

**U.S. Department of the Interior  
National Park Service, Northeast Region**

**Finding of No Significant Impact**

**Provincetown Municipal Airport  
Capital Improvements Plan Environmental Assessment  
Cape Cod National Seashore  
Barnstable County, Massachusetts**

**INTRODUCTION**

The Provincetown Municipal Airport (Airport or PVC) is located within the Cape Cod National Seashore, in Massachusetts on property owned by the United States, managed by the National Park Service (NPS) Cape Cod National Seashore (CACO), and permitted to the Airport. The Provincetown Municipal Airport Commission (Airport Commission) proposes a Capital Improvements Plan (CIP) of safety and facility improvements at the Airport to fulfill the mission of the Airport to operate a safe, secure, and reliable non-hub primary service airport receiving scheduled airline passenger service. The twelve project elements included in the Airport's CIP project are:

1. Improve Westerly Taxiway System - includes relocating the West End taxiway, Mid Connector taxiway and the westerly portion of the Parallel taxiway with a run-up pad (Section 6.2, page 6-5 in EA)
2. Relocate East End Taxiway – includes relocating the East End taxiway to connect with the runway end (Section 6.3, pages 6-5 through 6-6 in EA)
3. Reconstruct Terminal Apron – reconstruct apron pavement within existing footprint, completed in 2009 (Section 6.4, page 6-6 in EA)
4. Reconstruct Easterly End of Partial Parallel Taxiway – reconstruct taxiway at a reduced width, completed in 2012 (Section 6.5, page 6-6 in EA)
5. Install Taxiway Lights, Signs, Emergency Generator, and Construct Electric Vault – to replace taxiway reflectors with lights, install taxiway signage, and replace existing electric vault and install emergency generator (Section 6.6, page 6-7 in EA)
6. Repair Sightseeing Shack – includes minimal structural repair necessary after removing electrical equipment (Section 6.7, page 6-7 in EA)
7. Improve Access Road to Approach Lights (MALSF) – to provide a turn-around area at the end of the gravel embankment leading to the approach light pier (Section 6.8, page 6-7 in EA)
8. Construct Service Access Roads to Weather and Navigation Facilities – to provide vehicle access to equipment (Section 6.9, pages 6-7 through 6-8 in EA)
9. Install Perimeter Safety/Security Fence – (Section 6.10, page 6-8 13 in EA)
10. Expand Auto Parking – Phase One accommodates existing demand and Phase Two accommodates future demand (Section 6.11, pages 6-8 and 6-9 in EA)
11. Expand Terminal Building – construct a two-story terminal building to replace lost public use area to accommodate terminal and security operations (Section 6.12, pages 6-8 through 6-10 in EA)
12. Expand Turf Apron – to provide additional turf aircraft parking area within existing adjacent grassland (Section 6.13, page 6-10 in EA)

Elements one through nine of the CIP address operational safety, security, and maintenance objectives at the Airport. The Federal Aviation Administration (FAA), Massachusetts Department of Transportation (MassDOT) Aeronautics Division, and Transportation Security Administration (TSA) issue safety and security design standards and Advisory Circulars for a non-hub primary service airport (see Appendix 6 in the EA Appendix). These standards, regulations, guidelines, and Advisory Circulars are mandatory for airport projects receiving Federal grant-in-aid assistance. It is the policy of the Airports Division of the FAA New England regional office that airport improvement projects must comply with the FAA airport Advisory Circulars. CIP project elements 10 through 12 address the inadequate capacity of the existing facility to provide for existing and future capacity needs.

**SELECTED ALTERNATIVE**

The NPS has selected the Airport's Capital Improvement Program Alternative presented in the EA that was on public and agency review from December 2011 to February 2012. Subsequent to the release of the EA, field work and structural

engineering evaluations were conducted and the selected alternative is being amended in this FONSI due to a change in two of the twelve project elements. Engineering studies concluded that it is not feasible to construct a second floor on the existing terminal building. Therefore a new building is proposed which will be 33 inches above the existing elevation to meet Cape Cod Commission (CCC) requirements. Although the building will be higher, the elevation of the roof will not exceed the limits of 6 to 12 feet higher than the existing building, as stated in Section 3.11.2 of the EA. The landside entrance requires a grade change relative to the parking area. In order to avoid extensive ramps for ADA compliance, a grading plan is proposed which would raise the parking area grade to meet the elevation of the terminal entrance. The grading would not result in impacts to surrounding coastal dune and wetland resources. Fill is estimated at 2,800 CY. The proposed changes to the terminal and parking area will allow the Airport to comply with the CCC minimum performance standards for buildings in a Zone A floodplain.

These actions do not substantially change the impacts as outlined in the EA because

- The new terminal building will be essentially within the same footprint;
- The height of the new building will not exceed the limits stated in the EA;
- The terminal design has been developed to blend with the viewshed; and
- The proposed fill for the grading of the parking lot will be on previously disturbed area.

The Selected Alternative includes the following elements:

1. Improve Westerly Taxiway System (Alternative 3.1.2, page 3-2 of EA)

The West End connector taxiway will be relocated out of the Runway 07 approach surface and reconstructed to connect with the Runway 07 at a 90 degree angle. The westerly end of the parallel taxiway will be reconstructed at a reduced width of 40 feet with a 17,600 SF run-up pad. The Mid Connector taxiway will be reconstructed to connect with the runway at a 90 degree angle. There will be a net decrease in impervious area as a result of the construction.

2. Relocate East End Taxiway (Alternative 3.2.2 page 3-5 of EA)

The East End connector taxiway will be relocated approximately 200 feet to the east of the current location so that it connects at the end of Runway 25.

3. Reconstruct Terminal Apron (Alternative 3.3.2 page 3-6 of EA)

The reconstruction of the 20,000 SF terminal apron was completed in 2009 within the existing footprint. The existing drainage system was improved by constructing an outlet sediment trap at the existing outlet.

4. Reconstruct Easterly End of Parallel Taxiway (Alternative 3.4.2 page 3-7 of EA)

The easterly end of the parallel taxiway was reconstructed at a reduced width of 40 feet.

5. Install Taxiway Edge Lights and Signs, and Construct Electric Vault (Alternative 3.5.2 page 3-8 of EA)

Taxiway edge lights and signs will be constructed 10 feet off the edge of pavement. Lighted taxiway signs would be installed to identify the locations of each taxiway. The electric cable for the lights and taxiway signage will be installed with the cable plowing method. The area will be restored to grassland. The new electric vault will be a 10 by 20 foot structure, approximately 10 feet high and similar in appearance to the existing utility buildings on the airfield and would house the emergency generator. An approximately four foot wide gravel area will be constructed around the vault to meet access and spacing requirements included in the electric code for high voltage structures. There will be a paved walkway to the service door and parking for two vehicles. The vault will be located adjacent to the Sightseeing Shack and will not impact wetlands.

6. Repair Sightseeing Shack (Alternative 3.6.2 page 3-9 of EA)

The Sightseeing Shack will be repaired as needed after the electrical equipment is removed as part of the taxiway edge lights project. The project will remain within the existing footprint of the building and surrounding access area. There will be no change to the base floodplain.

7. Improve Access Road to Approach Lights (Alternative 3.7.2 page 3-10 of EA)

To provide for a vehicle turn-around area, the embankment for the existing 10 foot wide gravel service road will be widened at the westerly end. The area will be 30 feet wide and 30 feet long. The first 300 feet of the service road off the runway will be paved. The remaining length of road will be gravel.

8. Construct Service Access Roads to the Localizer Equipment Shelter and to the Weather Station (Alternative 3.8.2 page 3-12 of EA)

Ten foot wide, paved service access roads will be constructed with one-foot grass shoulders on each side and a turn-around area at the equipment facilities.

9. Install Perimeter Safety/Security Fence (Alternative 3.9.2 page 3-15 of EA)

A nine-foot high (total height) perimeter safety/security fence will be constructed along the Concept 6 alignment with a four foot wide maintained area on both sides of the fence. The length of the fence will depend upon the actual alignment determined in the field by the team and agency personnel. FAA grant assurances require the airport to provide an operating area that is free of unauthorized personnel and a safe operating environment. TSA security guidelines allow the use of natural barriers where there are either navigational or environmental constraints. The ILS area adjacent to Runway 07 end will not be enclosed by a fence.

As required by Natural Heritage Endangered Species Program (NHESP), gaps with a minimum of 6" clearance will be incorporated into the bottom of the fence at 100 foot intervals to facilitate movement of eastern box turtles.

10. Expand Auto Parking (Alternative 3.10.2 page 3-18 of EA)

Phase 1 will construct 28 additional automobile parking spaces to the existing 68 car parking lot. Phase 2 would construct 29 additional spaces if needed for a total of 119 parking spaces. The aisles will be paved and parking spaces will be packed gravel. Infiltration swales will be constructed for Phase 1. A bioretention system would be constructed as part of Phase 2. Landscaping will use native plants.

Subsequent to the release of the EA, the parking lot grading has changed. In order to meet the entrance grade of the new terminal building (discussed below), the parking lot will be regraded. Approximately 2,800 CY of fill will be place within the relative footprint of the proposed auto parking area. There would be no increase in impacts to surrounding resources resulting from this change.

11. Expand Terminal Building (Alternative 3.11.2 page 3-20 of EA)

The existing terminal building lost one-third of its public space to TSA operations. Therefore, a larger terminal building is necessary to support existing and proposed spatial needs. The EA proposed the building would increase from 4,800 SF to 8,660 SF in the EA. Subsequent to the release of the EA, engineering studies have concluded that it is not feasible to construct a second floor on the existing building. A new two-story terminal building will be constructed within the same relative footprint as the existing structure, which is currently 4,960 SF as measured by the architect. The new building will be approximately 6-12 feet higher than the existing building, the same height limitation committed to in the EA. As required by the CCC, the new building will be 33 inches above the existing elevation. The selected design, green initiatives, exterior building materials, and night sky friendly lighting will be developed in coordination with the NPS.

Sustainable design measures such as water conservation, low flow fixtures and faucets with sensors, energy efficient lighting systems, energy efficient appliances, and a photovoltaic array will be incorporated into the building design. Building supplies and materials that are non-toxic, made from recycled materials, and made with low embodied energy will be specified to the extent feasible.

#### 12. Expand Turf Apron (Alternative 3.12.3 page 3-22 of EA)

Additional turf apron will be constructed between the two existing areas for turf apron parking adjacent to the parallel taxiway. Approximately 16,780 SF of existing managed grassland will be reconstructed to support the weight of small single-engine planes. The area will be maintained as managed grassland.

### **OTHER ALTERNATIVES CONSIDERED**

The EA analyzed a total of 30 alternatives, a no action alternative for each CIP project element (12 total) six other alternatives considered, and 12 selected alternatives. The selected alternative is briefly described above. The no action alternative and the other alternatives considered are briefly described below.

#### 1. Improve Westerly Taxiway System

No Action Alternative (EA Section 3.1.1) would maintain the West End taxiway in its current location within the RW 07 approach, the curved West End and Mid Connector taxiway alignment, as well as the jog in the parallel taxiway. This alternative was not selected because it is not compliant with FAA design standards and does not address the purpose and need.

#### 2. Relocate East End Taxiway

No Action Alternative (EA Section 3.2.1) would maintain the 200-foot offset between the end of Runway 25 end and East End Taxiway. This alternative was not selected because it is not compliant with FAA design standards and does not address the purpose and need.

#### 3. Reconstruct Terminal Apron

No Action Alternative (EA Section 3.3.1) would retain the existing pavement. This alternative was not selected because it does not address the maintenance safety issues or the purpose and need.

#### 4. Reconstruct Easterly End of Parallel Taxiway

No Action Alternative (EA Section 3.4.1) would retain the existing pavement. This alternative was not selected because it does not address the maintenance safety issues or the purpose and need.

#### 5. Install Taxiway Edge Lights and Signs, and Construct Electric Vault

No Action Alternative (EA Section 3.5.1) would maintain the taxiway edge reflectors and not upgrade the electric equipment. This alternative was not selected because it does not address the operational safety issues or the purpose and need.

#### 6. Repair Sightseeing Shack

No Action Alternative (EA Section 3.6.1) would allow the existing structure to remain in its present condition. This alternative was not selected because it does not address the maintenance issues or purpose and need.

#### 7. Improve Access Road to MALSF Approach Lights

No Action Alternative (EA Section 3.7.1) would maintain the existing narrow access road. This alternative was not selected because it does not address the safety issues or the purpose and need.

8. Construct Service Access Roads to the Localizer Equipment Shelter (LES) and to the Automated Weather Observation Station (AWOS)

No Action Alternative (EA Section 3.8.1) would retain the lack of defined access routes to both the LES and the AWOS. This alternative was not selected because it does not address the operational safety issues or the purpose and need.

Construct LES Alternative 6/AWOS Alternative 2 Alternative (EA Section 3.8.3) would construct a 10-foot wide roadway extending from the East End Taxiway (paved for the first 300 feet) for the AWOS access roadway, with construction of a dense packed gravel roadway off of Race Point Road for access to the LES. This alternative was not selected because of avoidable negative impacts to wetlands and the negative traffic safety issues related to a new road intersection and bike path intersection at Race Point Road.

9. Install Perimeter Safety/Security Fence

No Action Alternative (EA Section 3.9.1) would not complete the perimeter safety/security fence. This alternative was not selected because it does not address the operational safety and security, visitor safety, and wildlife hazard issues or the purpose and need.

Construct Fence Concept 4 Alternative (EA Section 3.9.3): This alternative would construct approximately 15,400 LF of fence which would enclose the approach light system. This alternative was not selected because it would have significant impacts to tidal flow in Hatches Harbor.

Construct Fence Concept 1 Alternative (EA Section 3.9.4): This alternative would follow the perimeter of the Airport lease area. This alternative was not selected because it would impact tidal flows and would have more negative environmental impacts than the selected alternative.

10. Expand Auto Parking

No Action Alternative (EA Section 3.10.1): This alternative would retain the existing parking area. This alternative was not selected because it would address the purpose and need for additional parking.

Construct Concept 1 Auto Parking (EA Section 3.10.1): This alternative would construct the proposed parking lot expansion in one phase. This alternative was not selected because it was determined by NPS staff that a new parking study should be completed prior to constructing additional auto spaces for future forecasted parking needs.

11. Expand Terminal Building

No Action Alternative (EA Section 3.11.1): This alternative would maintain the current conditions in the passenger terminal building. This alternative was not selected because it does not address the need for additional passenger space in the terminal.

Horizontal Alternative (Expand Footprint) (EA Section 3.11.1): This alternative would expand the building to the southwest adjacent to the existing passenger waiting area. This alternative was not selected because it would have more negative impacts to operations and the environment than the selected alternative.

12. Expand Turf Apron

No Action Alternative (EA Section 3.1.1): This alternative would maintain the current area for turf parking of GA aircraft. This alternative was not selected because it would not address the need for additional aircraft parking.

Full Dimension Alternative (EA Section 3.12.1): This alternative would construct the turf apron outside of the Taxiway Free Area (TOFA) in compliance with FAA safety design standards, and would accommodate the full range of GA aircraft that use the turf apron at the Airport. This alternative was not selected because it would have more negative impacts to wetlands than the selected alternative.

#### ENVIRONMENTALLY PREFERRABLE ALTERNATIVE

In accordance with the DO-12 Handbook, the NPS identifies the environmentally preferable alternative in its NEPA documents for public review and comment [Sect. 4.5 E (9)]. The environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative (43 CFR 46.30).

The Environmentally Preferred Alternative includes the twelve project elements, as stated in the EA. The Environmentally Preferred Alternative for each project element is as follows:

1. The Westerly Taxiway System Improvements (Preferred Alternative) is the Environmentally Preferred Alternative. The Preferred Alternative would result in a net loss of pavement (See Table 5-2 in Section 5) and includes mitigation to restore areas of wetland and coastal dune impacted by the project. The overall net loss in pavement from all taxiway projects is approximately 42,200 SF. The current state of the taxiway is a hazard to aviators and passengers, and is a risk to the safety of those traveling to and from the Airport, as Airport operation in this area involves runway activity and airplanes in flight (as opposed to ground operations such as taxiing). Constructed improvements are necessary to address the Part 77 navigable airspace safety and operational issues of the West End TW that is currently within the approach to RW 7. These improvements will restore and maintain operational safety within the Part 77 airspace. Additionally, measures to minimize adverse impacts to wetlands and coastal dunes such as steepened slopes have been incorporated into the design, and construction period mitigation measures such as erosion control and construction timing will be implemented to reduce overall impact. An invasive species management plan would also be implemented to preserve an environment that supports the natural diversity found within the CCNS. Permitting agencies will issue permits with the condition that wetland mitigation is monitored and repaired, if not successful.

Among the alternatives considered, the West End Taxiway Improvements would ultimately attain the greatest balance between the human population, the operational safety needs for the Airport, and the surrounding natural environment.

2. The East End Taxiway Relocation Alternative (Preferred Alternative) is the Environmentally Preferred Alternative. While this alternative involves construction, relocating the current configuration of the taxiway will greatly reduce the significant safety hazard that the current configuration presents to aviators and passengers traveling to and from the Airport. The Preferred Alternative will address the Part 77 navigable airspace safety and operational issues of the East End TW that currently requires planes to back taxi on the active runway. As operations within the East End TW involve runway activity and airplanes in flight, the relocation of the taxiway is required to restore the necessary level of safety in this area to avoid potential undesirable and unintended consequences, while maintaining the diversity of natural resources at the Airport, to the fullest extent possible.

The preferred alternative includes mitigation to restore areas of wetland and coastal dune impacted by the relocation of the taxiway. Overall, the wetland mitigation plan for the CIP projects results in 1.3:1 on site

replication, with the addition of invasive species management for several species and a special wetland enhancement management program for Phragmites, which will have a beneficial impact on wetlands at the Airport. Measures to minimize adverse impacts to wetlands and coastal dunes such as steepened slopes have been incorporated into the design, and construction period mitigation measures will be implemented such as erosion control and time of construction to reduce overall impacts. An invasive species management plan will also be implemented to preserve an environment that supports the natural diversity found within the CCNS. Permitting agencies will issue permits with the condition that wetland mitigation is monitored and repaired, if not successful. The East End TW Relocation would ultimately attain the greatest balance between the human population, the need to restore operational safety for the Airport, and the natural environment.

3. The Terminal Apron Reconstruction within the Existing Footprint has been selected as the Environmentally Preferred Alternative. This reconstruction project (completed in 2008) was limited to the re-pavement of the existing paved areas within the same footprint, and there were no impacts to adjacent cultural or natural resource areas. The reconstruction of the Terminal Apron addressed the ground operation safety issues to taxiing aircraft posed by the deteriorating state of the Terminal Apron pavement.
4. The Terminal Apron Reconstruction best achieved the balance between restoring the safety and productivity of the Airport while protecting the surrounding natural environment (as the project did not impact resource areas). If the Terminal Apron was not reconstructed, it would yield increasing safety concerns for pilots and passengers. The Environmentally Preferred Alternative is the Reconstruction of the Parallel TW within Existing Footprint (Preferred Alternative). The project will not impact wetlands or other natural resources because it will occur within the footprint of the existing Parallel TW. The reconstruction of the parallel taxiway would reduce the pavement width, result in an overall reduction of impervious surfaces at the Airport, and restore a level of safety to ground operations in this area. Timing of construction and erosion controls will be implemented to protect adjacent resources and listed species. This alternative will increase the safety and productivity of the human environment at the Airport while also enhancing the quality of the surrounding natural environment. Areas gained by the pavement reduction would be restored to grassland habitat that is important to state-listed rare Vesper Sparrows, thereby increasing and enhancing environmental resources at the Airport. Reconstruction achieves the greatest balance between preserving the safety and productivity of the Airport as well as protecting the surrounding natural environment.
5. The Environmentally Preferred Alternative for this CIP project is the No Action alternative, solely because it does not involve a safety project within Part 77 navigable surfaces nor does it occur within an existing footprint. The safety and operational issue pertains to taxiing aircraft and ground operations. While the proposed project would result in operational safety improvements along the taxiway as well as electrical improvements, it would entail the construction of an additional structure (Electric Vault) and the installation of taxiway edge lights and signs along the taxiway. The No Action alternative will not involve a new structure or lighting and cultural grasslands would not be disturbed.

However, the No Action alternative will not address the need to bring the existing electric equipment up to current electrical design criteria. The Preferred Alternative for the installation of the taxiway lights would have negligible impacts to adjacent managed grasslands because the cable installation method which has little ground disturbance will be used. As discussed in Section 3.5.2 of the EA, the trenching construction method will not be used. Impacts to grassland habitat would be negligible for the location of the proposed electric vault, as it would be located in an

area previously determined to be of little significance as habitat due to its isolated location with respect to the expanse of grassland habitat at the Airport.

6. Upon consideration of the alternatives presented for this CIP project, the Repair or Replacement of the Building (Preferred Alternative) has been selected as the Environmentally Preferred Alternative, as all work will occur entirely within the footprint of the existing Sightseeing Shack. The structural integrity of the existing structure is deteriorating and poses a safety concern to those at the Airport. If the structure was not repaired, undesirable or unintended consequences may occur. The repair of the Sightseeing Shack would restore the structure to its original state and increase the safety of persons using the structure while improving the overall aesthetic value of the Airport. Of note, the building is not considered a state or federal historic structure. Furthermore, the repair of this building will not impact nearby natural resource areas.
7. After review, the No Action alternative has been selected as the Environmentally Preferred Alternative solely because the project does not involve operational safety improvements for aircraft operations within Part 77 navigable surfaces nor will it occur within an existing footprint. Additionally, under the No Action alternative there would be no construction and wetlands would not be altered. The safety and operational issue is ground operation-related and affects vehicles accessing the navigational lighting system.
8. The Environmentally Preferred Alternative for this CIP project is the No Action alternative because the project does not involve operational safety improvements for aircraft operations within Part 77 navigable surfaces and will not occur within an existing footprint. The No Action alternative would not result in construction, and wetland and coastal dune resources would not be altered. The safety and operational issue pertains to vehicles accessing the weather station and the localizer equipment.

Although the No Action Alternative would not involve construction within wetlands and coastal dunes, this alternative would not address the operational safety issues resulting from the lack of designated access roads to the airfield equipment. The No Action alternative would not eliminate the tracking of foreign materials onto the runway and taxiways, which presents a safety hazard to users at the Airport. The No Action alternative is not the Preferred Alternative. The Preferred Alternative for the project includes measures to minimize adverse impacts to wetlands and coastal dunes such as steepened slopes and a narrower road width. Construction period mitigation measures will be implemented such as erosion control and time of construction to reduce overall impacts.

9. Of the alternatives considered for the Perimeter Safety/Security Fence, the No Action alternative has been selected as the Environmentally Preferred Alternative, as the project does not involve operational safety improvements for aircraft operations within Part 77 navigable surfaces and will not occur within an existing footprint. The No Action alternative would not involve construction and would not alter wetland and coastal dune resources.

Although the No Action alternative would not involve construction within wetlands and coastal dunes, this alternative would not address the safety and security issues resulting from the lack of a perimeter fence. While the No Action alternative would not result in any impacts to natural resources, this alternative would continue to risk the health and safety of those at the Airport, possibly resulting in potentially undesirable or unintended consequences, both of which are defining elements of an environmentally preferred alternative per DO-12.

The No Action alternative is not the Preferred Alternative. An extensive analysis was carried out for the safety security fence in order to identify an alternative that would address the security and safety issues while minimizing impacts to wildlife, wetlands, and other natural resources. While the Preferred Alternative would result in impacts



to resource areas, significant mitigation measures have been incorporated into the design and alignment of the fence concept to minimize these impacts. Additionally, a construction management plan has been drafted to minimize impacts during construction.

10. The Environmentally Preferred Alternative for the proposed Auto Parking Expansion has been identified to be the No Action alternative, because the project is a capacity improvement. Additionally, with the No Action alternative there would be no construction and no impacts to coastal dune. However, the No Action alternative is not the Preferred Alternative because it would not address the purpose and need for additional auto parking.
11. The Environmentally Preferred Alternative for the proposed Terminal Building Expansion has been identified to be the No Action alternative, because the project is a capacity improvement. There would be no construction and no change in the visual environment under the No Action alternative. However, the No Action alternative is not the Preferred Alternative because it would not address the purpose and need for additional space in the Terminal. NPS visitors that utilize the Airport as a means of accessing the CCNS, as well as Airport staff and pilots, would continue to be inconvenienced by the existing cramped conditions in the Terminal. With careful design coordination through NPS, the Preferred Alternative would have minimal visual impacts on Park visitors, and would achieve the Purpose and Need.
12. The Environmentally Preferred Alternative for the proposed Turf Apron Expansion has been identified to be the No Action alternative, as the project is a capacity improvement. The No Action alternative would not result in construction or impacts to cultural grassland. However, the No Action alternative is not the Preferred Alternative because it would not address the purpose and need for additional turf apron space. The Preferred Alternative would, after mitigation and through careful construction timing, restore the grassland habitat with little or no impacts to this resource, while achieving a balance between the need for visitor aircraft parking space and protection of the natural environment.

## **MITIGATION MEASURES**

Mitigation measures have been taken throughout the alternatives selection process, as well as through the preliminary design process. After review, the No Action alternative has been selected as the Environmentally Preferred Alternative solely because the project does not involve operational safety improvements for aircraft operations within Part 77 navigable surfaces nor will it occur within an existing footprint. Additionally, under the No Action alternative there would be no construction and wetlands would not be altered. The safety and operational issue is ground operation-related and affects vehicles accessing the navigational lighting system. The terminal building height will be minimized to the extent feasible as a mitigation measure to the potential visual impact. The Airport Commission has committed to other mitigation measures contained within five mitigation plans; wetlands, coastal dunes and cultural grasslands, invasive species management, vegetation management, and construction management, as described in the following paragraphs.

### **1. Wetland Mitigation Plan**

The wetland mitigation plan (Figures 7.1 and 7.2 in the EA) will provide approximately 78,000 Square Feet (SF) of Isolated Vegetated Wetlands (IVW) wetlands restoration and approximately 5,000 SF of Bordering Vegetated Wetland (BVW) restoration as described in Section 7.1 of the EA. Approximately 27,925 SF of impervious area will be removed. Wetlands restoration would be monitored biannually for five years by a qualified wetland scientist.

### **2. Coastal Dune and Cultural Grassland Mitigation Plan**

The coastal dune and cultural grassland mitigation plan will create approximately 27,500 SF of coastal dune and restore approximately 145,000 SF of Cultural Grassland as described in Section 7.2 of the EA.

### 3. Invasive Species Integrated Management Plan and Resource Enhancement

The invasive species management plan would undertake Invasive Species Management within approximately 14-acres” in IVW using the “best management practice cut and drip method of integrated pest management applications, particularly the *Phragmites* within isolated wetlands H and I, as described in detail in Section 7.3 of the EA.

### 4. Vegetation Management Plan

The vegetation management plan provides a schedule for mowing and brush hog cutting as described in Section 7.4 of the EA.

### 5. Construction Management Plan

The Construction Management Plan will include specifics on construction timing and methodology, as well as additional measures designed to protect the natural resources at the Airport prior to, during, and immediately following construction. Such measures include pre-construction turtle sweeps, avoiding breeding periods (NHESP) to the extent feasible as identified by Massachusetts Natural Heritage and Endangered Species Act (April 15 through the first week of September) during construction (with the exception of paving), and an Erosion Control Plan as described in Section 7.5 of the EA.

## **WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT**

As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria:

1) Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an EIS: No major adverse or beneficial impacts were identified that would require analysis in an Environmental Impact Statement (EIS). No impacts to cultural resources, air quality, noise levels, land use, farmlands, hazardous materials, pollution prevention and solid waste, socioeconomic, environmental justice, wild and scenic rivers, traffic, secondary impacts, federally-listed rare species, and energy were identified.

The Selected Alternative will result in moderate localized short-term direct impact to wetlands while the construction of the improvements and the wetland replications are in progress (See pages 5-58 and 5-59 in the EA). Minor long-term localized indirect impacts are anticipated for the installation and maintenance of the safety/security fence (See page 5-59 in the EA) mainly by changing high growing wetland vegetation to low growing species along the fence line. Minor long-term direct and indirect impacts to coastal dune resources will be a result of the improvements, mainly, through loss of potential habitat (See pages 5-59 and 5-60 in the EA).

Impacts associated with the CIP projects would not adversely affect the natural integrity of the CACO wetland resources or detract from the enjoyment of those resources or values. Further, these impacts will be minimized (offset) and subsequently mitigated upon successful wetland restoration, along with the previous mitigation under the Hatches Harbor Project as discussed in Section 7.0 of the EA. Construction timing and implementation of applicable BMPs and other measures will further minimize impacts to the values of the wetland resources at the Airport and within CACO. Minor indirect, long-term impacts will occur within wetlands for the installation and maintenance of the safety/security fence as eight-foot wide swaths along the proposed fence would be managed in a low-growing plant community rather than a forested or taller scrub-shrub community.

The Selected Alternative will result in minor long-term direct and indirect impacts to coastal dunes, which include; localized minor short and long-term impacts to the potential habitat of the Eastern Spadefoot Toad and Eastern Box Turtle because the work will be located in the non-breeding habitat of the both species (See page 5-60 and Figure 4-7 in the EA). Negligible short and long-term impacts will occur to the potential prime breeding habitat of the Eastern Spadefoot Toad

from the installation and maintenance of the safety/security fence. Negligible short-term localized direct impacts will occur within managed grasslands because no known species are located within the managed grasslands.

Impacts to coastal dune ecosystems at the Airport will be mitigated in part through the conversion of existing impervious surfaces and mowed grasslands to coastal dune habitat, and implementation of habitat management to control invasive species currently documented within the coastal dune ecosystem at the Airport. Mitigation efforts, including design specifications, construction timing, and implementation of applicable BMPs, will further minimize impacts to the coastal dune ecosystem at the Airport and within the CACO. As with the wetland resources, minor indirect, long-term impacts will occur within the coastal dunes for the installation and maintenance of the safety/security fence as an eight-foot wide swath along the proposed fence would be managed in a low-growing plant community rather than a forested or taller shrub community. However, installation of the fence is an unavoidable result of a necessary action to maintain a safe and secure Airport within CACO, and for visitors to CACO that would utilize the Airport. Considered in relation to the total dune ecosystem in the Province Lands, combined with the proposed dune restoration and mitigation measures, there would be no impairment of the coastal dune ecosystem or its habitat functions and values as a result of the implementation of the Preferred Alternatives.

Negligible short-term direct impacts within the coastal flood zone because of the enormity of the floodplain in Hatches Harbor alone, and the impact area is less than 0.015% (See page 5-58 of the EA). These impacts would not harm the integrity of the Park's resources by increasing the extent of flood prone areas or otherwise diminishing the ability of this natural resource to function to provide flood storage by temporarily retaining and slowly releasing coastal waters during and following a flooding event at the Airport or within the surrounding CACO lands, or prevent storm damage to inland areas upon successful mitigation within the floodplain. Further, short-term impacts to the coastal floodplain will be restored upon successful wetland mitigation as described above and in Section 7.0 of the EA.

A localized minor to moderate beneficial impact will occur to the visitor's experience as a result of visitor's will be able to learn about solar energy, effects of natural sunlight, increased safety and access to the park (See page 5-61 in the EA).

2) The degree to which public health and safety are affected: During construction, visitors and employees will be protected through the use of defined construction areas within restricted areas. Construction worker safety will be implemented through standard OSHA guidelines. Aviation safety will be protected through the use of barricades, lighted warning signs, and safety flags on construction equipment to designate areas of the taxiway and airfield closed to aircraft movement. The Airport will issue Notices to Airmen to provide safety and hazard data. Under the Selected Alternative, safety and security improvements at the Airport will have long-term beneficial impacts to the flying public due to reconfiguration of taxiways, lighting and navigational aids, and access improvements.

3) Any unique characteristics of the area (proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains, and so forth): Historic or cultural resources, prime or unique farmlands, and wild and scenic rivers will not be impacted. The CACO office confirmed that no cultural resources will be impacted by the project. The State Historic Preservation Office (SHPO) has determined that there will be no effects to historic structures and there are no historic structures present in the project area.

Although there are wetlands surrounding the Airport and the Airport is located within a floodplain, the project has avoided significant adverse impacts to these areas and the Airport will provide mitigation to offset non-significant negative impacts. The wetlands impacted consist of 82,893 SF of IVW and 2,112 SF of BVW, which will be mitigated by on site restoration of 78,000 SF of IVW and 5,000 SF of BVW, as well as the enhancement of 616,350 SF of IVW (See Table 5-3 in EA). Therefore, there are no significant impacts to these environments.

- 4) The degree to which impacts are likely to be highly controversial: There were no highly controversial impacts identified during either preparation of the EA or the public review. The Provincetown Airport environmental review group was concerned about the perimeter fence and the Phase II parking lot. A compromise was reached by reconfiguring the fence alignment and design. After Phase I auto parking lot is constructed, the group will reevaluate the need for Phase II auto parking through a parking study.
- 5) The degree to which the potential impacts are highly uncertain or involve unique or unknown risks: There were no highly uncertain, unique, or unknown risks identified during either preparation of the EA or the public review period.
- 6) Whether the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration: The Selected Alternative neither establishes a NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.
- 7) Whether the action is related to other actions that may have individual insignificant impacts but cumulatively significant effects: As described in Section 5.15 of the EA, cumulative impacts were determined by combining the impacts of the Selected Alternative with other past, present, and reasonably foreseeable future actions. The Selected Alternative will contribute minor short-term direct and minor long-term indirect impacts to wetlands; minor long-term direct impacts to coastal dune resources, minor short-term direct impacts to state-listed rare species, negligible short-term direct impacts within managed grasslands, negligible short-term direct impacts within the floodplains, and negligible to minor short-term and long-term visual impacts. The negligible to minor adverse impacts of these other past, present, and reasonably foreseeable future actions on resources, in conjunction with the impacts of the Selected Alternative will result in adverse cumulative impacts; however, the overall cumulative impacts are not significant.
- 8) The degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources: The Selected Alternative will not adversely affect historic properties in, or eligible for, listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources. Information for this determination was provided in part by NPS staff and included in Section 1.4 of the EA. Additionally, the SHPO determination dated April 2, 2007 stated “the project is unlikely to affect significant historic or archaeological resources”, and is included in Section 10.1 of the EA.
- 9) The degree to which an action may adversely affect an endangered or threatened species or its habitat: The Endangered Species Act mandates that all federal agencies consider the potential impacts of their actions on species listed as threatened or endangered in order to protect the species and preserve their habitats. The U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) decision support system is a conservation planning tool for streamlining the environmental review process. Staff has reviewed the species listed for Barnstable County, Massachusetts and conducted a review of the project area for the presence of special status species or habitat.

The USFWS identified two federally-listed species within Barnstable County with the potential to occur near this site: Piping Plover (*Charadrius melodus*) and Roseate Tern (*Sterna dougallii*). Consultation has been carried out with the U.S. Fish and Wildlife Service (USFWS) regarding federally listed endangered species. The New England Field Office indicated that beaches north and west of the project are known to support Federally-Threatened Piping Plovers. These beaches have been closely monitored by NPS for many years. However, according to the results of the NPS studies, no federally-threatened or endangered species or their critical habitats are known to exist within the area of proposed improvements at the Airport, activities which are further inland.

Special construction engineering, timing, and mitigation efforts will be implemented to avoid and minimize potential impacts on other state-listed special status species. These mitigation measures were developed in consultation with the MA NHESP. The USFWS staff agrees that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Endangered Species Act.

10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment: The Selected Alternative violates no federal, state, or local environmental protection laws.

#### **SUMMARY OF PUBLIC AND INTERAGENCY INVOLVEMENT**

During the scoping of the Master Plan on June 14, 2005, the public was invited to a meeting which included members of the Airport, FAA, MassDOT, CCC, and NPS. Additional opportunities for public participation were provided through the meetings of the Advisory Group during preparation of the Master Plan. A progress meeting that was open to the public was held on April 11, 2006 which detailed the improvements which would be proposed at the Airport. Both meetings were posted through the Town of Provincetown.

Initial written consultation was carried out with the Massachusetts Historical Commission (MHC), State Historic Preservation Officer, and the Tribal Historic Preservation Officer of the Wampanoag Tribe of Gay head (Aquinnah) in January of 2005 during the preparation of the 2005 Master Plan. Additional written consultation was completed with MHC in March and April of 2007 during preparation of the NPC/Draft EIR/EA. NPS commented on Section 106 issues in their comment letter on the NPC/Draft EIR/EA. The CCNS concurs with MHC that no historic structures are present in the immediate area of potential effect. The CCNS park archaeologist has determined that no archaeological testing is necessary for the fence or taxiway lights project (See correspondence in Section 10 in the EA). Additional coordination was carried out with MHC (by phone to confirm their April 2, 2007 determination), the Wampanoag Tribe of Gay Head (Aquinnah) (written) and the Mashpee Wampanoag Tribe (written) prior to completion of the EA. MHC and the two tribes received copies of the FEIR/EA.

A public MEPA scoping meeting for the DEIR/Draft EA was held at the Provincetown Airport on May 11, 2006. The meetings with the Conservation Commission for the wetland boundary review (ANRAD) and the Notice of Intent for the Apron Reconstruction project were also public meetings.

Consultation was initiated with USFWS in regards to threatened and endangered species under Section 7 of the Endangered Species Act. USFWS concurred with the determination of not likely to adversely affect federally-listed endangered or threatened species in a letter dated January 7, 2014 and via phone on April 1, 2014.

The Cape Cod Commission (CCC) held a public hearing on June 27, 2007 at the Provincetown Town Hall for joint review of the DEIR/Draft EA. A second public hearing was held by the CCC on February 7, 2012 for the beginning of the Development of Regional Impacts process.

In addition to these meetings, there has been extensive coordination between NPS CCNS, the Army Corps of Engineers (ACOE), CCC, NHESP, FAA, MassDOT Aeronautics, and the Airport staff during 2010 through 2011 to prepare the EA document and develop a comprehensive mitigation plan.

The EA was made available for public review and comment from January 11, 2012 to February 10, 2012. The NPS issued a News Release on January 11, 2012 for the availability to comment on the EA. The FAA issued a legal advertisement in the Cape Cod Times for the availability to comment on the EA on January 11, 2012. The Secretary of the Executive Office of Environmental and Energy Affairs issued a Certificate on the FEIR in accordance with the Massachusetts Environmental Policy Act Office. Additionally, five comments were received: three from Massachusetts state agencies; one from the

regional planning agency (CCC); and one from a non-governmental organization (NGO), the Association to Preserve Cape Cod (APCC). The Massachusetts Division of Marine Resources stated that they did not have any comments.

The general public had no comments during the EA's comment period.

The NHESP stated in their comment letter on the FEIR/EA/Section 4(f) that based on information presented in the FEIR/EA, it appears that the Selected Alternative may avoid a prohibited "take" of state-listed species. A final decision will not be rendered until the MESA Review process is completed after issuance of this FONSI.

In May 2012, the Massachusetts Department of Environmental Protection Southeast Regional Office stated that the Selected Alternative will require a Variance from the Water Quality Certification Regulations and noted that the Selected Alternative has avoided wetlands where feasible.

The CCC submitted a 15 page letter that outlined the status of project's compliance with the Regional Policy Plan's Minimum Performance Standards. Issues such as floodplain impacts, wetland impacts, and the design of the Terminal Building will be addressed in the upcoming Development of Regional Impact (DRI) application.

The APCC discouraged building some of the safety and security improvements, in particular the perimeter fence.

None of the comments received introduced substantive new information or raised issues not fully considered in the EA. Floodplain issues were evaluated and the modifications to the parking lot and the elevation of the terminal building after the public and agency review period for the EA will not significantly change the assessment in the EA.

#### **FINDING OF NO SIGNIFICANT IMPACT**

The NPS has selected the Airport's Capital Improvement Program Alternative as the Selected Alternative for implementation. The Selected Alternative is described on pages 6-5 to 6-10 of the EA. The Selected Alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the Selected Alternative will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this action and thus will not be prepared.

Recommended:



George E. Price, Jr., Superintendent  
Cape Cod National Seashore

4/4/14  
Date

Approved:



Michael A. Caldwell, Regional Director  
Northeast Region, National Park Service

4/9/14  
Date

**Attachment A**  
**Non-Impairment Determination**  
**Provincetown Municipal Airport (PVC)**  
**Capital Improvements Plan (CIP) Environmental Assessment (EA)**  
**Cape Cod National Seashore**

**IMPAIRMENT OF PARK RESOURCES OR VALUES**

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC 1a-1).

NPS Management Policies 2006, Section 1.4.4, explains the prohibition on impairment of park resources and values:

*While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the Nation Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.*

The NPS has discretion to allow impacts on Park resources and values when necessary and appropriate to fulfill the purposes of a Park (NPS 2006 sec. 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006 sec 1.4.3). An action constitutes an impairment when its impacts “harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006 sec 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006 sec 1.4.5).

This determination on impairment has been prepared for the selected alternative described in this FONSI. An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience, socioeconomic environment, public health and safety, and park management and operations because impairment findings relate back to park resources and values, and these impact topics are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

***Wetland and Wetland Buffer Zones***

Impacts to the Park’s wetlands and wetland buffer zones resulting from the Selected Alternative for the CIP Project include moderate, direct, short-term impacts to wetland resources in the immediate vicinity of the Airport facilities to allow for the taxiway and access road safety improvements to occur. Specifically, this will involve reconstruction and/or realignment of the taxiways, installation or modification of access roadways to

Airport navigational aids, and installation of the proposed safety/security fence. These projects will not be new elements at the Airport and will be within the existing developed airport operating area.

Wetland impacts associated with the Selected Alternative will not adversely affect the natural integrity of the CCNS wetland resources or detract from the enjoyment of those resources or values. Further, wetland impacts will be minimized mainly by restoration; a 2,112 SF loss of BVW will benefit from 5,000 SF restoration of BVW, 78,000 SF of IVW will be restored on-site minimizing a loss of 82,893 SF, and an additional on-site IVW invasive species enhancement project will provide a flourishing wetland opportunity for 616,350 SF of IVW. In addition to the restoration and enhancement, the Hatches Harbor Project included mitigation for projects that were never built, as discussed in Section 7.0 of the EA.

Construction timing and implementation of applicable BMPs and other measures will further minimize impacts to the values of the wetland resources at the Airport and within the CCNS. Minor indirect, long-term impacts will occur within wetlands for the installation and maintenance of the safety/security fence as eight-foot wide swaths along the proposed fence would be managed in a low-growing plant community rather than a forested or taller scrub-shrub community. NHESP staff commented that low growing vegetation provides a more suitable habitat for the species that may be in the Province Lands. Therefore, there would be no impairment of wetland resources or values as a result of the implementation of the Selected Alternative when mitigation is also implemented.

Coastal dunes are discussed below.

#### ***Coastal Dunes***

The Province Lands within CACO, where the Airport is located, are comprised of a vast ecosystem of primary and secondary dunes. Coastal dunes within the Airport lease area range from barely elevated sandy patches situated among freshwater wetlands (e.g., interdunal swales) to tall, sparsely vegetated shifting dune ridges to the north, and to extensively vegetated dune ridges to the south.

Minor long-term direct and indirect impacts to coastal dune ecosystems would occur from the Selected Alternative (taxiway realignments, construction of service access roadways (AWOS and LES), expansion of auto parking (Phases 1 and 2), and installation of the safety/security fence). The Selected Alternative for the safety/security fence would partially enclose 113 acres of the Airport lease area. The majority of the area consists of airport infrastructure (paved runway and taxiways, buildings, parking areas, navigational aids, and managed safety areas). The Selected Alternative will result in negligible to minor, direct and indirect short-term and long-term adverse impacts to local populations of certain wildlife species. However, these impacts will not detract from the vast extent of dunes within the Province Lands at CACO, nor will they harm the integrity of the Park's resources or values.

Impacts to coastal dune ecosystems at the Airport will be mitigated in part through the conversion of existing impervious surfaces and mowed grasslands to coastal dune habitat, and implementation of habitat management to control invasive species currently documented within the coastal dune ecosystem at the Airport. Mitigation efforts, including design specifications, construction timing, and implementation of applicable BMPs, will further minimize impacts to the coastal dune ecosystem at the Airport and within CACO. As with the wetland resources, minor indirect, long-term impacts will occur within the coastal dunes for the installation and maintenance of the safety/security fence as an eight-foot wide swath along the proposed fence would be managed in a low-growing plant community rather than a forested or taller shrub community. However, installation of the fence is an unavoidable result of a necessary action to maintain a safe and secure Airport within CACO, and for visitors to CACO that would utilize the Airport. Considered in relation to the total dune ecosystem in the Province Lands, combined with the proposed dune restoration and mitigation measures, there



would be no impairment of the coastal dune ecosystem or its habitat functions and values as a result of the implementation of the Preferred Alternatives.

### ***Floodplain***

The entire Airport and its immediate environs fall within the coastal floodplain (ranging from elevation 10 to 11 feet above mean sea level). The Selected Alternative will directly affect the coastal floodplain for the reconstruction and/or realignment of the taxiways, installation of the service access roadways, construction of the terminal building, improvements to the MALSF access roadway, and the auto parking lot expansion where fill is proposed. Other elements of the Selected Alternative will have negligible impacts to the coastal floodplain. Negligible short-term, direct, adverse impacts will occur to the coastal flood zone at the Airport as a result of implementing the Airport CIP project during construction. These impacts will not harm the integrity of the Park's resources, will not increase the extent of flood prone areas, or otherwise diminish the ability of this natural resource to function to provide flood storage by temporarily retaining and slowly releasing coastal waters during and following a flooding event at the Airport or within the surrounding CCNS lands, or prevent storm damage to inland areas upon successful mitigation within the floodplain. Further, short-term impacts to the coastal floodplain will be restored upon successful wetland mitigation as described in Section 7.0 of the EA. An alteration to the floodplain in the order of 0.015% of the immediate Hatches Harbor flood storage area has been issued since the submission of the FEIR/EA/Section 4(f) by grading the auto parking lot up to the new terminal building. This alteration is within the negligible range of effects on the floodplain and does not change the overall range of alternatives impacts. Therefore, implementation of the Selected Alternative would not impair floodplain resources within the CCNS.

### ***State-listed Rare Species***

The Selected Alternative has the potential to affect the habitats of three of the four Massachusetts state-listed rare species documented at the Airport: Eastern Spadefoot Toad, Eastern Box Turtle, and Vesper Sparrow, with no adverse impacts anticipated to the fourth documented species, Broom Crowberry. Prior to the completion of the EA, the Broom Crowberry has been delisted from the rare species listings. The mosaic habitat of the coastal dune ecosystem interspersed with freshwater interdunal swales within the Province Lands constitutes a unique habitat that supports these species. Potential impacts to the habitat for the Eastern Spadefoot Toad have been the focus of the Massachusetts Natural Heritage and Endangered Species Program (NHESP), and prime and potential breeding habitat for this state-Threatened species has been further assessed at the Airport in the context of the Selected Alternative.

Minor short-term, direct, adverse impacts of potential breeding habitat for the Eastern Spadefoot Toad will occur with the Selected Alternative (taxiway improvement projects). Negligible short-term, direct adverse impacts and negligible long-term indirect adverse impacts will occur within prime breeding habitat for Eastern Spadefoot Toad with the Selected Alternative (installation and maintenance of portions of the safety/security fence). In addition, the Selected Alternative will have the potential for minor, short-term and long-term, direct adverse impacts to the non-breeding habitat for this species. The Selected Alternative will result in minor short-term, direct adverse impacts within wetlands, grasslands, and coastal dune ecosystems which serve as potential breeding and non-breeding habitat for the Eastern Box Turtle.

With the implementation of mitigation measures, the resulting impacts to these species are considered short-term and negligible, off-set by habitat restoration (including wetland restoration), location-specific fence alignment siting, design measures for the fence (wildlife tunnels), and construction timing measures designed to protect this unique habitat. Invasive species management and dune restoration will provide suitable habitat for rare species.

Considered in relation to the total wetland and dune ecosystem in the Province Lands, combined with the mitigation measures proposed, impacts to state-listed rare species habitat are considered to be negligible, long-

term, adverse impacts. Consequently, the Selected Alternative will not result in an impairment of rare species habitat resources or values.

### ***Cultural Grasslands***

Negligible, short-term, direct adverse impacts will occur within managed grasslands (Cultural Grasslands) which serve as potential habitat for Vesper Sparrow with the implementation of the taxiway realignment and relocation projects as well as the installation of the taxiway lighting and expansion of the turf apron. Moderate long-term direct beneficial impacts to this species may occur through habitat maintenance of the grasslands and a species-sensitive mowing schedule. There will be a 27,925 SF loss of pavement and the majority of that loss will be restored to cultural grasslands. Therefore, implementation of the Selected Alternative will not result in impairment of cultural grasslands at the park.

### ***Visual Impacts***

The Selected Alternative has the potential to impact the visual environment at the Airport. Specifically, installation of the proposed safety/security fencing and taxiway edge lighting, and expansion of the auto parking lot and the terminal building could result in visual impacts for Park visitors. The terminal building height will be minimized to the extent feasible as a mitigation measure to visual impacts.

The Airport may be seen by Park visitors (or viewer groups) utilizing the bike trail system near the Airport, those driving past the Airport toward Race Point Beach, or those visiting the lookout tower at the Province Lands Visitor Center ("birds eye views"), where minor, long-term, direct adverse impacts to visual aspects of the Park may be experienced by those visitors with the Selected Alternative.

Visual impacts will be offset by native landscape screening plantings proposed around the parking lot, as well as design modifications to the terminal to ensure that it meets the local design and character of other buildings at the Park and minimizes impacts to the visual environment at the CCNS. Lighting along the taxiway does not constitute a new element at the Airport, and is similar to the existing runway lighting. The taxiway lighting is an unavoidable consequence of meeting airport safety requirements.

The proposed fence will match the design of the existing segments of safety/security fencing currently visible along the bike path along Race Point Road. The new sections of fencing will be installed within the vicinity of the managed airfield, and will be black coated vinyl, which minimizes the effect on the various viewer groups. The aspects that contribute to the significance of the CCNS will not be diminished because there would be no significant change in the visual environment and no change in recreational activity for the CCNS visitors since the fence will secure the operational area of the Airport that is closed to unauthorized persons.

Implementation of the selected alternative will not result in impairment to the visual environment.