

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only

EEA#: 15964

MEPA Analyst: Alex Steysky

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Martha's Vineyard Airport Capital Improvement Plan Projects		
Street Address: 71 Airport Rd, West Tisbury		
Municipality: West Tisbury/Edgartown	Watershed: Islands (coastal)	
Universal Transverse Mercator Coordinates:	Latitude: 41° 23' 35" N Longitude: 70° 36' 45" W	
Estimated commencement date:	Estimated completion date:	
Project Type: Airport Capital Improvements	Status of project design: 10 %complete	
Proponent: Martha's Vineyard Airport Commission		
Street Address: 71 Airport Road		
Municipality: West Tisbury	State: MA	Zip Code: 02575
Name of Contact Person: Ann Richart, Airport Manager		
Firm/Agency: Martha's Vineyard Airport Commission	Street Address: 71 Airport Road	
Municipality: West Tisbury	State: MA	Zip Code: 02575
Phone: (508)693-7022	Fax: (508)696-4631	E-mail: arichart@mvyairport.com

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Alex Stepanov

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

☒ Yes ☐ No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))

☐ Yes ☐ No

a Special Review Procedure? (see 301 CMR 11.09)

☐ Yes ☐ No

a Waiver of mandatory EIR? (see 301 CMR 11.11)

☐ Yes ☐ No

a Phase I Waiver? (see 301 CMR 11.11)

☐ Yes ☐ No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

11.03(1)(a)1. Direct alteration of 50 or more acres of land

11.03(1)(a)2. Creation of ten or more acres of impervious area

11.03(2)(b)2. Greater than two acres of disturbance to Priority Habitat

11.03(6)(b)15. Construction of 300 or more new parking spaces

Which State Agency Permits will the project require?

MESA Conservation and Management Permit

Possible MassDOT Indirect Access Permit

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

MassDOT funding of environmental study: \$27,138.00

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	688		
New acres of land altered		118.1	
Acres of impervious area	77.4	+17.4	94.8
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	ND*	+57,350	ND*
Number of housing units	0	0	0
Maximum height (feet)	ND*	ND*	ND*
TRANSPORTATION			
Vehicle trips per day			
Parking spaces	369	549	918
WASTEWATER			
Water Use (Gallons per day)	13,369	1,750	15,119
Water withdrawal (GPD)	n/a	n/a	n/a
Wastewater generation/treatment (GPD)	10,695	1,400	12,095
Length of water mains (miles)	n/a	n/a	n/a
Length of sewer mains (miles)	n/a	n/a	n/a
Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input checked="" type="checkbox"/> Yes (EEA # 1131, 2650, 2729, 5116, 5117, 5526, 6437, 6503, 13024) <input type="checkbox"/> No			

* ND = Not Determined
n/a – Not Applicable

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site

Martha's Vineyard Airport is a public airport located at 71 Airport Road, West Tisbury, Massachusetts with both general aviation and passenger airline activity. Passenger airlines providing arrivals and departures to the Airport include Cape Air, Delta, JetBlue, and American Airlines. The airport is located on 688 acres with a variety of facilities. According to the 2016 Master Plan Update, between 2000 and 2013, there was an average of 51,151 annual flights, with average peak season (June-August) flights accounting for 47.7 percent. Martha's Vineyard Airport is directly impacted by the seasonal nature of the island's economy.

Martha's Vineyard Airport is located in West Tisbury and Edgartown, Dukes County, Massachusetts. According to the US Census Bureau, West Tisbury had a population of 2,740 in 2010, with estimates of 2,306 between 2012 and 2016. Edgartown had a population of 4,067 in 2010 with an estimated population of 4,247 between 2012 and 2016. The Airport is located in the LI (light industrial) zone in West Tisbury and the B-III (light manufacturing and light industrial) and B-IV (aviation facilities, storage of heavy equipment) zones in Edgartown. The land surrounding the airport in West Tisbury is zoned as rural residential and zoned as single family residential in Edgartown. Much of the surrounding land to the North, East, and West of the Airport is undeveloped, with residential development south of the Airport.

There are no mapped regulatory floodplains at or in the vicinity of the Airport. There are no mapped wetlands located within the Airport, although there is one detention basin. The Airport is located within the designated Coastal Zone, but with its centralized location on the island, is not likely to result in any coastal resource impacts. The Airport is located over an EPA Sole Source Aquifer. (A Sole Source Aquifer is an aquifer that supplies at least 50 percent of the drinking water to its service area, and for which there is no reasonably available alternative source.)

The Airport includes mapped Massachusetts Natural Heritage and Endangered Species Program Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife. Within the Airport, the mapped Priority Habitat covers much of Airport property and includes grassland, scrub oak, forested, and disturbed land. Estimated Habitat is mapped within the northwestern corner of airport property and includes forest, grass, and runway pavement areas. Other areas that are not designated as Priority or Estimated Habitat include forested and disturbed areas. The Airport operates under a habitat management plan, developed as part of the Conservation Management Permit (004-039 DFW), that was developed in 2004, and outlines general habitat maintenance and monitoring.

Existing Facilities

Runway 15-33 is 3,328 feet long and 75 feet wide with a design code of B-II (based on the approach speed and shape of aircraft using the runway), and northwest-southeast orientation. Runway 15/33 was last reconstructed in 1992. Representative aircraft for the B-II classification include BE-200, CE-560, CE-650, FA-50, FA-2000, and PC-12. According to the 2016 Master Plan Update, a survey of aircraft operations (flights) performed in 2012 showed that B-II aircraft accounted for 17.5% of operations. Runway 6-24 is 5,504 feet long and 150 feet wide with a design code of C-III, meaning it can accommodate larger aircraft than a B-II runway. Runway 6-24 is the primary runway because of its length, precision instrument landing system (ILS), and

alignment with prevailing winds.

The airfield is served by multiple taxiways. Taxiway A runs parallel to Runway 6/24, with four short "stub connector" taxiways (A1, B, C, and D) providing access from the ramps to the runway. All taxiways at Martha's Vineyard Airport are 50 feet wide, except for Taxiway E, which is 35 feet wide. Taxiway E provides skewed, or non-perpendicular, access to both Runways 6/24 and 15/33.

There are currently four paved aprons, or ramps, used for parking aircraft. There are two main ramps, the Southeast and Southwest. The Southwest Ramp encompasses the "North", "Restaurant", and "Transient" Ramps. There are a combined total of 72 marked tie down locations. There is also a turf tie down area that has 28 spots for transient aircraft and is currently utilized during peak season demand.

There are currently seven T-hangar buildings and four conventional hangars at the airport.

The existing airport fuel farm, located by the Southwest ramp, contains two 20,000-gallon Jet A fuel tanks and one 20,000-gallon 100LL AVGAS tank. The existing concrete pad is approximately 3,900 square feet.

The terminal building was constructed in 1998 and is utilized for ticketing, baggage, screening, rental car counters, airline offices, a restaurant and restrooms. The terminal building is connected to the general aviation building utilized for airport administration and operations offices.

Describe the proposed project and its programmatic and physical elements:

Martha's Vineyard Airport is proposing several airport improvements, addressed in the 2016 Capital Improvement Plan. The project consists of the following ten components:

1. Runway 6/24 Side Safety Areas and Primary Surface Obstruction

During the design review for the Reconstruct Runway 6/24 Project, the side safety areas and primary surface were analyzed for compliance. (Safety areas and primary surfaces are surfaces surrounding a runway that must meet certain criteria for purposes of aircraft safety.) That exercise resulted in a finding that the side safety area slopes do not meet Federal Aviation Administration (FAA) grading criteria outlined in Advisory Circular (AC) 150/5300-13A. It was also determined that the existing ground elevation exceeds the runway elevation within the limits of the Federal Aviation Regulation Part 77 primary surface. Existing ground elevations should be at or lower than the primary surface elevation per AC 150/5300-13A. The rehabilitation of the runway would occur in the existing footprint. Within Priority Habitat, the side safety areas and primary surface obstruction would result in approximately 82.3 acres of re-graded grass, 13.5 acres of grass to be converted to impervious surface, and 0.2 acres of impervious surface returned to grass. There will be approximately 0.4 acres of grass to be converted to impervious surface within non-Priority Habitat.

2. Rehabilitate Runway 15/33 and Regrade Side Safety Areas

There are deformations such as weathering and cracking which result in debris on the runway ("foreign object debris") that can damage aircraft. The 2016 Master Plan notes that crack repair was conducted in 2010 under the Massachusetts Department of

Transportation statewide runway maintenance project but noted that it should be rehabilitated in 2020. The Massachusetts Department of Transportation – Aeronautics Division inspected the pavement condition inspection for Runway 15/33 in 2016. The inspection determined a “Pavement Condition Index” rating of 67 for 2016 and projected a rating of 62 for 2020. Pavements within a rating of 50 to 70 typically require more extensive rehabilitation than pavements in better condition. Rehabilitation will involve removing the surface pavement, possible subbase work, and adding new pavement at approximately the same elevation and configuration as existing.

The runway also has existing 37.5-foot paved shoulders on a runway that does not require them. The shoulders are in poor condition with high-severity cracking. By definition these are severely cracked and broken, and pieces are loose or missing, causing the potential for foreign object debris on the runway. The rehabilitation will remove this pavement and replace it with turf meeting FAA design guidelines. However, the Runway 15/33 side safety areas currently do not meet transverse grade criteria, and following FAA grading guidelines for turf would make the transverse grades worse. Alternatives to address these non-conformities are being studied.

The proposed rehabilitation and regrading of the runway safety areas will result in approximately 15.1 acres of grass to be regraded in Priority Habitat, 2.3 acres of which is also Estimated Habitat. Approximately 4.9 acres of impervious surface would be converted to grass in Priority Habitat, 0.7 acres of which is also Estimated Habitat.

3. Construct Concrete Fuel Pad at Fuel Farm

The existing fuel farm is surrounded by crushed asphalt pavement referred to as “millings.” These millings become lodged in the tread of the fuel truck tires and are tracked onto the aircraft apron. This creates a foreign object debris risk as it can cause damage to aircraft and equipment. The existing surface material does not provide containment in the event of a fuel spillage, and is more burdensome on operations to maintain, particularly during snow clearing operations. The fuel farm pad therefore needs to be paved to reduce the risk of damage from foreign object debris, improve fuel containment, and improve regular maintenance. The proposed work would involve paving the existing footprint of the fuel pad and adding an access road that would result in the conversion of approximately 0.2 acres of grass to impervious surface within Priority Habitat, and 0.4 acres of grass to impervious surface within non-Priority Habitat.

4. Expand and Renovate Existing Terminal Building

The current terminal building capacity is insufficient to meet current demand. The existing building provides a total of 9,800 square feet. The 2016 Master Plan identified an existing (2014) need of approximately 18,100 square feet, and an anticipated (2020) need of 21,850 square feet, more than double the existing capacity, using the Airport Cooperative Research Program Terminal Planning Spreadsheet Model. Constructed in 1998, the pre-9/11 terminal building does not provide the necessary space to meet existing TSA security requirements. Current conditions lead to long security lines and holding areas in open courtyards with no restrooms or other facilities. The project proposes to expand the existing terminal building to meet the demands of the airport. The expansion also includes creating an additional 549 new parking spaces, and a right turn lane exiting Airport Road. In total, the proposed expansion would result in approximately 284,400 square feet (6.5 acres) of permanent impacts to non-Priority

Habitat.

5. Remove Existing Taxiway E and Construct New Taxiway E

Taxiway E is a remnant of the former Navy configuration. Converted from a former runway, Taxiway E provides skewed, or non-perpendicular, access to both Runways 6/24 and 15/33. This configuration restricts visibility of the runway approach area for aircraft crossing or entering a runway. The current configuration of Taxiway E does not provide access to the end of Runway 15. To use the full runway length for departures or landings, an aircraft is required to taxi on the runway, which increases the risk of conflicts between aircraft using the runway. Taxiway E was last paved in 1980 and exceeds FAA design life criteria.

The existing Taxiway E will be removed and approximately 6.3 acres of impervious surface will be returned to grassland within Priority Habitat. A new Runway 15-33 parallel taxiway will be constructed, resulting in approximately 6.8 acres of regraded grass and 2.9 acres of grass to be converted to impervious surface within Priority Habitat. The northern end of the relocated taxiway is also within Estimated Habitat.

6. Pave Transient Turf Tie Down Area

Paving the transient turf tie down area will provide a safe, viable option for peak demand. The proposed project would result in approximately 4.1 acres of permanent impacts to Priority Habitat, by converting existing grass to impervious surface.

7. Southeast Ramp Expansion

FAA AC 150/5300-13A specifically states, "Do not design taxiways to lead directly from an apron to a runway without requiring a turn." This is referred to as direct access. The stub Taxiway B provides direct access from the southeast ramp and terminal apron area to Runway 6/24. To comply with FAA AC 150/5300-13A, a No-Taxi Apron Island will be constructed, resulting in a reduced capacity of the existing apron. The proposed expansion would result in approximately 0.3 acres of permanent impacts to Priority Habitat by converting existing grass to impervious surface.

8. Southwest Ramp Expansion

The airport has seen a reduction in usable apron area for General Aviation over the last few years and an increase in the number of flights. To compensate for reduced useable apron space, the airport proposes to expand the Southwest Ramp by paving turf and removing four existing hangars. It is expected that the hangar space will eventually be replaced by three new hangars and new additional vehicle parking. The proposed expansion would result in approximately 4.4 acres of additional apron space in non-Priority Habitat, and 0.04 acres of re-graded grass in non-Priority Habitat.

9. Construct New Aircraft Hangars

The airport does not have facilities to store large corporate aircraft. The Airport has current demand from a new tenant interested in leasing an 80' x 80' hangar and basing their aircraft at the airport. Hangars are necessary because they protect aircraft from harsh weather elements and ensure aircraft readiness. The proposed hangar would be

approximately 15,900 square feet, and would be constructed at the Southeast ramp location, resulting in approximately 0.04 acres of regraded grass and 0.4 acres of grass converted to impervious surface in Priority Habitat. Additionally, four hangars on the Southwest Ramp would be removed and up to three new hangars would be constructed in their place. This would occur in existing and proposed pavement areas. There would be a net increase of approximately 26,450 square feet of hangar space at the Southwest Ramp.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

NOTE: The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.

1. Runway 6/24 Side Safety Areas and Primary Surface Obstruction
 - a. No Build: This alternative would not affect Priority Habitat. However, the safety areas and primary surface would not meet FAA criteria, resulting in a safety concern for aircraft that stray from runway pavement.
 - b. Build: The proposed build alternative is the minimum needed to meet FAA safety guidelines. No other build alternatives were considered.
2. Rehabilitate Runway 15/33 and Regrade Side Runway Safety Areas
 - a. No Build: Under this alternative, the 37.5-foot paved shoulders would remain in place. Since the shoulders are severely damaged, with potential for foreign object debris to enter the runway, this alternative was rejected for safety reasons. The existing runway safety areas do not meet transverse grade standards listed in the AC 150/5300-13A. Additionally, MassDOT recommended that Runway 15-33 be rehabilitated in 2020. In order to meet FAA standards and airport needs, this alternative was not selected.
 - b. Build: Under this alternative, the 37.5-foot paved shoulders would be removed and replaced with turf to FAA design standards. This alternative reduces risks of foreign object debris entering the runway and damaging aircraft, and eliminates unnecessary pavement, and therefore is the preferred alternative. The existing runway would be milled and repaved to extend the runway's useful life and to postpone full reconstruction. The runway safety areas would be regraded in order to meet FAA standards. This alternative meets the purpose and need of the project and is the preferred alternative.
3. Construct Concrete Fuel Pad at Fuel Farm
 - a. No Build: This alternative would allow the foreign object debris risk to continue, would not provide spill containment, and would be more burdensome to maintain than the Build Alternative.
 - b. Build: This alternative would reduce the potential for foreign object debris, improve spill containment, and be easier to maintain than current conditions.
4. Expand and Renovate Existing Terminal Building
 - a. No Build: This alternative would not provide the capacity to meet current or projected demand. There would continue to be long security lines and holding

areas in open courtyards with no restrooms or other facilities. Vehicular traffic would continue to be congested.

- b. Build: This alternative would accommodate sufficient capacity in the terminal to process passengers efficiently and safely. No alternatives were studied as a smaller expansion would not meet projected need and a larger expansion would not be needed. The proposed parking and roadway improvements may be phased based on demand and need.
5. Remove Existing Taxiway E and Construct New Taxiway E
- a. No Build: This alternative would maintain existing conditions, which would minimize Priority and Estimated Habitat impacts but would maintain the safety concerns, primarily the limited visibility of the runway approach and the lack of direct access to the Runway 15 end.
 - b. Alternative 5a: Existing Taxiway E would be removed and a new taxiway constructed along the west side of Runway 15-33. This would bring the taxiway and runway closer together, improve visibility with a perpendicular approach to the runway, and allow access to the end of Runway 15.
 - c. Alternative 5b: This alternative would move the taxiway to the opposite side of the runway. The alternative would be functionally similar to Alternative 1 and would have similar Priority Habitat impacts but somewhat more Estimated Habitat impacts.
6. Pave Transient Turf Tie Down Area
- a. No Build: Under this alternative, the tie down area for transient aircraft would remain turf. The turf is uneven, rough, and inaccessible by aircraft under their own power. This area is currently utilized during peak demand when the large ramp areas are blocked or filled. The no build alternative would not meet the project purpose and need and therefore was not selected.
 - b. Alternative 6a: This alternative would provide paved tie-down areas adjacent to the existing taxiway.
 - c. Alternative 6b: This alternative would provide a comparable number of paved tie-down areas but with somewhat less pavement than Alternative 1.
7. Southeast Ramp Expansion
- a. No Build: The No Build would maintain the existing safety concerns associated with direct access from a ramp to a runway.
 - b. Alternative 7a: Alternative 1 would eliminate direct access by constructing a grass island and reconfiguring the existing paved ramp, and no new pavement would be added.
 - c. Alternative 7b: This alternative would eliminate direct access by constructing a grass island, reconfiguring the existing paved ramp, and adding a stub taxiway from the ramp to Taxiway A.
8. Southwest Ramp Expansion
- a. No Build: This alternative would not resolve the reduction in usable apron area and resulting capacity problems the airport has been experiencing.
 - b. Build: There is only one feasible location for this alternative. This project would impact mostly existing pavement, buildings and disturbed ground, although Priority Habitat would be affected. For these reasons, no other alternatives have been developed.
9. Construct New Aircraft Hangars
- a. No build: Under the No Build, the airport would continue to have insufficient

facilities for storing large corporate aircraft and would not meet current demand for hangar space.

- b. Build: Under this alternative an approximately 15,900 square foot hangar would be constructed at the Southeast ramp location, and up to three hangars totaling 47,600 square feet would be constructed within the reconstructed Southwest Ramp.

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

New impervious surfaces will be balanced by removal of existing impervious surfaces where feasible.

Permanent stormwater management measures such as catch basins and infiltration practices will be implemented to provide treatment of runoff from new impervious surfaces.

Erosion and sediment control will be implemented during construction.

Mitigation measures for rare species have yet to be determined, but will be developed in consultation with the Natural Heritage and Endangered Species Program and other agencies. Mitigation may consist of habitat management measures in existing rare species habitat on airport property, habitat restoration on airport property, payments in lieu of formal mitigation, or other measures. In addition, there may be "surplus" mitigation from past airport projects which could be applied to this project.

If the project is proposed to be constructed in phases, please describe each phase:

The current projected schedule for the Capital Improvement Plan projects are as follows:

2020

- Project 1: Regrade Runway 6/24 side safety areas and address primary surface obstructions
- Project 2: Rehabilitate Runway 15/33, remove shoulder pavement, and regrade side safety areas
- Project 3: Construct concrete fuel pad at fuel farm

2022

- Project 4: Expand and renovate existing terminal building

2023

- Project 5: Remove old Taxiway E and construct new Taxiway E

2024

- Project 6: Pave transient turf tiedown area
- Project 7: Expand Southeast Ramp
- Project 8: Expand Southwest Ramp
- Project 9: Construct new aircraft hangars

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

☐ Yes (Specify _____)