area is characterised by a narrow, deeply incised, steep sided valley. The valley extends from the more open upper slopes to the east of Levelwood and Silverhill to the coastal reaches at Stone Top Bay. The interlocking spurs provide a series of contained sections to the valley where the sheer valley sides exert a powerful dominance and resulting sense of enclosure and remoteness. Views are contained by the valley sides and are focussed along the valley length with the interlocking spurs both terminating views and along lower sections of the valley framing views of the sea beyond. A narrow track runs along the length of the valley providing access for the popular post box walk. The track is often barely discernible and consequently limits the apparent human presence. The valley sides comprise several layers of larva with spectacular columnar jointing dissecting them. A watercourse meanders along the narrow valley floor, interrupted in its lower sections by a series of waterfalls which create attractive landscape features. The constant water supply to the valley floor (the only permanent flowing watercourse on the island) has attracted a rich covering of vegetation. The majority of species which form the green swathe along the valley floor are introduced with wild

mango dominating and forming dense thickets. Whilst the ecological value of the vegetation is not high the aesthetic and scenic value created by the contrasting vegetated valley floor and exposed rocky valley sides is.

Sensitivity to Change: High

Landscape Scenic Quality: Highest Quality

Landscape Value: High

10.3.4.11 Landscape Character Area 11 Stone Top ridges and peaks

Refer to Figure 10.3 Photographs 11.1 – 11.7 in Volume 3 of this ES

This area is characterised by dramatic, exposed coastal scenery which exhibits outstanding scenic quality by virtue of its characteristic land formations of Great and Little Stone Tops. These reflect some of the youngest volcanic activity on the island and were formed by the more viscous trachyte lava which only flows short distances from its point of eruption, tending to swell into a dome shape when erupted. Great Stone Top forms the highest sea cliffs in St Helena and in the Southern Hemisphere at 494m above sea level. Views from the cliffs are expansive creating a strong feeling of openness and exposure. These dramatic formations create a distinctive landmark and junction between land and sea with expansive views towards the peaks and seaward to George and Shore islands. The sense of exposure and drama is intense with the waves pounding the base of the cliffs and the prevailing winds driving across the sheer rock faces. The sense of exposure is often heightened by the weather which frequently immerses the Tops in cloud. Vegetation is sparse in this landscape with rocky, lichen encrusted outcrops typical of the land cover save the notable clusters of endemic flora. Communities of scrubwood display incredible hardy tendencies, growing from the vertical cliff faces with clusters of salad plant regenerating on lower slopes. The sea cliffs provide important nesting sites for sea birds safe from feline predators.

Sensitivity to Change: High

Landscape Scenic Quality: Highest Quality

Landscape Value: High

10.3.4.12 Landscape Character Area 12 Upper Slopes covered by flax and woodland planting interspersed with settlements

Refer to Figure 10.3 Photographs 12.1 – 12.6 in Volume 3 of this ES

This area is characterised by the more central, steep sided slopes which rise towards the high peaks in the centre of the island. Deeply incised valleys are typical of this landscape and with the exception of the outer peripheral areas which are more sparsely vegetated with creeper and opuntia scrub the majority of the area is covered by a dense swathe of New Zealand flax (Phormium tenax) and Eucalyptus dominated woodland. The upper flax covered slopes are generally more stable and less prone to erosion which contrasts with the more eroded outer slopes where bare ground is dominant and vegetation cover is

marginal. Woody Ridge forms a prominent projection of pastoral land and contrasts with the adjacent, more heavily eroded slopes. Silver Hill and Level Wood form the two main communities in the area, where typically single storey properties sit along the ridgelines or upper slopes. The Peaks create a strong focus and backdrop to views although the majority of properties are orientated towards the sea to maximise the panoramic views which extend east to the arid area of Prosperous Bay Plain and the dramatic landforms which punctuate the skyline including Great and Little Stone Tops and The Barn.

Sensitivity to Change: Medium

Landscape Scenic Quality: Very Attractive

Landscape Value: Medium – High

10.3.4.13 Landscape Character Area 13 Steep eroded coastal slopes

Refer to Figure 10.3 Photographs 13.1 – 13.5 in Volume 3 of this ES

This area comprises some of the oldest volcanic rocks to be found on the island which is reflected in the conspicuous peak of Sugar Loaf as well as the dramatic coastal scenery. Basalt lava flows are particularly well exposed in Bank's Valley and Sugar Loaf and are intruded by numerous dykes which create distinctive raised formations across the rock faces and steep cliffs. Extensive gully erosion is evident across much of the area particularly on the upper slopes where weathered rock has resulted in the formation of colourful substrates. Vegetation is sparse particularly along the steeper slopes where creeper, prickly pear and English aloe dominate although as slopes becomes less steep and the aspect becomes more sheltered, vegetation increases with non-native species such as wild pepper tree, wild mango and wild coffee becoming locally abundant particularly with increasing altitude and along the Pipe Path and the interface with LCA 2. A number of footpaths extend around the coastal regions of this character area and include access to Banks Valley Bay as well as to the various Batteries and Lines which exist along this eastern stretch of coast.

Sensitivity to Change: High

Landscape Scenic Quality: Very Attractive with pockets displaying Highest Quality

Landscape Value: High

10.3.4.14 Landscape Character Area 14 The Barn

Refer to Figure 10.3 Photographs 14.1 – 14.6 in Volume 3 of this ES

As with LCA 13, this area also contains some of the oldest volcanic rocks on the island and is dominated by the dramatic volcanic structure known as The Barn. This landscape demonstrates some distinctive volcanic rock formations with exposed submarine volcanic breccias intersected by numerous dykes which are more resistant to weathering, and consequently create a distinctive raised profile. Exposed basalt lava flows are particularly evident on the upper elevations of The Barn but also create distinctive formations especially around Turk's Cap. Deep incised valleys radiate to the south of The Barn

creating a series of dramatic eroded valleys. The striking nature of the landform is accentuated by the proximity to the sea resulting in a stunning coastal landscape of steep cliff faces, shelving sharply to the sea. Exposed rock and scree dominate the slopes of this character area with vegetation sparse and limited to creeper with pockets of prickly pear and wild pepper tree. Open views extend widely across this landscape although much of the area can often be immersed in low cloud.

Sensitivity to Change: High

Landscape Scenic Quality: Highest Quality

Landscape Value: High

10.4 ASSESSMENT OF EFFECTS ON LANDSCAPE CHARACTER

The extent to which the Airport and supporting infrastructure proposals will affect the landscape character varies substantially depending on the individual components of the scheme, the various stages of the works and the capacity of the existing landscape to absorb the various scheme components.

There are a number of ways in which development of the form proposed may impact on the existing landscape, as detailed below.

- The scale and form of the development can prove inappropriate and intrusive in the context of existing landform, settlement, planting structure and overall character;
- Development can involve the loss or fragmentation of important and distinctive landscape components (woodland, trees, field pattern, landform);
- Development can introduce activity, features and forms, out of keeping with established cultural or historic landscapes; and
- Development can contribute to the regeneration of despoiled or degraded landscapes and the establishment of areas of new landscape.

The following section provides an assessment of the overall effects of the Airport and supporting infrastructure proposals on the fourteen landscape character areas during construction and in the longer term during the operational phase of the airport, in accordance with the impact criteria outlined in Section 10.2. The assessment is based on the Scheme for Assessment described in Chapter 2, Volume 2 and the ADA illustrated on Figure 2.1 within which the Contractor will construct the airport. Further details of the scheme components and activities associated with the construction and operational phases of works, which the landscape assessment is based on, can be found Chapter 2, Volume 2 and Figures 2.1 to 2.18, Volume 3 of the ES.

10.5 CONSTRUCTION EFFECTS

The construction phase of works will take place over a period of approximately 52 months although there will be a further seven month period during which flight trials will be carried out before the airport is fully operational. The assessment of landscape impacts associated with the construction phase of works has considered the various activities required to construct the permanent infrastructure as well as the substantial amount of temporary works required to enable and support the Contractor during the construction period. Temporary works will include the following:

- A wharf in Rupert's Bay for landing the heavy equipment required to construct the airport and all other supporting infrastructure;
- A temporary quarry in Rupert's Valley to provide material for the construction of the wharf;
- Compounds, offices and lay down areas for plant and materials in Rupert's Valley and at two sites to the west of the airport site for the Contractor's workforce, equipment and bulk materials storage;
- A possible temporary airstrip to the west of the airport site at PBP;
- A possible temporary seawater abstraction facility and delivery pipeline may be required from Gill Point to the airport site; and
- A possible temporary storage reservoir in Dry Gut.

10.5.1 Mitigation of Construction Phase Effects

Opportunities for mitigation to reduce the potential landscape impacts during the construction period will be limited and will primarily relate to the restrictions imposed on the working areas thereby limiting works to the minimum working area necessary to undertake the construction works. Protection and avoidance of important landscape features including endemic flora for any of the temporary works will also be undertaken with all compounds, work camps and lay down areas fully reinstated on completion of construction. Further details can be found in the Landscape and Ecology Mitigation Plan contained in Appendix 10.2. The Environmental Management Plan (EMP) also stipulates measures to avoid, reduce or offset the environmental effects of the works, including those related to the landscape, which the Contractor will be required to adhere to and which will form contractual requirements under which SHG will be able to enforce compliance by the Contractor. The draft EMP is contained in Volume 5 of this ES.

10.5.2 Residual Construction Phase Effects on Landscape Character Area 1 – Rupert's Valley

The principal components and construction activities with implications for this area comprise:

- Construction of the temporary and permanent wharf and associated rock stabilisation measures involving temporary closures of the beach and amenity area;
- Relocation of the existing Fuel Farm at Rupert's Bay;
- Contractor's compounds, offices, lay down areas and associated storage of materials and plant;
- Construction of the BFI;
- Construction of the haul road along the valley floor and lower valley sides; and
- Construction of Potential mid valley quarry site.

The impacts will occur in the context of a character area which exhibits areas of high amenity value and good scenic quality centred around the bay and the residential community as well as other less scenically attractive parts of the character area which are generally associated with commercial and industrial activity.

The following issues have been taken into account in determining the order of impact:

- The high amenity and scenic value of some of the character area;
- The current use of the beach, bay and coastal landscape for amenity purposes;
- The presence of human influences including infrastructure, buildings and commercial and industrial activity which currently exists;
- The scale, design and characteristics of the proposals within the context of the local character area and adjoining seascape; and
- The temporary nature of some of the proposals.

Overall sensitivity to change in this character area is medium, although the areas of higher amenity and scenic value generally attribute a higher sensitivity to change. The construction activity in and around Rupert's Bay will result in a high magnitude of change. The construction of the temporary and permanent wharf as well as the shipping activity and unloading of plant, material and equipment will result in extensive activity out of keeping with both the scale of the bay and its existing predominantly amenity function. Currently the bay provides an important amenity function as well as an aesthetic one with the combination of steep cliffs shelving to the sea with historic features such as batteries and Rupert's lines contributing to the overall high seascape quality. Whilst the fuel bowser and siting of the BFI is currently a negative feature within the bay the overall spatial relationship between land and water is maintained in a pleasing balance. This balance will be fundamentally altered during construction with the introduction of features such as the temporary wharf and associated access causeway involving reclaimed land. The location of the proposed temporary wharf (see Figure 2.14 of Volume 3 of this ES) is such that stabilisation of the adjacent rock face will be required to enable safe working. Careful consideration will be necessary to select a rock stabilisation technique which is least visually intrusive and most sympathetic to this area of high amenity value.

During construction much of narrow valley floor will be consumed by a series of compounds, storage and material lay-down areas. These are temporary impacts however, the areas of which will be fully reinstated on completion of the works.

The haul road alignment through this character area will mainly follow the existing valley road until the church where it will follow a new corridor rising steeply up the valley side to Bank's ridge. Construction of the haul road will involve the removal of a band of amenity planting adjacent to the line of properties on the valley floor as well as introduction of a visible linear feature along the valley side where none currently exist. The construction of the road will involve potentially large areas of cut and associated scarring although this will be minimised wherever possible. Frequent vehicle movements along the haul road will extend the zone of activity from the bay, along the valley floor and up the valley sides.

The construction of the BFI in the new mid-valley location will extend the zone of industrial activity up the valley although it will be relatively visually contained by the interlocking nature of the valley slopes. The water course which follows a sinuous route along the upper stretches of the valley floor will be straightened and canalised adjacent to the BFI which will have a negative impact on the aesthetic quality of the watercourse and valley landscape.

The construction of a quarry in the mid-valley location will result in the removal of a spur of steeply rising land along the north eastern side of the valley. This is a particularly visually sensitive location as it forms a section of the valley sides in a comparatively less contained section of the lower valley. Access to the quarry will be from the haul road with

the crushing and screening plant, stockpiles, batching plant and offices sited on the valley floor. The quarry will be worked as a single face with possible benches, with other faces being developed as work progresses. Blasting of the rock face along with ripping and digging will result in considerable disturbance in a landscape where human interference and noise exists but is very limited and localised. The operation of a quarry in this visually sensitive location will have a substantial negative influence on this character area.

Overall, magnitude of change will be high with resulting Major Adverse impacts on this character area. It should be noted that if the quarry is not located within this character area the level of impact will remain in the major adverse range, due to the remaining construction impacts, however, the spatial extent of impact within the character area would be lessened.

10.5.3 Residual Construction Phase Effects on Landscape Character Area 2 – Deeply incised upper valleys and vegetated slopes

The principal components and construction activities with implications for this area comprise:

- Construction and workings of the potential upper valley quarry site; and
- Construction of the haul road rising up the steep valley sides to Bank's ridge.

The impacts will occur within the lower reaches of this moderately valued valley landscape. The following issues have been taken into account when determining the level of impact:

- The presence of human influences including roads and buildings;
- The containment and perceived tranquillity resulting from the more contained and undeveloped upper valleys; and
- The scale of the proposals within the context of this character area.

Sensitivity to change within this character area is medium, although the magnitude of change of the proposals will be high, largely due to the presence of the quarry. If this quarry option is not selected then the magnitude of change will be medium and restricted to the relatively localised impacts associated with the haul road corridor. The quarry operations will result in the construction of an additional road up the valley introducing a linear corridor where none currently exist other than around the upper, outer margins of the character area. The quarry road will require clearing and grading involving a swathe of vegetation to be cleared from the valley floor along with the potential canalisation of the existing watercourse. The quarry will be worked as a single face with possible benches, with other faces being developed as work progresses. Blasting of the rock face along with ripping and digging will result in considerable disturbance in a landscape where human interference and noise is limited. The deeply incised and interlocking valleys are an important feature of this landscape and the construction and working of a quarry of this scale will have a substantial influence on this character area.

The construction of the haul road and subsequent movement of construction traffic will introduce a visible linear feature into the landscape along an upper valley side and ridge where currently no infrastructure exists. The construction of the road will involve potentially large areas of cut although this will be minimised wherever possible. Along the ridgeline the road will involve the loss of some forest tree planting creating a particularly visible corridor along this prominent ridge.

Overall Major Adverse impacts will result although if the quarry is not constructed in this character area impacts will be less with Moderate Adverse impacts associated with the incursion of the haul road.

10.5.4 Residual Construction Phase Effects on Landscape Character Area 3 – Deadwood Plain

The principal component and construction activity with implications for this area comprises:

- Construction of the haul road, along more peripheral parts of this LCA, involving sections of new road as well as widening and upgrading of the existing road adjacent to Deadwood Plain.

The impacts will occur along the peripheral eastern and southern sections of this character area. The following issues have been taken into account when determining the level of impact:

- The unique character of this landscape and the open and exposed nature;
- The extent to which severance of pasture land will affect the grazing function which plays an important role in contributing to the character of this landscape;
- The presence of existing human influences such as roads and tracks; and
- The localised and relatively peripheral extent of the proposals.

Sensitivity to change within this character area is high due to the unique qualities it exhibits in the island wide context. Deadwood Plain comprises the only extensive, elevated plateau area on the island and is an extremely visible and exposed area, susceptible to change. The haul road alignment extends along the eastern margins of this area, following the existing road which runs along the plain before dissecting some paddocks towards the southern end of the plain. Construction activity and vehicle movements will be particularly apparent, however they will remain relatively peripheral in terms of the wider character area. The main landscape components will largely remain unaffected and the temporary disturbance to grazing areas is unlikely to have an impact on the wider grazing function and therefore landscape integrity of the plain. Magnitude of change will be medium, largely due to the volume of traffic movements with a resulting Moderate Adverse impact for localised areas.

10.5.5 Residual Construction Phase Effects on Landscape Character Area 4 – Longwood

The principal component and construction activity with implications for this area comprises:

- Construction of the haul road within the northern, peripheral parts of this LCA

The impacts will occur in a peripheral and relatively discreet section of this character area. The following issues have been taken into account when determining the level of impact:

- The presence of existing human influences and particularly linear infrastructure including roads and tracks within this character area;
- The limited scale of the proposals within this area; and
- The localised impact of the proposals on the area.

Sensitivity to change within this character area is medium largely due to the small scale and diverse character of the landscape where a number of features contribute to the overall scenic quality and character. Changes to any one of these components have the potential therefore to affect the overall integrity of this complex character area. The magnitude of change associated with both the construction of the haul road and the high vehicle movement during the construction period will result in a medium magnitude of

change for localised areas. A swathe of woodland and scrub planting will be lost in Mulberry Gut along with the loss and severance of arable land. Further severance of grazing land at Middle Point and the removal of some relatively mature tree planting around the ANRD nursery will also result during the construction of the haul road. Nonetheless impacts on this character area will be relatively discreet and generally peripheral to the heart of the character area with the key landscape components remaining unaffected. The impact during construction is considered to be Moderate Adverse for localised sections of this character area.

10.5.6 Residual Construction Phase Effects on Landscape Character Area 5 – Eroded slopes with extensive gully systems

The principal components and construction activities with implications for this area comprise:

- Construction of the haul road involving widening and upgrading of sections of existing road as well as a new section of road from Bradleys Government Garage to PBP;
- Temporary construction camp adjacent to Bradleys Government Garage;
- Construction of Navigational Aids and Remote Obstacle Lights (ROL) at Bradleys Government Garage and Horse Point;
- Contractor's compound and possible temporary airstrip;
- Construction of a possible temporary storage reservoir in Dry Gut, up-stream of the embankment; and
- Construction of break tank, pipeline, track and overhead power line to provide a permanent and possible temporary water supply for the airport site during construction.

This section of the proposals occurs in an expansive, open landscape where extensive tracts of highly degraded land with eroded slopes and deeply incised valleys are typical. It is not a particularly valued landscape although it contains pockets of attractive landscape particularly where the weathered rock and oxidised soils have resulted in colourful substrates creating a stunning palette of colours in the landscape. This character area also forms part of the wider coastal zone which exhibits areas of high scenic quality.

The following issues have been taken into account in determining the order of impact:

- The scale of the proposals within the wider context of the character area;
- The presence of existing human influences including roads, tracks, occasional properties, other built structures and fence lines;
- The increase in vehicle movements along existing roads in the character area; and
- The temporary nature of some of the impacts.

Sensitivity to change within the majority of the areas affected by the proposals is medium. The various scheme components and construction activities extend across a wide section of this character area, although generally in two discreet, but intervisible sections. The majority of works fall within a broad corridor extending along the haul road between Bottom Woods and PBP with a secondary area of impact associated with the construction activity of the water supply infrastructure between Sharks Valley and PBP. The nature of the construction works is such that it will be relatively well absorbed within the wider scale of the landscape although it will locally have a much greater magnitude of change.

The alignment of the haul road will generally either follow an existing road or tracks other than the far eastern section approaching PBP. Construction of the haul road and the ensuing high level of vehicle movements will introduce new infrastructure into a relatively open landscape. The Contractor's camp adjacent to Bradleys Government Garage will involve a sizeable area of ground to be levelled and graded with the introduction of lighting into a currently unlit landscape. Construction of the ROLs and navigational aids

will be short term and localised. The Contractor's compound and airstrip will also involve relatively extensive levelling and grading of ground to create a sufficient level area. Lighting may also be required across this area, further extending the lit area at night.

The possible construction of the temporary storage reservoir will involve the construction of an intrusive weir structure across Dry Gut, up stream of the embankment structure. This will not only introduce a large intake structure into a landscape where none currently exist but also a large body of standing water, thereby introducing an alien element into the landscape.

The tracks required to provide construction access for the break tank and pipeline will generally follow existing tracks thereby reducing their impact. The construction of the break tank will create a prominent structure on the ridge accentuated by the linearity created by the overhead line extending along the track from Woody Ridge Flax Mill. The construction of the pipeline will create a linear corridor of disturbance which will be particularly apparent within this open and extensively gullied landscape.

Overall magnitude of change within this character area is considered to be medium although the level of disturbance in this area will generally be compounded by the extensive construction activity at PBP. Impacts during construction will be Moderate Adverse.

10.5.7 Residual Construction Phase Effects on Landscape Character Area 6 – Prosperous Bay Plain

The principal components and construction activities with implications for this area comprise:

- Construction of the haul road;
- Construction of the airport and its various components (runway, taxiway, apron, airside and landside facilities including terminal building, car park, ATC tower, fire station, airport fuel farm and other infrastructure required to support the operation of the airport). Extensive earthworks (excavation of approximately eight million cubic metres) involving large earthmoving equipment as well as mobile cranes, concrete batching plant and paving machine, crushing plant, will all be necessary to facilitate the construction of the airport;
- Temporary contractor's compounds and possible temporary airstrip; and
- Construction of navigational aids across the plain and a ROL at King and Queen Rocks.

The bulk of the construction activity associated with the Airport and supporting infrastructure proposals and corresponding area of greatest disturbance and landscape change will occur at Prosperous Bay Plain. This landscape exhibits a unique scenic quality and is consequently of high value as it represents the only area of semi-desert landscape on St Helena.

- The following issues have been taken into account in determining the order of impact:
- The unique scenic quality and high value;
- The scale, design and characteristics of the proposals in the context of the character area and also the wider landscape;
- The open, expansive nature of this character area;
- The extensive impact of the scheme in the context of the character area; and
- The lack of infrastructure within this character area.

The construction works across PBP will be extensive with high vehicle movements and the presence of machinery, plant, material stock piles, compound areas and work camps as well as the considerable earthworks required to generate a level area of land for the

runway and sufficient fill material for the embankment structure of Dry Gut. The level of disturbance across the plain will be immense, with the construction works fundamentally affecting the character of PBP and diminishing the integrity of this arid zone, at least during construction. The extensive quarrying will reveal large vertical faces of exposed rock which will contrast starkly with the dusty, sandy substrates typical of this arid landscape. The cluster of endemic tea plant and scrubwood along the eastern coastal edge of the plain are unlikely to survive construction nor is the martello tower and path at the northern periphery of the plain. The landscape setting of Prosperous Bay Signal Station will be affected, although it will retain its elevated presence. The plain will be extensively levelled with many of the distinctive landform projections removed including encroachment of the raised plateaus around the Central Basin and along the spectacular cliff edge. Whilst vegetation is sparse, pockets of endemic flora such as Babies' toes and lichen encrusted rock will be also be lost during the earthworks.

The potential requirement of a temporary airstrip will result in additional landtake to the west of the plain extending the area required to be levelled and graded. The presence of compounds and camps across the plain will also introduce lighting and noise disturbance into what is a currently unlit and undisturbed nightscape.

Magnitude of change in this character area will consequently be high with a corresponding Major Adverse impact on this unique landscape character.

10.5.8 Residual Construction Phase Effects on Landscape Character Area 7 – Prosperous Bay and Lower Fisher's Valley

The principal components and construction activities with implications for this area comprise:

- Construction of airport approach lighting on the southern periphery of this area;
- Construction of the re-routed post box walk to King and Queen Rocks; and
- Indirect disturbance associated with the construction of the airport at PBP.

The impacts will occur in the context of the outstanding scenic quality and wildland characteristics of Prosperous Bay and Lower Fisher's Valley where the sense of remoteness is accentuated by the lack of human influence and the tranquillity which transcends this character area.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The lack of human influences apparent within the landscape;
- The extent to which indirect impacts from the construction of the airport on PBP will detract from the tranquillity and sense of remoteness which characterises much of this character area; and
- The peripheral nature of the impacts and the resulting integrity of the key landscape components including the dramatic gorge and spectacular geological features.

Sensitivity to change in this scenically outstanding landscape is high. The peripheral nature of the impacts, most notably, concentrated around the southern outcrop and interface with PBP will mean that the key components of this character area will remain untouched. However, the level of disturbance associated with the construction of the airport is such that the tranquillity of the bay and gorge will be substantially disturbed during the construction period, resulting in a medium magnitude of change and resulting Moderate Adverse impact.

10.5.9 Residual Construction Phase Effects on Landscape Character Area 8 – Dry Gut

The principal components and construction activities with implications for this area comprise:

- Construction of the large embankment structure to support the RESA including construction of an access road to the valley floor, culverts and filling of the gut with excavated material from PBP and spreading, compaction and terracing of the final embankment profile;
- Construction of airport approach lighting; and
- Construction of a temporary sea water abstraction facility at Gill Point with a pipeline extending along Dry Gut to the airfield site at PBP.

The construction of an embankment structure in Dry Gut will infill a large section of the most dramatic and confined section of the gut between the point where the valley narrows to the waterfall that defines the head of the seaward section of the valley leading to Gill Point. The substantial earthworks and associated impacts will occur in the context of a very dramatic, imposing landscape of high scenic quality and value arising from the scale of this isolated valley and the remoteness heightened by the lack of human influence.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The lack of human influence on the area and intense sense of isolation and remoteness that exists;
- The extent to which the wildland characteristics will be affected by the proposals; and
- The scale, design and characteristics of the proposals in the context of the landscape character area.

Sensitivity to change within this character area is high due to the lack of human influence, the dramatic contained landscape of this gorge and the ensuing sense of isolation and remoteness which makes the wildland characteristics so highly valued. Construction of the vast embankment structure (700m long and 100m high) will entail considerable activity and movement of earth from PBP to the gut by way of 2kms of haulage road descending the steep valley sides. The gut will be progressively infilled once the large culverts are in place, compacted and ultimately profiled with a series of terraces finished with rock. The construction of the embankment structure will be completely out of scale with the valley landscape and will fundamentally change the character of what is an enclosed, steep sided, deeply incised valley system. The intense sense of isolation will be lost and key landscape features will be destroyed.

The extent of disturbance and construction activity may extend further down the gut if sea water is abstracted from Gill Point. The construction of an abstraction facility along with a connecting pipeline from Gill Point to the airport site at PBP will impinge on this remote, highly valued landscape which provides an important amenity resource by way of a post box walk to the point. Gill Point forms a dramatic scenic resource where land and sea meet in an often explosive fashion. Currently there is no evidence of human intervention except the discreetly located post box walk sign and occasional material left by fishermen. The introduction of a water abstraction facility and pipeline would affect the sense of remoteness and wildland features of this seascape for a temporary period of time.

The vast scale of the works and associated disturbance of the construction of the embankment structure will result in a high magnitude of change and resulting Major Adverse impact.

10.5.10 Residual Construction Phase Effects on Landscape Character Area 9 – Bencoolen

The principal components and construction activities with implications for this area comprise:

- Construction of three ROLs and associated overhead line connection supported on wooden poles; and
- Indirect impacts on this character area associated with the extensive construction works in the adjacent areas at PBP and Dry Gut.

The impacts will occur in the context of a relatively remote landscape and prominent landform with a locally distinctive plateau feature which forms part of the wider sweep of dramatic coastal cliffs which descend to the sea.

The following issues have been taken into account in determining the order of impact:

- The relative remoteness of the area and high landscape value;
- The scale of the proposals within this character area;
- The lack of apparent human influence on the area;
- The interface and relationship of this character area and the abutting ones to the north;
- The open and prominent nature of this character area; and
- The relative localised impact of the proposals in the context of the wider character area.

Sensitivity to change in this relatively remote and prominent landscape is high. Whilst the construction of the three ROLs will be localised, contained and of limited duration the construction of the overhead lines to power the ROLs will extend the area of disturbance particularly on this visually prominent landscape. Installation of wooden poles potentially rising along the ridgeline will appear prominent set against the skyline and will introduce a series of linear elements and infrastructure into a landscape where human activity and presence does not currently exist. Indirect effects from the construction activity at PBP and the extensive earthmoving and infilling of Dry Gut will result in further construction impact which will indirectly impinge on the remote character of this landscape. Magnitude of change will be medium with resulting Moderate Adverse impacts.

10.5.11 Residual Construction Phase Effects on Landscape Character Area 10 – Sharks Valley

The principal components and construction activities with implications for this area comprise:

- Construction of tracks, intake structures and pipelines to abstract water for the permanent and possible temporary water supply for construction.

The impacts will occur in the context of a highly scenic landscape where many spectacular volcanic rock formations exist with spectacular columnar jointing contrasting with the vegetated valley floor and water course which creates a uniquely constant flow of water through this steep sided gorge.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The secluded nature of the area potentially affected and the apparent lack of human influence;
- The scale, design and characteristics of the proposals within the context of the character area;
- The level of abstraction and resulting residual flow will sustain the vegetation communities which currently exist along the valley floor which provide an important aesthetic function; and
- The localised impact of the proposals restricted to the upper sections of the valley unless an additional abstraction point is located at the waterfall by the beach.

Sensitivity to change in this highly scenic landscape is high. The construction of intake structures at point A1 and A2 (see Figure 2.18 of Volume 3 of this ES) and potentially

temporarily at the lower beach waterfall along with the widening and upgrading of the existing track will result in a medium magnitude of change on the landscape. Whilst the spectacular volcanic structures will remain intact along with the extensive swathes of vegetation which fill the valley floor the construction activity associated with construction of the intake structures combined with the pipework and tracks will be out of scale with the immediate water course and create human intrusion in a currently contained gorge where human influence is limited to passing walkers. The containment and sense of isolation and remoteness accentuated by the dramatic sense of scale created by the high valley sides will be affected by the construction activity associated with the water abstraction with resulting Moderate Adverse impacts.

10.5.12 Residual Construction Phase Effects on Landscape Character Area 11 – Stone Top ridges and peaks

The principal components and construction activities with implications for this area comprise:

- Construction of two ROLs; and
- The indirect impact of the construction works at PBP and Dry Gut.

The impacts will occur within a scenically outstanding area of high value. This character area is one of outstanding landscape quality and value arising from the combination of remoteness, the scale and dramatic nature of the landform shelving sharply to the sea below, heightened by the rapidly changing weather conditions which can plunge this striking landscape into cloud, obscuring it from surrounding areas.

- The following issues have been taken into account in determining the order of impact.
- The high value and outstanding scenic quality of the area;
- The small scale nature of the development components in relation to the wider scale of this character area;
- The lack of human influence on the area;
- The relationship between this character area and the adjacent ones to the north; and
- The localised impact of the scheme in the context of the wider character area.

Sensitivity to change in this highly scenic landscape is high. However, the magnitude of change resulting from the proposals is limited both in terms of extent and duration. Nonetheless, this is a landscape where human influences do not currently exist save, occasional walking tracks and magnitude of change will consequently be medium. Key landscape features such as the endemic flora which can be found in remote clusters will be avoided and lichen encrusted rock, typical of this landscape will be removed from the area of disturbance and used in the construction of the cairn feature which will house the ROL base structure.

There is also an important relationship which currently exists between the dominating scale and presence which is exerted by the dramatic forms of Great and Little Stone Top and the surrounding landscape, which has the potential to be affected by the scale of construction activity associated with the airport and the infilling of a large proportion of Dry Gut with an embankment. Overall Moderate Adverse impacts will result to this landscape character area.

10.5.13 Residual Construction Phase Effects on Landscape Character Area 12 – Upper Slopes covered by flax and woodland planting interspersed with settlements

The principal components and construction activities with implications for this area comprise:

- Upgrading and widening of existing access tracks on the eastern periphery of this area, to facilitate access for the construction of the pipeline, intake structures and break tank as well as construction of the overhead line and wooden pole supporting structures; and
- Possible indirect impacts associated with the construction works at PBP and Dry Gut.

The impacts will occur on the outer edge of an attractive and valued landscape where disturbance similar to the type proposed already exists. The following issues have been taken into account in determining the order of impact.

- Upgrading and widening of existing access tracks on the eastern periphery of this area, to facilitate access for the construction of the pipeline,
- The nature and visibility of the existing corridors of disturbance;
- The presence of existing human influences through this character area; and
- The extent to which indirect impacts will result from the disturbance created by construction activity on PBP and Dry Gut on a landscape where remoteness and wild land are not particular characteristic features of the landscape.

Sensitivity to change of the type proposed, within this attractive landscape is considered, in general to be medium. The tracks required to provide construction access are existing and will be widened and upgraded, although not sealed thereby retaining a less prominent finish which will enable the tracks to remain relatively well integrated into the landscape. The track and accompanying overhead line which will be constructed from Woody Ridge flax mill along the ridge line will, however, create a more prominent feature within the outer edges of this character area. Some localised loss of scrub vegetation and occasional forest planting will also be necessary, although this will be limited. Magnitude of change is considered to be low with resulting Minor Adverse impacts.

Indirect impacts associated with the construction activity on PBP and Dry Gut are considered to be minimal, largely because human activity is present throughout this character area and remoteness and tranquillity are not considered to be particular characteristic features of this landscape character area.

10.5.14 Residual Construction Phase Effects on Landscape Character Area 13 – Steep eroded coastal slopes

The principal component and construction activity with implications for this area comprise:

- Construction of the haul road along Bank's ridge on the extreme periphery of this area.

The impacts will be small and confined to a relatively confined corridor along the south eastern periphery of this zone. The following issues have been taken into consideration in determining the level of impact.

- The high scenic quality and value of the landscape;
- The lack of infrastructure within this character area;
- The localised impact of the haul road on this character area; and
- The limited scale of the proposals within this area.

The construction of a haul road along Bank's ridge will result in the loss of some forest tree planting as well as introducing infrastructure which currently does not exist within this relatively untouched and remote landscape. Impacts will, however, be limited to marginal

areas with key landscape features remaining intact. The introduction of the haul road on the periphery of this area will not therefore affect the integrity and remote qualities of the wider character area. Magnitude of change is therefore considered to be low with a resulting Minor Adverse impact during construction.

10.5.15 Residual Construction Phase Effects on Landscape Character Area 14 – The Barn

The principal components and construction activities with implications for this area comprise:

- Construction of three ROLs; and
- The indirect impact of the construction works at PBP.

This area is one of high scenic quality and value arising from the sheer scale and mass of the distinctive raised profile of The Barn and the lack of human influence. The striking nature of the landform creates a prominent landscape feature and landmark and focus to many views on the island.

The following issues have been taken into account in determining the order of impact.

- The value of the area as inaccessible, wild land, a resource which has the potential to become limited and fragmented with future development on the island;
- The small scale nature of the development components in relation to the substantial mass of this character area;
- The lack of human influence on the area; and
- The localised impact of the scheme in the context of the wider character area.

Sensitivity to change within this area is high due to the lack of human influence and the importance of this landscape feature to the wider landscape of the island. The construction of the three ROLs will be localised, contained and of a limited duration, thereby resulting in a medium magnitude of change in a very localised part of the character area. The indirect impact as a result of the construction activity on PBP will have a wider impact on this character area with the sense of remoteness being lessened by the noise and visual disturbance from the extensive earthworks across the expanse of PBP. Overall, however, the magnitude of change is considered to be medium resulting in Moderate Adverse impacts.

10.6 PERMANENT EFFECTS

The following section describes the permanent impacts of the Airport and supporting infrastructure proposals once the airport is operational on the fourteen landscape character areas within the study area. It considers the various components of providing the airport and supporting infrastructure for St Helena and how they will impact the features and characteristics of the various character areas, taking into account the various mitigation measures outlined below and explained in detail in Appendix 10.2. Permanent works will include the following:

- A wharf at Rupert's Bay;
- A BFI in Rupert's Valley;
- A permanent access road between Rupert's Bay and the airport on Prosperous Bay Plain;
- The airport and its essential support facilities at PBP; and
- A permanent water supply system from Sharks Valley to the airport.

10.6.1 Mitigation

The development of landscape and visual mitigation measures has been undertaken in conjunction with the detailed ecological mitigation proposals to ensure a cohesive and integrated approach to mitigation which reflects the intrinsic relationship between the landscape and ecology resource on St Helena.

The detailed landscape and ecological mitigation commitments have been developed in parallel with the refinement of the reference design in order that impacts can, wherever possible, be mitigated through avoidance, reduction or compensatory measures.

The detailed landscape and ecology mitigation plan (LEMP) is presented in Appendix 10.2 and seeks to provide compensatory habitats and landscape treatment to reduce and offset the permanent direct loss of habitat and the direct and indirect impacts on the landscape resource of the island as a result of the Airport and supporting infrastructure proposals. The mitigation of adverse impacts associated with the introduction of the Airport and supporting infrastructure proposals has involved a combination of three approaches:

- Avoidance: Avoidance of adverse effects at source. An example of this approach has included avoidance of a specific feature of interest through identification of potential impacts during the reference design process and through close co-operation with the design team, potential impacts have been designed out;
- Reduction: Reduction of adverse effects that cannot be eliminated by prevention. An example of this has included sensitive native planting to help assimilate elements of the Airport and supporting infrastructure proposals into the landscape or to screen the visual impact from properties or publicly used areas; and
- Offsetting: The provision of alternative or compensatory measures, where appropriate and feasible. An example of this approach has included creation of new habitats to compensate for loss of habitat required for the Airport and supporting infrastructure proposals. These have included off-site compensatory planting or habitat creation and/or management.

The key objectives of the LEMP are to achieve:

- Sympathetic and high quality design which will provide a sensitive solution to the integration of the Access proposals into the various local environments;
- Planting which uses native species to increase the biodiversity and ecological value and habitat interest of the study area; and
- Landscape planting, earthworks (mounding and earth shaping) and other mitigation measures where appropriate to minimise the visual impact of the Airport and supporting infrastructure proposals and enhance the existing local landscape character and structure.

For further information on the landscape mitigation plan including a detailed description of the mitigation commitments refer to Appendix 10.2.

10.6.2 Permanent Effects on Landscape Character Area 1 – Rupert's Valley

The principal components with implications for this area comprise:

- Permanent wharf and associated port area;
- Rock stabalisation measures for temporary wharf will remain visible;
- BFI in the new mid-valley location;
- New access road along the valley floor and lower valley sides; and
- Former quarry at the mid valley location.

The impacts will occur in the context of a character area which exhibits areas of high amenity value and good scenic quality centred around the bay and the residential

community as well as other less scenically attractive parts of the character area which are generally associated with commercial and industrial activity.

The following issues have been taken into account in determining the order of impact:

- The high amenity and scenic value of some of the character area;
- The current use of the beach, bay and coastal landscape for amenity purposes;
- The presence of human influences including infrastructure, buildings and commercial and industrial activity which currently exists;
- The scale, design and characteristics of the proposals within the context of the local character area and adjoining seascape; and
- The extent to which the amenity and native species mitigation planting will reduce the operational impacts.

Overall sensitivity to change in this character area is medium, although the areas of higher amenity and scenic value generally attribute a higher sensitivity to change. The introduction of a permanent wharf at Rupert's Bay will establish this location as the commercial port for St Helena with the ability to handle a wide range of commercial shipping and cargo for the island. This change in function from one which is mainly amenity focused, all be it with limited commercial activity will impact the character of the seascape of the bay. The introduction of a sizeable wharf structure within the bay will have a dominant presence, more so than the existing fuel bowser and fuel farm exerts, affecting the overall spatial relationship between land and water and the balance which currently exists. The amenity function of the bay will however, be retained with sand dredged from the wharf supplementing the beach area. Flood lighting columns on the wharf will further heighten the presence of the commercial port particularly at night in a seascape where no direct lighting of the water currently exists.

Long term impacts may also result from the stabilisation of the rock face above the temporary wharf area, depending on the choice of technique used.

The permanent access road will be relatively effectively integrated into the landscape particularly along the valley floor where a combination of reinstatement amenity planting and swathes of native species planting will help integrate the road into the valley landscape. Extending and reinforcing the amenity planting will provide an important buffer and screen between the road and the residential properties, strengthening the attractive local character and scale of this localised area.

The BFI in the new mid-valley location will extend the zone of industrial activity up the valley although it will be relatively visually contained by the interlocking nature of the valley slopes. The water course which follows a sinuous route along the upper stretches of the valley floor will be straightened and canalised adjacent to the BFI which will have a negative impact on the aesthetic quality of the watercourse and localised sections of the valley landscape.

The exact restoration proposals for the quarry are currently unknown; however, it is unlikely that the restoration works associated with the quarry will greatly reduce the long term permanent impacts on the landscape particularly given the visually sensitive location that the mid-valley site occupies.

Overall, magnitude of change will be medium with Moderate Adverse impacts during operation becoming Minor Adverse once the mitigation planting has established, other

than in localised areas around the bay where significant (Moderate Adverse) residual impacts will remain.

10.6.3 Permanent Effects on Landscape Character Area 2 – Deeply incised upper valleys and vegetated slopes

The principal components with implications for this area comprise:

- Former quarry at the upper valley location; and
- New access road rising up the steep valley sides to Bank's ridge.

The impacts will occur within the lower reaches of this moderately valued valley landscape. The following issues have been taken into account when determining the level of impact:

- The presence of human influences including roads and buildings;
- The containment and perceived tranquillity resulting from the more contained and undeveloped upper valley area;
- The scale of the proposals within the context of this character area; and
- The extent to which the mitigation planting will help integrate the road into the landscape.

Sensitivity to change within this character area is medium, and the magnitude of change of the proposals will also be medium, largely due to the presence of the former quarry. If this quarry option is not selected then the magnitude of change will be low and restricted to the relatively localised impacts associated with the access road corridor. The exact restoration proposals for the quarry are currently unknown, however, it is unlikely that the restoration works associated with the quarry will greatly reduce the long term permanent impacts on the landscape.

The access road will introduce a linear feature into the landscape rising up the valley side to the ridge where currently no infrastructure exists. The mitigation planting however, will help partially integrate the road into the valley landscape and the steep sided slopes with native planting areas relating to the landform, rising into the gullies which dissect the valley sides. The road is likely to maintain a relatively visible focus along the ridgeline where the loss of forest planting will be difficult to reinstate due to the inhospitable planting conditions. The use of false cuttings in the road design in conjunction with localised planting where possible will help to partially screen the road within the landscape. The existing colony of scrubwood on Rupert's Hill will be extended with additional specimens to supplement the existing community and naturally expand the planting in this area.

Overall Minor Adverse impacts will result with more localised Moderate Adverse impacts associated with the former quarry site.

10.6.4 Permanent Effects on Landscape Character Area 3 – Deadwood Plain

The principal component with implications for this area comprises:

- New access road along more peripheral parts of this LCA.

The impacts will occur along the peripheral eastern and southern sections of this character area. The following issues have been taken into account when determining the level of impact:

- The unique character of this landscape and the open and exposed nature;
- The extent to which severance of pasture land will affect the grazing function which plays an important role in contributing to the character of this landscape;
- The presence of existing human influences such as roads and tracks; and
- The localised and relatively peripheral extent of the proposals.

Sensitivity to change within this character area is high due to the unique qualities it exhibits in the island wide context. Deadwood Plain comprises the only extensive, elevated plateau area on the island and is an extremely visible and exposed area, susceptible to change. The access road alignment extends along the eastern margins of this area, following the existing road which runs along the plain, for the majority of its length, thereby reducing the level of impact before dissecting some paddocks towards the southern end of the plain. Vehicle movement will make the road more apparent within the landscape, however, it will remain relatively peripheral when considered in the wider context of the character area. The main landscape components will largely remain unaffected and the severance to grazing areas will be mitigated by provision of adequate access points agreed with the leaser thereby negating the impact on the wider grazing function and resulting landscape integrity of the plain. Magnitude of change will be low both in operation and 15 years later, with a Minor Adverse residual impact.

10.6.5 Permanent Effects on Landscape Character Area 4 – Longwood

The principal component with implications for this area comprises:

- New access road within the northern, more peripheral parts of this LCA.

The impacts will occur in a peripheral and relatively discreet section of this character area. The following issues have been taken into account when determining the level of impact:

- The presence of existing human influences and particularly linear infrastructure including roads and tracks within this character area;
- The limited scale of the proposals within this area;
- The localised impact of the proposals on the area; and
- The extent to which the mitigation planting will reduce the level of impact.

Sensitivity to change within this character area is medium largely due to the small scale and diverse character of the landscape where a number of features contribute to the overall scenic quality and character. The magnitude of change associated with permanent access road will be low due to the various mitigation measures which will help integrate the road into the landscape. These will include additional woodland planting and native species planting within Mulberry Gut, hedgerow planting along sections of the road between Mulberry Gut, Coltshed Road and Longwood Farm and reinstatement planting within the former ANRD nursery. Impacts on this character area will be relatively discreet and generally peripheral to the heart of the character area with the key landscape components remaining unaffected and in many places enhanced by the mitigation planting measures proposed. The residual impact is considered to be Minor Adverse for localised sections of this character area.

10.6.6 Permanent Effects on Landscape Character Area 5 – Eroded slopes with extensive gully systems

The principal components with implications for this area comprise:

- New access road;
- Navigational Aids and Remote Obstacle Lights (ROL) at Bradleys Government Garage and Horse Point; and
- Break tank, pipeline, track and overhead power line to provide a permanent water supply for the airport.

This section of the proposals occurs in an expansive, open landscape where extensive tracts of highly degraded land with eroded slopes and deeply incised valleys are typical. It is not a particularly valued landscape although it contains pockets of attractive landscape particularly where the weathered rock and oxidised soils have resulted in colourful substrates creating a stunning palette of colours in the landscape. This character area also forms part of the wider coastal zone which exhibits areas of high scenic quality.

The following issues have been taken into account in determining the order of impact:

- The scale of the proposals within the wider context of the character area;
- The presence of existing human influences including roads, tracks, occasional properties, other built structures and fence lines;
- The increase in vehicle movements along existing roads in the character area; and
- The extent to which mitigation planting and other proposals will integrate the structures into the landscape.

Sensitivity to change within the majority of the areas affected by the proposals is medium. The various scheme components extend across a wide section of this character area, although are generally concentrated in two discreet, but intervisible locations. The majority of permanent works fall within a narrow corridor extending along the access road between Bottom Woods and PBP with a secondary area of impact associated with the water supply infrastructure between Sharks Valley and PBP. The nature of the proposals is such that they will be relatively affectively absorbed within the wider scale of the landscape assisted by the mitigation planting.

The access road will either follow existing roads or tracks other than the sections between Bilberry Field Gut and Bottom Woods and the far eastern section approaching PBP, thereby limiting the extent to which additional linear forms intrude into this landscape. Whilst the access road will introduce new linear infrastructure into a relatively open landscape, the mitigation planting will help integrate the road effectively into this degraded landscape. Native species planting is proposed along the majority of the road, creating a strong, high quality boundary treatment with visual continuity whilst responding to and extending gumwood planting at the Millennium Forest.

The extensive swathe of gumwood planting around Bilberry Field Gut whilst primarily planted as a compensatory measure for the impacts associated with Dry Gut, will also have a very positive benefit on this character area by helping restore an area of degraded landscape.

The ROLs and navigational aids will create localised impact due to their vertical scale and illumination particularly as lighting is not a prominent feature in the landscape. Reinstatement of the former compound and airstrip will appear fairly raw during the initial years of operation, particularly as the extent of levelling and grading involved in the

construction will be difficult to fully reinstate. Long-term impacts (15 years after completion) on the landscape are considered to be minimal. Similarly the former temporary storage reservoir is likely to leave an initial scar on the landscape, although once the low density native species planting has established the scar is likely to be less apparent.

The permanent tracks providing maintenance access for the break tank and pipeline will generally follow existing tracks thereby reducing their impact. The break tank will create a prominent structure on the ridge accentuated by the linearity created by the overhead line extending along the track from Woody Ridge Flax Mill. The break tank will be coated using non-reflective colour tones to help assimilate the structure as far as possible into the landscape. Limited sections of above ground pipeline will create a further linear element within the landscape, however, these will also be coated using a carefully selected non-reflective colour tone, which will help limit their visibility.

Overall magnitude of change within this character area is considered to be low with Minor Adverse residual impacts.

10.6.7 Permanent Effects on Landscape Character Area 6 – Prosperous Bay Plain

The principal components with implications for this area comprise:

- New access road;
- The airport and its various components (runway, taxiway, apron, airside and landside facilities including terminal building, car park, ATC tower, fire station, airport fuel farm and other infrastructure required to support the operation of the airport);
- Navigational aids, Airfield Ground Lighting (AGL), approach lighting as well as lighting associated with the terminal building and car park;
- Navigational aids within the airport perimeter and a ROL at King and Queen Rocks;
- Security fencing (2.9m high) around the perimeter of the airport; and
- Remaining scars on the landscape from the temporary airstrip and compound/camp areas until they have been fully reinstated.

The airport and associated permanent infrastructure is located within this character area. This landscape exhibits a unique scenic quality and is consequently of high value as it represents the only area of semi-desert landscape on St Helena.

The following issues have been taken into account in determining the order of impact:

- The unique scenic quality and high value;
- The scale, design and characteristics of the proposals in the context of the character area and also the wider landscape;
- The open, expansive nature of this character area;
- The lack of infrastructure within this character area; and
- The extent to which the design of the buildings and reinstatement mitigation proposals will minimise the impact of the development.

The introduction of an airport into a landscape like PBP will undoubtedly result in permanent change to the landscape character. The level of change is governed by the extent to which the landscape components, features and characteristics are impacted by the development and the degree to which landscape mitigation can reduce these impacts.

PBP is an open and expansive area within which the airport will occupy the majority of the area. The airport, however, is unlikely to appear entirely out of scale or at variance with the landscape due to the expansive and open nature that PBP currently exhibits. What will have a greater impact and magnitude of change on the landscape is the extent of the

earthworks across the plain, which will result in the permanent loss of distinctive landform projections which are characteristic features of this landscape including the locally distinctive raised plateaus defining the Central Basin which will be encroached by the permanent airport works. The extent of the earthworks and resulting re-modelled landscape will essentially change the character of PBP resulting in a medium magnitude of change. The extensive cut due to earthworks will permanently alter the ground profiles typical of the plain creating large vertical faces of exposed rock. Whilst this will contrast starkly with the dusty, sandy substrates typical of this arid zone, with time, weathering will eventually help soften these exposed faces, gradually improving the level of visual integration with adjacent, un-worked areas.

Pockets of endemic flora such as the cluster of endemic tea plant and scrubwood along the eastern coastal edge, Babies' toes and lichen encrusted rock will be permanently lost, although the establishment of native plants either through seeding or by planting in combination with invasive species control will enable reinstatement of pockets of semi-arid native planting to be re-introduced across the wider plain. The invasive plant control/eradication programme (refer to Appendix 10.2 for more details) will also prevent the spread of the invasive creeper into areas where it will compete with native plants or cover open ground which is not typical of this semi-arid desert landscape.

The various buildings associated with the operation of the airport including the terminal and combined buildings will introduce built structures into a landscape where none currently exist. Whilst the buildings will form prominent structures the use of locally won rock to clad the exterior will help integrate them into the landscape. The raw water tanks will also appear intrusive elements located on Creeper Hill, although the use of non-reflective materials will help minimise their visual presence.

The access road will appear as a dark linear element extending across this character area and will appear particularly prominent unless careful consideration is given to using a surface which reflects the lighter, sandy colours of the adjacent landscape.

Extensive lighting will be required across the airfield area, mostly along the centre line of the runway, apron and around the terminal building and car park with peripheral elements lit such as the ROLs. Crucially the various lighting elements will introduce a source of light into a landscape where none currently exist. The lighting, however will be intermittent and in the initial years of airport operations will only be visible on a weekly basis, before, during and after flight arrivals/departures. The intrusion of light in this landscape will therefore have intermittent impacts although this will increase as the airport increases its operations.

Reinstatement of the former compound and airstrip will appear fairly raw during the initial years of operation, particularly as the extent of levelling and grading involved in the construction will be difficult to fully reinstate. Long-term impacts (15 years after completion) on the landscape are considered to be minimal.

None the less the Magnitude of change in this character area will be medium with a corresponding residual Moderate Adverse impact on this unique landscape character.

10.6.8 Permanent Effects on Landscape Character Area 7 – Prosperous Bay and Lower Fisher's Valley

The principal components with implications for this area comprise:

- Airport approach lighting on the southern periphery of this area; and
- Indirect impacts associated with the temporary disturbance associated with the airport operations at PBP, including aircraft movements.

The impacts will occur in the context of the outstanding scenic quality and wildland characteristics of Prosperous Bay and Lower Fisher's Valley where the sense of remoteness is accentuated by the lack of human influence and the tranquillity which transcends this character area.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The lack of human influences apparent within the landscape;
- The extent to which indirect impacts from the airport operations on PBP will detract from the tranquillity and sense of remoteness which characterises much of this character area; and
- The peripheral nature of the impacts and the resulting integrity of the key landscape components including the dramatic gorge and spectacular geological features.

Sensitivity to change in this scenically outstanding landscape is high. The peripheral nature of the impacts, most notably, concentrated around the southern outcrop and interface with PBP will mean that the key components of this character area will remain untouched. However, the level of disturbance associated with the operation of the airport is such that the tranquillity of the bay and gorge will be temporarily disturbed on an intermittent basis during flight times, resulting in a low magnitude of change but overall residual Minor Adverse - Neutral impact.

10.6.9 Permanent Effects on Landscape Character Area 8 – Dry Gut

The principal components with implications for this area comprise:

- The substantial embankment structure which will infill a large section of Dry Gut;
- Airport approach lighting; and
- Potential scar on the landscape associated with the temporary sea water abstraction facility at Gill Point and pipeline corridor until reinstatement has fully established.

The embankment structure in Dry Gut will infill a large section of the most dramatic and confined section of the gut between the point where the valley narrows to the waterfall at the head of the seaward section of the valley leading to Gill Point. The permanent structure will occur in the context of a very dramatic, imposing landscape of high scenic quality and value arising from the scale of this isolated valley and the remoteness heightened by the lack of human influence.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The lack of human influence on the area and intense sense of isolation and remoteness that exists;
- The extent to which the wildland characteristics will be affected by the proposals; and
- The scale, design and characteristics of the proposals in the context of the landscape character area.

Sensitivity to change within this character area is high due to the lack of human influence, the dramatic contained landscape of this gorge and the ensuing sense of isolation and remoteness which makes the wildland characteristics so highly valued. The vast

embankment structure (700m long and 100m high) will be out of scale with the valley landscape and will essentially change the character of what is an enclosed, steep sided, deeply incised valley system. The finished profile of the embankment structure will form a series of geometric terraces which along the western profile will be reinstated with fine dusty and sandy sediments, removed from the earthwork footprint on PBP. These terraces will be planted or seeded with native species such as samphire, babies' toes and boneseed whilst scrubwood, tea plant, old father live-forever will be planted on the exposed seaward edge. Variation in the terrace widths and profiles of the slope combined with the native species planting will help to create more naturalistic profiles to the embankment.

The key landscape features which define the landscape resource of Dry Gut including its strong sense of isolation and remoteness will be fundamentally changed. The permanent impacts on this landscape can not be mitigated, however, compensatory planting by way of gumwood planting around the degraded slopes of Bilberry Field Gut will help to provide an element of compensation by restoring part of a degraded landscape.

Decommissioning of the sea water abstraction facility at Gill Point may also result in localised scarring of the landscape, although reinstatement of the area will ensure that long term impacts (15 years after operation) will not remain.

The fundamental change to the landscape character and resulting permanent loss of this landscape resource will result in a high magnitude of change and Major Adverse residual impact.

10.6.10 Permanent Effects on Landscape Character Area 9 – Bencoolen

The principal components with implications for this area comprise:

- Three ROLs and associated overhead line connection supported on wooden poles; and
- Indirect impacts on this character area associated with the airport operations at PBP including aircraft movements.

The impacts will occur in the context of a relatively remote landscape and prominent landform with a locally distinctive plateau feature which forms part of the wider sweep of dramatic coastal cliffs.

The following issues have been taken into account in determining the order of impact:

- The relative remoteness of the area and high landscape value;
- The lack of apparent human influence on the area;
- The open and prominent nature of this character area; and
- The relative localised impact of the proposals in the context of the wider character area.

Sensitivity to change in this relatively remote and prominent landscape is high. Whilst the three ROL structures will be localised and contained they will result in introducing lighting into a landscape where none currently exists. Furthermore the overhead lines to power the ROLs will extend the area of disturbance particularly on this visually prominent landscape. Introduction of wooden poles potentially rising along the ridgeline will appear prominent set against the skyline and will introduce a series of linear elements and infrastructure into a landscape where human activity and presence does not currently exist. The need for an overhead line connection in this visually sensitive landscape could be negated by the use of self powering units as specified for the ROLs on the Barn and

on Great Stone Top. Consideration must be given to this during the detailed design stage of works.

Indirect effects associated with aircraft movements on the remote character of this landscape, are considered to be negligible as they will be infrequent and for limited duration.
Overall magnitude of change will be low with Minor Adverse residual impacts. If self powering ROLs are used the residual impacts could be reduced further.

10.6.11 Permanent Effects on Landscape Character Area 10 – Sharks Valley

The principal components with implications for this area comprise:

- Intake structures and pipelines to abstract water for the permanent water supply for the airport.

The impacts will occur in the context of a highly scenic landscape where many spectacular volcanic rock formations exist with the vegetated valley floor and water course which creates a uniquely constant flow of water through this steep sided gorge.

The following issues have been taken into account in determining the order of impact:

- The high scenic quality and value of the landscape;
- The secluded nature of the area potentially affected and the apparent lack of human influence;
- The scale, design and characteristics of the proposals within the context of the character area;
- The level of abstraction and resulting residual flow will sustain the vegetation communities which currently exist along the valley floor which provide an important aesthetic function; and
- The localised impact of the proposals restricted to the upper sections of the valley.

Sensitivity to change in this highly scenic landscape is high. The intake structures at water point A1 and A2 (see Figure 2.18 in Volume 3 of this ES) along with sensitive upgrading of parts of the existing access track for maintenance (on foot) will result in a low magnitude of change on the landscape during operation. The spectacular volcanic structures will remain intact along with the extensive swathes of vegetation which fill the valley floor. The intake structures, pipework and tracks will create permanent built features in a landscape where none currently exist. The cladding of the intake structures with local stone and subsequent re-establishment of vegetation around them will, however, help to integrate them into the landscape. Minor Adverse residual impacts will remain.

10.6.12 Permanent Effects on Landscape Character Area 11 – Stone Top ridges and peaks

The principal components with implications for this area comprise:

- Two ROLs.

The impacts will occur within a scenically outstanding area of high value. This character area is one of outstanding landscape quality and value arising from the combination of remoteness and the scale and dramatic nature of the landform.

The following issues have been taken into account in determining the order of impact.

- The high value and outstanding scenic quality of the area;
- The small scale nature of the development components in relation to the wider scale of this character area;
- The lack of human influence on the area; and
- The localised impact of the scheme in the context of the wider character area.

Sensitivity to change in this landscape is high. However, the magnitude of change resulting from the proposals will be low and limited in extent. Nonetheless, this is a landscape where human influences do not currently exist save, occasional walking tracks. Key landscape features such as the endemic flora which can be found in remote clusters will be avoided and lichen encrusted rock, typical of this landscape will be removed from the area of disturbance and used in the construction of the cairn feature which will house the ROL base structure. The introduction of lighting into a currently unlit landscape will result in a low magnitude of change and resulting Minor Adverse residual impact.

10.6.13 Permanent Effects on Landscape Character Area 12 – Upper Slopes covered by flax and woodland planting interspersed with settlements

The principal components with implications for this area comprise:

- Intermittent use by maintenance vehicles along the access track to the break tanks on the eastern periphery of this area; and
- Overhead line connection on wooden pole supporting structures along the above access track.

The impacts will occur on the outer edge of an attractive and valued landscape where disturbance similar to the type proposed already exists. The following issues have been taken into account in determining the order of impact.

- The temporary period in which a limited part of the character area will be impacted;
- The nature and visibility of the existing corridors of disturbance; and
- The presence of existing human influences through this character area.

Sensitivity to change of the type proposed, within this attractive landscape is considered, in general to be medium. The maintenance tracks follow existing tracks which will be widened and upgraded although not sealed thereby retaining a less prominent finish which will enable the tracks to remain relatively well integrated into the landscape. The track and accompanying overhead line which will be constructed from Woody Ridge flax mill along the ridge line will, however, create a more prominent feature within the outer edges of this character area. Some localised loss of scrub vegetation and occasional forest planting will also be necessary, although this will be limited and reinstated where ground conditions permit. Magnitude of change is considered to be low with resulting Minor Adverse impacts.

10.6.14 Permanent Effects on Landscape Character Area 13 – Steep eroded coastal slopes

The principal component with implications for this area comprises:

- Access road along Bank's ridge on the extreme periphery of this area.

The impacts will be small and confined to a relatively confined corridor along the south eastern periphery of this zone. The following issues have been taken into consideration in determining the level of impact.

- The high scenic quality and value of the landscape;
- The lack of infrastructure within this character area;
- The localised impact of the access road on this character area; and
- The limited scale of the proposals within this area.

The access road along Bank's ridge will result in the loss of some forest tree planting as well as introducing infrastructure which currently does not exist within this relatively untouched and remote landscape. Impacts will, however, be limited to marginal areas with key landscape features remaining intact and reinstatement where feasible of some of the

forest planting. The introduction of the access road on the periphery of this area will not therefore affect the integrity and remote qualities of the wider character area. Magnitude of change is therefore considered to be low with a resulting Minor Adverse residual impact.

10.6.15 Permanent Effects on Landscape Character Area 14 – The Barn

The principal components with implications for this area comprise:

- Three ROLs; and
- The indirect impact of the operations of the airport at PBP including aircraft movements.

This area is one of high scenic quality and value arising from the sheer scale and mass of the distinctive raised profile of The Barn and the lack of human influence. The striking nature of the landform creates a prominent landscape feature and landmark and focus to many views on the island.

The following issues have been taken into account in determining the order of impact.

- The value of the area as inaccessible, wild land, a resource which has the potential to become limited and fragmented with future development on the island;
- The small scale nature of the development components in relation to the substantial mass of this character area;
- The lack of human influence on the area;
- The localised impact of the scheme in the context of the wider character area.

Sensitivity to change within this area is high due to the lack of human influence and the importance of this landscape feature to the wider landscape of the island. The three ROLs will be localised and contained although the introduction of lighting in a currently unlit landscape will result in a low magnitude of change across this character area. Maintenance of the ROLs will be undertaken by foot along existing access tracks which will be sensitively upgraded where necessary. The indirect impact as a result of the airport operations on PBP will have a wider, although nominal impact on this character area with the sense of remoteness being lessened by the occasional noise of aircraft during flights arrivals/departures. Overall, however, the magnitude of change is considered to be low resulting in Minor Adverse residual impact.

10.7 SUMMARY

The introduction of a development of this magnitude on an island of such unique qualities as St Helena will inevitably result in some adverse impacts on landscape character. Table 10.1 below summarises the order of impacts during construction and operation of the Airport and supporting infrastructure proposals within the various landscape character areas.

Table 10.1: Summary of Assessment of Residual Impacts on Landscape Character Areas

Landscape Character Area	Construction				Operation			
	Neutral Effect	Minor Adverse	Moderate Adverse	Major Adverse	Neutral Effect	Minor Adverse	Moderate Adverse	Major Adverse
Landscape Character Area 1 – Rupert's Valley				●		●	(●)	
Landscape Character Area 2 – Deeply incised upper valleys and vegetated slopes				●		●	(●)	
Landscape Character Area 3 – Deadwood Plain			●			●		
Landscape Character Area 4 – Longwood			●			●		
Landscape Character Area 5 – Eroded slopes with extensive gully systems			●			●		
Landscape Character Area 6 – Prosperous Bay Plain				●			●	
Landscape Character Area 7 – Prosperous Bay and Lower Fisher's Valley			●			●		
Landscape Character Area 8 – Dry Gut				●				●
Landscape Character Area 9 – Bencoolen			●			●		
Landscape Character Area 10 – Sharks Valley			●			●		
Landscape Character Area 11 – Stone Top ridges and peaks			●			●		
Landscape Character Area 12 – Upper Slopes covered by flax and woodland planting interspersed with settlements		●				●		
Landscape Character Area 13 – Steep eroded coastal slopes		●				●		
Landscape Character Area 14 – The Barn			●			●		

(●) = impacts only in localised parts of the LCA

During the construction phase of works the assessment findings have indicated that the Airport and supporting infrastructure proposals will result in significant adverse impacts (major or moderate adverse impacts) on twelve of the fourteen landscape character areas. The only landscape character areas which will not be significantly affected by the construction phase of works will be LCAs 12 and 13 where the works will be peripheral to the character area with minor adverse impacts. The significant adverse impacts will be associated with the various activities required to construct the permanent infrastructure as well as the substantial amount of temporary works required to enable and to support the Contractor during the construction period.

In the long term once the airport and supporting infrastructure is operational only two LCAs (LCA 6 and 8) will retain significant adverse residual impacts. LCA 6, Prosperous Bay Plain will experience Moderate Adverse impacts associated with the extensive earthworks and remodelling of the landscape required to facilitate the airfield and the resulting changes to key features of this unique semi-desert landscape. LCA 8, Dry Gut will also experience Major Adverse impacts due to the fundamental change in character

resulting from the expansive embankment structure which infill the gut. Localised Moderate Adverse impacts will also remain in localised areas of LCA 1, Rupert's Valley associated with the change in character of Rupert's bay with the permanent wharf and associated commercial port facility. Whichever quarry location is selected will also result in localised Moderate Adverse residual impacts on landscape character.

The landscape and ecology mitigation plan will continue to be developed in conjunction with the detailing of the reference design and will provide an essential mechanism to minimise the adverse landscape impacts from the Airport and supporting infrastructure project both during construction and in the long term. It has been an essential mechanism in minimising the residual impacts of the Airport and supporting infrastructure proposals on the landscape character. It is therefore essential that considerable effort is applied in realising and implementing the mitigation plan to ensure that the airport and supporting infrastructure are successfully and effectively integrated into St Helena's complex, diverse and unique landscape resource.

VISUAL AMENITY

10.8 INTRODUCTION

This section reports the findings of the detailed visual impact assessment undertaken for the Airport and supporting infrastructure proposals. Visual amenity is defined as the pleasantness of the view or outlook of an identified receptor or group of receptors. The visual appraisal identifies the potential change in views of the existing landscape during construction and once the airport is operational and the extent to which these will affect residents, visitors and users of the landscape.

10.9 METHODS

10.9.1 Visual Assessment Methodology and Significance Criteria

The assessment of visual impact has been prepared with reference to the GLVIA.

The guidelines in GLVIA suggest that visual impacts are assessed from a clear understanding of the development proposed and any landscape mitigation measures which are being adopted. It further requires an understanding of the visual form of the existing landscape, its quality, its sensitivity to change in terms of the development proposed, and the magnitude of the change proposed. In these guidelines visual impacts are assessed with regard to their effect on receptors which are residents, visitors, travellers and other groups of viewers.

The assessment has involved three key stages:

- Identification of the zone of theoretical visibility for the development;
- Field assessment of affected receptors; and
- Visual evaluation and impact assessment.

10.9.2 Identification of the Zone of Theoretical Visibility

The purpose of identifying the ZTV is to define the effective boundaries within which the proposed development could potentially affect people's views of the landscape within the wider area surrounding the development. It is a task that can be undertaken manually by way of field survey, or through a combination of computer based analysis validated by targeted field survey. In light of the scale and nature of the study area, generally the latter method has been adopted in this instance.

The ZTV indicates those areas of land from which the proposed development might appear as part of a view. It further provides a means of identifying potential receptors (areas of land used by the public and individual/groups of buildings) so that impact assessments can be undertaken. The ZTV is not representative of impact in itself nor does it indicate that the development will be visible from all locations within the envelope.

The ZTV has been prepared using the 3D Analyst Extension for ArcGIS by ESRI. The digital elevation model (DEM) was derived from the Island's six 1:10,000 Ordnance Survey (OS) maps with contours delineated at 10m intervals. Elevations between the contour lines were extrapolated using a conversion tool in ArcGIS. The resultant data was used as the base data layer for conducting the ZTV. The DEM and resulting base data is only therefore as accurate as the contour information on the OS plans and does not reflect localised variations in topography.

For operational, post-construction scheme elements in the vicinity of the airport, an adjusted DEM, based on the final suggested elevation data provided by Atkins, was used as the base model in the analysis.

Locations for the elements listed below were plotted as points and given heights as shown in Table 10.2. The ZTV analysis assumes visibility from the base elevation at the site of each intervention plus the height of any structures, equipment, or infrastructure at that location. No adjustments were made for the height of the observer above the ground plane or for local screening by buildings or woodlands as it would be impossible to accurately map these obstacles for every given point.

The ZTV was mapped for the proposed development based on insertion of point heights for the various scheme components. Locations for the various components of the scheme were plotted as points and were allocated heights above existing ground level as shown in Table 10.2 below. This formed the basis for determining the potential extent of the visibility of temporary works, plant, materials storage and construction activity as well as the permanent infrastructure once the airport is operational. The potential quarry locations have not been included as insufficient information is known about the extent of working or finished profiles. Navigational Aids are included within the general airfield footprint and as the approach lighting will be no higher than the runway it has similarly not been included as an element in the ZTV for the airfield.

Table 10.2: Scheme Component Height Projections for the ZTV

Scheme Element	Construction projected height (m) above ground level	Operation projected height (m) above ground level
Rupert's Bay		
Temporary wharf	+20m	N/A
Permanent wharf	+20m	15m (for lighting columns)
Rupert's Valley		
Lay down and compound areas in Rupert's Valley	+20m	N/A
BFI (based on fuel tanks)	+20m	+12.5m
Haul/Access Road		
Haul/access road	+5m along centre line at 500m intervals	+1m
PBP - Airfield		
Airfield (batching plant/crushing +machinery)	+20m	299.6m AOD (ch 200) - 306m AOD (ch1100) – 300m AOD (ch 2150)
Terminal and combined buildings /ATC tower	+43m	+21m
Possible temporary runway	+20m	N/A
Raw Water storage tanks on Creeper Hill	+5m	+3.4m
Dry Gut		
Dry Gut embankment	300m AOD	300m AOD
Possible Dry Gut temporary storage reservoir	+20m	N/A
Gill Point temporary sea water abstraction	+5m	N/A
Government Garage		
Construction compounds	+20m	N/A
Sharks Valley		
Sharks valley intake	+5m (control pillar, intake will be within water course)	+2m (control pillar, intake will be within water course)
Sharks valley break tank	+5m	+1.4m
Sharks valley pipeline	+5m (shark's valley – break tank)	+0.5m (shark's valley – break tank)
Access track from Woody Ridge	+5m	+1m
Overhead power line from Woody Ridge to break tank	+10m at 70m spacing	+10m at 70m spacing
ROL		
ROL	+6.35m (3No. on the Barn and 2no. on Great Stone Top) 3m (all others)	+6.35m (3No. on the Barn and 2no. on Great Stone Top) 3m (all others)
Overhead power line from Government Garage to Horse Point ROL	+10m at 70m spacing	+10m at 70m spacing
Overhead power line from combined buildings to ROL on Bencoolen	+10m at 70m spacing	+10m at 70m spacing

Whilst considerable care has been applied to defining the ZTV it was not practical to obtain access to all potential viewpoints to verify intervisibility, given the scale of the area and the variable nature of the topography. There are also numerous localised obstructions which will temporarily close views for pedestrians and users of public areas. Local variations in topography, hedgerows, individual trees, buildings, walls or similar features can also vary the ZTV locally, particularly close to the viewpoint. Nevertheless the ZTV is a useful indicator of the potential area of influence of the proposed development and a valuable tool in landscape character and visual impact assessment.

Two zones of theoretical visibility have been prepared, one to illustrate construction impacts and one to illustrate operational impacts. These are illustrated on Figure 10.4 (sheets 1-8), which were prepared by Cody L. Thornton.

10.9.3 Visualisations

Visualisations have been produced from twelve viewpoint locations and provide illustrative diagrams to show the basic size, scope, and scale of the various components of the airport and supporting infrastructure. The viewpoints were selected in consultation with SHG and are illustrated on Figure 10.5 Volume 3 of the ES.

All photographs were taken in bright, clear conditions using a Canon 350D. The engineering drawings, produced by Atkins, were then digitised and rebuilt into a virtual model for locating the interventions geographically and determining their scale. Upon completion of the model, the actual views and the digital views were aligned to allow the model to guide the placement of photographed project elements (e.g. the air traffic control tower) into the final visualisations. Whilst this approach has several advantages there are some limitations which are identified in the method statement below.

The viewpoint locations were selected to best illustrate the potential visual impacts of the proposed airport and its supporting infrastructure. The digital photographs were taken at a focal length of 50mm. This focal length is used to best represent the actual view as well as to minimise distortion caused by distance when related to the virtual model. The viewpoint locations were recorded using a handheld GPS and the direction of view to the centre of the photograph was also recorded.

The virtual model is based on the Island's six 10m contour Ordnance Survey Maps of 1989. The data were re-created using ESRI's ArcGIS ArcMap and the 3D Analyst extension. Elevations between the contours were interpolated to create a digital elevation model on which the new project data could be overlaid. Each of the relevant engineering drawings were geo-referenced and, where necessary, developed into smaller 3D models.

Within the overall model, approximate virtual views from the same viewpoints as the photographs were aligned with the actual images of the Island. This part of the process is not always accurate, as the software uses some simplification when representing the virtual views to aid in processing. Hence, knowledge of the area and comparisons with the maps and engineering drawings were essential to supporting, and occasionally correcting, the models assertions of geographic location and object size.

The photographic elements used to illustrate the project components (e.g., water tanks) do not necessarily represent the final appearance of these features and should not be regarded as suggestions for what should take place, but rather of what the size and scale of the objects might be.

The visualisations are illustrated on Figure 10.6 (sheets 1-12) (prepared by Cody L. Thornton), in Volume 3 of the ES and where appropriate.

10.9.4 Receptors

For there to be visual impact there is the need for a viewer (receptor). Receptors include residential properties, work places, recreational facilities, road users, pedestrians and other outdoor sites used by the public which would be likely to experience a change in existing view as a result of the construction and operation of the Airport and supporting infrastructure proposals.

The ZTV for the proposed development was reviewed to aid the identification of potential receptors. Receptors were then validated through site survey, which additionally verified the elements of the proposed scheme which will be visible from the various receptors.

10.9.5 Field Assessment of Affected Receptors

Each receptor was visited and surveyed using a standardised checklist. Factors considered included:

- Receptor type and number (dwelling/commercial property/footpath/open space);
- Relative height to the development;
- Existing View (composition and quality);
- Distance of view;
- Percentage and elements of development potentially visible;
- Viewpoint position (view up / view down / level);
- Angle of view (acute / perpendicular / average);
- Type of view (foreground / mid-ground / background) and position of the development in the view;
- Duration of view i.e. is the receptor continuous such as a house, or intermittent such as a pedestrian / vehicular traveller; and
- Analysis of potential impact during construction and summer fifteen years into operation of the scheme.

10.9.6 Visual Evaluation and Impact Assessment

The evaluation and impact assessment has involved consideration of the extent to which the proposals will change the composition of the existing view (magnitude of change) and the sensitivity to change based on the information gathered through site survey and analysis of the proposed development. Both criteria are represented utilising thresholds of magnitude and sensitivity: High, Medium, Low and Neutral (magnitude only).

10.9.7 Sensitivity of Change

Sensitivity to change considers the nature of the receptor, for example a residential dwelling is generally more sensitive to change than a factory unit. The importance of the view experienced by the receptor also contributes to an understanding of how sensitive that receptor is to change. Scenic quality and the value of the view are therefore considered.
In this assessment sensitivity is ranked as follows:

- High Sensitivity – where the changed landscape is an important element in the view;
- Medium Sensitivity – where the changed landscape is a moderately important element in the view; and
- Low Sensitivity – where the changed landscape is a less important element in the view.

10.9.8 Magnitude of Change

Magnitude of change considers the extent of development visible, the percentage of the existing view newly occupied by the development, the influence of the development within the view and viewing distance from the receptor to the development.

In this assessment magnitude is ranked as follows:

- High Magnitude - where the development causes a very significant change in the existing view;
- Medium Magnitude - where the development will cause a very noticeable change in the existing view;
- Low Magnitude - where the development will cause a noticeable change in the existing view; and
- Neutral - where the development will cause no significant change in the existing view.

10.9.9 Change Over Time

Visual context changes over time as re-establishment of vegetation occurs and as existing landscape external to the development evolves. The assessment acknowledges change and reports on the impacts during the construction phase, as well as during the operation of the scheme (year of opening and 15 years after opening).

10.9.9 Assessment of Impacts

A visual impact rating for each receptor is derived from consideration of the magnitude of change and sensitivity to change. Impact ratings adopted comprise major, moderate or minor and adverse or beneficial. A rating of Neutral can be applied where there is no discernable impact.

Major Adverse (or beneficial) Impact:
- Where the proposal would cause a very noticeable deterioration (or improvement) in the existing view.

Moderate Adverse (or beneficial) Impact:
- Where the proposal would cause a noticeable deterioration (or improvement) in the existing view.

Minor Adverse (or beneficial) Impact:
- Where the proposal would cause a barely perceptible deterioration (or improvement) in the existing view.

Neutral effect:
- Where there is no discernible deterioration (or improvement) in the existing view.

10.10 EXISTING CONDITIONS

The baseline landscape and its broad visual context are described earlier in this Chapter under Landscape Character, Section 10.3.

The study area for the baseline survey has been the entire area from which the proposed airport and its supporting infrastructure could potentially affect people's views of the landscape. The majority of receptors are located in the following areas:

- Rupert's Valley;
- Deadwood, Longwood and Bottom Woods (including properties at Bradleys Government Garage);
- Levelwood, Silver Hill and Woody Ridge;
- Two Gun Saddle and Alarm Forest;
- Francis Plain and St Pauls; and
- Half Tree Hollow.

Groups of receptors (buildings, footpaths, roads) identified during review of the ZTV for the Airport and supporting infrastructure proposals are identified below and illustrated on Figure 10.5.

10.10.1 View from Buildings

Views from buildings, including residential properties, offices, commercial premises, residential care facilities and schools. In general, buildings fall within one of five categories:

- Dwellings and commercial buildings in Rupert's Valley and Bay;
- Dwellings and buildings within Longwood and Deadwood;
- Dwellings and buildings to the immediate west of Prosperous Bay Plain including Government Garage at Bradleys, Bottom Woods and the Met Station;
- Dwellings and buildings within and in the vicinity of Level Wood, Silver Hill and Woody Ridge; and
- Dwellings and buildings in Half Tree Hollow, Cow Path, Francis Plain, Alarm Forest and buildings in elevated locations at St Pauls.

10.10.2 Views from Outdoor Locations

Views from outdoor locations, including key view points and scenic vantage points, recreational areas, public roads and footpaths. On the whole, views from outdoor locations generally fall into one of five categories:

- Public open space and recreational facilities used by residents and visitors including the open green adjacent to Longwood Avenue, Longwood golf course, The Millennium Forest, Rupert's Bay and beach and features of historic interest such as Longwood House, Napoleon's Tomb, High Knoll Fort and Prosperous Bay Signal Station;
- Views from footpaths which cross or run immediately adjacent to Prosperous Bay Plain including King and Queen Rocks (Prosperous Bay Signal Station), Prosperous Bay, Gill Point, Woody Ridge to Dry Gut as well as the various informal routes which fishermen use to access the coast between King and Queen Rocks and Gill Point;
- Views from sections of footpaths including The Barn, Flagstaff Hill, Sugar Loaf, Bank's Battery, Fisher's Valley, Sharks Valley, Cox's Battery, The Boer Road, The Pipe Path and footpaths in The Peaks; and
- Views from scenic vantage points and key view points including Diana's Peak, Mount Actaeon and Cuckold's Point.

10.11 ASSESSMENT OF EFFECTS ON VISUAL AMENITY

Development can change people's direct experience and perception of the landscape depending on existing context, the scale, form, colour and texture of the proposals, the nature of activity associated with the development and the distance and angle of view. Impacts will be either temporary and relate specifically to the construction stage of works whilst others will be permanent and incurred once the scheme is in operation.

In the context of the Airport and supporting infrastructure proposals, key components relate to:

- The extent to which the new structure will intrude into existing views experienced by residents and day to day users of the area; and
- The extent to which visitors will be subject to new impacts in a highly valued landscape.

The potential impacts of the proposed development on receptor groups (buildings, roads, footpaths) during construction and operation are described below.

10.12 CONSTRUCTION EFFECTS

Construction effects relating to each receptor or receptor group are described below. Individual receptor references relate to those indicated in Figure 10.5. The assessment of visual effects associated with the construction phase of works has considered the various activities required to construct the permanent infrastructure as well as the substantial amount of temporary works required to enable and support the Contractor during the construction period. Details of the temporary works considered are outlined in section 10.5 above.

10.12.1 Mitigation of Construction Phase Effects

Mitigation measures associated with minimising visual impacts during the construction period are described in section 10.5.1 above.

10.12.2 Residual Construction Phase Effects on Views from Buildings

10.12.2.1 Rupert's Valley

Principal receptors include:

- Residential properties in Rupert's Valley (receptor group 1) with immediate foreground views of the haul road, construction traffic and lay-down/compound areas. Possible oblique, mid-ground views of the construction activity and plant (particularly cranes) around Rupert's bay, especially as some of the amenity road side planting will be lost in order to create sufficient construction area for the extended road carriageway. Major Adverse impacts on views of these sensitive receptors will result. Church goes congregating around the church will also experience immediate foreground views of the haul road and compound areas with resulting Moderate Adverse impacts.
- Commercial buildings including Argos, Fisheries building and warehouse/storage areas (receptor group 2) with immediate views (mainly from external areas) of the construction activity associated with the temporary wharf, compounds, offices and lay-down areas for plant and materials at the former fuel farm and adjacent warehouse areas. Minor Adverse impacts on views from these receptors which are generally of low sensitivity. Moderate Adverse impacts will result for the Fisheries building as there will be direct views of the haul road which will run immediately adjacent to the building.
- Industrial buildings including the Power Station, quarantine station and incinerator (receptor group 3) with immediate foreground views of the haul road and potential quarry site 1 and oblique, mid-ground views of the construction of the Bulk Fuel Installation (BFI). These receptors are of low sensitivity to change and despite the high magnitude of change incurred during construction, views will be limited to external areas around these industrial buildings with a resulting Minor Adverse impact.

10.12.2.2 Deadwood, Longwood

Principal receptors include:

- Residential properties in Deadwood (receptor group 4) with both immediate foreground views of the haul road and construction traffic along Deadwood Plain and elevated mid-ground views of the haul road as it rises from Rupert's Valley to Deadwood Plain. Some of these properties will also have elevated mid-ground views of the construction of the BFI and of the potential mid-valley quarry site. Major to Moderate Adverse impacts will be experienced by these receptors of medium and high sensitivity. Impacts will vary depending on the orientation of the property and the extent to which intervening landform and planting will partially obscure views.
- Residential properties along the Devils Punch Bowl (receptor group 5) with mid-ground to distant and often oblique views of the haul road as it rises along the upper slopes of Rupert's Valley and along Bank's ridge to Deadwood Plain. The construction of the haul road and vehicle movements seen along it will be viewed as an element in their wider vista, thereby resulting in Minor Adverse impacts.
- Residential properties at Millfields Gardens (receptor group 6) with mid-ground, elevated and often oblique views of the haul road as it stretches between Deadwood Plain and Coltshed Road. Moderate Adverse impacts will result for these receptors of high sensitivity to change.
- Residential properties along Coltshed Road (receptor group 7) with both immediate foreground views as well as more oblique mid-ground views of the haul road as it crosses Mulberry Gut. Major Adverse impacts will be experienced for properties where the road will appear in the focus of their immediate views. Properties where the road will appear in more oblique and distant mid-ground views will experience Moderate Adverse impacts.
- Residential properties to the north of Longwood Avenue (receptor group 8) with mid-ground to distant and often partially obscured views of the haul road between Deadwood Plain and Coltshed Road. These properties of medium to high sensitivity will generally experience Moderate Adverse impacts as a result of the construction of the haul road and associated vehicle movements interrupting their view of open countryside.
- Residential properties to the south of Longwood Avenue (receptor group 9) with diffuse views of the haul road as it crosses Deadwood Plain and Mulberry Gut and oblique distant views from the back of their properties towards the construction works at the airfield site on PBP. Minor Adverse impacts will result as the proposals will not form a prominent element in their views.
- Residential properties at Piccolo Hill (receptor group 10) with glimpsed and often diffuse views of the haul road between Deadwood Plain and Coltshed Road. Minor Adverse impacts will be experienced by these properties as the road is unlikely to form a prominent element within their existing view. The section of haul road to the immediate north of the Piccolo Hill is considered to be screened from view by a combination of landform and existing planting.
- Residential properties at Ropery Field (receptor group 11) with direct to oblique mid-ground views of the haul road and construction traffic as it crosses the more open land adjacent to the waste stabilisation ponds. Impacts will be Moderate – Minor Adverse as the views are often oblique and partially obscured by intervening properties.
- Two residential properties, currently under construction overlooking Bilberry Field Gut (receptor group 12) with direct foreground views of the haul road which will wrap round the upper part of the gut beneath the properties and continue across the more open ground towards Bottom Woods. Major Adverse impacts will result.
- Residential properties at Longwood Hangings (receptor group 13) with oblique and distant views of the construction works at the airfield site at PBP and of the pipeline construction between the break tank and PBP. These properties are generally of medium or high sensitivity to change subject to their orientation. The extensive construction activity at PBP will appear as an element in their more distant views although PBP forms the visual terminus to many views thereby heightening the prominence of the proposals. Moderate Adverse impacts will result.
- Residential properties to the east of the Devil's Punch Bowl (receptor group 14) with distant views of the construction works at the airfield site at PBP. These properties are generally of medium sensitivity to change and have elevated views which are generally focussed on PBP. The extensive construction activity at PBP will appear as an element in their more distant views although PBP forms the visual terminus to views thereby heightening the prominence of the proposals. Moderate Adverse impacts will result.
- Other buildings in the community of Longwood, including the shop, church, school and community care facility (receptor group 15) with oblique and largely diffuse, mid-ground views of the haul road between Deadwood Plain and Bottom Woods. Minor Adverse impacts will be experienced for all but the community care facility where Minor - Moderate Adverse impacts will result due to the medium sensitivity to change of this receptor and the more open, all be it distant view of the haul road along Deadwood Plain.

The construction of the ROLs on The Barn, Bencoolen and Great Stone Top will appear in the distant views experienced by a number of the receptors identified above. The distance is such that the scale and short duration of the works will appear as barely discernible elements in their distant views.

10.12.2.3 Bottom Woods – Bradleys Government Garage

Principal receptors include:

- Residential properties at Bottom Woods (receptor group 16) with immediate views of the haul road and construction traffic as well as mid-ground to distant views of the extensive construction activity on PBP. Major to Moderate Adverse impacts will result for these properties depending on their orientation and subsequent focus of view. The haul road will pass in immediate foreground views from some of these properties and the extensive works at PBP will be a highly visible element within the wider, elevated views of the majority of the properties at Bottom Woods.
- Two residential properties at Government Garage (receptor group 17) with immediate foreground views of the construction camp and haul road and mid-ground views of the airport construction at PBP. These receptors are of high sensitivity to change in which a high magnitude of change will result in their views (including from external/garden areas). Major Adverse impacts will result as views on all sides will fundamentally change.
- Met station (receptor group 18) with views of the section of haul road and construction traffic between Bilberry Field Gut and the Millennium Forest. Whilst the haul road and associated traffic will appear in views from the building, the receptor is of low sensitivity to change. Minor Adverse impacts will result.

10.12.2.4 Level Wood, Silver Hill and Woody Ridge

Principal receptors include:

- Residential properties in Level Wood, Silver Hill and Woody Ridge (receptor group 19) with more distant elevated views of the construction activity at PBP and Dry Gut and mid-ground views of the construction of the water abstraction infrastructure at Sharks Valley including the tracks, pipeline, overhead line power supply and break tank. Views and resulting impacts will vary according to the orientation of properties and the resulting direction and focus of view. Intervening landform and trees may also partially obscure the works from views. Nonetheless for the majority of receptors Major – Moderate Adverse impacts will result as the construction works will form a very noticeable element in the majority of views from this area.

10.12.2.5 Two Gun Saddle, Alarm Forest, Francis Plain, St Pauls, Cow Path and Half Tree Hollow

Principal receptors include:

- Residential properties in Two Gun Saddle and Alarm Forest (receptor group 20) with elevated mid-ground views of the haul road rising out of Rupert's Valley to Bank's ridge, potential mid and upper valley quarry options (depending on exact location and orientation of property), the wider construction activity, compounds, plant and storage areas in Rupert's Valley and the temporary wharf construction. The majority of these receptors have elevated views which are orientated towards the sea with Rupert's Valley forming an element within it. The various construction works and particularly the quarry operations will result in Major Adverse impacts for a number of these properties, although where properties main views are partially obscured by either landform or adjacent properties impacts will be less with Minor Adverse impacts.
- Residential properties in Francis Plain and St Pauls (receptor group 21 with elevated and distant views of the haul road as it rises along the upper slopes of Rupert's Valley along Bank's ridge to Deadwood Plain. Impacts will be Minor-Moderate Adverse as the road will create a visible element within their wider view.
- Buildings at St Pauls, including the Radio Station, Middle school, Cathedral and Prince Andrew School (receptor group 22) with elevated and distant views of the haul road as it rises along the upper slopes of Rupert's Valley along Bank's ridge to Deadwood Plain. These receptors are of lower sensitivity to the residential properties identified above and consequently impacts will be Minor Adverse.
- Residential properties and buildings in Ladder Hill, Half Tree Hollow and Cow Path (receptor group 23) with elevated, distant and often partially screened views of the haul road as it rises out of Rupert's Valley to the Pipe Path and Deadwood Plain as well as the potential mid valley quarry option. Minor Adverse impacts will result as the road will not generally appear as a prominent element within their views.

10.12.3 Residual Construction Phase Effects on Views from Outdoor Locations

10.12.3.1 Public Open Space / Recreational Facilities

Principal receptors include:

- Outdoor spaces including the open green adjacent to Longwood Avenue (receptor RF1) with glimpsed mid-ground views of the haul road on Deadwood Plain and Longwood golf course (receptor RF2) with mid ground to more distant views of the haul road and distant, glimpsed views of the construction activity at PBP. Minor Adverse impacts will result other than from more easterly sections of the golf course where views of PBP are more apparent and impacts may be significant (moderate adverse).
- Longwood House (receptor RF3) with possible distant and glimpsed views from the external garden space, of the haul road as it runs along Deadwood Plain. Possible glimpsed views of the haul road in more distant views with possible Minor Adverse impacts during construction.
- Napoleon's Tomb (receptor RF4) at the head of Sane Valley. Views from the actual tomb area are generally contained by vegetation, however mid-ground to distant views of the haul road may be visible from the access track where more open views towards Bank's ridge and Deadwood Plain exist. Possible Minor Adverse – Neutral impacts on views will result as the haul road will not impinge on the focus to views either on the access track or from the tomb area.
- The Millennium Forest (receptor RF5) with elevated panoramic views spanning the entire coastal plain extending from The Barn to Great Stone Top. The haul road will feature in immediate views from the visitor centre and forest area with mid-ground views dominated by the extensive earthworks and construction activity at PBP. Impacts will be Major Adverse.
- Recreational users of Rupert's Bay and beach (receptor RF6) with immediate foreground views of the temporary wharf, compounds, materials storage and handling facilities. Whilst the beach will be closed temporarily at times during the construction period it will remain largely open thereby resulting in a fundamental change in visual amenity of users of this recreational resource with Major Adverse impacts resulting.

10.12.3.2 Scenic Vantage Points

Principal receptors include:

- Scenic vantage points and key view points as well as footpaths within The Peaks, including Diana's Peak, Mount Actaeon and Cuckold's Point (receptor SVP1) where more distant but panoramic views of the haul road and the construction activity at Prosperous Bay Plain will be visible. Impacts for receptors in this location are considered to be Moderate Adverse due to the intrusion of scheme elements in their wider panoramic view extending from the haul road rising out of Rupert's Valley east to the extensive construction activity apparent at PBP, all of which will occupy approximate half of the panoramic vista experienced from these vantage points.
- High Knoll Fort (receptor SVP2) with wide, panoramic views in which the haul road will be visible rising out of Rupert's Valley to Deadwood Plain as well as the potential mid-valley quarry site. These elements will be visible in half of the overall vista from this viewpoint resulting in a Moderate Adverse impact.

10.12.3.3 Footpaths

Principal receptors include:

- Walkers on the route between Rupert's Bay to Bank's Battery (receptor F1) will experience immediate views of the temporary wharf, materials storage and handling facilities at Rupert's Bay. Impacts on the visual amenity experienced by walkers of this route will be limited to a short section of the path from approximately Bloody Bridge to Rupert's Bay where Major Adverse impacts on the visual amenity of this section of the route will result.
- Walkers on The Pipe Path (receptor F2) will experience immediate views of the haul road and immediate to mid-ground views of the temporary wharf, materials storage and handling facilities and the potential quarry sites. Impacts on visual amenity experienced by users of this path will vary depending on the section of route and will range between Major Adverse to Moderate Adverse impacts. The sections of path along Bank's ridge where the haul road will cross the path at a number of locations (with temporary path diversions required) and as the path rises out of Rupert's Valley will experience the highest level of impact.
- Walkers on The Boer Road (receptor F3) will also experience immediate views of the haul road, BFI and both potential quarry locations resulting in Major Adverse impacts.
- Walkers using various footpaths including Post Box walks to King and Queen Rocks (Prosperous Bay Signal Station), Prosperous Bay, Gill Point, Woody Ridge to Dry Gut footpath (receptors F4) where walkers will experience immediate foreground views of the extensive construction activity at PBP and Dry Gut and the water abstraction pipeline from Sharks Valley for the latter two routes. Many of these routes will be diverted to allow walkers continued access throughout the construction period, although Major Adverse impacts on the visual amenity experienced along large sections of these routes will result.
- Users of the fishing access routes (receptors F5) which cross PBP to gain access to the eastern seaboard will be diverted but will still experience immediate foreground views of the construction works at PBP and Dry Gut. Impacts on visual amenity for sections of these routes will be Major Adverse.
- Users of Sharks Valley Post Box walk (receptor F6) will experience immediate foreground views of the construction works associated with the path upgrading, pipeline and intake structures associated with the water abstraction points. Major Adverse impacts will be experienced for short localised sections of the route associated with the construction of the intake structures and Moderate adverse impacts along wider sections of the route which will run parallel to the pipeline construction.
- Various footpaths including Post Box walks where walkers will experience more distant views of the airport construction activity at PBP as well as the haul road (receptors F7). These will include but are not limited to The Barn, Flagstaff Hill, Sugar Loaf, Cox's Battery. Construction of the remote obstacle lighting will also be visible in immediate views of walkers climbing the Barn and Great Stone Top. Impacts will be localised and experienced along sections of these routes where visual amenity will not be fundamentally affected as views are generally open and extensive and the works will be seen within this context. Minor Adverse impacts will result other than localised sections where immediate views of the ROL installation will be experienced by walkers where the impact for short sections will be Moderate Adverse.

10.13 PERMANENT EFFECTS

The following section describes the permanent visual impacts of the Airport and supporting infrastructure proposals once the airport is operational on the visual amenity of receptors within the study area. It considers the various components of providing the airport on St Helena and how the permanent structures will impact on the views experienced by the various receptors. Individual receptor references relate to those indicated in Figure 10.5.

10.13.1 Mitigation of Permanent Effects

The development of landscape and visual mitigation measures has been undertaken in conjunction with the detailed ecological mitigation proposals to ensure a cohesive and integrated approach to mitigation which reflects the intrinsic relationship between the landscape and ecological resource on St Helena. Mitigation measures associated with minimising the permanent visual impacts are described in detail in the Landscape and Ecology Mitigation Plan contained in Appendix 10.2.

10.13.2 Permanent Effects on Views from Buildings

10.13.2.1 Rupert's Valley

Principal receptors include:

- Residential properties in Rupert's Valley (receptor group 1) with foreground views of the access road. The existing band of amenity planting will be extended and strengthened to both reinstate for the loss of amenity planting during construction of the access road and also to extend the visual buffer so that views of the road are largely screened from the properties. Views from these properties and the church will remain largely un-changed other than the likely increase in traffic movements associated with the new port area. Until the mitigation planting has established impacts will be Minor Adverse becoming Neutral in the long term (15 years). Refer to Figure 10.6 (Sheet 2) Volume 3 of the ES.
- Commercial buildings including Argos, Fisheries building and warehouse/storage areas (receptor group 2) with foreground views (mainly from external areas) of the permanent wharf and commercial port area. Mitigation planting along the road corridor and adjacent to the warehouse storage areas will provide a consistent boundary treatment and structure and containment for the existing commercial units and port area. Residual impacts will be Minor Adverse.
- Industrial buildings including the Power Station, quarantine station and incinerator (receptor group 3) with immediate foreground views of the access road and potential former mid-valley quarry site and oblique, mid-ground views of the BFI. These receptors are of low sensitivity to change. Native species mitigation planting will help to integrate the road into the valley landscape thereby minimising the visual intrusion of the access road. The BFI and former quarry will appear as new structures in views from external areas around these industrial buildings. Magnitude of change will be low with Neutral residual impacts resulting.

10.13.2.2 Deadwood, Longwood

Principal receptors include:

- Residential properties in Deadwood (receptor group 4) with both immediate foreground views of the access road along Deadwood Plain and elevated mid-ground views of the access road as it rises from Rupert's Valley to Deadwood Plain. Some of these properties will also have elevated mid-ground views of the new BFI and of the former potential mid-valley quarry site. Until mitigation planting establishes impacts experienced by these receptors will remain Moderate Adverse as the road and scarring from the quarry will remain as prominent features within their wider views. Swathes of native species planting along the access road will help integrate the road into the landscape and whilst it will remain as an element in their view, impacts are considered to be generally Minor Adverse other than for the property where the access road runs immediate adjacent to it where moderate adverse impacts will remain. Refer to Figure 10.6 (Sheets 3 and 4) Volume 3 of the ES.
- Residential properties along the Devils Punch Bowl (receptor group 5) with mid-ground to distant and often oblique views of the access road as it rises along the upper slopes of Rupert's Valley and along Bank's ridge to Deadwood Plain. The access road will be viewed as an element in their wider vista, which with mitigation planting will help integrate the road into the landscape with residual Neutral impacts resulting.
- Residential properties at Millfields Gardens (receptor group 6) with mid-ground, elevated and often oblique views of the access road as it stretches between Deadwood Plain and Coltshed Road. Minor Adverse residual impacts will result as the mitigation planting in Mulberry Field Gut will help integrate the road into the landscape thereby minimising the impact on views.
- Residential properties along Coltshed Road (receptor group 7) with both immediate foreground views as well as more oblique mid-ground views of the access road as it crosses Mulberry Gut. The mitigation planting including additional woodland planting and native species and hedgerow planting will help both integrate the road into the landscape and provide some element of screen planting for properties with more immediate views. Minor Adverse residual impacts will result for receptors once the mitigation planting has established other than for occasional properties where the road will remain as a prominent element in views with Moderate Adverse residual impacts. Refer to Figure 10.6 (Sheet 5) Volume 3 of the ES.
- Residential properties to the north of Longwood Avenue (receptor group 8) with mid-ground to distant and often partially obscured views of the access road between Deadwood Plain and Coltshed Road. These properties of medium to high sensitivity will generally experience Minor Adverse residual impacts once the mitigation planting in Mulberry Gut has established thereby integrating the road in the landscape which forms an important component of their view.
- Residential properties to the south of Longwood Avenue (receptor group 9) with diffuse views of the access road as it crosses Deadwood Plain and Mulberry Gut and oblique distant views from the back of their properties towards the airport on PBP. Minor Adverse – Neutral residual impacts will result as the mitigation planting will help integrate the access road into the landscape with the airport development unlikely to form a prominent element in their view.
- Residential properties at Piccolo Hill (receptor group 10) with glimpsed and often diffuse views of the access road between Deadwood Plain and Coltshed Road. Neutral impacts will be experienced by these properties as the road is unlikely to form a prominent element within their existing view particularly once the mitigation planting further integrates the road into the wider landscape.
- Residential properties at Ropery Field (receptor group 11) with direct to oblique mid-ground views of the access road as it crosses the more open land adjacent to the waste stabilisation ponds. Native species gumwood planting will help provide a visual screen to the majority of views from these receptors with resulting Minor Adverse impacts once the planting has established.
- Two residential properties, currently under construction overlooking Bilberry Field Gut (receptor group 12) with direct foreground views of the access road which will wrap round the upper part of the gut beneath the properties and continue across the more open ground towards Bottom Woods. Extensive gumwood planting will help integrate the road into the landscape which once established will reduce the impacts to Moderate Adverse. Significant residual impacts will remain as the road will remain a visible element within their foreground view.
- Residential properties at Longwood Hangings (receptor group 13) with oblique and distant views of the airport at PBP and of components of the permanent water supply. These properties are generally of medium or high sensitivity to change subject to their orientation. The airport will appear as an element in their more distant views with it appearing as a strong linear element forming the visual terminus to many views with Minor Adverse residual impacts resulting.

- Residential properties to the east of the Devil's Punch Bowl (receptor group 14) with distant views of the airport at PBP. These properties are generally of medium sensitivity to change and have elevated views which are generally focussed on PBP. The airport will appear as an element in their more distant views with it appearing as a strong linear element forming the visual terminus to many views with Minor Adverse residual impacts resulting.
- Other buildings in the community of Longwood, including the shop, church, school and community care facility (receptor group 15) with oblique and largely diffuse, mid-ground views of the access road between Deadwood Plain and Bottom Woods. Mitigation planting will help integrate the haul road into the landscape and into wider views. Neutral impacts will be experienced for all but the community care facility where Minor Adverse impacts will result due to the medium sensitivity to change of this receptor and the more open, all be it distant view of the access road along Deadwood Plain.

The ROLs on The Barn, Bencoolen and Great Stone Top will appear in the distant views experienced by a number of the receptors identified above. Whilst the distance is such that the structure itself is unlikely to be particularly prominent in their views, the illumination of them is likely to create a more prominent focus in night time views.

10.13.2.3 Bottom Woods – Bradleys Government Garage

Principal receptors include:

- Residential properties at Bottom Woods (receptor group 16 with immediate views of the access road as well as mid-ground to distant views of the airport on PBP. Moderate to Minor Adverse impacts will result for these properties depending on their orientation and subsequent focus of view. The main change to the view will not be the access road which will be more effectively screened from view by native species planting along the length of the road but the airport development and associated change in visual character of the semi-desert landscape at PBP. The airport and supporting infrastructure will appear as a visible element within the wider, elevated views of the majority of the properties at Bottom Woods. Refer to Figure 10.6 (Sheet 6) (prepared by Cody L. Thornton), Volume 3 of the ES.
- Two residential properties at Government Garage (receptor group 17) with immediate foreground views of the airport access road and mid-ground views of the wider airport development at PBP. Mitigatory native species planting will help to partially integrate the road into this open, arid landscape although the nature of the dark surface treatment will mean that it will appear as a prominent element in their view. The airport development will significantly change the view experienced from views from internal and external spaces with the airport creating a prominent focus in what was an arid, semi-desert landscape. Mitigation measures in terms of clustering the built structures and habitat reinstatement measures will help minimise the visual intrusion of the airport, although it will still create a medium magnitude of change. Moderate Adverse residual impacts will result as views on all sides will substantially change. Refer to Figure 10.6 (Sheet 7) (prepared by Cody L. Thornton), Volume 3 of the ES.
- Met station (receptor group 18) with views of the section of access road between Bilberry Field Gut and the Millennium Forest. Mitigation planting will help integrate the access road into the landscape and thereby appear a far less prominent element in views. Neutral residual impacts will result.

10.13.2.4 Level Wood, Silver Hill and Woody Ridge

Principal receptors include:

- Residential properties in Level Wood, Silver Hill and Woody Ridge (receptor group 19) with more distant elevated views of the airport at PBP and the embankment structure at Dry Gut and mid-ground views of the water abstraction infrastructure at Sharks Valley including the tracks, pipeline, overhead line power supply and break tank. Views and resulting impacts will vary according to the orientation of properties and the resulting direction and focus of view. Intervening landform and trees may also partially obscure the developments from view. Mitigation proposals will further help integrate the various airport components into the landscape, however, the airport will remain a noticeable element in the majority of views from this area with Minor Adverse residual impacts. Refer to Figure 10.6 (Sheet 10) (prepared by Cody L. Thornton), Volume 3 of the ES.

10.13.2.5 Two Gun Saddle, Alarm Forest, Francis Plain, St Pauls, Cow Path and Half Tree Hollow

Principal receptors include:

- Residential properties in Two Gun Saddle and Alarm Forest (receptor group 20) with elevated mid-ground views of the access road rising out of Rupert's Valley to Bank's ridge, the former potential quarry options 1 and 2 (depending on exact location and orientation of property) and the permanent wharf. The majority of these receptors have elevated views which are orientated towards the sea with Rupert's Valley forming an element within it. Mitigation planting will help integrate the road into the valley landscape and the elevated nature of the views will enable the scale of the wharf in relation to the bay to appear less prominent. The access road and particularly the former quarry sites (subject to restoration proposals) will result in Minor Adverse residual impacts for a number of these properties, although where properties main views are partially obscured by either landform or adjacent properties impacts will be Neutral.
- Residential properties in Francis Plain and St Pauls (receptor group 21) with elevated and distant views of the access road as it rises along the upper slopes of Rupert's Valley along Bank's ridge to Deadwood Plain. Mitigation planting will help integrate the road into the valley landscape although it will remain more visible along the ridge line. Residual impacts will be Minor Adverse.
- Buildings at St Pauls, including the Radio Station, Middle school, Cathedral and Prince Andrew School (receptor group 22) with elevated and distant views of the access road as it rises along the upper slopes of Rupert's Valley along Bank's ridge to Deadwood Plain. These receptors are of lower sensitivity to change compared with the residential properties identified above and consequently impacts will be Neutral-Minor Adverse.
- Residential properties and buildings in Ladder Hill, Half Tree Hollow and Cow Path (receptor group 23) with elevated, distant and often partially screened views of the access road as it rises out of Rupert's Valley to the Pipe Path and Deadwood Plain as well as the potential mid valley quarry option. Neutral impacts will result as once the mitigation planting establishes the road and quarry will not appear as a prominent element within their views.

10.13.3 Permanent Effects on Views from Outdoor Locations

10.13.3.1 Public Open Space / Recreational Facilities

Principal receptors include:

- Outdoor spaces including the open green adjacent to Longwood Avenue (receptor RF1) with glimpsed mid-ground views of the access road on Deadwood Plain and Longwood golf course (receptor RF2) with mid-ground to more distant views of the access road and distant, glimpsed views of the airport at PBP. Neutral impacts will result other than from more easterly sections of the golf course where views of PBP are more apparent and impacts may be Minor Adverse.
- Longwood House (receptor RF3) with possible distant and glimpsed views from the external garden space, of the access road as it runs along Deadwood Plain. Mitigation planting will help integrate the access road into the landscape in more distant, glimpsed views with Neutral residual impacts.
- Napoleon's Tomb (receptor RF4) at the head of Sane Valley. Views from the actual tomb area are generally contained by vegetation, however mid-ground to distant views of the access road may be visible from the access track where more open views towards Bank's ridge and Deadwood Plain exist. Mitigation planting however, will help integrate the access road into the landscape with a resulting Neutral impact on the visual amenity of visitors to the tomb.
- The Millennium Forest (receptor RF5) with elevated panoramic views spanning the entire coastal plain extending from The Barn to Great Stone Top. The access road will feature in immediate views from the visitor centre and forest area with the airport development appearing prominently in mid-ground views. Mitigation gumwood planting will help screen the access road from view, although the airport will remain a prominent element within wider views from this amenity site. Residual impacts will be Moderate Adverse.
- Recreational users of Rupert's Bay and beach (receptor RF6) with immediate foreground views of the wharf and commercial port area will experience a high magnitude of change to their visual amenity. The wharf and associated flood lighting will create a prominent element within the view of beach users with a resulting Moderate Adverse impact on their visual amenity. Refer to Figure 10.6 (Sheet 1) (prepared by Cody L. Thornton), Volume 3 of the ES.

10.13.3.2 Scenic Vantage Points

Principal receptors include:

- Scenic vantage points and key view points as well as footpaths within The Peaks, including Diana's Peak, Mount Actaeon and Cuckold's Point (receptor SVP1) where more distant but panoramic views of the access road and the airport at Prosperous Bay Plain will be visible. Impacts for receptors in this location are considered to be Moderate-Minor Adverse due to the intrusion of scheme elements in their wider panoramic view extending from the access road rising out of Rupert's Valley east to the linear expanse of airport apparent at PBP, all of which will occupy approximate half of the panoramic vista experienced from these vantage points. Refer to Figure 10.6 (Sheet 11) (prepared by Cody L. Thornton), Volume 3 of the ES.
- High Knoll Fort (receptor SVP2) with wide, panoramic views in which the access road will be visible rising out of Rupert's Valley to Deadwood Plain as well as the former potential quarry site 1. Mitigation planting will help integrate the access road into the valley landscape although subject to the restoration proposals for the quarry, it has the potential to remain a visible element within the wider views. These elements will be visible in half of the overall vista from this viewpoint resulting in a Minor Adverse impact. Refer to Figure 10.6 (Sheet 12) Volume 3 (prepared by Cody L. Thornton), of the ES.

10.13.3.3 Footpaths

Principal receptors include:

- Walkers on the route between Rupert's Bay to Bank's Battery (receptor F1) will experience immediate views of the wharf and commercial port area at Rupert's Bay. Impacts on the visual amenity experienced by walkers of this route will be limited to a short section of the path from approximately Bloody Bridge to Rupert's Bay where Moderate Adverse impacts on the visual amenity of this section of the route will result.
- Walkers on The Pipe Path (receptor F2) will experience immediate views of the access road and immediate to mid-ground views of the permanent wharf, commercial port area and the potential former quarry sites. Impacts on visual amenity experienced by users of this path will vary depending on the section of route and will range between Moderate Adverse to Minor Adverse impacts. The sections of path along Bank's ridge where the access road will cross the path at a number of locations and as the path rises out of Rupert's Valley will experience the highest level of impact. Native species planting along the access road will help integrate the road into the landscape thereby minimising the associated visual intrusion.
- Walkers on The Boer Road (receptor F3 will also experience immediate views of the access road, BFI and both former potential quarry locations. Native species planting along the access road will help partially integrate it into the valley although the BFI and former quarry site will remain as visible elements in views of walkers. Minor Adverse residual impacts will result other than along the section of route adjacent to the former quarry areas which will remain a visible, prominent element in their immediate views.
- Walkers using various footpaths including Post Box walks to King and Queen Rocks (Prosperous Bay Signal Station), Prosperous Bay, Gill Point, Woody Ridge to Dry Gut footpath (receptors F4) where walkers will experience immediate foreground views of the airport at PBP and Dry Gut and the water abstraction infrastructure at Sharks Valley for the latter two routes. Many of these routes will be diverted to allow walkers continued access around the airport site, although Moderate Adverse impacts on the visual amenity experienced along large sections of these remote walking routes will remain. The visual experience of these walks is currently one of experiencing the remote landscapes which are largely devoid of human influence. As these overriding characteristics will change as a result of the airport and supporting infrastructure, the visual experience will consequently change. Refer to Figure 10.6 (Sheets 8 and 9) (prepared by Cody L. Thornton), Volume 3 of the ES.
- Users of the fishing access routes (receptors F5) which cross PBP to gain access to the eastern seaboard will be diverted but will still experience immediate foreground views of the airport site at PBP and Dry Gut. Residual impacts on visual amenity for sections of these routes will be Moderate Adverse for localised sections of the route.
- Users of Sharks Valley Post Box walk (receptor F6) will experience immediate foreground views of the pipeline and intake structures associated with the water abstraction for the permanent supply of water to the airport. Moderate Adverse residual impacts will be experienced for short localised sections of the route associated with the intrusion of the pipelines and intake structures along a walk which is noted for its remoteness and wild land characteristics. Visual amenity experienced along the majority of the route will not be affected.
- Various footpaths including Post Box walks where walkers will experience more distant views of the airport development at PBP as well as the access road (receptors F7). These will include but are not limited to The Barn, Flagstaff Hill, Sugar Loaf, Cox's Battery. The remote obstacle lighting will also be visible in immediate views of walkers climbing the Barn and Great Stone Top, although mitigation measures including housing the structure within a stone cairn will help minimise impacts. Impacts will be localised and experienced along sections of these routes where visual amenity will not be fundamentally affected as views are generally open and extensive and the works will be seen within this context. Minor Adverse-Neutral impacts will result other than localised sections where immediate views of the ROL installation will be experienced by walkers where the impact for short sections will be Minor Adverse.

10.14 SUMMARY

A development of this magnitude on an island where the majority of receptors experience open, un-interrupted views across the landscape and to sea will inevitably result in some adverse impacts on visual amenity both during construction and once the airport and its supporting infrastructure are operational. During the construction phase of works significant impacts (major and moderate adverse impacts) will result for residential properties in Rupert's Valley, Deadwood Plain, Longwood and Bottom Woods where the

construction of the haul road and associated construction activity will impact on immediate foreground views. Residential properties at Bradleys Government Garage will also accrue major adverse impacts as a result of the visual disturbance associated with the extensive construction activity at PBP. The visual amenity from various footpaths and scenic vantage points will also experience significant adverse impacts during construction associated with the visual intrusion of the haul road and construction activity at PBP.

Upon scheme completion, the majority of significant visual impacts will reduce with the landscape and visual mitigation planting, further reducing the residual impact of the airport development and supporting infrastructure on the visual amenity of the majority of receptors. Significant adverse impacts (moderate adverse) will remain for limited residential properties where the access road and airport development will form a prominent element within their immediate views. These are restricted to the properties at Bradleys Government Garage, Bottom Woods and Bilberry Field Gut. Moderate adverse impacts will also remain for users of the Post Box Walks which cross PBP and Dry Gut as the visual context of the views experienced along large sections of these routes will fundamentally change.

The landscape and ecology mitigation plan will provide an essential mechanism for significant adverse impacts to be largely mitigated thereby substantially minimising the visual impact on residents, day to day users and visitors to the island. It is therefore essential that considerable effort is applied in realising and implementing the mitigation plan to ensure that the outstanding visual amenity experienced across the island is maintained for future generations of Saints and tourists alike.