

## 5.0 ENVIRONMENTAL CONSEQUENCES OF THE ABANDONED HOTEL DEMOLITION

### 5.1 INTRODUCTION AND OVERVIEW

This section presents the environmental impacts of the Proposed Action and the No Action Alternative on physical resources, natural resources, human environment, visitor use and experience, and park operations. These analyses provide the basis for comparing the effects of the Proposed Action and the No Action Alternative. NPS policy also requires that “impairment” of resources be evaluated in all environmental documents. Chapter 5 describes and analyzes potential environmental effects on the physical, natural and human environment associated with the Proposed Action and the No Action Alternative. Cumulative impacts are discussed in Chapter 6.

#### Statutory Requirements

The primary laws and guidance documents that guided the development of this EA were previously discussed in Section 4.1.1.

#### Methods for Evaluating Environmental Effects

The general methods for evaluating environmental effects were previously discussed in Section 4.1.2.

#### Impact Categories and Definitions

The three impact categories (direct, indirect, and impairment) used in this analysis were defined previously in Section 4.1.2.1.

## 5.2 PHYSICAL FEATURES

This section discusses the impacts of the Proposed Action and the No Action alternative on the physical environment, including soils/sediments, bathymetry, air quality, noise, climate/seismicity, and water resources (water quality and hydrology).

### 5.2.1 Soils

**Proposed Action** - The Proposed Action would have short-term, minor, adverse effects to soils from the demolition of the abandoned hotel and construction of the Haul Road. However, these impacts to soils would be localized to the site. During the movement of soil through demolition and road improvement activities, the potential for erosion and sedimentation into nearby stormwater culverts and waterways exists. This potential would be minimized through the use of sediment and erosion control measures, detailed in an Erosion Control Plan. In addition, a SWPPP would be required and implemented prior to, during, and following ground-disturbing activities.

**No Action Alternative** - SARI would remain in its current use and no action would be taken. There would be no demolition or road improvements at SARI. The No Action Alternative does not result in any environmental impacts to the soils at SARI.

**Conclusion** - The implementation of the Proposed Action would result in minor impacts to soil. The demolition and road improvement impacts would be short-term in nature, lasting for the duration of the activity. The No Action Alternative would not impact the soil at SARI. Neither of the alternatives would cause impairment to park resources.

### 5.2.2 Bathymetry

The Proposed Action and the No Action Alternative would not impact the bathymetry at SARI.

### 5.2.3 Air Quality

**Proposed Action** - During the construction phase, the operation of demolition and road construction equipment would have a short-term, minor, adverse impact on air quality by generating some pollutants, including carbon monoxide, NO<sub>x</sub>, and PM<sub>10</sub>. However, these emissions would be minimal since the proposed demolition/road improvement activities are temporary and would occur during construction activities only. Short-term fugitive dust emissions would be generated primarily due to land-disturbing activities, during the demolition of the abandoned hotel, and from the Haul Road construction. The amount of PM<sub>10</sub> should not be expected to be high due to the short duration of the activities and could be mitigated by using control techniques such as wet suppression for demolition and road improvement activities. These impacts would be short-term in nature, lasting only for the duration of demolition and road construction activities.

**No Action Alternative** - Under the No Action Alternative, the site would remain in its current use and would not emit air pollutants.

**Conclusion** - Demolition of the abandoned hotel and Haul Road construction would have minor, short-term air quality impacts as a result of the additional emissions created during the demolition and road improvement construction activities. The No Action Alternative would not emit air pollutants. The Virgin Islands has insignificant regional air quality impacts and is in conformity with the NAAQS. It is also in attainment with USEPA for all six air quality criteria pollutants. Neither of the alternatives would cause impairment to park resources.

### 5.2.4 Noise

**Proposed Action** - Implementation of the Proposed Action is expected to create minor impacts during the road construction phase and moderate impacts during the demolition phase. These impacts would be short-term in nature, lasting for the duration of the road construction and demolition activities. These activities would temporarily disrupt the visitor experience at SARI and the surrounding communities. The sound created from the demolition activities would be more of a disruption to the nearby residents than the road construction activities. Even though the noise produced from the demolition activities would be a disruption, the impacts would be short-term and would in the long run be a beneficial improvement for SARI as well as the local community. By removing the abandoned hotel, the viability of the resources within SARI would be enhanced. The road construction and improvement activities would be less of a disruption and would be typical of ongoing development activities in areas surrounding the bay. Mitigation for the demolition activities would include restricting these activities to the daylight hours; no demolition would be scheduled for nighttime hours. Notification (i.e., postings) of the dates and times of the demolition activities would also occur.

**No Action Alternative** - Current noise sources in SARI would not change since the site would remain in its current use under the No Action Alternative. The current noise sources are predominantly the result of ongoing human activities (i.e., vehicles, boat operation at the marina, activities at the NPS Visitor Contact Station).

**Conclusion** - Implementation of the Proposed Action would produce short-term minor noise effects during the road construction phase and short-term moderate noise effects during the demolition phase. However, the Proposed Action would benefit SARI as well as the local community by enhancing the

viability of the resources within SARI. Mitigation for the Proposed Action would include restricting the hours of demolition to the daytime and notification of the dates and times of the scheduled demolition activities. No changes to current noise sources in SARI would occur under the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

### **5.2.5 Climate/Seismicity**

**Proposed Action** – Impacts from coastal storms to the proposed site are anticipated. Long-term, beneficial impacts would result by demolishing the hotel, since the abandoned hotel is located on filled (reclaimed land) land which is vulnerable to impacts from earthquakes.

**No Action Alternative** – Under the No Action Alternative, the park would remain in its current use and the hotel would not be demolished.

**Conclusion** – Impacts from coastal storms to the project site are anticipated. Long-term, beneficial impacts would result by demolishing the hotel, since the abandoned hotel is located on filled (reclaimed land) land which is vulnerable to impacts from earthquakes. Under the No Action Alternative, the hotel would not be demolished.

### **5.2.6 Water Resources**

#### **5.2.6.1 Water Quality**

**Proposed Action** - The Proposed Action would have short-term, minor, adverse effects on the water quality at SARI. The potential for erosion runoff into the bay during demolition and road construction activities may result in minor increases in sediment input and turbidity in the bay. This potential would be minimized through the use of sediment and erosion control measures. Erosion and sediment BMPs would be employed during demolition and road construction activities to minimize impacts to Salt River Bay. An Erosion Control Plan, which requires a description of specific erosion and sediment control measures that would be prepared and implemented. Stormwater management techniques would be utilized, including creating pervious road surfaces and parking areas, to reduce the amount of stormwater runoff at the site and to protect the bay. Additionally, revegetating areas that are currently impervious surfaces (i.e., hotel structure, abandoned building materials – concrete slabs) would be a long-term benefit to the water quality in the bay by reducing the amount of imperious surface at the site, which would reduce stormwater runoff.

**No Action Alternative** - No demolition would occur under the No Action Alternative. Benefits to water quality from revegetating the impervious surfaces at the site would not occur under the No Action Alternative.

**Conclusion** - The Proposed Action is expected to create minor impacts to the water quality at SARI during the demolition and road construction activities. These impacts would be short-term in nature, lasting for the duration of the activity. However, there would be long-term, beneficial effects to the water quality from the Proposed Action by revegetating areas that are currently impervious surfaces. Also, as a mitigation technique, pervious road surfaces would be implemented as part of the Proposed Action to reduce the amount of stormwater runoff at the site. The No Action Alternative would not impact the water quality at SARI. Neither of the alternatives would cause impairment to park resources.

### 5.2.6.2 Hydrology

**Proposed Action** - The demolition and removal of the hotel and associated building materials (i.e., large concrete slabs) would require clearing of shrubs and vegetated field habitats. The clearing of vegetation and temporary increase in impervious areas would have a short-term, minor impact on hydrology. Salt River Bay is tidal, so flow coming from land would be flushed out daily. Long term, beneficial impacts to hydrology would occur from revegetating and rehabilitating the site at the end of the demolition period and reducing runoff from previously impervious building surfaces.

**No Action Alternative** - Under the No Action Alternative, the site would remain in its current use, which would not change or impact the hydrology and drainage at SARI.

**Conclusion** - Implementation of the Proposed Action would create minor short-term and long-term changes to the hydrology at SARI. The No Action Alternative would not impact the hydrology. Neither of the alternatives would cause impairment to park resources.

## 5.3 FLOODPLAINS, COASTAL ZONE, COASTAL BARRIER RESOURCES SYSTEM AREAS, AND WETLANDS

### 5.3.1 Floodplains

**Proposed Action** - The 100-year floodplain, as mapped by FEMA in 2007, is located within the site boundary (see Figure 4-1). NPS has adopted guidelines pursuant to Executive Order 11998 stating that it is NPS policy to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. Overall, long-term, moderate, beneficial impacts to the floodplain are expected as a result of the Proposed Action.

The main structure of the existing, abandoned hotel structure is not located within the 100-year floodplain. Therefore, the demolition of the hotel would not occur in the 100-yr floodplain. However, abandoned hotel debris including concrete slabs, metal rebar, and other miscellaneous building materials are located throughout the peninsula and within the 100-year floodplain. These materials are proposed to be removed from the site. Therefore, long-term positive impacts would be associated with removing these materials and restoring the site to a more natural setting, including restoring the floodplain from a partially impervious surface to a pervious surface. Additionally, the removal of the abandoned (and incompatible) hotel structure would result in a long-term, moderate, beneficial impact to the floodplain by restoring the existing hotel area to more natural setting resulting in an increase in pervious surfaces. Activities associated with the proposed action would cause minor long-term alterations to the 100-year floodplain through the planned roadway improvements around the lagoon and for the low impact parking area, but these activities would be built at grade. These areas are already so compacted by current visitor and vehicle use that creating pervious road and parking surfaces may improve the area and would minimize any impacts to the existing floodplain.

Construction of the Haul Road would not impact the 100-year floodplain. The Haul Road closely follows the park boundary avoiding encroachment into the floodplain. Appropriate stormwater management techniques, including approved BMPs, would be required to avoid any indirect impacts to the floodplain during demolition of the hotel and construction of the Haul Road.

**No Action Alternative** - Abandoned hotel building materials are located within the 100-year floodplain. No further development or alteration to the site would occur with the No Action Alternative and the site would remain in its current use. The incompatible abandoned building materials would not be removed

from the 100-yr floodplain, and would not result in a long-term, moderate, beneficial impact to the floodplain.

**Conclusion** - Short-term, minor, adverse impacts to floodplains would occur due to proposed activities relating to the roadway improvements around the lagoon, which are located in the 100-yr floodplain. However, long-term, moderate, beneficial impacts to the floodplain would occur because impervious surfaces, including the removal of the abandoned hotel materials and structure, would be replaced with pervious surfaces and the area would be naturally revegetated. These activities would ultimately improve the area and allow the disturbed areas to function as a floodplain. No further development or alteration to the site would occur with the No Action Alternative and the site would remain in its current use. Neither of the alternatives would cause impairment to park resources.

### **5.3.2 Coastal Barrier Resources System Areas**

**Proposed Action** - The Proposed Action would be located the CBRS area (see Figure 4-1). Long-term, moderate, beneficial effects would occur at SARI from the removal of the hotel structure and associated building materials. The abandoned (and incompatible) hotel structure would be removed from the CBRS Area. Removing the impervious areas (hotel structure and associated building materials) and revegetating would return the site to a more natural setting which should improve the function of the CBRS area at SARI. The Proposed Action would not cause damage to fish or wildlife, or other natural resources associated with CBRS area.

**No Action Alternative** - Under the No Action Alternative, the shoreline at SARI would remain the same. The No Action Alternative would not additionally impact the CBRS area. However, the benefit of the removal of impervious surfaces within the CBRS area would not be realized. The abandoned hotel structure would not be removed from the CBRS area, and would not result in a long-term, moderate, beneficial impact to the CBRS area.

**Conclusion** - Long-term, moderate, beneficial effects would occur to CBRS areas at SARI from the removal of the hotel structure and associated building materials. Revegetating would return the site to a more natural setting which should improve the function of the CBRS area at SARI. Under the No Action Alternative, the shoreline at SARI and the CBRS area would remain the same. Neither of the alternatives would cause impairment to park resources.

### **5.3.3 Coastal Zone**

**Proposed Action** - The Proposed Action is located within Tier 1 of the coastal zone, as defined by the VICZMP. Short-term, minor impacts to the coastal zone are anticipated during the construction activities. However, the abandoned hotel structure would be removed from the coastal zone, and would result in a long-term, moderate, beneficial impact to the coastal zone. Any activities proposed within the coastal zone by a Federal agency, such as the NPS, require a certification of consistency. A certification of consistency is supported by any necessary data and information that a proposed activity or development complies with the VICZMP and that such activity shall be conducted in a manner consistent with the program.

The NPS would be consistent to the extent practicable for the proposed project to be in compliance with the VICZMP. The NPS has determined that the project is in compliance with the VICZMP and requested concurrence from the VICZMP to ensure compliance between the Federal and Territorial coastal zone management programs. To comply with the VICZMP, the NPS was required to initiate preliminary consultation with the USVI DPNR/Division of Coastal Zone Management (DCZM) in the form of a preliminary meeting to discuss the proposed project. The preliminary meeting occurred on August 21, Salt River Bay National Historical Park and Ecological Preserve

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2006 and a list of attendees is presented in Appendix C. The NPS has prepared a consistency determination in the form of a letter stating that the project is consistent, to the maximum extent practicable with the VICZMP. This letter is included in Appendix E. The VICZMP will review the consistency determination and determine if the project is in compliance with the VICZMP. If the project is determined in compliance, a notice of agreement would be provided by the VICZMP, thus completing all relevant CZM requirements. Consultation and coordination with the VICZMP is ongoing.

**No Action Alternative** - Under the No Action Alternative, no impacts to the coastal zone would occur. However, the abandoned hotel structure would not be removed from the coastal zone, and would not result in a long-term, moderate, beneficial impact to the coastal zone.

**Conclusion** – As a result of the Proposed Action, the abandoned hotel structure would be removed from the coastal zone, and would result in a long-term, moderate, beneficial impact to the coastal zone. Short-term, minor impacts to the coastal zone are anticipated during the construction phases of this project. Therefore, a Coastal Zone Management Act Consistency Certification for the Proposed Action has been completed by the NPS. In addition, the submittal of any potential permits necessary for approval to the VICZMP and USACE will also be completed, if applicable. The Proposed Action would be consistent, to the extent practicable, with the VICZMP enforceable policies. Under the No Action Alternative, no additional impacts to the coastal zone would occur, but the abandoned hotel structure would not be removed from the coastal zone. Neither of the alternatives would cause impairment to park resources.

#### **5.3.4 Wetlands/Mangroves**

Section 404 of the CWA and a number of Territorial laws and provisions regulate activities in wetlands. The USVI DPNR/DEP has currently created a program designated to monitor and protect wetlands by creating a wetlands inventory and maps, by limiting construction or clearing of wetlands, by monitoring water quality as part of the WPC Program and by managing discharges into the near-shore and marine environment through the TPDES and NPS Programs. The USVI DPNR/DEP works closely with the USEPA, the USFWS and USVI DPNR/DFW, the University of Virgin Islands and other agencies to protect wetlands.

**Proposed Action** - The wetlands assessed at the site are located on and surround the eastern peninsula of SARI and are bounded by the Mangrove Lagoon, Salt River Bay, the Salt Pond, and the existing area defined as “mudflats.” Based upon the NPS definition of wetlands, specific activities of the proposed action (roadway improvement activities and removal of the debris on the peninsula) would have a minor, adverse impact on NPS-defined estuarine wetlands (Wetland W-4 and Wetland W-5). Based upon the USACE definition of wetlands, the proposed action would not impact any Federally-defined wetlands areas, such as mangrove wetlands. The mangrove wetland (Wetland W-1) located along the fringe of the Mangrove Lagoon in the vicinity of the hotel would not be adversely impacted from the hotel demolition or associated activities. This section discusses impacts to NPS-defined wetlands that would occur as a result of activities associated with the hotel demolition.

The actual demolition of the abandoned hotel would have no impacts to wetlands. Although the hotel is located immediately adjacent to the fringe forested mangrove wetland located along the shoreline of the Mangrove Lagoon (see Figure 4-2), no direct impacts to these mangrove wetlands would occur. If the hotel is demolished via mechanical methods versus using explosives, dust would not be an issue for the adjacent mangroves (USACE 2006). If explosives are used, dust may be an issue for the nearby mangroves and indirect, adverse impacts may occur, although proper mitigation techniques would be adhered to at all times. During the actual demolition process, any incidental impacts to the adjacent forested mangrove wetland would be avoided by placing upright sections of plywood between the mangroves and the demolition activities.

In addition, the removal of the debris on the peninsula and the proposed pervious, low impact parking area and pervious access road is on the peninsula, to the west of the existing forested mangrove wetlands along the Mangrove Lagoon (see Figure 2-2) would have minor, adverse impacts to approximately 2.84 acres of estuarine wetland areas, considered as estuarine wetlands by NPS standards. Due to these impacts, a SOF for wetlands was completed, which includes appropriate mitigation measures for wetlands (see Appendix D). Figure 8 included in the SOF shows the location of wetlands impacted as a result of the Proposed Action and is included in Appendix D. The SOF also includes a detailed estuarine wetland mitigation plan proposed to compensate for the impacts associated with the Hotel Demolition and associated activities. The paragraphs below summarize the proposed mitigation.

As part of the hotel demolition, the park is proposing to construct a Haul Road for the construction vehicles to get to and from the site, and to haul out materials produced from the demolition of the abandoned hotel structure. Following demolition activities, the Haul Road would be improved and would serve as the public access road to the park. A pond and a tidal gut potentially exist in the vicinity of the proposed Haul Road. As more detailed survey and site-specific information becomes available, potential impacts to existing wetlands from the Haul Road would be avoided and minimized whenever possible. The NPS will work closely with the USDA NRCS to ensure that the haul road design is consistent with Federal Executive Order 11990 – Protection of Wetlands and *Director's Order #77-1* (Wetland Protection). This would help avoid, to the extent possible, adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. Any additional, required mitigation for the Haul Road would be specifically stated in the SOF (Appendix D).

The compensation proposal for the 2.84 acres of estuarine wetland impacts as a result of the Hotel Demolition and associated activities is wetland mitigation through wetland vegetation plantings and site rehabilitation on the peninsula at the site at a 1:1 ratio. However, because the entire peninsula would be rehabilitated and is approximately 7 acres, a ratio above 1:1 may be achieved at this site. This mitigation site is envisioned as a rehabilitated peninsula with groupings of mature wetland shrubs (and some trees) that were flagged and avoided during construction activities, a shoreline stabilized with herbaceous wetland forbs and ground covers, and more interior (inland) areas of sparse wetland vegetation that would attract and support least tern nesting. Prior to the debris removal and hotel demolition on the peninsula, stands of existing wetland shrub species that are desirable and provide good habitat such as buttonwood, pink cedar, manchineel and potentially seaside mahoe would be flagged to be avoided during these activities by representatives from the NPS and the USDA NRCS. These flagged groupings of shrub (and some tree) species would not be removed or impacted during the Proposed Project. Following the debris removal and the hotel demolition in the non-flagged areas, the entire peninsula would be rehabilitated to a more natural setting. Because desirable and mature wetland shrub species would be avoided, a ratio of 1:1 is proposed for this mitigation site. By avoiding these mature wetland shrub specimens, the functional loss of wetlands at this site can be partially avoided. Based upon the mitigation strategy, impacts to the existing wetlands are expected to be short-term and have a long-term, beneficial effect through rehabilitating and revegetating the peninsula to a more natural setting. Appropriate stormwater management techniques, including approved and Erosion and Sediment Controls and BMPs would be required to avoid any indirect impacts to existing wetlands during construction of this access road. Figure 8 included in the SOF shows the location of wetland impacts as a result of the Proposed Action and is included in Appendix D.

**No Action Alternative** - Under the No Action Alternative, no additional impacts to wetlands would occur. However, the vegetation on the peninsula at the site would not be rehabilitated or revegetated with appropriate species.

**Conclusion** – Short-term, minor, adverse impacts to approximately 2.84 total acres of NPS-defined estuarine wetlands would occur through activities associated with the hotel demolition, including roadway improvement activities and the removal of debris on the peninsula. No impacts to mangrove wetlands would occur. Additionally, long-term, moderate, beneficial impacts would occur as a result of mitigation, which includes restoring the majority of the 2.84 acres of removed vegetation with native vegetation at a 1:1 ratio through the rehabilitation of the peninsula to a more natural setting. Details concerning the mitigation plan were determined through consultation with the NPS, the USACE, and the USDA NRCS and are described in detail in the SOF included as Appendix D. Under the No Action Alternative, no additional impacts to wetlands would occur. Neither of the alternatives would cause impairment to park resources.

## 5.4 TERRESTRIAL RESOURCES

This section discusses the impacts of the Proposed Action and the No Action alternative on terrestrial resources including vegetation, birds, and mammals.

### 5.4.1 Plants

**Proposed Action** - The hotel demolition, removal of the debris on the peninsula, and construction of the Haul Road would have short-term, minor, adverse impacts to non-wetland (upland) vegetation. Vegetation would be removed from various habitat types including forest, shrub, and vegetated field habitats. There would be a temporary net loss of existing habitat; however, approximately 7.10 acres of permanently improved habitat would be created as a result of the Proposed Action. This improvement in existing habitat would constitute a long-term, moderate, beneficial impact. The dominant upland vegetation that currently exists at the site and is planned for removal includes bread-and-cheese and casha. Other specimens of non-dominant upland plant species observed that would be removed by the proposed action include bay cedar (*Suriana maritima*), sea oxeye (*Borrchia aborescens*), torchwood (*Jacquinea arborea*), tan tan, and African guinea grass. Some specimens of exceptional plant species may be avoided during vegetation removal or transplanted to minimize impacts. The non-native invasive plant species would be targeted for removal. Improvement activities for the new pervious, low impact parking area would have minor, adverse impacts to existing upland vegetation. The dominant, upland vegetation that currently exists where the parking area are proposed includes bread-and-cheese and casha. These plant species do not provide exceptional habitat for terrestrial wildlife species. Along the Haul Road, existing vegetation would require clearing, as the old roadbed is overgrown. Terrestrial plant species typical of the region were observed along the potential Haul Road route, including the following in the highest numbers by a USDA NRCS botanist: boxleaf stopper (*Eugenia foetida*), white manjack (*Cordia dentata*), kenep (*Melicoccus bijugatus*), sweet lime (*Triphasia trifolia*), and pigeon berry (*Bourreria succulenta*). Other species observed along the potential Haul Road included the following: flamboyant (*Deloxia regia*), brisselet (*Erythroxylum brevipes*), black mampoo (*Gaupira fragrans*), inkberry (*Randia aculeata*), amazonvine (*Stigmaphyllon emarginatum*), West Indian mahogany (*Swietenia mahagoni*), turpentine tree (*Bursera simaruba*), Christmas bush (*Comocladia* sp.), beach grass (*Distichlis spicata*), pink cedar (*Tabebuia heterophylla*), casha, pigeon plumb (*Coccoloba diversifolia*), stink casha (*Acacia macracantha*), break bill (*Bumelia obovata*), ironwood (*Krugiodendron ferreum*), and bread-and-cheese. None of these vegetation species is a listed species. It is possible that mitigation strategies would be developed for some upland species, including avoiding or relocating exceptional species during debris removal, in coordination with the wetland mitigation plan and in consultation with the NPS and the USDA NRCS. Overall, impacts to the existing vegetation are expected to be short-term and have a long-term, beneficial effect through rehabilitating and revegetating the peninsula to a more natural setting.

**No Action Alternative** - Under the No Action Alternative, no additional impacts to vegetation would occur. However, the vegetation on the peninsula at the site would not be rehabilitated or revegetated with appropriate plant species.

**Conclusion** – Short-term, minor adverse impacts to terrestrial vegetation would occur and there would be a temporary net loss of existing habitat; however, approximately 7.10 acres of permanently improved habitat would be created as a result of the Proposed Action. Mitigation would include restoring the removed vegetation with native plant species in consultation with appropriate resource agencies, and rehabilitating the peninsula to a more natural setting. The existing, non-native invasive plant species such as African guinea grass and tan tan would be removed and replaced with native vegetation species. The replacement of non-native invasive species with native plant species would have a long-term, beneficial impact on the terrestrial wildlife species and other vegetation species that inhabit the area. Appropriate agency consultation concerning the revegetation and rehabilitation of the peninsula would occur following the completion of the EA and signing of the FONSI. Under the No Action Alternative, no additional impacts to terrestrial vegetation would occur. Neither of the alternatives would cause impairment to park resources.

#### **5.4.2 Birds**

**Proposed Action** - The proposed action would have short-term, minor adverse impacts, but would have an overall long-term, moderate, beneficial impact at SARI to avian species. Nearby avian species (landbirds and shorebirds) that nest and forage in the vicinity of the abandoned hotel may be temporarily disrupted during the demolition and road construction/improvement activities due to unavoidable noise and human activity. The noise from these activities could disturb avian species currently utilizing or nesting in the area, including birds that nest in the nearby mangrove forests. However, similar mangrove, shoreline, and wetland habitats for nesting and foraging are available adjacent to the site and within SARI. Implementation of the project may cause some avian species to temporarily relocate during the demolition and road construction process due to an increase in noise levels. It is anticipated that these species would become re-established at the site after demolition of the hotel occurs and road construction is complete. Mangrove habitat would not be directly impacted by the Proposed Action.

Vegetation would be removed from various habitat types including forest, shrub, and vegetated field habitats. There would be a temporary net loss of avian habitat; however, a permanent improvement in approximately 7.10 acres of existing habitat would be created as a result of the Proposed Action. As part of the Proposed Action, abandoned building materials and existing vegetation would be removed, but the area would be revegetated, rehabilitated, and restored with native species to attract wildlife, including avian species. This restoration would provide additional nesting and foraging habitat for both migratory and native resident birds. Overall, the Proposed Action would provide a beneficial impact to birds due to the increase of available, quality vegetated habitat for avian species.

**No Action Alternative** - The site would remain in its current state and wildlife habitat that exists would remain unchanged. No long-term, beneficial impacts as a result of the No Action Alternative would occur. Therefore, there would be no impacts to birds found in the region, and avian species would continue to utilize the site as habitat.

**Conclusion** - The proposed project would have a short-term, minor indirect impact on the avian species that currently utilize the habitat that would be affected or removed by the Proposed Action. However, a long-term, moderate, beneficial overall impact to avian species is expected as a result of the Proposed Action. There would be a temporary net loss of avian habitat; however, a permanent improvement in approximately 7.10 acres of existing habitat would be created as a result of the Proposed Action. It is expected that avian species would become re-established at the site after completion of the project. For

the No Action Alternative, the site would remain in its current state and wildlife habitat that exists would remain unchanged. Neither of the alternatives would cause impairment to park resources.

### 5.4.3 Mammals

**Proposed Action** - As with birds, impacts to mammals are a direct result of impacts to terrestrial vegetation. Minor, adverse impacts are expected in the short-term and moderate, beneficial impacts are expected in the long-term. Specifically, the velvety free-tailed bat (*Molossus molossus*) is currently living in the abandoned hotel and was observed in July 2007 (Fly by Night 2007). Although the velvety free-tailed bat is widely distributed in the Caribbean and is not on the list of Endangered Species for the Territory, it is one of only five extant native terrestrial mammal fauna in St. Croix (St. Croix Environmental Information Repository 2006). Therefore, a bat mitigation plan would be drafted prior to any demolition activities at the abandoned hotel to relocate the bats at the site and to outline time of year restrictions for demolition. Bat boxes would be placed at an appropriate location at the site to move the bats from the abandoned hotel prior to demolition. Chapter 7 discusses more details concerning bat mitigation.

Other nearby mammalian species that nest and forage in the vicinity of the abandoned hotel may be temporarily disrupted and may be relocated during the demolition and the road construction/improvement activities due to the unavoidable noise and human activity. However, similar terrestrial habitats are available adjacent to the site and within SARI for mammals to utilize. It is anticipated that these species would become re-established at the site after demolition of the hotel occurs and road construction is complete. Vegetation would be removed from various habitat types including forest, shrub, and vegetated field habitats. There would be a temporary net loss of habitat; however, a permanent improvement in approximately 7.10 acres of existing habitat would be created as a result of the Proposed Action. As part of the Proposed Action, abandoned building materials and existing vegetation would be removed, but the area would be revegetated and rehabilitated with native species to attract wildlife, including mammalian species. The area of disturbance which might cause the relocation of the Indian mongoose may actually benefit the bird populations, as the mongoose has decimated local bird populations. Overall, the Proposed Action would provide a beneficial impact to mammals due to the increase of available, quality vegetated habitat for these species.

**No Action Alternative** - The site would remain in its current state and wildlife habitat that exists would remain unchanged. Therefore, there would be no impact to mammals found in the region, and they would continue to utilize the site as habitat. No long-term, beneficial impacts as a result of the No Action Alternative would occur.

**Conclusion** - The proposed project would have a short-term, minor indirect impact on the mammalian species that currently utilize the habitat that would be affected or removed by the Proposed Action. However, a long-term, moderate, beneficial overall impact to mammalian species is expected as a result of the Proposed Action. There would be a temporary net loss of avian habitat; however, a permanent improvement in approximately 7.10 acres of existing habitat would be created as a result of the Proposed Action. Overall, the Proposed Action would provide a beneficial impact to mammals due to the increase of available, quality vegetated habitat for these species. For the No Action Alternative, the site would remain in its current state and wildlife habitat that exists would remain unchanged. Neither of the alternatives would cause impairment to park resources.

## 5.5 AQUATIC RESOURCES

### 5.5.1 Reefs/Hardbottom

**Proposed Action** – No adverse impacts to coral reefs due to the abandoned hotel demolition and road construction and improvement activities are anticipated as a result of the Proposed Action. The demolition and road construction activities have the potential to temporarily and locally increase turbidity in Salt River Bay, but these effects would not impact the reefs, which are located sufficiently far enough away from these activities (see Figure 3-5). Erosion and sediment control BMPs would be employed during demolition and road construction/improvement activities to minimize impacts to Salt River Bay.

**No Action Alternative** - The site would remain in its current state and the abandoned hotel would remain onsite. There would be no impact to the coral reefs found in the region from the No Action Alternative.

**Conclusion** – No impacts to coral reefs are anticipated as a result of the Proposed Action or the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

### 5.5.2 Seagrasses

**Proposed Action** – Removing the impervious structures (hotel structure and associated building materials) and revegetating these areas would return the site to a more natural setting which would benefit the long-term water quality in the bay and ultimately benefit the seagrasses. The hotel demolition and road construction improvements have the potential to temporarily and locally increase turbidity in Salt River Bay, which may potentially cause a short-term, negligible, indirect adverse impact to seagrasses. Erosion and sediment controls, and BMPs would be employed during hotel demolition and road construction/improvement activities to minimize impacts to Salt River Bay.

**No Action Alternative** - The site would remain in its current state and the seagrasses would remain unchanged. Therefore, there would be no impact to the seagrasses found in SARI.

**Conclusion** – Long-term, minor beneficial impacts to seagrasses will occur as a result of the Proposed Action. Short-term, negligible, indirect adverse impacts to seagrasses may occur as a result of the Proposed Action. The No Action Alternative would not impact seagrasses. Neither of the alternatives would cause impairment to park resources.

### 5.5.3 Fish

**Proposed Action** – Short-term, minor, adverse (indirect) impacts to fish due to the proposed demolition and road construction/improvements are anticipated. Fish in the area may be disturbed by the temporary changes in water quality (increase in turbidity); however, the fish would be expected to avoid, or leave the affected areas.

**No Action Alternative** - The site would remain in its current state and the fish habitat would remain unchanged. Therefore, there would be no impact to the fish found in the region, and they would continue to potentially utilize SARI as habitat.

**Conclusion** – Short-term, minor, adverse (indirect) impacts to fish due to the Proposed Action are anticipated. The fish are expected to avoid or leave the areas being disturbed and return after the demolition activities have ended. The No Action Alternative would not impact the fish at SARI. Neither of the alternatives would cause impairment to park resources.

#### 5.5.4 Benthic Organisms

The Proposed Action and the No Action Alternative would not impact the benthic organisms at SARI.

### 5.6 THREATENED AND ENDANGERED SPECIES

As discussed previously in Chapter 4, the Endangered Species Act uses the following terminology to assess impacts to listed species: no effect, may affect/not likely to adversely affect, may affect/likely to adversely affect, or is likely to jeopardize proposed species/adversely modify proposed critical habitat (impairment).

In accordance with the Federal and Territorial requirements for T&E species, ESA Section 7 Consultation was conducted with the USFWS Southeast Region, the NMFS Southeast Region Office, and the USVI DPNR. Information requested from these agencies included Federal and Territorial listed threatened and endangered species, designated or proposed critical habitat, and candidate taxa occurring in the project area. More details and correspondence between NPS and agencies consulted are supplied in Chapter 10 and Appendix C.

**Proposed Action** - Based upon the agency coordination discussed above, NMFS has stated that four listed sea turtle species (green sea turtle, hawksbill sea turtle, leatherback sea turtle, and loggerhead sea turtle) have the potential to occur in the vicinity of SARI. Two Federally-listed species of coral (staghorn coral and elkhorn coral) also occur within the boundary of SARI and have been observed in Salt River Canyon (Kendall et al 2005). All listed species expected to occur in the vicinity of SARI, are associated with aquatic habitats. Short-term, minor, adverse (indirect) impacts to adjacent aquatic habitat (Mangrove Lagoon and Salt River Bay) are expected as a result of the Proposed Action. However, appropriate erosion and sediment controls and stormwater management techniques would be in place during the construction of the Haul Road and improvements to the access road and parking lot. Therefore, no direct, adverse impacts to listed aquatic species are expected as a result of the hotel demolition activities and associated roadway construction and improvement activities.

Although not Federally listed, the Territorially listed endangered least tern has been observed nesting on sandy beaches at the northwest side of the peninsula. However, the Proposed Action is located on the eastern side of the peninsula, at a sufficient distance from the nesting site such that noise from construction activities is unlikely to impact the Least Tern. Similar to current conditions, posted signs would indicate the Least Tern nesting locations during the appropriate seasons to deter visitors from utilizing these areas. In addition, TOY restrictions for construction may be in place during Least Tern nesting season (which occurs, conservatively at a maximum from mid April until mid July) to avoid any possible unanticipated adverse impacts to this species.

The terrestrial habitats in the vicinity of the abandoned hotel structure could potentially support Federal and Territorial listed species, including plant species, bat species, or avian species. There is no documentation that endangered or threatened listed species have been observed at this location on the peninsula or along the Haul Route, but a site-specific survey in the vicinity of the abandoned hotel site and Haul Route has not been conducted. If listed species are observed on the terrestrial habitats during any phase of the proposed action, the appropriate resource agencies, including the USFWS and the USVI DPNR, would be contacted prior to any additional work that is completed in the area. Coordination with these agencies would be conducted to determine the appropriate action or mitigation at this time. All efforts would be made to avoid impacts to any potential terrestrial listed species during every phase of this project.

Long-term, minor, beneficial impacts to listed species, including the listed sea turtle species and listed avian species (specifically, the least tern), are expected as a result of this project. Undeveloped, shoreline beach areas without human influences are preferred habitats for many listed aquatic species. Through the rehabilitation of the peninsula, native vegetation would be planted and sea turtle and least tern beaches would eventually be created naturally (i.e., wave action, beach erosion) over time to attract these species to nest at this site. By creating additional, “natural” shoreline habitat that is not developed along the water for sea turtle and least tern nesting, a beneficial impact to listed species is anticipated.

**No Action Alternative** - The site would remain in its current state; there would be no impact to listed species that occur in the area.

**Conclusion** - All listed species expected to occur in the vicinity of SARI, are associated with aquatic habitats. Short-term, minor, adverse (indirect) impacts to adjacent aquatic habitat are expected as a result of the Proposed Action. However, appropriate erosion and sediment controls and stormwater management techniques would be in place during the construction of the Haul Road and improvements to the access road and parking lot. Therefore, no direct, adverse impacts to listed aquatic species are expected as a result of the hotel demolition activities and associated roadway construction and improvement activities. Additionally, long-term, moderate, beneficial impacts to listed species, including the listed sea turtle species and listed avian species (specifically, the least tern), are expected as a result of this project. Through the rehabilitation of the peninsula, native vegetation would be planted and sea turtle and least tern beaches would eventually be created naturally over time to attract these species to nest at this site. By creating additional, “natural” shoreline habitat that is not developed along the water for sea turtle and least tern nesting, a beneficial impact to listed species is anticipated. The No Action Alternative would not impact listed species at SARI. Neither of the alternatives would cause impairment to park resources.

## **5.7 UNIQUE NATURAL RESOURCES/ECOLOGICALLY CRITICAL AREAS**

### **5.7.1 Ecologically Critical Areas**

#### **5.7.1.1 Designated Critical Habitat for Species**

**Proposed Action** - No adverse impacts to critical habitat are anticipated as a result of the proposed action. However, as stated previously in Section 5.6, long-term, moderate, beneficial impacts to listed turtle species, including the Federally listed leatherback sea turtle are expected as a result of this project. Undeveloped, shoreline beach areas without human influences are preferred habitats for many listed aquatic species. Through the rehabilitation of the peninsula on the east side of the park, beaches would eventually be created to attract listed turtle species to nest at this site. By creating additional, “natural” shoreline habitat that is not developed along the water for turtle and least tern nesting, a significant, beneficial impact to listed species is anticipated.

**No Action** - No adverse impacts to critical habitat are anticipated as a result of the No Action Alternative. However, the beneficial impacts to listed turtle species, including Federally listed sea turtles that are expected as a result of the proposed action (through rehabilitation of the peninsula on the east side of the park), would not be realized with the no action alternative.

**Conclusion** - No adverse impacts to critical habitat are anticipated as a result of the Proposed Action or the No Action. However, long-term, moderate, beneficial impacts to Federally listed sea turtle species as a result of additional nesting areas are expected as a result of this project. Neither of the alternatives would cause impairment to park resources.

### **5.7.1.2 Essential Fish Habitat and Habitat Areas of Particular Concern**

**Proposed Action** - The CFMC has identified coral reefs, hard and soft bottoms, sand/shell bottoms, pelagic, benthic algae, and seagrass as EFH within SARI (CFMC 2004). Mangroves are identified as essential fish habitat at SARI, which also is designated as estuarine essential fish habitat. SARI (and the entire estuary of Salt River Bay) has been designated as a habitat area of particular concern for reef fisheries because of the ecological importance, sensitivity to human-induced degradation, and undergoing development activities that stress the habitat (CFMC 2004). No impacts to EFH or HAPC are anticipated as a result of the hotel demolition. Short-term, minor, adverse (indirect) impacts to EFH and HAPC as a result of water quality (increased turbidity) are anticipated as a result of the roadway construction and improvement activities. However, appropriate erosion and sediment control and stormwater management techniques would be in place during these construction activities. Therefore, no long-term, adverse impacts to aquatic habitats, including mangroves, are anticipated as a result of the proposed action.

**No Action** - No adverse impacts to EFH or HAPC are anticipated as a result of the no action alternative.

**Conclusion** - No long-term, adverse impacts to EFH or HAPC are anticipated as a result of the hotel demolition. Short-term, minor, adverse (indirect) impacts to EFH and HAPC as a result of water quality (increased turbidity) are anticipated as a result of the roadway construction. No long-term adverse impacts to aquatic habitats, including mangroves, are anticipated as a result of the proposed action. No adverse impacts to EFH or HAPC are anticipated as a result of the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

### **5.7.1.3 Other Critical Areas**

**Proposed Action** - Overall, the proposed action would not alter the unique natural systems that occur at Salt River Bay, which includes the mangrove forests, coral reefs, seagrasses, and the submarine canyon. The mangroves would not be impacted by the demolition of the hotel and the removal of debris on the peninsula. As stated previously in Section 5.3.4, although the hotel is located immediately adjacent to the fringe forested mangrove wetland located along the shoreline of the Mangrove Lagoon, no impacts to these mangrove wetlands would occur. During the demolition process, any incidental impacts to the adjacent forested mangrove wetland would be avoided by placing upright sections of plywood between the mangroves and the demolition activities. Short-term, minor (indirect) impacts to water quality (increased turbidity) as a result of the roadway improvement and construction activities are anticipated. Mangroves are extremely sensitive to changes in the water quality. However, appropriate erosion and sediment control and stormwater management techniques would be in place during the improvements of the access road and parking area near the lagoon as well as for construction of the Haul Road. As a result, no long-term, adverse impacts to aquatic resources, such as corals, seagrasses, mangroves, or the submarine canyon are expected from the proposed action. TOY restrictions for construction would be in place during the Least Tern nesting season (which occurs conservatively at a maximum from mid April until mid July) to avoid any possible unanticipated adverse impacts to these species as a result of the Proposed Action.

**No Action** - No adverse impacts to other critical areas are anticipated as a result of the no action alternative.

**Conclusion** - Overall, the proposed action would not alter the unique natural systems that occur at Salt River Bay, which includes the mangrove forests, coral reefs, seagrasses, and the submarine canyon. Because TOY restrictions for the least tern would be in place, no adverse impacts to other critical habitat are anticipated as a result of the Proposed Action. No adverse impacts to other critical areas are

anticipated as a result of the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

### **5.7.2 Designated Natural Areas**

**Proposed Action** - No adverse impacts to MPAs, which also include areas designated at APCs are anticipated as a result of the proposed action. However, long-term beneficial impacts to SARI and Salt River Bay and Watershed APC are expected following the completion of the Proposed Action. As stated previously, beneficial impacts to the terrestrial habitat at SARI as a result of revegetation and rehabilitation of the site are anticipated, along with beneficial impacts to listed species such as sea turtles and avian species from the creation of additional undeveloped beach shoreline areas for nesting habitat. Beneficial impacts to the viewshed of SARI are expected due to the removal of the abandoned hotel and associated building materials and debris, which are unnatural structures/materials in an otherwise undeveloped parcel of land along the water in an ecological preserve.

**No Action** - No adverse impacts are anticipated to designated natural areas as a result of the No Action Alternative.

**Conclusion** - Long-term beneficial impacts to SARI and Salt River Bay and Watershed APC are expected following the completion of the Proposed Action. No adverse impacts are anticipated to designated natural areas as a result of the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

## **5.8 CULTURAL RESOURCES**

### **5.8.1 Archaeological Resources**

**Proposed Action** - There are no known archaeological resources on the location of the abandoned hotel site. One-half to one-third of the landform on which this hotel rests is largely made land created with dredged spoil acquired from the Mangrove Lagoon located behind the hotel. This location has received significant disturbance from the hotel's construction, and demolition of the hotel has no potential to effect archaeological resources.

Construction of the Haul Road would have an affect on SARI-2.05. SARI-2.05 is located in the area of the proposed road and would be affected by the construction of the road. However, SARI-2.05 has already been disturbed by the construction of the Mangrove Lagoon, as well as by existing dirt roads, and hence there is limited potential for an adverse affect to SARI-2.05. In addition the Haul Road would pass near the reported location of the English Village Site (SARI-3).

As long as the existing road bed is followed with minimal intrusions into areas other than the existing road bed, especially upland above the existing road bed, no major impacts are anticipated. The exception would be for any additional areas needed, other than the existing road bed, for drainage for erosion and sediment control. Staging/construction areas would also be needed for the road construction. Existing lay down areas and "road intersections" would be utilized for these activities. If the exiting road bed, lay down areas, and "road intersections" are used for drainage and staging then there would likely be no need to do shovel testing in those areas which have already been disturbed. Given this, the proposed Haul Road has no potential to effect archaeological resources; however, if the road design requires construction in new undisturbed areas then Section 106 compliance, including monitoring of ground disturbing activities, would be required.

**No Action** - No adverse impacts are anticipated to archaeological resources as a result of the No Action Alternative.

**Conclusion** - No adverse impacts are anticipated to archaeological resources as a result of the two alternatives. However, if the Haul Road design requires construction in new undisturbed areas then Section 106 compliance, including monitoring of ground disturbing activities, would be required. Neither of the alternatives would cause impairment to park resources.

### **5.8.2 Historic Resources**

**Proposed Action** - The abandoned hotel site was initially constructed in the mid 1960s. It is less than 50 years old and is therefore not eligible for considerations as a historic resource. No other historic resources are present on this property; therefore no impacts to historic resources are anticipated as a result of the Proposed Action.

The potential exists that the current road bed proposed for the location of the Haul Road is lying over the original location of an historic road, present on a 1647 Spanish map of St. Croix. However, because of shoreline erosion and erosion from the nearby hillsides, this historic road may either lie deep under erosional deposit or has been eroded away. As long as the existing ground surface remains stable, is not excavated or torn up from heavy equipment, then any potential impacts to the historic road should be avoided.

**No Action** - No adverse impacts are anticipated to historic resources as a result of the No Action Alternative.

**Conclusion** - No adverse impacts are anticipated to historic resources as a result of the two alternatives. Neither of the alternatives would cause impairment to park resources.

### **5.8.3 Cultural Landscape**

**Proposed Action** - The abandoned hotel site is a visual intrusion on the cultural landscape of SARI. Demolition of the abandoned hotel would represent an enhancement to the cultural landscape; thus the Proposed Action would have a long-term, major, beneficial impact on the cultural landscape at SARI.

**No Action** – No additional adverse impacts are anticipated to the cultural landscape as a result of the No Action Alternative. However, under the No Action Alternative, the abandoned hotel would continue to be a visual intrusion on the cultural landscape of SARI. The long-term beneficial impacts associated with the Proposed Action would not be realized with the No Action Alternative.

**Conclusion** - The Proposed Action would have a long-term, major, beneficial impact on the cultural landscape at SARI. No additional adverse impacts are anticipated to the cultural landscape as a result of the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

## **5.9 HUMAN ENVIRONMENT**

### **5.9.1 Recreation**

**Proposed Action** - The proposed project would cause short-term, minor adverse impacts to some of the recreational activities (i.e., hiking, kayaking, and swimming) at SARI; however other recreation including scuba diving and snorkeling should not be affected by the demolition and road construction activities. Impacts to recreation are expected to be short-term but have a long-term, beneficial effect through the

rehabilitation and revegetation of the peninsula to a more natural setting. Rehabilitating the site would allow visitors to enjoy a natural setting at SARI in place of the deteriorating hotel structure. Therefore, long-term beneficial impacts would occur to recreation at SARI as a result of the proposed action.

**No Action Alternative** - Under the No Action Alternative, recreational opportunities would remain the same at SARI. Current levels of visitor services would remain unchanged.

**Conclusion** - The proposed project would cause short-term, minor, adverse impacts to some of the recreational activities at SARI. However, through the rehabilitation and revegetation of the peninsula to a more natural setting, long-term beneficial impacts would occur at SARI. The No Action Alternative would not result in impacts to SARI's recreational resources. Neither of the alternatives would cause impairment to park resources.

### **5.9.2 Socioeconomic Conditions**

Implementation of the proposed project would improve the quality of life in the Salt River Bay region by providing an opportunity for the public to experience the peninsula as a natural setting. Rehabilitation of this site would contribute to the local economy by attracting more visitors to SARI. In addition, the proposed project would contribute directly to the local economy from the short term hiring of temporary contractors and purchasing goods and services from local suppliers. The local economy would benefit from a short-term increase in employment during construction by the creation of new jobs.

**No Action Alternative** – The No Action Alternative would not result in any impacts to the community. The benefit to the local economy from the hiring of employees and the purchasing goods and services from local suppliers would not happen. The local economy would not benefit from a short-term increase in employment during construction of the project.

**Conclusion** – Implementation of the proposed project would result in beneficial impacts to the local communities. The No Action Alternative would not result in impacts to the surrounding community. None of the alternatives would cause impairment to park resources.

### **5.9.3 Environmental Justice**

The Proposed Action and the No Action Alternative would not result in any impacts to low-income or minority communities. The alternatives would not cause impairment to SARI resources.

### **5.9.4 Aesthetics**

**Proposed Action** - The Proposed Action would have a long-term, moderate, beneficial impact to the aesthetics at SARI. Aesthetics would be altered from current conditions; however, the un-finished remains of the abandoned hotel represent a visual intrusion on SARI's cultural landscape. Demolition of the hotel shell would be a visual improvement enhancing the viability of the resources within SARI as well as the viewshed to the surrounding communities.

**No Action Alternative** - The No Action Alternative would not result in changes to the aesthetic appearance of SARI. The surrounding viewshed would remain relatively unchanged compared to the Proposed Action.

**Conclusion** - The Proposed Action would be a long-term moderate beneficial impact to the aesthetics at SARI. The No Action Alternative would not result in changes to the aesthetic appearance of SARI. Neither of the alternatives would cause impairment to park resources.

### **5.9.5 Public Health and Safety**

**Proposed Action** - The Proposed Action would remove the deteriorating abandoned hotel structure that poses a safety hazard for the public. Removing the hotel would have a long-term beneficial impact on visitor safety and would not result in an impairment to park resources. Active demolition areas would be restricted (i.e., fenced) from visitor use until the project is complete.

**No Action Alternative** - Under the No Action Alternative, the site would remain unchanged and the abandoned hotel would continue to pose a safety hazard to the public.

**Conclusion** - The Proposed Action would remove the deteriorating abandoned hotel structure that poses a safety hazard for the public. The site would remain unchanged and the abandoned hotel would continue to pose a safety hazard to the public under the No Action Alternative. Neither of the alternatives would cause impairment to park resources.

### **5.9.6 Energy Requirements and Conservation**

**Proposed Action** - Energy consumption and natural resource requirements would minimally increase if the Proposed Action is implemented. The demolition of the abandoned hotel, removal of the debris, and the Haul Road construction would require the use of several types of equipment (i.e., crane, backhoe, front end loaders, trucks) which would require the use of fuel for operation. However, these energy requirements would be temporary. Debris materials (i.e., concrete slabs, crushed concrete after demolition, rebar) from the project site would be recycled. Only necessary debris (i.e., rotting roofing materials, unrecyclable concrete) would be disposed of (i.e., Anguilla Landfill).

**No Action** - The site would remain in its current use, and no action would be taken; therefore, there would be no energy requirements at the site.

**Conclusion** - Energy consumption and natural resource requirements would minimally increase in the short-term if the Proposed Action is implemented. The No Action Alternative would result in the site remaining in its current use, and no action would be taken; therefore, there would be no energy requirements at the site. Neither of the alternatives would cause impairment to park resources.

### **5.9.7 Infrastructure**

#### **Utilities**

Public utilities would not be needed for the Proposed Action or the No Action Alternative.

#### **Haul Route**

The trucking route for the disposal of debris would be as follows from the site: Existing unimproved access road around the Mangrove Lagoon, Haul Road to where it exits park property at Route 79 (Bennie Benjamin Road), west and south on Route 75 (North Side Road), west on Route 70, and left on Route 64 to Anguilla Landfill (see Figure 2-6). Since it is unknown which local agencies or private companies may want to acquire the concrete from the site for reuse, those haul routes cannot be predicted or shown at this time.

Temporary minor adverse impacts to citizens working and living near the proposed haul route would occur during demolition of the abandoned hotel. After completion of the demolition the roads would

return to the level of service that existed before the truck traffic. Mitigation for the demolition activities would include restricting these activities to the daylight hours, no demolition would be scheduled for nighttime hours. Notification (i.e., postings) of the dates and times of the demolition activities would also occur. Haul vehicles would meet vehicle height and width requirements and would not exceed the maximum vehicle loading requirements established for St. Croix's highways. Truck traffic would increase and cause minor adverse impacts to local residents from noise and dust. All fully loaded trucks would be covered while traveling on public roads to the landfill to reduce dust.

### **Traffic**

**Proposed Action** - There would be a minor increase in vehicle trips in the SARI area during the demolition of the abandoned hotel. Even though the increase in traffic produced from the demolition activities would be a disruption, the impacts would be short-term.

**No Action** – The site would remain in its current use, and no action would be taken; therefore, there would be no changes to the infrastructure at SARI.

**Conclusion** - Temporary minor adverse impacts to citizens working and living near the proposed haul route would occur during demolition of the abandoned hotel due to an increase in truck traffic during the demolition activities. The No Action Alternative would result in no changes to the infrastructure at SARI. Neither of the alternatives would cause impairment to park resources.

## **5.10 VISITOR USE**

**Proposed Action** - Currently, the project site is utilized by the local residence, mainly for recreation (i.e., hiking, running). The visitor experience at SARI would be greatly enhanced from current conditions by the demolition of the abandoned hotel. Rehabilitating the site would allow visitors to enjoy a natural setting at SARI in place of the deteriorating hotel structure. In addition, creation of formal “gateway into the park” through the improvement of Haul Road as a park entrance road would be a benefit to park visitors. The new road access would afford the public a “welcoming access to the park”, increase public access to the park, and provide NPS property on the east side with a “park entrance”. Use of this road would also provide access to VI Government lands located along the road. Therefore, long-term beneficial impacts would occur to visitor use at SARI as a result of the proposed action. Visitors would be aware of the additional sound and visual effects associated with the demolition and road construction, but adverse effects would be slight.

**No Action Alternative** - Under the No Action Alternative, the existing conditions at the abandoned hotel site would continue to limit the experience of visitors to enhanced scenic surroundings.

**Conclusion** - In summary, the proposed project would have beneficial impacts on visitor experience. The No Action Alternative would limit the experience of visitors. Neither of the alternatives would cause impairment to park resources.

## **5.11 PARK OPERATIONS**

**Proposed Action** - In the long-term there would be no increase in park maintenance or operations over current levels with the implementation of the Proposed Action. Whether the abandoned hotel is removed or not SARI would still have to maintain the site. However, park operations would experience minor, short-term impacts during demolition and road construction due to oversight of the Proposed Action. Current activities at SARI (i.e., hiking, boating, snorkeling, scuba diving) would be allowed to continue

uninterrupted during the demolition and construction period. However, active demolition areas would be restricted (i.e., fenced) from visitor use until the project is complete as a safety precaution.

**No Action Alternative** - Under the No Action Alternative, park operations would remain unchanged and there would be no benefits to SARI from the rehabilitation of the site.

**Conclusion** - The Proposed Action would have negligible impacts to park maintenance and operations; however, the demolition and road construction phase would have temporary minor impacts. The No Action Alternative would not result in impacts to park operations. Neither of the alternatives would cause impairment to park resources.

## 5.12 SUMMARY OF IMPACTS

The implementation of the Proposed Action would result in some short-term, adverse impacts to SARI's resources, but the long-term, beneficial impacts of the proposed action far outweigh the short-term, adverse impacts anticipated during demolition and road improvements of the proposed action. Table 5-1 presents a summary of the potential environmental and socioeconomic impacts for each alternative for this project.

Short-term impacts to soils, air quality, and noise quality during the demolition of the abandoned hotel and the road improvement activities would occur. These demolition and road improvement impacts would be short-term in nature, lasting only for the duration of the activity.

The Proposed Action is expected to create minor impacts to the water quality at SARI during the demolition and road improvement activities. These impacts would be short-term in nature, lasting only for the duration of the activity. The following resources may be indirectly affected in the short-term due to negligible increases in turbidity at Salt River Bay: seagrasses, aquatic species (fish species), critical habitat (mangroves), EFH, HAPC, or designated natural areas. However, there would be long-term beneficial impacts to all the above-mentioned resource due to improved water quality from the Proposed Action by implementing erosion and sediment control methodologies and stormwater management techniques, and through the rehabilitation and revegetation of areas that are currently impervious surfaces, such as the abandoned hotel and discarded construction debris.

Long-term, beneficial impacts to floodplains, CBRS areas, and Tier 1 of the coastal zone would occur because abandoned building materials would be removed, impervious surfaces (such as the hotel) would be replaced with pervious surfaces, and the peninsula would be rehabilitated and naturally revegetated. These activities would ultimately improve floodplain and coastal area function.

Minor, adverse impacts to approximately 2.84 total acres of NPS-defined estuarine wetlands would be affected by activities associated with the hotel demolition, including roadway improvement activities and the removal of debris on the peninsula. No direct impacts to mangrove wetlands are anticipated as a result of the proposed action. A detailed SOF has been completed to describe these impacts and the mitigation expected to offset the impacts to wetlands (Appendix D). Based upon the mitigation strategy included in the SOF (Appendix D), impacts to the existing wetlands are expected to be short-term and have a long-term, beneficial effect through rehabilitating the peninsula to a more natural setting. Existing, non-native invasive plant species such as African guinea grass and tan tan would be removed and replaced with native vegetation species. The replacement of non-native invasive species with native plant species would have a long-term, beneficial impact on the terrestrial wildlife species and other vegetation species that inhabit the area as well as the greater island of St. Croix. Non-native invasive species threaten the biodiversity of fragile island ecosystems such as St. Croix.

The proposed project would have a short-term, minor, adverse impact on the avian and wildlife species that currently utilize the habitat that would be affected or removed by the Proposed Action. There would be a temporary net loss of terrestrial habitat; however, a permanent increase of approximately 7.10 acres of habitat would be created as a result of the Proposed Action. It is expected that these species would become re-established at the site after completion of the project. The velvety free-tailed bats currently inhabiting the abandoned hotel would be relocated on another portion of the site prior to any demolition activities to avoid impacts to mammalian species. Overall, the Proposed Action would provide a beneficial impact to avian and wildlife species due to the increase of available, quality vegetated habitat for avian species.

The Proposed Action would have a long-term, beneficial impact to the aesthetics at SARI. Aesthetics would be altered from current conditions; however, the abandoned hotel represents a visual intrusion on SARI's cultural landscape. Demolition of the hotel would be a visual improvement enhancing the viability of the resources within SARI as well as the viewshed to the surrounding communities.

The human environment, including park operations and visitor experience would be subjected to minor, short-term, adverse impacts during demolition and road improvements. Current activities at SARI (i.e., hiking, boating, snorkeling, scuba diving) would be allowed to continue uninterrupted during the demolition period on the west side of park, but the active areas on east side of park would be restricted from visitor use until the project is complete as a safety precaution. The Proposed Action would remove the deteriorating abandoned hotel structure that poses a safety hazard for the public. Removing the hotel would have a long-term, beneficial impact on visitor safety and would not impair any park resources.

**TABLE 5-1 MATRIX OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS BY ALTERNATIVES FOR THE ABANDONED HOTEL DEMOLITION**

| Resource                               | No Action Alternative                                                                            | Proposed Action                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soils                                  | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse effects from the demolition of the abandoned hotel and road construction/improvements. Sediment and erosion control measures would be implemented.</li> </ul>                                                                                                                                                                        |
| Bathymetry                             | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• No impacts to bathymetry.</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| Air Quality                            | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impacts from the additional emissions created during the demolition and road construction/improvement activities.</li> </ul>                                                                                                                                                                                                         |
| Noise                                  | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor noise effects during road construction/improvement phase.</li> <li>• Short-term, moderate noise effects during the demolition phase.</li> <li>• Long-term benefit by enhancing the viability of the resources within SARI.</li> </ul>                                                                                                         |
| Climate/Seismicity                     | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term, beneficial impact by demolishing hotel. Hotel is located on reclaimed land, which is vulnerable to impacts from earthquakes.</li> </ul>                                                                                                                                                                                                              |
| Water Quality                          | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse effects due to the potential for erosion runoff during demolition and road construction/improvement activities, which may increase sediment input and turbidity.</li> <li>• Long-term, beneficial effects by implementing Stormwater management techniques and revegetating areas that are currently impervious surfaces.</li> </ul> |
| Hydrology                              | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor effects to the Salt River Bay watershed drainage would occur by clearing of vegetation and temporary increase in impervious areas.</li> <li>• Long-term, beneficial impacts to hydrology would occur from revegetating and rehabilitating the site to reduce runoff from previous impervious building surfaces.</li> </ul>                    |
| Floodplains                            | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term, beneficial impacts would be associated with restoring the floodplain from a partially impervious surface to a partially pervious surface.</li> <li>• Long-term, moderate, beneficial impacts would occur by removing the abandoned hotel building materials from the 100-yr floodplain.</li> </ul>                                                   |
| Coastal Barrier Resources System Areas | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term, moderate, beneficial effects would occur from the removal of the hotel structure and associated building materials. Revegetating would return the site to a more natural setting.</li> </ul>                                                                                                                                                         |

**TABLE 5-1 MATRIX OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS BY ALTERNATIVES FOR THE ABANDONED HOTEL DEMOLITION**

| <b>Resource</b>                   | <b>No Action Alternative</b>                                                                                                                                  | <b>Proposed Action</b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coastal Zone                      | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• Short-term, minor impacts are anticipated during construction activities. A Coastal Zone Management Act Consistency Certification would be completed.</li> <li>• Long-term, moderate, beneficial impacts would be associated with removing the abandoned hotel structure from the coastal zone.</li> </ul>                                                                                |
| Wetlands/Mangroves                | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• Minor, adverse impacts to 2.84 acres of NPS-defined estuarine wetlands due to roadway improvement activities and removal of debris on the peninsula.</li> <li>• No impact to Federally-defined mangrove wetlands.</li> <li>• Long-term, moderate, beneficial impacts would occur as a result of mitigation and through rehabilitating the peninsula to a more natural setting.</li> </ul> |
| Vegetation                        | <ul style="list-style-type: none"> <li>• No additional beneficial impacts.</li> <li>• The site would not be revegetated</li> </ul>                            | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impact to vegetation removed due to the hotel demolition, removal of debris, and construction/improvements to the roadway.</li> <li>• Long-term, moderate, beneficial impact from re-vegetating 7.10 acres of the project area with native vegetation.</li> </ul>                                                                                              |
| Birds/Mammals                     | <ul style="list-style-type: none"> <li>• No additional beneficial impacts.</li> <li>• Habitat for avian and mammal species would not be created</li> </ul>    | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impacts to birds and mammals that currently utilize the habitat that would be affected or removed by the Proposed Action.</li> <li>• Velvety free-tailed bats would be relocated from hotel prior to demolition activities.</li> <li>• Long-term, moderate, beneficial impact from increasing available, quality vegetated habitat.</li> </ul>                 |
| Reefs/Hardbottom                  | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• No impacts to coral reefs.</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
| Seagrasses                        | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• Short-term, negligible, adverse impacts may occur due to increases of turbidity from erosion runoff. Sediment and erosion control measures would be implemented.</li> <li>• Long-term, beneficial impacts would result from removing impervious surfaces and revegetating these areas to a more natural setting.</li> </ul>                                                               |
| Fish                              | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impact to fish due to temporary changes to water quality from increased turbidity.</li> </ul>                                                                                                                                                                                                                                                                  |
| Benthic Organisms                 | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>• No impacts to benthic community at SARI.</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| Threatened and Endangered Species | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> <li>• Habitat that may support Federally-listed species</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impacts to adjacent aquatic habitat are anticipated. Sediment and erosion control measures would be implemented.</li> <li>• Long-term beneficial impacts from rehabilitation of the peninsula that may potentially attract the Federally-listed sea turtle species and the least tern to nest at the site.</li> </ul>                                          |

**TABLE 5-1 MATRIX OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS BY ALTERNATIVES FOR THE ABANDONED HOTEL DEMOLITION**

| <b>Resource</b>                      | <b>No Action Alternative</b>                                                                                                                                                          | <b>Proposed Action</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      | would not be created.                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Unique Natural Resources             | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• No adverse impacts to unique natural resources.</li> <li>• Long-term beneficial impacts from rehabilitation of the peninsula that may potentially attract the Federally-listed sea turtle species to nest at the site.</li> <li>• Short-term, minor, adverse impacts to EFH and HAPC would result due to temporary changes in water quality.</li> <li>• Long-term, beneficial impacts to SARI and Salt River Bay and Watershed APC are anticipated following the completion of the Proposed Action.</li> </ul> |
| Cultural Resources                   | <ul style="list-style-type: none"> <li>• No additional beneficial impacts.</li> <li>• Adverse impact of hotel to cultural landscape.</li> </ul>                                       | <ul style="list-style-type: none"> <li>• No impact to archaeological resources.</li> <li>• No impacts to historic resources.</li> <li>• Long-term, major, beneficial impact to the cultural landscape from the removal of the abandoned hotel.</li> </ul>                                                                                                                                                                                                                                                                                               |
| Recreation                           | <ul style="list-style-type: none"> <li>• No additional adverse or beneficial impacts.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impacts to land-based recreational activities due to the demolition and road construction/improvement activities.</li> <li>• Long-term, beneficial impacts to recreation would occur at the completion of the Proposed Action</li> </ul>                                                                                                                                                                                                                                            |
| Socioeconomic Conditions             | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• No impacts to the community.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Environmental Justice                | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• No impacts to low-income or minority communities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Aesthetics                           | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> <li>• The surrounding viewshed would remain unchanged.</li> </ul>                          | <ul style="list-style-type: none"> <li>• Long-term, beneficial impact to the aesthetics at SARI. Demolition of the hotel would be a visual improvement enhancing the viability of the resources within SARI.</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| Public Health and Safety             | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> <li>• The hotel structure would continue to pose a safety hazard to the public.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term, beneficial impact would occur by removing the deteriorating abandoned hotel structure. The hotel structure currently poses a safety hazard for the public.</li> </ul>                                                                                                                                                                                                                                                                                                                               |
| Energy Requirements and Conservation | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• Short-term, minor impacts to energy from constructed related activities. These impacts would be temporary.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                          |

**TABLE 5-1 MATRIX OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS BY ALTERNATIVES FOR THE ABANDONED HOTEL DEMOLITION**

| <b>Resource</b> | <b>No Action Alternative</b>                                                                     | <b>Proposed Action</b>                                                                                                                                                                                   |
|-----------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Infrastructure  | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor, adverse impacts to citizens working and living near the proposed haul route would occur during demolition of the abandoned hotel.</li> </ul> |
| Visitor Use     | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term, beneficial impacts due to the rehabilitation of the site to a more natural condition.</li> </ul>                                                     |
| Park Operations | <ul style="list-style-type: none"> <li>• No additional beneficial or adverse impacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Short-term, minor impacts during demolition and road construction/improvement activities.</li> </ul>                                                            |