4 AFFECTED ENVIRONMENT

4.1 INTRODUCTION

This chapter describes the environmental and social settings of the proposed Projects, Martha's Vineyard Airport, and the surrounding area. Information pertaining to the affected environment was obtained through on-site investigations, a review of published information, agency correspondence, and discussions with Airport personnel and public officials. The information presented herein serves as a basis for the assessment of environmental, social, and economic consequences (refer to Chapter 5) associated with the Projects.

This chapter fulfills the requirements specified in the Massachusetts Environmental Policy Act (MEPA) 301 CMR 11.00 and National Environmental Policy Act (NEPA). The resource categories are consistent with MEPA and with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. The following resource categories are evaluated:

- Topography, Geology, and Soils
- Water Resources
- Coastal Resources
- Air Quality
- Climate and Greenhouse Gas Emissions
- Natural Resources and Energy Supply
- Noise
- Biological Resources
- Surface Transportation
- Scenic Qualities, Open Space and Recreational Resources
- Historic and Archaeological Resources
- Section 4(F) Resources
- Land Use
- Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks
- Hazardous Materials, Solid Waste and Pollution Prevention

4.2 PROJECT SETTING

Martha's Vineyard Airport (MVY or "the Airport") is a public airport located at 71 Airport Road in West Tisbury and Edgartown, Massachusetts with both general aviation and passenger airline (air carrier) activity. The airport is located on 688 acres with a variety of facilities. See Chapter 1 for more information regarding facilities, air carriers, and aircraft operations.

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.

The 6 Airport is proposing several airport improvement Projects, addressed in the annual Capital Improvement Plan (CIP). The primary purpose of the proposed Projects is to meet aviation demand and improve safety by bringing the airport more in line with FAA safety standards and guidelines.

4.3 TOPOGRAPHY, GEOLOGY, AND SOILS (MEPA/NEPA)

The topography at the Airport is relatively flat with a general gradient towards the south. According to Massachusetts GIS contour data, the northern portion of the airport is at an elevation of approximately 59 feet, and the southern portion is at an elevation of approximately 49 feet. According to the US Geologic Survey, the surficial geology underlaying the Airport consists of coarse glacial stratified deposits.

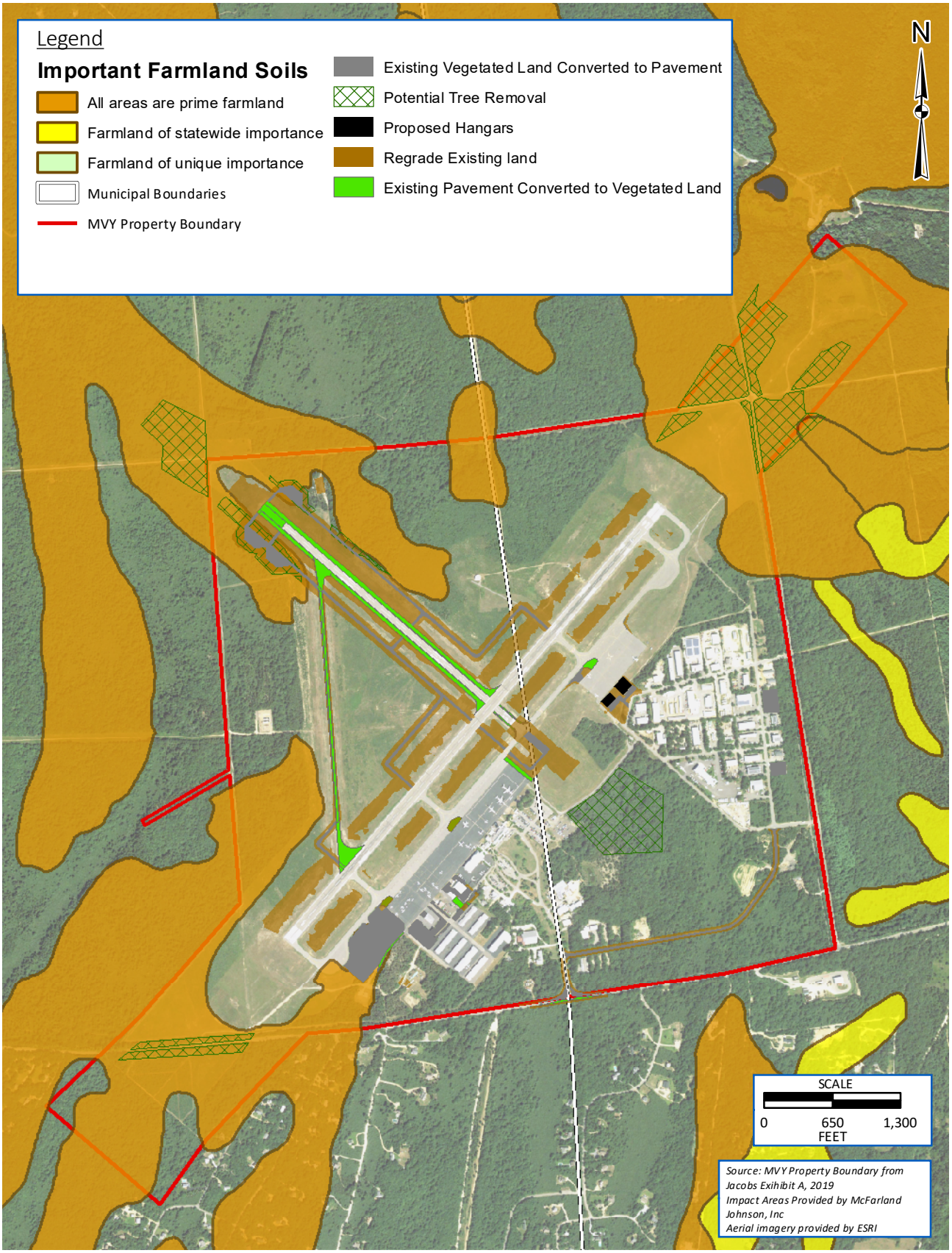
A review of the Natural Resource Conservation Service (NRCS) soil survey data, accessed via the Web Soil Survey (WSS), shows there are two primary soil units mapped at the Airport. The infield soils are mapped as Carver loamy coarse sand 0-3 percent slopes, accounting for approximately 586 acres. The areas around Runway ends 6, 15, and 24 are mapped as Riverhead sandy loam 0-3 percent slopes.

The Agriculture and Food Act of 1981, Public Law 97-98, contained the Farmland Protection Policy Act (FPPA), which regulates Federal actions with the potential to convert farmland to non-agricultural uses. The FPPA requires Federal agencies to consider the adverse effects their programs may have on the preservation of farmland and to review alternatives that could minimize any unnecessary and irreversible conversions of farmland.

If the proposed Federal project action involves the acquisition of farmland that would be converted to nonagricultural use, it must be determined whether any of that land is eligible for protection under the FPPA. Land subject to the provisions of the FPPA is not necessarily actively farmed. Rather, the FPPA applies to the soils present on a property. Farmland protected by the FPPA is either prime farmland, unique farmland, or farmland of statewide or local importance. The FPPA does not apply to land that has already been committed to non-agricultural development in a zoning ordinance or comprehensive plan or prime farmland planned for industrial or commercial use.

According to the NRCS WSC, accessed on April 3, 2018, approximately 200 acres, 25 percent, of the Airport is classified as prime farmland soils. Prime farmland soils extend outside Airport property in areas of potential vegetation management as well. None of the land on or around Airport property is actively farmed. Mapped farmland soils are shown on **Figure 4-1**.

Figure 4-1: Farmland Soils



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4.4 WATER RESOURCES

4.4.1 Surface Waters

The U.S. Army Corps of Engineers (Army Corps) regulates surface waters under Section 10 of the Rivers and Harbors Appropriation Act (RHA) that are considered to be traditional navigable waterways (TNW) as defined in the Act. The Army Corps also regulates certain surface waters, including wetlands, under Section 404 of the Clean Water Act (CWA). On April 21, 2020, the EPA and the Army Corps published the Navigable Waters Protection Rule in the Federal Register to finalize a revised definition of "Waters of the U.S. " under the CWA. The rule streamlined the definition of Waters of the U.S. to include four simple categories of jurisdictional waters, including surface waters and wetlands, and providing clear exclusions for water features that have not been traditionally regulated, and provides regulatory definitions for terms previously undefined. This final rule became effective on June 22, 2020.

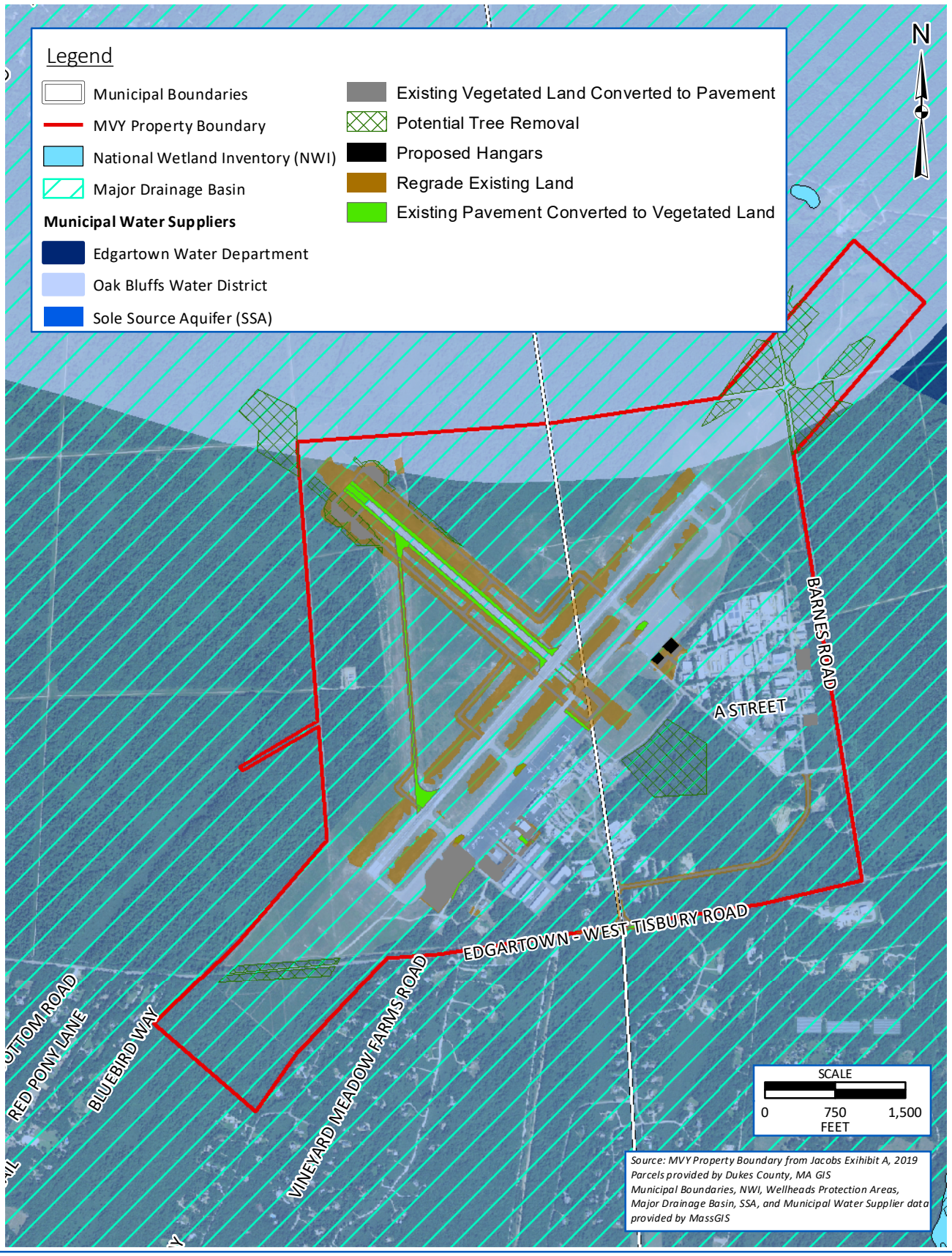
The Massachusetts Department of Environmental Protection (MassDEP) regulates impacts to surfaces waters, including wetlands, within the state under the Massachusetts Wetlands Protection Act enacted under Massachusetts General Law (M.G.L.) Chapter 131, Section 40. Surface water protections afforded under the Massachusetts Wetlands Protection Act include lands under water bodies, waterways, salt ponds, fish runs, and the ocean. Protections are further extended to include 100-year floodplains and the "Riverfront Area". The Riverfront Area is designated and defined as a 200-foot-wide zone on either side of perennial river or stream measured from the mean annual high-water line. In certain "densely developed areas", as designated by the Secretary of the Executive Office of Environmental Affairs, the Riverfront Area protection area is limited to 25 feet.

Streams are also regulated through the Town of West Tisbury Wetlands Protection Bylaw and the Edgartown Wetlands Bylaw, as discussed below in Section 4.4.3.

The potential impact areas for the Projects on the Airport property were reviewed for the presence of wetlands and surface waters in September 2017 and, in vegetation management areas, in October 2019. No streams, ponds, lakes, or other surface waters were found on airport property. There is one constructed extended detention basin that frequently has standing water. The closest surface water bodies are a small pond within the State Forest, approximately 2,000 feet northeast of the Airport; Oyster Pond, approximately 3,000 feet southeast of the Airport; and Tisbury Great Pond and associated coves, approximately one mile southwest of the Airport.

Water resources are shown on **Figure 4-2**.

Figure 4-2: Water Resources



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4.4.2 Floodplains

Floodplains are land areas associated with bodies of water (lakes, rivers, and wetlands) that are likely to become inundated during a flooding event. The area or magnitude of a flood will vary according to the magnitude of the storm event as determined by the storm interval occurrence. Executive Order 11988, Floodplain Management, directs all federal agencies to avoid the direct and indirect support of floodplain development wherever there is a practicable alternative.

A Flood Insurance Study (FIS) for West Tisbury was published by FEMA on July 20, 2016. According to the Flood Insurance Rate Map panels depicting the Airport (FIRM 25007C0113J), there are no mapped surface waters or regulated floodplains located on Airport property.

4.4.3 Wetlands

Wetlands are regulated by the Army Corps through Section 404 of the Clean Water Act, as previously referenced in Section 4.4.1.

The MassDEP also regulates wetlands within the state under the Massachusetts Wetlands Protection Act.

Wetlands are also regulated through the Town of West Tisbury Wetlands Protection Bylaw and the Edgartown Wetlands Bylaw. The Edgartown Wetlands Protection By-Law was enacted in 1985 and expands the regulated buffer zone around freshwater and coastal resource areas to 200 feet; around 100-year floodplain to 100 feet; and around certain named ponds, and any wetlands or streams draining into those ponds, to 300 feet. The Town of West Tisbury Wetlands Protection Bylaw (2004) and Wetlands Protection Bylaw Regulations, adopted in 2006, have similar provisions as the state Wetlands Protection Act and regulations, but provide additional protections for isolated resource areas such as vernal pools.

Section 401 of the CWA provides states with the authority to ensure that federal agencies do not issue permits or licenses that violate their water quality standards. The MassDEP implements Section 401 compliance through a certification process called Water Quality Certification. The MassDEP is responsible for providing Water Quality Certification reviews for Army Corps Section 404 Individual Permits.

The 2016 Master Plan Update (MPU) stated that field surveys conducted over the course of 2011 and 2012 confirmed that there were no jurisdictional wetlands on Airport property. The potential impact areas for the on-airport improvement Projects were reviewed for the presence of wetlands in September 2017 and, in vegetation management areas, in October 2019. One location, an extended detention basin just east of the terminal area and access road, appeared to have wetland vegetation and hydrology. According to the state wetland regulations (310 CMR 10.02(2)(c)), stormwater treatment practices constructed after November 18, 1996 "do not by themselves constitute Areas Subject to Protection under M.G.L. c. 131, s. 40" (the Wetlands Protection Act). Soils mapping and historical aerial imagery indicate the area contained upland soils prior to 1996 and the detention basin was constructed in approximately 1998. It is therefore assumed that it is not a jurisdictional resource area. Further, under the Army Corps Navigable Waters Protection Rule, stormwater control features excavated or constructed in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off are not considered Waters of the U.S.

A potential vegetated wetland occurs in the northern portion of the Runway 24 approach, but it is more than 600 feet from vegetation management proposed for this Project. No other potential wetlands were observed within Project areas or within 200 feet of Project areas.

4.4.4 Groundwater

The U.S. Environmental Protection Agency (USEPA Sole Source Aquifer program was established under the Safe Drinking Water Act (SDWA). According to the EPA, a Sole Source Aquifer is defined as one that supplies at least 50 percent of the drinking water for its service area, and within which there are no reasonably available alternative drinking water sources should the aquifer become contaminated. The Sole Source Aquifer program allows for EPA review of federally funded projects that have the potential to affect designated Sole Source Aquifers and their source areas. The Airport is located over an EPA-designated Sole Source Aquifer that provides the only drinking water for the island of Martha's Vineyard.

The Airport is also located within a state mapped aquifer with a yield of greater than 300 gallons per minutes (gpm) and a transmissivity of 4,000 square feet per day or greater. There is an approved zone II wellhead protection area for the Oak Bluffs Water District in the northern portion of the Airport. Groundwater resources are shown on **Figure 4-2**.

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are two man-made chemicals that were commonly used in household and industrial products, and historically in firefighting foams. PFOA/PFOS chemicals have been found in groundwater on and near airport property. For more information on site-specific PFAS, refer to the Hazardous Materials section.

4.4.5 Wild and Scenic Rivers (NEPA)

The Wild and Scenic Rivers Act (Public Law 90-542) describes river areas eligible to be included in a system afforded protection under the Act as free flowing and possessing outstanding remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or similar values. There are no federal wild and scenic rivers on or adjacent to Airport property.

4.5 Coastal Resources (MEPA/NEPA)

The Coastal Zone Management Act (CZMA) of 1972 and its implementing regulations (15 CFR part 930) require that actions undertaken by federal agencies are consistent with approved state coastal zone management programs. The Airport is located in the Cape Cod and Islands coastal zone for Massachusetts; however, it is located in the island's interior and lacks typical coastal features such as beaches, dunes or coastal banks.

Massachusetts Chapter 91, The Massachusetts Public Waterfront Act, protects and promotes public use of the Commonwealth's tidelands and waterways through a public trust doctrine. Areas protected under Chapter 91 include flowed tidelands, filled tidelands, great ponds, and non-tidal rivers and streams, none of which are located in the Project areas

4.6 Air Quality (MEPA/NEPA)

The USEPA is responsible for enforcing the Clean Air Act (CAA) (42 U.S.C. §§ 7401 to 7671q). The CAA was enacted in 1970 and amended in 1977 and 1990 and is the comprehensive federal law regulating air

pollutant emissions from stationary and mobile sources. The CAA requires the USEPA under 40 CFR Subchapter C to establish National Ambient Air Quality Standards (NAAQS) that apply throughout the U.S. and its territories (**Table 4-1**). Under the authority granted by the CAA, USEPA has established NAAQS for six contaminants referred to as criteria pollutants: Carbon Monoxide (CO), Nitrogen Dioxide (NO2), Ozone (O3), Particulate Matter (PM), Sulfur Dioxide (SO2), and Lead (Pb). O3 is a secondary pollutant, meaning that it is formed from reactions of "precursor" compounds under certain conditions; therefore, O3 is addressed through analysis of its precursors—volatile organic compounds (VOC) and oxides of nitrogen (NOX).

The CAA assigns primary responsibility to individual states to assure compliance with the NAAQS. Air quality regions that meet the NAAQS for a criteria pollutant are designated as being in attainment. Areas with poor air quality that do not meet the NAAQS for one or more criteria pollutant are designated by the USEPA as nonattainment areas. When a nonattainment area is redesignated as an attainment area, the CAA requires that a maintenance plan be put in place for a period between 10 to 20 years to ensure continued compliance with the corresponding NAAQS. Therefore, a former nonattainment area is also defined as a maintenance area.

The FAA is responsible for ensuring that federal airport actions conform to the State Implementation Plan (SIP), also known as General Conformity, which protects against regional air pollution impacts. The criteria and procedures for implementing this conformity determination are detailed in Title 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans. Compliance is achieved if a proposed action would not cause emissions that exceed de minimis levels defined for the criteria pollutants. Presently, the general conformity rules only apply in areas that have been determined by the USEPA to be in nonattainment or maintenance for the NAAQS. The Airport is located is Dukes County, which has been listed for non-attainment since 2012 for 8-hour ozone levels based on the 2008 standards, but is in attainment based on 2015 standards, as shown in **Table 4-2**.

To meet General Conformity requirements, federal entities must demonstrate that emissions from their actions will not exceed emission budgets established in a state's plan to attain or maintain the NAAQS. FAA determines whether the proposed project is exempt or on the Presumed to Conform List. Projects that fall within the Presumed to Conform activities do not require an air quality analysis.

Under NEPA, the FAA may be required to prepare detailed air quality analysis for proposed projects whose air quality emissions have the potential to cause violations of the NAAQS for the six criteria pollutants.

Table 4-1 National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Time	Standards	Notes
Carbon Monoxide (CO)	1 hour	35 ppm	Not to be exceeded more than once a year.
	8-hour	9 ppm	Not to be exceeded more than once a year.
Lead (Pb)	Rolling 3-Month Average	0.15 µg/m^3	Not to exceed this level. Final rule October 2008.
Nitrogen Dioxide (NO_2)	1 hour	100 ppb	The three-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm.
	Annual	53ppb	Not to exceed this level.
Ozone (O_3)	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, average over three years.
Particulate Matter with a diameter ≤ 10µm (PM_{10})	24-hour	150 µg/m^3	Not to be exceeded more than once a year on average over three years.
Particulate Matter with a diameter ≤ 2.5µm ($PM_{2.5}$)	24-hour	35 µg/m^3	The three-year average of the 98th percentile for each population-oriented monitor within an area is not to exceed this level.
	Annual (Primary)	12 µg/m^3	The three-year average of the weighted annual mean from single or multiple monitors within an area is not to exceed this level.
Sulfur Dioxide (SO_2)	1 hour	75 ppb	Final rule signed June 2, 2010. The three-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed this level.

Table 4-2 Attainment/Nonattainment Designations for Dukes County

Pollutant	Designation
Carbon monoxide (CO)	Attainment
Nitrogen Dioxides (NO_2)	Attainment
Ozone (Eight-hour, 2008 Standard)	Nonattainment
Ozone (Eight-hour, 2015 Standard)	Attainment
Particulate matter (PM_{10})	Attainment
Particulate matter ($PM_{2.5}$)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Lead (Pb)	Attainment

1 https://www.epa.gov/green-book

4.7 Climate and Greenhouse Gas Emissions (MEPA/NEPA)

Scientific measurements show that Earth's climate is warming, with concurrent impacts including warmer air temperatures, sea level rise, increased storm activity, and an increased intensity in precipitation events. Increasing concentrations of greenhouse gas (GHG) emissions in the atmosphere affect global climate. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

FAA Order 1050.1F lists Climate as one of the resource categories to consider in NEPA studies and documents, and the 1050.1F Desk Reference[3] includes a chapter on climate. However, the FAA has not identified a significance threshold for GHG emissions, as there is no current accepted method of determining the level of significance applicable to airport projects given the small percentage of emissions they contribute.

The MEPA GHG Policy[4] requires projects to be reviewed and analyzed for reasonably foreseeable climate change impacts, including additional GHG emissions, and effects, such as predicted sea level rise. The Policy requires that certain projects undergoing review by the MEPA office quantify their GHG emissions and identify measures to avoid, minimize, and mitigate such emissions. The policy also requires proponents to evaluate project alternatives that may result in lower GHG emissions, and to quantify the impact of proposed mitigation in terms of emissions and energy savings.

[3] FAA Office of Environment and Energy (Feb. 2020). *1050.1F Desk Reference Version 2.* Accessed 11/13/2020 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/desk-ref.pdf

[4] Massachusetts Executive Office of Energy and Environmental Affairs. (2010). *Summary of the Final Revisions to the MEPA Greenhouse Gas Emissions Policy and Protocol.*

4.7.1 Existing Sources of Emissions

A variety of GHG emission sources are associated with the operations at the Airport. GHG emissions are linked to equipment and energy use owned by the Airport and with equipment that is operated by its tenants and the general public. Airport-owned sources of emissions include ground service equipment, fleet vehicles, parking lots, buildings, and stationary sources such as emergency generators. Tenant emissions are associated with the operation of the in-terminal restaurant, aircraft, ground service equipment, and fleet vehicles. Emissions associated with the general public include vehicle travel to and from the Airport.

Emissions from Airport buildings are associated with electricity consumption and fuel consumption. Lighting, plug loads, fans, and pumps are all examples of building equipment that consume electricity. Kitchen equipment and boilers for space heating and water heating are sources of fuel combustion. The Airport is actively pursuing several initiatives that could reduce GHG emissions. These are enumerated in Section 4.8 below.

The Projects would not increase or change the number of passengers that would utilize the Airport in the future and would not affect the numbers of aircraft operations or their flight patterns. Taxiway and aircraft apron improvements would have a small effect on aircraft movement patterns on the ground. For this reason, emissions of aircraft ground movements were modeled using the FAA-approved Aviation Environmental Design Tool (AEDT) emissions model. The emissions under existing conditions are reported in Chapter 5 with the model results.

Improvements to vehicular roadways, if any, would not increase traffic and may likely reduce vehicle idle times. As a result, emissions associated with vehicular traffic were not inventoried or evaluated for these Projects.

4.8 Natural Resources and Energy Supply (NEPA)

In accordance with FAA Order 1050.1F, this section provides an overview of the Airport's existing consumption of natural resources and energy for the purpose of determining whether the construction and/or operation of the proposed Projects would cause demands on such resources in exceedance of future supplies.

The Airport drinking water is supplied via groundwater from the sole source aquifer. All water comes through the Oak Bluffs Water District and, combined with an interconnection with the Edgartown Water Department, provides a stable water supply for the Airport. The Airport has at least 15 service connections serving 25 or more people. The water distribution system is operated and maintained by the Martha's Vineyard Airport Water Department.

The Airport also provides wastewater services to its facilities and tenants with an on-site wastewater treatment plant. The Martha's Vineyard Wastewater Treatment Facility has been in operation since the early 1940's. It was built to serve the Naval Air Station that was created during the war. The Wastewater Treatment Facility is located on approximately five acres of fenced-in land located in West Tisbury near the southwest corner of the airport.

The electricity provider for the island is Eversource, with power supplied by undersea cables from the mainland power grid. Diesel generators on the island provide backup power.

The Airport also actively pursues energy conservation and renewable energy through several mechanisms:

- Investment in energy credits in an off-island community solar facility
- Working with the Cape & Vineyard Electric Cooperative to explore opportunities to install solar panels on existing buildings and on parking lot canopies
- Participating in local committees addressing climate and energy concerns
- Meeting with statewide groups working to facilitate adoption of electric airplanes
- Working with the Cape Light Compact regarding energy audits

4.9 NOISE (MEPA/NEPA)

Aircraft noise emissions, inherent to the operation of an airport, can adversely impact land use compatibility between an airport and surrounding properties, particularly in the presence of noise-sensitive receptors. Churches, hospitals, schools, amphitheaters, and residential districts are receptors that are sensitive to elevated noise levels. Recreational areas and some commercial uses are moderately sensitive to elevated noise levels. Potential noise receptors in the vicinity of the Airport include the State Forest and associated recreational trails to the north, east, and west, and residential development to the south.

The Martha's Vineyard Airport Commission initiated a "Noise Analysis Mitigation Program" in 2003 as a voluntary abatement program aimed at reducing noise impacts to residents on the island. There was additional noise monitoring conducted in 2012 (by others) in preparation of the 2016 MPU. Noise measurements were compared to those collected in 1999 to determine how noise levels from aircraft operations had changed over time. In addition to the measurement location at the Airport, there were five off-airport noise measurement locations, one on Bluebird Way approximately 4,000 feet southwest from the end of the main Runway 6-24, one at a residence on Pond Lane approximately 5,000 feet southwest from the end of runway 6-24, one on Hopps Farm road approximately 9,500 feet northwest from the end of the crosswind Runway 15-33, one at a residence on Ryan's way approximately 7,500 feet northeast from the end of Runway 6-24, and one on Oyster Pond Road approximately 8,800 feet southeast from Runway 15-33. Results of the study showed that DNL noise levels at all five residential locations were below the FAA residential noise impact level of 65dBA. Results also indicated a reduction in noise levels over 10 years, in part due to the noise abatement procedures.

4.10 BIOLOGICAL RESOURCES (MEPA/NEPA)

Biotic resources refer to the various types of flora (plants) and fauna (fish, birds, reptiles, amphibians, mammals, etc.), including state and federally listed threatened and endangered species, in a particular area. It also encompasses the habitats supporting the various flora and fauna including rivers, lakes, wetlands, forests, and other ecological communities. Airport projects can affect these ecological communities and thereby affect vegetation and wildlife populations.

4.10.1 Plant and Animal Habitat

Land cover types for the Airport and the broader landscape context are shown in **Figure 4-3**. The Massachusetts Natural Heritage and Endangered Species Program (NHESP) has developed natural community classifications for habitats within the Commonwealth[5]. The following habitat descriptions are based on these classifications and fieldwork conducted from 2017 to 2020. Responding to a resource agency request, natural communities within proposed vegetation management areas were formally delineated and mapped in 2020, and are shown on **Figures 4-4, 4-5, 4-6, and 4-7**. Tree heights as of 2019 are also shown on these figures.

The Airport operates under a Habitat Management Plan, developed as part of the Conservation and Management Permit #004-039 DFW, that was completed in 2005, and outlines habitat types, maintenance, and monitoring requirements.

The following natural communities are found in the Project area: Cultural Grassland, Sandplain Grassland, Coastal Forest/Woodland, Sandplain Heathland, Scrub Oak Shrubland, Pitch Pine – Oak Forest/Woodland, and Pitch Pine – Scrub Oak Community.

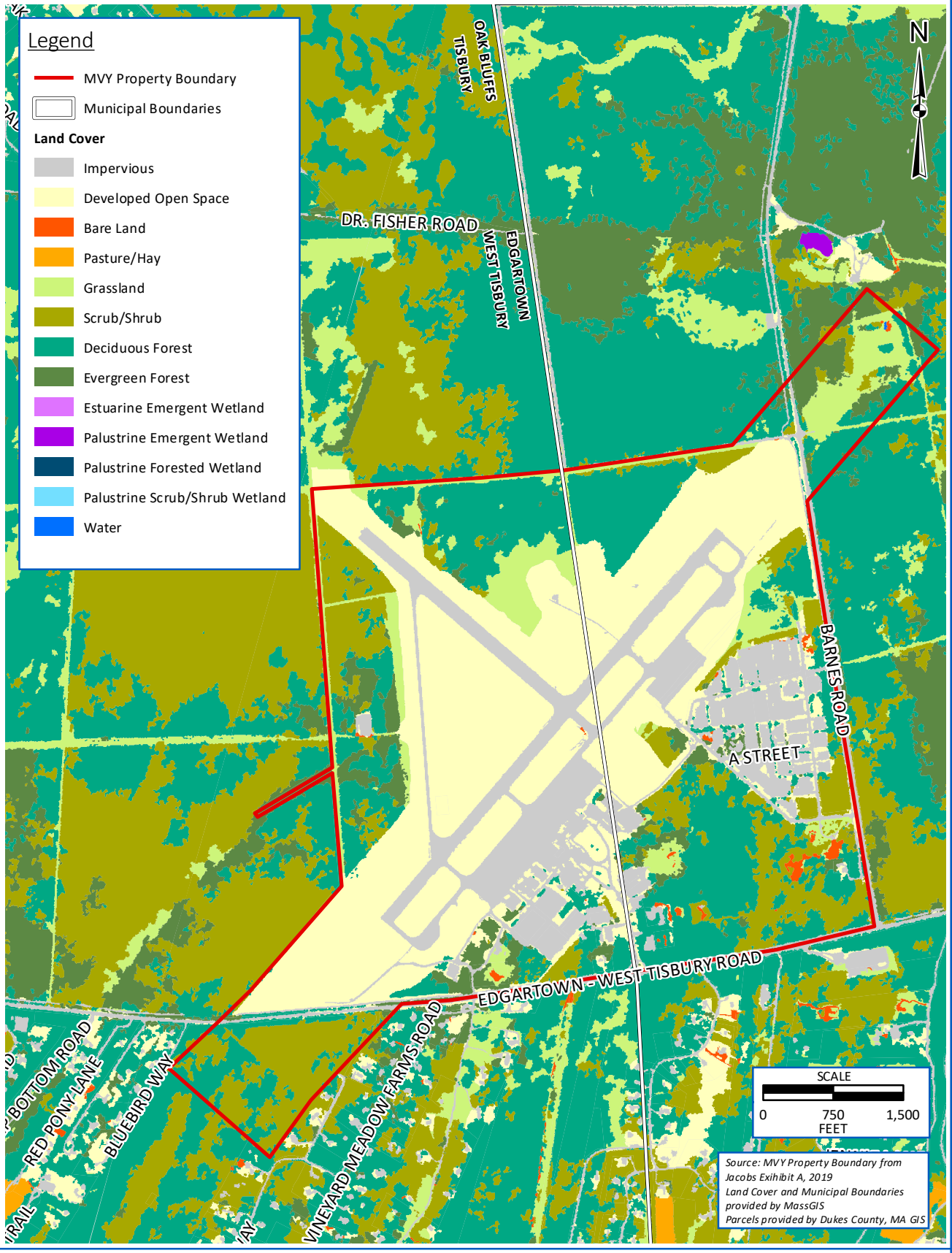
Cultural Grasslands are grasslands maintained by regular mowing, without which they would succeed into woody-stemmed habitat. Cultural grasslands are present in the runway and taxiway safety areas, around buildings, and in certain other areas on the airfield. Sandplain Grasslands are found in portions of the open airfield where sandy conditions encourage warm-season grasses and more sparse growth. Surveys conducted over the past three years for this Project found the following common species in the grasslands: little bluestem (*Schizachyrium scoparium*), red and sheep fescues (*Festuca rubra* and *F. ovina*), dwarf cinquefoil (*Potentilla canadensis*), poverty grass (*Danthonia spicata*), churchmouse three awn (*Aristida dichotoma*), panic grasses (*Dichanthelium dichotomum* and *D. depauperatum*), gray goldenrod (*Solidago nemoralis*), sickle-leaved golden aster (*Pityopsis falcata*), wild indigo (*Baptisia tinctorica*), orange grass (*Hypericum gentianoides*) and sandplain aster (*Eurybia (Aster) spectabilis*).

Sandplain Heathland at the airport is dominated by dwarf shrubs such as low-bush blueberries (*Vaccinium angustifolium* and *V. pallidum*), scrub oak (*Quercus ilicifolia*), bearberry (*Arctostaphylos uva-ursi*), and black huckleberry (*Gaylusaccia baccata*). This habitat type can be found along the fire access roads abutting the northern and western sides of the Airport, northeast of Runway 15-33, and much of the open airfield outside of frequently mowed areas.

Scrub Oak Shrubland habitat is found in many parts of the Airport and its surroundings, with larger patches in the northern and western portions of the property and in the runway approaches. A mitigation area consisting of shrubland habitat, located southwest of Runway end 6 and south of Edgartown-West Tisbury Road, was a requirement of the Conservation and Management Permit issued in 2005 and was established in 2006. Dominant species in this habitat include lowbush blueberry (*Vaccinium angustifolium*), black huckleberry (*Gaylussacia baccata*), and grasses. Long-term management for this habitat type in the mitigation area includes mowing periodically to allow shrub growth and to discourage tree species from growing. The mowing interval for any given patch may be from one to several years and depends on the vegetation types and heights.

[5] Swain, P.C. 2020. Classification of the Natural Communities of Massachusetts. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife. Westborough, MA.

Figure 4-3: Land Cover - Existing Habitat



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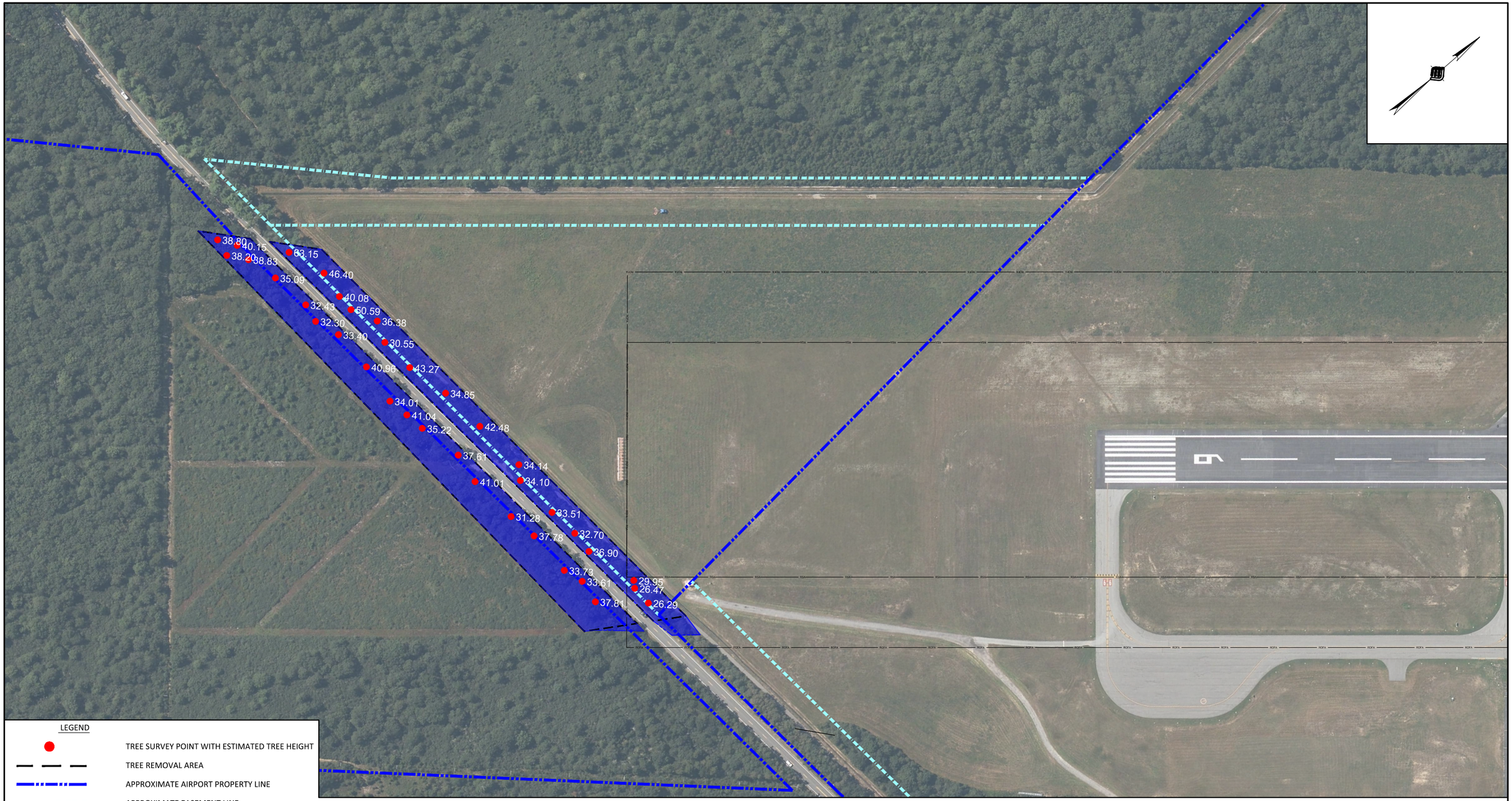


LEGEND

- TREE SURVEY POINT WITH ESTIMATED TREE HEIGHT
- TREE REMOVAL AREA
- APPROXIMATE AIRPORT PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- MOW AREA
- COASTAL FOREST/WOODLAND
- PITCH PINE - OAK FOREST/WOODLAND HABITAT
- PITCH PINE - SCRUB OAK COMMUNITY
- SCRUB OAK SHRUBLAND
- SUCCESSIONAL WHITE PINE FOREST
- MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE HEIGHTS ESTIMATED BY THE DIFFERENCE BETWEEN SURVEYED TREE-TOP ELEVATIONS AND LIDAR GROUND ELEVATIONS.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

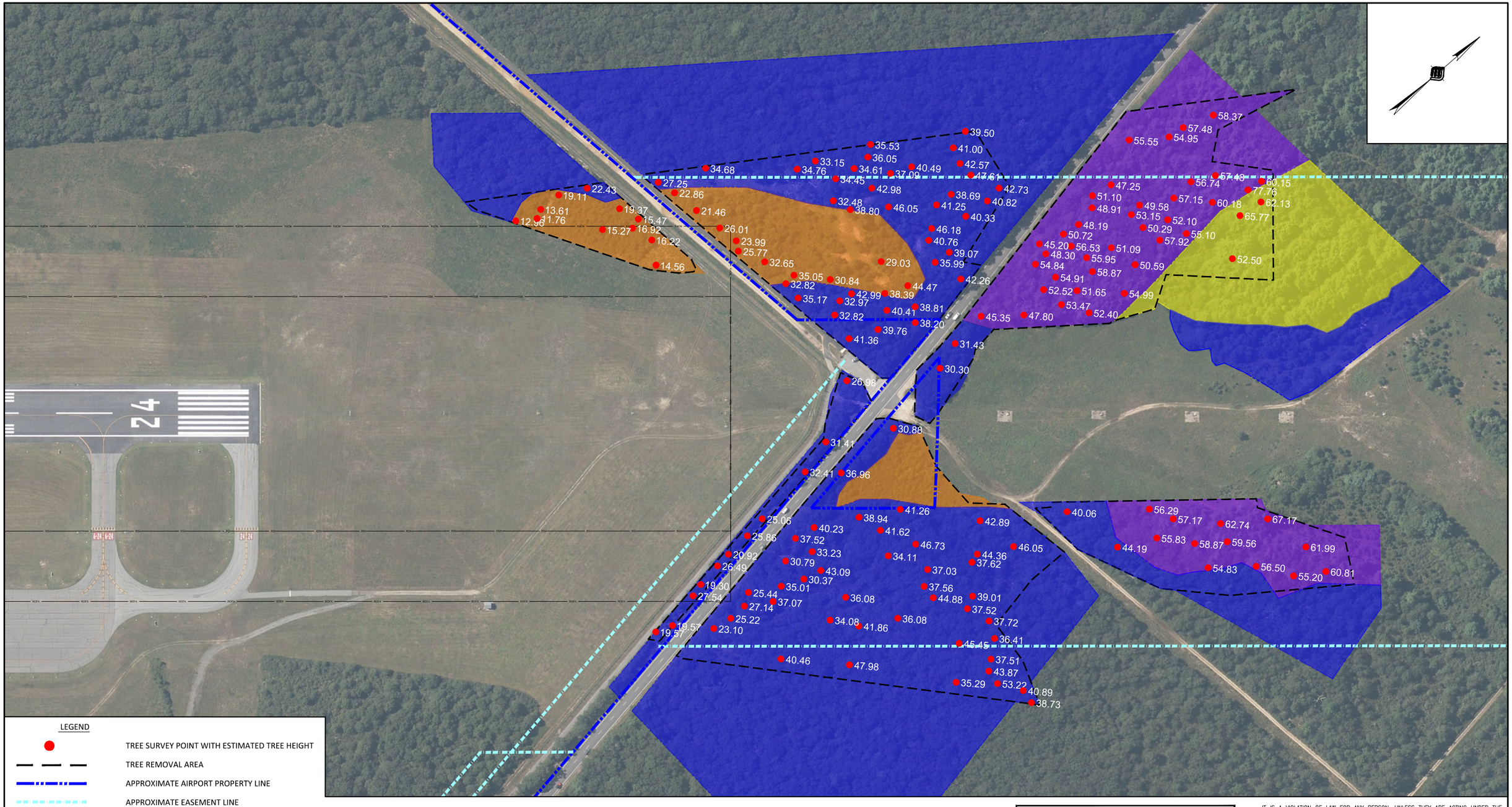
REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 6

SCALE: 1" = 100'	DESIGN: SRS	4-4
DRAWN: DMP	PROJECT:18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	



NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE HEIGHTS ESTIMATED BY THE DIFFERENCE BETWEEN SURVEYED TREE-TOP ELEVATIONS AND LIDAR GROUND ELEVATIONS.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

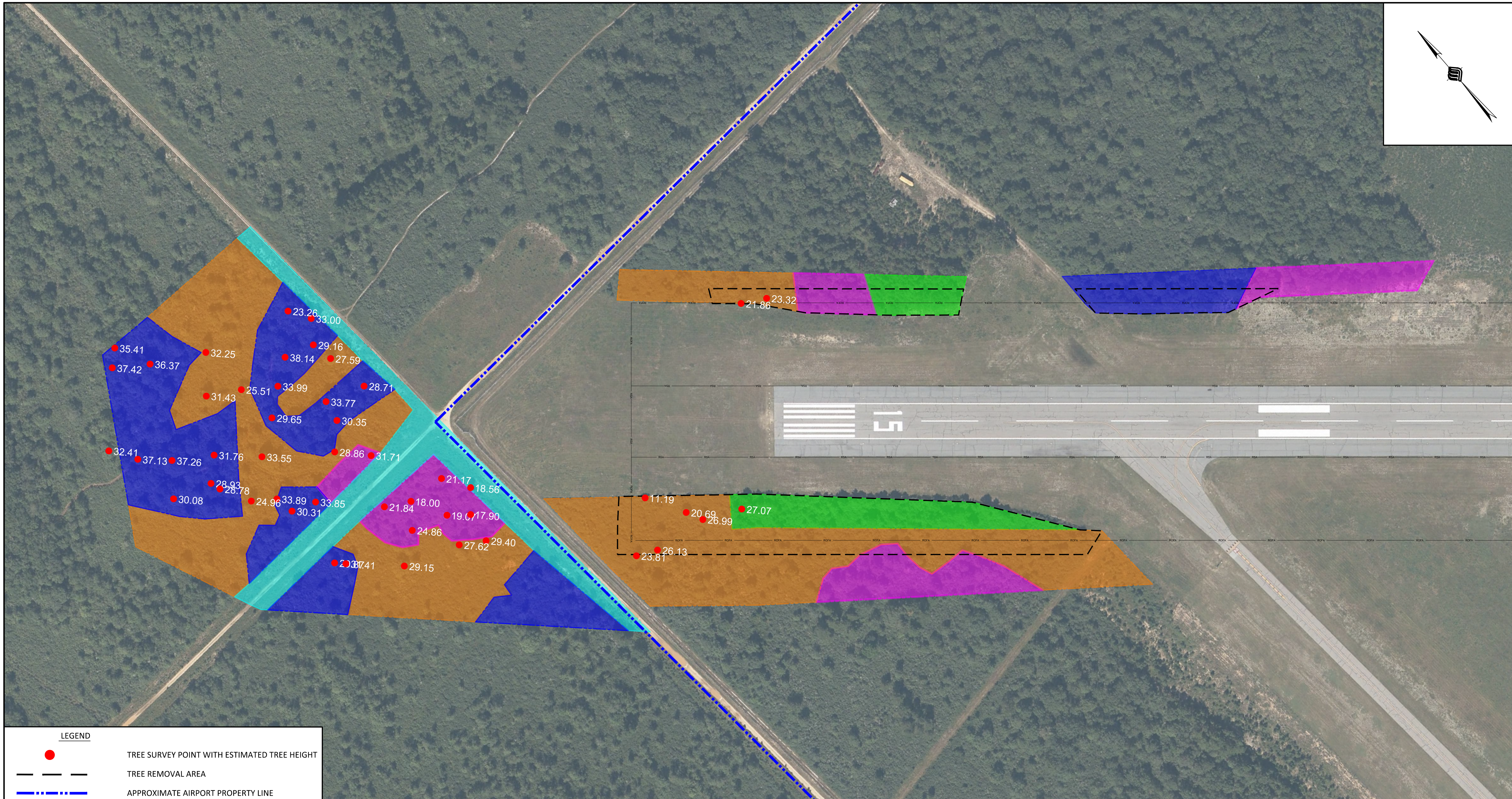
REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 24

SCALE: 1" = 100'	DESIGN: SRS	4-5
DRAWN: DMP	PROJECT:18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	



LEGEND

●	TREE SURVEY POINT WITH ESTIMATED TREE HEIGHT
— — —	TREE REMOVAL AREA
—··—··—	APPROXIMATE AIRPORT PROPERTY LINE
- - - -	APPROXIMATE EASEMENT LINE
—— RSA ——	RUNWAY SAFETY AREA
—— ROFA ——	RUNWAY OBJECT FREE AREA
(cyan)	MOW AREA
(blue)	COASTAL FOREST/WOODLAND
(green)	PITCH PINE - OAK FOREST/WOODLAND HABITAT
(magenta)	PITCH PINE - SCRUB OAK COMMUNITY
(orange)	SCRUB OAK SHRUBLAND
(purple)	SUCCESSIONAL WHITE PINE FOREST
(yellow)	MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE HEIGHTS ESTIMATED BY THE DIFFERENCE BETWEEN SURVEYED TREE-TOP ELEVATIONS AND LIDAR GROUND ELEVATIONS.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

REV	DATE	DESCRIPTION	BY

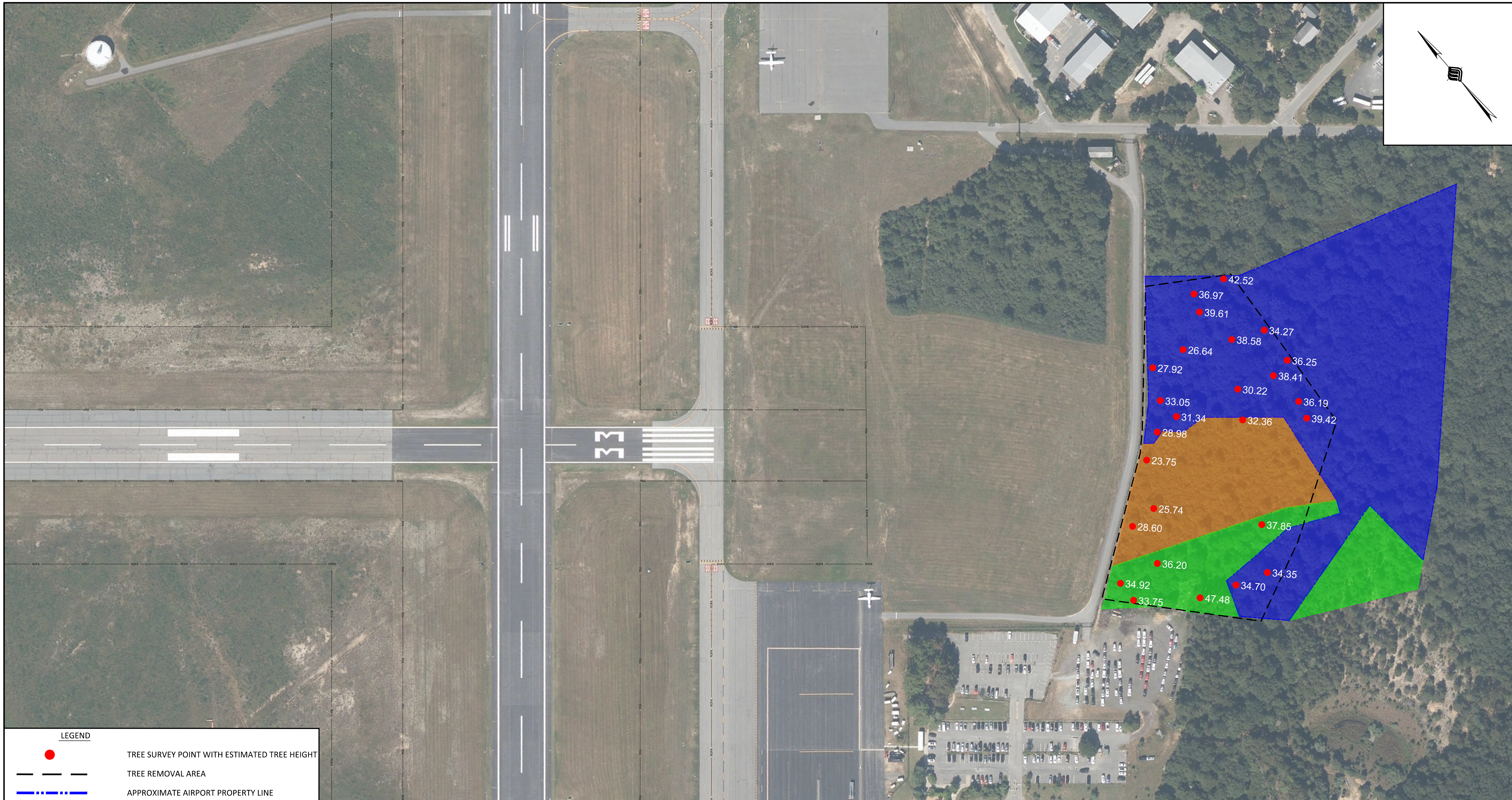
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 15

SCALE: 1" = 100'	DESIGN: SRS
DRAWN: DMP	PROJECT: 18226.07
CHECKED: MTO	DATE: NOVEMBER 2020

4-6



LEGEND

●	TREE SURVEY POINT WITH ESTIMATED TREE HEIGHT
— — —	TREE REMOVAL AREA
—··—··—	APPROXIMATE AIRPORT PROPERTY LINE
- - - -	APPROXIMATE EASEMENT LINE
—RSA—	RUNWAY SAFETY AREA
—ROFA—	RUNWAY OBJECT FREE AREA
(cyan)	MOW AREA
(blue)	COASTAL FOREST/WOODLAND
(green)	PITCH PINE - OAK FOREST/WOODLAND HABITAT
(magenta)	PITCH PINE - SCRUB OAK COMMUNITY
(orange)	SCRUB OAK SHRUBLAND
(purple)	SUCCESSIONAL WHITE PINE FOREST
(yellow)	MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE HEIGHTS ESTIMATED BY THE DIFFERENCE BETWEEN SURVEYED TREE-TOP ELEVATIONS AND LIDAR GROUND ELEVATIONS.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 33

SCALE: 1" = 100'	DESIGN: SRS	**4-7**
DRAWN: DMP	PROJECT:18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	

The outer portions of airport property consist mainly of mixed oak and pitch pine forested habitat. The more undisturbed habitats are predominately oak trees, with white oak (*Quercus alba*, post oak (*Quercus stellate*), and black oak (*Quercus velutina*) most common. Pitch pine is found in more disturbed ground, such as along fire access roads and former plantations. The forest understory includes scrub oak, black huckleberry, little bluestem, bracken fern (*Pteridium aquilinum*), striped wintergreen, and dewberry. White pine (*Pinus strobus*) stands occur in previously disturbed areas within the Runway 24 approach.

4.10.2 Threatened and Endangered Species

4.10.2.1 Federal

The federal Endangered Species Act (ESA) directs all federal agencies to work to conserve federally listed endangered and threatened species, and to use their authorities to further the purposes of the ESA. Section 7 of the ESA, titled "Interagency Cooperation," is the mechanism by which federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the existence of any federally listed species. Endangered species are those that are in danger of extinction throughout their range or a significant portion of their range. Threatened species are those that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. Candidate species are species for which the United States Fish and Wildlife Service (USFWS) has sufficient information on the biological vulnerability and threats to support issuance of a proposal list, but issuance of a proposed rule is currently precluded by higher priority listing actions. Candidate species do not receive substantive or procedural protection under the ESA. However, USFWS encourages federal agencies and other appropriate parties to consider these species in the planning process.

An Official Species List from the USFWS was obtained on November 12, 2020 and is included in Appendix F. The list indicates that the threatened northern long-eared bat (*Myotis septentrionalis*) may be present in the vicinity of the Airport. The correspondence indicated that there are no critical habitats within the Airport property.

The northern long-eared bat was listed as threatened under the ESA in May 2015. This species is found across much of the eastern and north central U.S. and into Canada. The primary threat to the northern long-eared bat is white-nose syndrome. Populations of the northern long-eared bat in the northeastern U.S. have declined by 99 percent since symptoms of white-nose syndrome were first observed in 2006[6].

A final 4(d) rule, published in the Federal Register on January 14, 2016, describes measures necessary to provide for the conservation of the northern long-eared bat. Tree removal within 150 feet of a known occupied maternity roost tree from June 1 through July 31 or within 0.25 mile of a hibernaculum at any time is considered an "incidental take" and is prohibited. The NHESP, in its list of state-listed species in the vicinity of the airport provided on August 17, 2020, did not include northern long-eared bat. In their Verification Letter dated November 13, 2020, the U.S. Fish and Wildlife Service determined the proposed work "…is consistent with activities analyzed in the PBO" [Programmatic Biological Opinion

[6] U.S. Fish and Wildlife Service Midwest Region (2020). *Northern Long-Eared Bat, Myotis septentrionalis. https://www.fws.gov/midwest/endangered/mammals/nleb/nlebfactsheet.html*

dated January 5, 2016]. (See Appendix F for agency correspondence.) It is concluded that there are unlikely to be maternity roost trees within 150 feet of the Projects and no hibernacula within 0.25 miles.

4.10.2.2 State

The Massachusetts Endangered Species Act (MESA) of 1990 (M.G.L. c131A) protects rare species and their habitats by prohibiting "take" of any plant or animal designated as endangered, threatened, or of special concern. As part of this Act, any species that is extant in Massachusetts and is listed by the Federal Endangered Species Act, must also be included on this State list. The NHESP also maps Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife, and the Airport is located partly within both kinds of habitat (**Figure 4-8**).

Consultation with the NHESP in 2012 for the MPU identified 28 rare species potentially occurring at the Airport. Surveys for the rare species identified in the NHESP response were conducted in 2012 and 2013, whereupon 21 rare species were observed. Observed species included three species of plants, two species of birds, 15 species of moths, and the purple tiger beetle (*Cicindela purpurea*).

The Airport contacted the NHESP again in 2020 for an updated list of state-listed rare species. **Table 4-3** below includes the species identified by the NHESP on August 17, 2020 as occurring within the vicinity of the site.

Supplemental rare plant surveys were conducted in 2017 and 2020 within the current CIP Projects' potential impact areas that were not originally included in the MPU. These surveys found the following:

- In areas of overlap with the 2012-2013 surveys, rare plant populations were generally in the same locations and densities.
- In the new areas surveyed, populations of sandplain blue-eyed grass were found in several areas and papillose nut sedge in one area.
- Host plants for rare moth species were found in most of the proposed vegetation management areas. There are 20 rare Lepidoptera (moths and butterflies), most of which are moths. The most important host plant species include scrub oak and blueberry/ericaceous shrubs, which are abundant in most vegetation management areas. Other host plant species which also occur in vegetation management areas include other kinds of oaks, cherry, shadbush, and pines. Host plant are particularly abundant within the native coastal forest communities found within in the Runways 6, 15, 33, and parts of the Runway 24 approach areas (see Section 4.10.1 and **Figures 4-4 through 4-7**). Other portions of the Runway 24 approach (**Figure 4-5**) are dominated by white pines and have few other species, and have little habitat value for rare moth and butterfly species.

The 2005 Conservation and Management Permit initially permitted 14 improvement projects at the Airport and established a Habitat Management Plan. The permit was amended in 2009 to include a shift in Runway 6-24 and vegetation removal, and again in 2014 to permit moving the localizer array, resulting in a total of 17 projects authorized by the permit. Both the permit and Habitat Management Plan require annual reporting for mitigation areas and rare and invasive species.

Figure 4-8: Priority and Estimated Habitats of Rare Wildlife

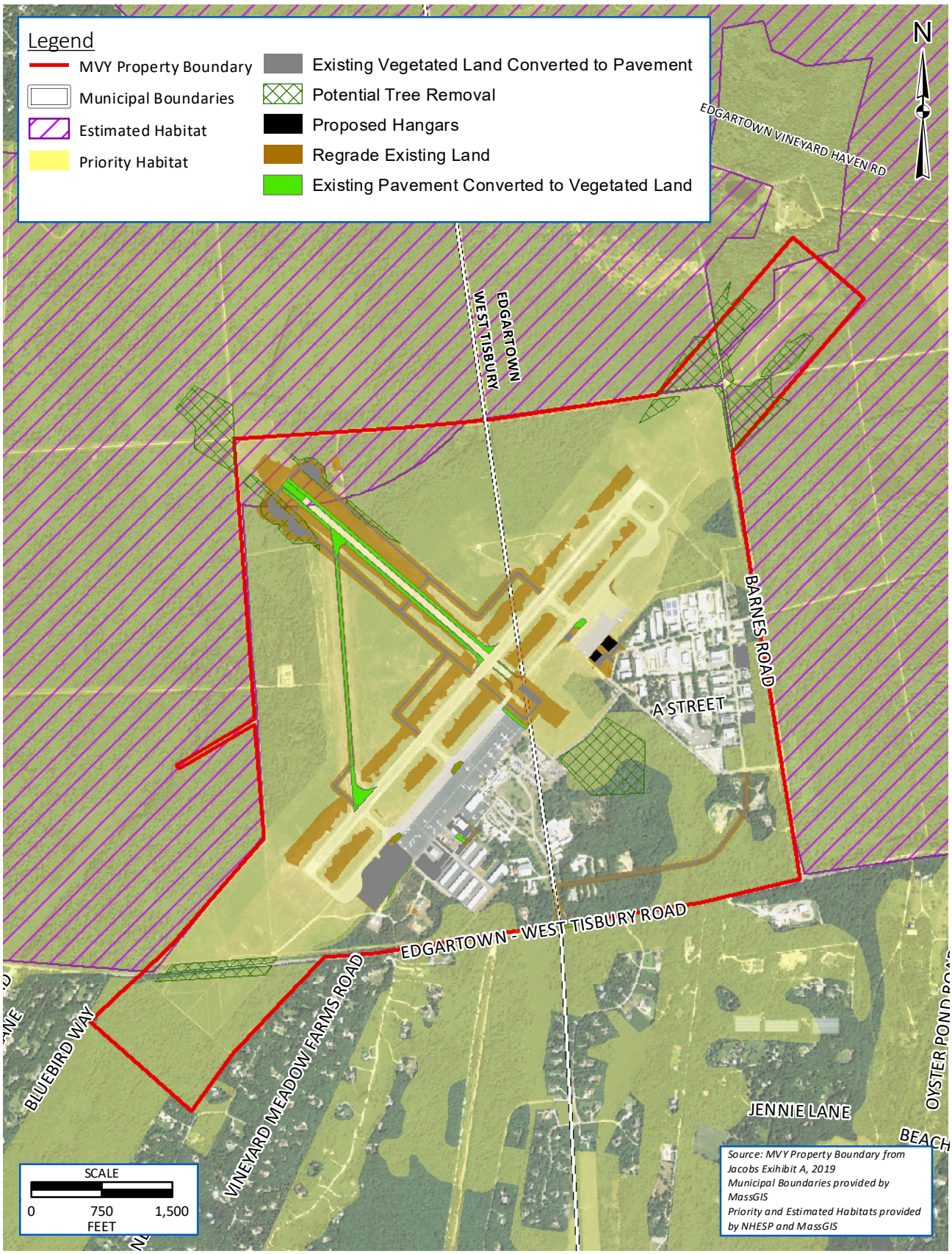


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Table 4-3 Rare Species Identified by MA Natural Heritage and Endangered Species Program

Common Name	Scientific Name	State Status	Taxonomic Group
Walsh's Anthophora	*Anthophora walshii*	Endangered	Bee
Purple Tiger Beetle	*Cicindela purpurea*	Special Concern	Beetle
Grasshopper Sparrow	*Ammodramus savannarum*	Threatened	Bird
Eastern Whip-poor-will	*Caprimulgus vociferus*	Special Concern	Bird
Northern Harrier	*Circus cyaneus*	Threatened	Bird
Coastal Heathland Cutworm	*Abagrotis nefascia*	Special Concern	Butterflies and Moths
Barrens Dagger Moth	*Acronicta albarufa*	Threatened	Butterflies and Moths
Herodias Underwing Moth	*Catocala herodias*	Special Concern	Butterflies and Moths
Waxed Sallow Moth	*Chaetaglaea cerata*	Special Concern	Butterflies and Moths
Melsheimer's Sack Bearer	*Cicinnus melsheimeri*	Threatened	Butterflies and Moths
Chain Dot Geometer	*Cingilia catenaria*	Special Concern	Butterflies and Moths
Collared Cycnia	*Cycnia collaris*	Threatened	Butterflies and Moths
Imperial Moth	*Eacles imperialis*	Threatened	Butterflies and Moths
Scrub Euchlaena	*Euchlaena madusaria*	Special Concern	Butterflies and Moths
Slender Clearwing Sphinx	*Hemaris gracilis*	Special Concern	Butterflies and Moths
Buck Moth	*Hemileuca maia*	Special Concern	Butterflies and Moths
Sandplain Heterocampa	*Heterocampa varia*	Threatened	Butterflies and Moths
Woolly Gray	*Lycia ypsilon*	Threatened	Butterflies and Moths
Barrens Metarranthis Moth	*Metarranthis apiciaria*	Endangered	Butterflies and Moths
Heath Metarranthis	*Metarranthis pilosaria*	Special Concern	Butterflies and Moths
Pink Sallow	*Psectraglaea carnosa*	Special Concern	Butterflies and Moths
Southern Ptichodis	*Ptichodis bistrigata*	Threatened	Butterflies and Moths
Pine Barrens Speranza	*Speranza exonerata*	Special Concern	Butterflies and Moths
Faded Gray Geometer	*Stenoporpia polygrammaria*	Threatened	Butterflies and Moths
Pine Barrens Zale	*Zale lunifera*	Special Concern	Butterflies and Moths

Common Name	Scientific Name	State Status	Taxonomic Group
Purple Needlegrass	*Aristida purpurascens*	Threatened	Plant
Lion's Foot	*Nabalus serpentarius*	Endangered	Plant
Papillose Nut-Sedge	*Scleria pauciflora*	Endangered	Plant
Sandplain Blue-Eyed Grass	*Sisyrinchium fuscatum*	Special Concern	Plant
Grass-Leaved Ladies'-Tresses	*Spiranthes vernalis*	Threatened	Plant

4.11 SURFACE TRANSPORTATION (MEPA)

The Airport is located on Airport Road, which is accessible via Edgartown-West Tisbury Road, both of which are two-lane roads. According to a traffic analysis conducted for the 2016 MPU, during the weekday, the intersection of Edgartown-West Tisbury Road and Airport Road operates at a Level of Service (LOS) C during morning peak hour, LOS F during midday peak hour, and LOS E during evening peak hour. Level of service ranks from A at the best (least congested) to F for the worst (highly congested) conditions.

According to the 2016 MPU, there are currently 369 automobile parking spaces at the Airport. The majority of parking spaces account for short/long term parking at 226 spaces, with the remaining spaces accounting for rental car/long term parking at 90 spots, restaurant parking with 39 spots, corporate parking with nine spots, and five employee parking spots. Vehicle counts at peak traffic levels were performed in July 2019 and recorded a total of 473 vehicles entering and 447 vehicles leaving the Airport on a weekday, and 429 vehicles entering with 405 vehicles leaving on a Saturday. See the Surface Transportation Study in Appendix G for more details regarding existing conditions.

The Airport is identified in the Martha's Vineyard Transportation Plan 2016-2040 as one of four "bus hubs" on the island, with a bus stop at the Airport and the Martha's Vineyard Transit Authority located within the Airport Business Park. There is year-round public transit service between the Airport and all six towns of Martha's Vineyard, with a special peak season and shoulder season service. Details on routes and schedules are available online at Martha's Vineyard Transit Authority's website. The bus routes also serve as a link to the two ferry terminals on the island, Vineyard Haven and Oak Bluffs, which operate year-round service.

The Airport is adjacent to the Manuel F. Correllus State Forest, which has multiple recreational bicycle trails. Additionally, there is an easement restrictive covenant which runs along the southern and eastern boundary of the airport for a recreational trail. Bicycling is a common mode of transportation on the island during peak months with bike lanes throughout several roads on the island and a seasonal bicycle ferry. There are also bicycle racks at the Airport.

4.12 Scenic Qualities, Open Space and Recreational Resources (MEPA/NEPA)

Martha's Vineyard is a popular summer destination due to its many publicly accessible beaches and recreational resources. The Airport is centrally located on the island with easy access by car or bicycle to all six towns. Because of its central location, it is visible to the traveling public but not close to any of the more popular tourist destinations.

Manuel F. Correllus State Forest is a 5,300-acre protected area abutting the Airport on three sides. The State Forest sees extensive recreational use on a variety of gravel roads and trails. A paved bicycle path follows alongside Barnes Road and Edgartown-West Tisbury Road, passing through both State Forest and Airport property. The bicycle path is part of a network of roughly 13 miles of paths around the State Forest (https://www.mvy.com/bikingmv.html) and a broader, island-wide network. Fire lanes – gravel roads crisscrossing the State Forest for fire control and management access – are used by bicyclists and hikers. A network of trails is found throughout the State Forest, some unsanctioned, and some within potential vegetation management areas. There are parking areas for trail access at the northeastern corner of Airport property, where a fire road intersects Barnes Road.

Conservation and recreation lands are shown on **Figure 4-9**.

4.13 Historic and Archaeological Resources (MEPA/NEPA)

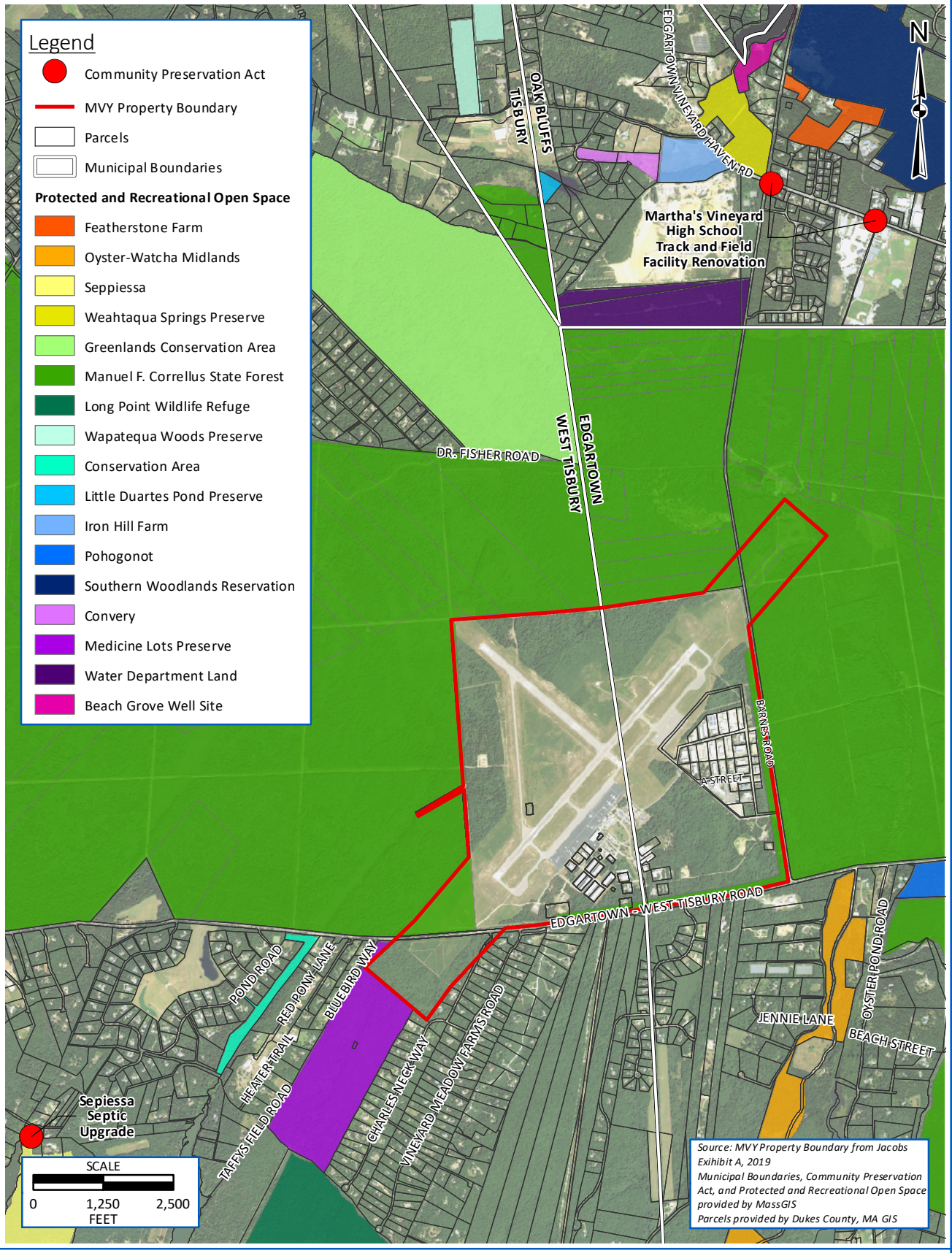
According to 36 CFR Part 800, a historic property is "any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHHP)." The National Historic Preservation Act Section 106 requires that federal agencies, such as the FAA, consider the effects of their actions on historic properties via consultation with the State Historic Preservation Office (SHPO).

Any projects that require funding, licenses, or permits from any state agency must be reviewed by Massachusetts Historical Commission (MHC) in compliance with Massachusetts General Laws Chapter 9, sections 26-27C.

Public Archaeology Laboratory, Inc. (PAL) has completed several archaeological investigations at the Airport, starting in 2003. PAL completed archeological sensitivity assessments for the CIP Projects in January 2019 and again in July 2020 to address new and expanded project areas. The sensitivity assessments were followed by intensive archaeological surveys in areas of moderate sensitivity.

The intensive surveys were conducted in March 2019 and January 2021. No archaeological resources were identified during the March 2019 surveys, and it was determined that the proposed Projects are unlikely to affect any significant archaeological resources. On August 12, 2019, following the initial intensive survey, the MHC provided a finding for the proposed Projects of unlikely to affect significant historic or archaeological resources, and no further investigation was recommended (Appendix F). Additional surveys were necessitated by the addition of projects that were not in the original CIP project list, including Runway 6-24 ground obstructions, hangar projects, and airspace vegetation obstructions. The additional intensive survey was completed and no archaeological resources were found. Results will be provided to MHC for review and comment.

Figure 4-9: Conservation and Recreation Lands



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4.14 SECTION 4(F) RESOURCES (NEPA)

Section 4(f) of the Department of Transportation Act of 1966 protects publicly owned parks, recreation areas, wildlife and waterfowl refuges, and historic sites of national, state, or local significance from federally funded project impacts unless there are no feasible alternatives. Conservation lands are shown on **Figure 4-9**.

Manuel F. Correllus State Forest borders the Airport to the north, east, and west, with a small portion of the State Forest along the southern boundary of the Airport as a conservation restriction. The State Forest is over 5,300 acres in size and provides recreational activities like hiking, bicycling, hunting, cross-country skiing, and disc golf. As a wildlife refuge and a recreational facility, the State Forest is assumed to be subject to Section 4(f).

The Margaret K. Littlefield Greenlands conservation area is located in West Tisbury approximately one-half mile north of the Airport. It was purchased by the Town of West Tisbury to protect open space and the aquifer. There are two parcels just southeast of the Airport that comprise the Watcha Division Conservation Area owned by The Nature Conservancy. The Nature Conservancy also owns the Medicine Lots Preserve that abuts the southwestern portion of the Airport and is approximately 98 acres in size. It has not been determined whether Greenlands, the Medicine Lots, or the Watcha properties are subject to Section 4(f).

The bicycle path along Barnes Road and Edgartown-West Tisbury Road is assumed to be a Section 4(f) resource.

No historic sites of national, state, or local significance, and no other potential Section 4(f) resources, have been identified on or adjacent to the airport.

4.15 LAND USE (MEPA/NEPA)

When considering improvement projects that meet airport development goals, it is important early in the planning process to identify potential impacts to existing land uses on airport property and in the surrounding area and to determine how potential airport projects will affect future land use and development patterns. This will enable the plan to incorporate measures into the future design and layout of airport developments that will avoid or minimize land use conflicts as well as improve on existing conflicts when practicable.

Land uses that are considered more susceptible to impacts from airport development include, but are not limited to, residential areas, schools, religious institutions, hospitals, and public places including some recreational areas and parks where quiet is an expected part of the user experience. Land use on and around the airport, based on MassGIS[7] land cover mapping, is shown on **Figure 4-3**.

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 is zoned as rural residential in West Tisbury and single family residential in Edgartown (**Figures 4-10 and 4-11**). Much of the surrounding land to the North, East, and West of the

[7] Massachusetts Bureau of Geographic Information, https://www.mass.gov/orgs/massgis-bureau-of-geographic-information

Airport is undeveloped and is part of Manuel F. Correllus State Forest, with residential development south of the Airport.

FAA AC 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports, provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. Potential wildlife attractants and congregation areas can include areas such as shopping malls, agricultural fields, livestock operations, golf courses, parks, waste handling facilities, waterbodies, wetlands, and water management facilities. There are multiple land uses and areas located within 5 miles of the Airport that could serve as potential wildlife attractants, including but not limited to wetlands, surfaces waters, golf courses, athletic fields, maintained grasslands, and mining facilities.

4.16 Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

Environmental Justice evaluations consider the potential of federal actions, including those involving federally obligated airports, to cause a disproportionate and adverse effect upon low-income or minority populations. MEPA regulations (301 CMR 11.00) require that a project consider the "social conditions" of its site, and the *Environmental Justice Policy of the Massachusetts Executive Office of Energy and Environmental Affairs* directs all agencies, offices, boards, and other entities under the Executive Office of EEA to consider environmental justice in all of its programs, to the extent applicable and legally allowable.[8] At the federal level, FAA Order 1050.1F requires the analysis of potential impacts of alternatives on "economic activity, employment, income, population, housing, public services, and social conditions." In keeping with this regulatory framework, the following sections characterize the existing socioeconomic, environmental justice, and children's health and safety conditions within and proximate to the Project areas.

This section provides information on the socioeconomic characteristics of the area surrounding the Airport. Statistics from the United States Census Bureau's American Factfinder were used to examine the population profile, characteristics and trends for the region.

The Airport is located in West Tisbury and Edgartown, both in Dukes County. As shown in **Table 4-4**, the 2013 to 2017 American Community Survey recorded the Town of West Tisbury population at 2,417 with 98.2 percent white population and 3.7 percent of the individuals below the poverty line. Edgartown had a population of 4,292, 96.9 percent of which were white and 5.1 percent below the poverty line. The percentage of the population who identified as minority in West Tisbury, Edgartown, and Dukes County is much lower than that reported for the nation. Additionally, the percentage of the population below the poverty level in West Tisbury and Edgartown is lower than that of the county and national levels. Lastly, median household income and percent of the population age 65 and above in both towns and Dukes County is higher than the national average.

[8] Massachusetts Executive Office of Energy and Environmental Affairs. (2017). *Environmental Justice Policy of the Massachusetts Executive Office of Energy and Environmental Affairs* Retrieved April 24, 2020, from https://www.mass.gov/files/documents/2017/11/29/2017-environmental-justice-policy_0.pdf

Figure 4-10: West Tisbury Zoning

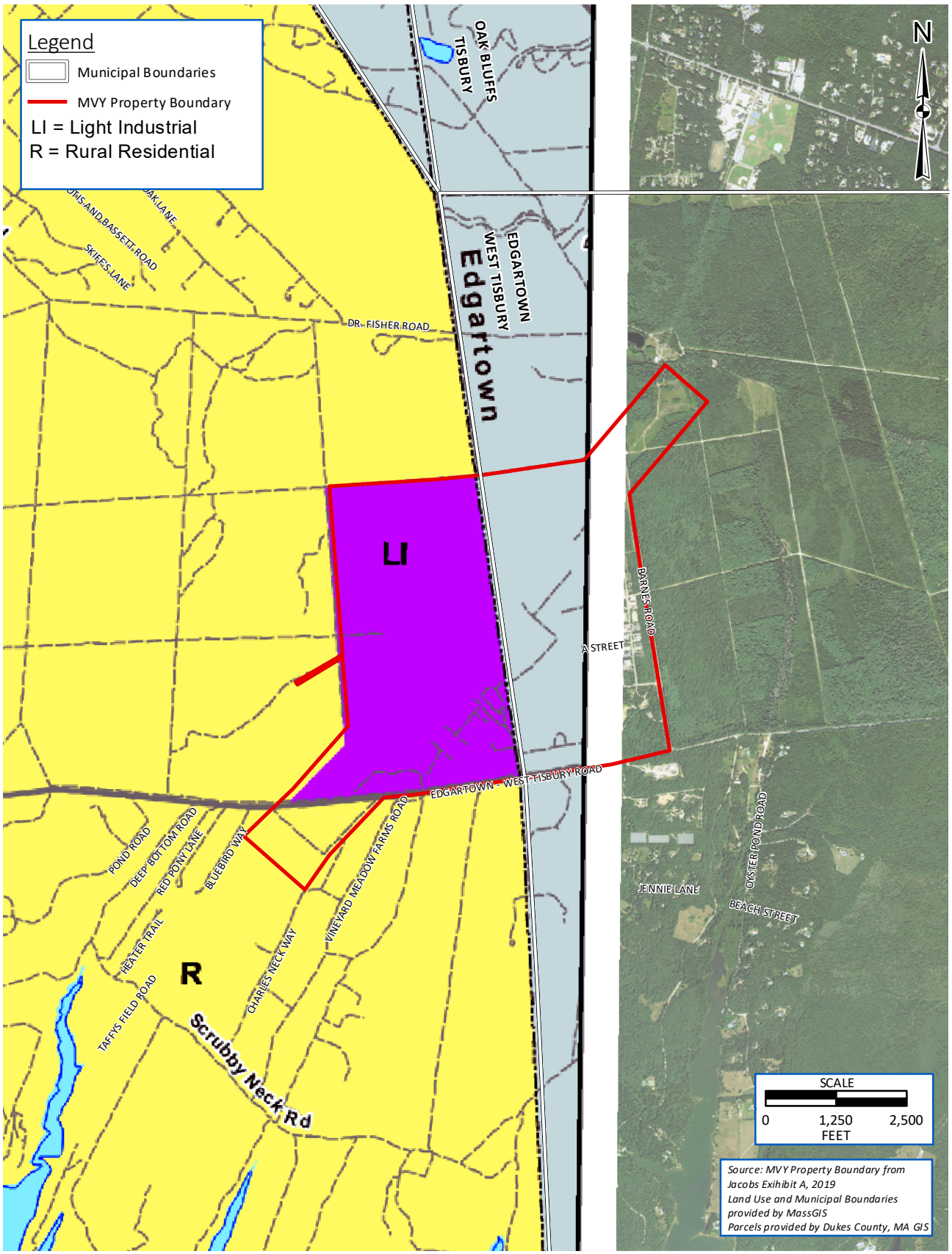

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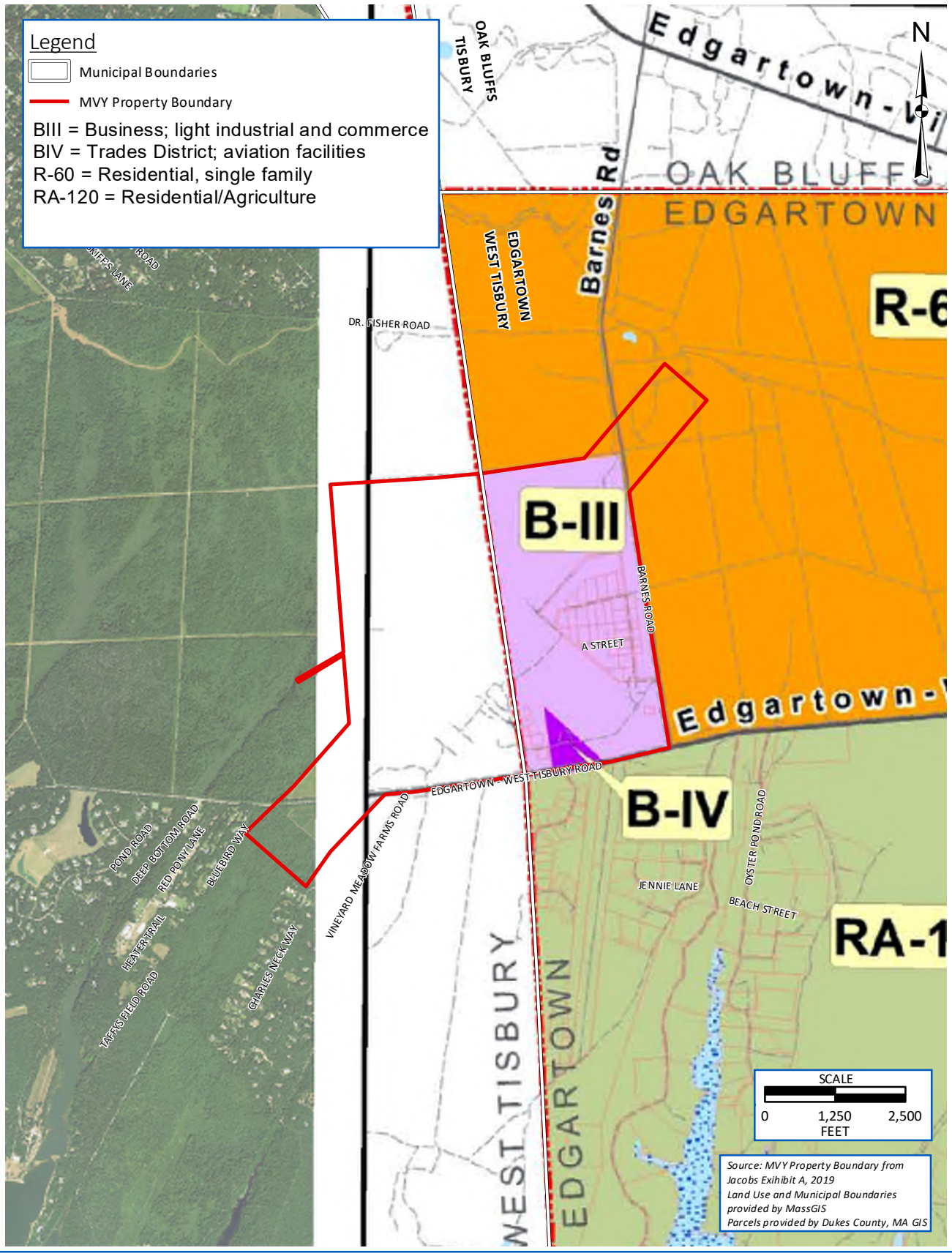
Figure 4-11: Edgartown Zoning



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According to data published by the Martha's Vineyard Commission[9], Dukes County in 2016 had 1,087 establishments employing 5,679 workers. In West Tisbury as of 2016, 43 percent of housing units (951 units) were occupied, and 57 percent were vacant. In Edgartown, 27 percent (1,394 units) were occupied, and 73 percent were vacant. These figures reflect the high percentages of vacation homes on the island.

The Massachusetts Department of Transportation Aeronautics Division publishes summaries of the economic impact of the state's airports. In 2019[10], they estimated that Martha's Vineyard Airport contributed to total employment of 587 workers with a total payroll of $29,617,000 and a total output of $96,746,000. The figures include "all on-airport business and government agency, capital improvement project, visitor, and multiplier impacts".

As of November 2020 (K. Brennan, pers. com.), the Airport has 77 leases and/or agreements with land lessors or terminal tenants. Those land leases currently have approximately 48 subtenants, for a total of 125 leaseholders and subtenants.

Table 4-4 Environmental Justice Population Data

Census Category	National Average	West Tisbury	Edgartown	Dukes County
Total Population	321,004,407	2,417	4,292	17,275
White Population	75.7%	98.2%	96.9%	92.2%
Minority Population	24.3%	1.8%	3.1%	7.8%
Population Under Age 5	6.2%	1.5%	3.1%	4.4%
Population Age 65 & Older	14.9%	31.0%	18.0%	21.2%
Individuals Below Poverty Level	14.6%	3.7%	5.1%	8.4%
Median Household Income	$ 57,652	$ 92,188	$ 75,404	$ 67,535

Source: 2013-2017 American Community Survey 5-Year Estimates.

[9] Martha's Vineyard Commission (2019). *Martha's Vineyard Statistical Profile, February 2019.*
[10] Massachusetts Department of Transportation Aeronautics Division (2019). *Massachusetts Statewide Airport Economic Impact Study Update, Executive Summary.*

4.17 HAZARDOUS MATERIALS, SOLID WASTE AND POLLUTION PREVENTION (MEPA/NEPA)

This section discusses hazardous materials and solid waste in relation to the proposed Projects. The term hazardous materials is a broad term collectively used to describe: hazardous wastes; hazardous substances; asbestos; petroleum products; and substances/chemicals that present a health hazard or are a risk to the public and safety of the environment including oil, chemicals and hazardous waste. They are defined as those substances that may constitute a present or potential threat to human health, safety, welfare, or the environment. Solid waste includes both hazardous and non-hazardous wastes. This can include garbage or refuse, sludge, and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Hazardous wastes are certain solid wastes that require additional regulation because they are dangerous or known to be harmful to human health or the environment. Solid waste also includes construction debris and excavated soils.

4.17.1 Fuel Storage

The storage of petroleum at the Airport consists of various above ground storage tanks and underground storage tanks at areas such as the fuel farm, terminal area, and Business Park. A Spill Prevention, Control and Countermeasure (SPCC) Plan was developed for the Airport in 2002 and most recently updated in 2012. The SPCC Plan details the location of hazardous materials stored within the operational areas of the Airport, as well as persons with responsibility for each storage location. The Airport SPCC Plan details best management practices that detail requirements for storage of petroleum.

4.17.2 Database Reviews

A Hazardous Waste/Contaminated Material (HWCM) desktop screening was conducted to determine the potential for the presence of HWCM on or in the vicinity of Airport property. The screening involved the review of online governmental databases and an Environmental Radius Report dated March 20, 2019 provided by Nationwide Environmental Title Research Online (NETROnline). An environmental regulatory agency records review of this nature is based on publicly available information from state and federal agencies. This report identified one leaking underground storage tank (LUST) within one mile of the Airport, located at a private downgradient residence to the south-southeast.

The MA Executive Office of Energy and Environmental Affairs Data Portal (online database) was accessed on November 12, 2020 and showed the following Release Tracking Numbers (RTNs) associated with the Airport.

RTN 4-0012087: The Data Portal states:

> "Martha's Vineyard Airport is currently listed under Release Tracking Number (RTN) 4-0012087. Two secondary RTNs associated with this incident, 4-0022067 and 4-0022138, were closed and rolled into the primary RTN. A portion of Martha's Vineyard Airport, where the terminal building was constructed in 1999, was formerly operated as a dry cleaning facility. During demolition of the facility in 1995, elevated concentrations of PCE were detected in the groundwater. Since 1997, several remediation activities and strategies have been completed, and as of a report submitted on July 15, 2017, PCE levels were below MCP GW-1 standards."

RTN 4-0027571: This site showed a reportable release on 11/20/2018. The source was reported to be aircraft fire fighting foam containing Perfluorooctanoic acid (PFOA). PFOA is addressed below.

4.17.3 Per and Polyfluoroalkyl Substances (PFAS)

PFOA and perfluorooctane sulfonate (PFOS), collectively called PFAS, are two man-made chemicals that were commonly used in household and industrial products, and historically in firefighting foams. PFOA and PFOS are persistent in the environment and have been increasingly tested for nationwide and found in groundwater, often in drinking water wells.

In November 2016, the USEPA published a drinking water Health Advisory level for PFOA and PFOS at individual or a combined 70 parts per trillion (ppt) based on the level of science to test and identify these chemicals at that date. The USEPA established the health advisory level to provide for a level of protection from a lifetime of exposure to PFOA and PFOS from drinking water sources.

In June 2018, the MassDEP issued a state-specific drinking water guideline of 70 ppt for five combined specific PFAS compounds.

On December 27, 2019, MassDEP amended the Massachusetts Contingency Plan (MCP) to include six PFAS compounds (referred to as the MassDEP PFAS6). These PFAS are perfluorooctane sulfonic acid (PFOS); perfluorooctanoic acid (PFOA); perfluorohexane sulfonic acid (PFHxS); perfluorononanoic acid (PFNA); perfluoroheptanoic acid (PFHpA); and perfluorodecanoic acid (PFDA). The MCP sets the acceptable levels of PFAS in soil and groundwater, including groundwater used as a source of drinking water by residential wells. The GW-1 Standard for PFAS in residential drinking water wells is 20 ppt for the sum of the PFAS6, while the S-1 soil cleanup levels range from 0.3 to 2 micrograms per kilogram (µg/kg) depending on the individual PFAS compound. These standards also vary depending on the groundwater and soil classification as defined under the MCP.

After PFOA/PFAS was found on site in 2018, an Immediate Response Action (IRA) plan was implemented. The IRA is focused on identifying the extent of contamination, communicating the extent with affected residents and stakeholders, and designing and installing appropriate point of entry treatment ("POET") systems to provide safe, potable water. Status reports and Initial Site Investigation reports are available on the Airport's website[11].

4.17.4 Solid Waste

The U.S. Navy first cleared and developed the property in 1942 and occupied it until 1959, when it was transferred to the County. During and shortly after the Navy's occupation of the Airport, solid waste was reportedly placed on site approximately 800 feet east of Airport Road and 500 feet north of Edgartown-West Tisbury Road. There is evidence of buried debris at the site. In November 2019, water samples from three groundwater wells around the site were tested for typical landfill parameters plus PFAS. None of the analyzed parameters were at concentrations above the Massachusetts Contingency Plan Reportable Concentrations for groundwater category GW-1, although total iron levels exceeded the MassDEP Secondary Maximum Contaminant Level[12].

[11] https://mvyairport.com/aqueous-film-forming-foam-releases-at-mvy-2/

[12] Tetra Tech (2020). Limited Subsurface Investigation Former U.S. Navy Waste Disposal Area, Martha's Vineyard Airport, Edgartown MA. Submitted to U.S. Army Corps of Engineers.

The Airport is part of the Martha's Vineyard Refuse Disposal and Resource Recovery District. Solid waste within this district goes to recycling facilities or to a waste to energy facility on the mainland[13]. The Airport participates in the District's single-stream recycling program.

4.17.5 Asbestos

Based on the age of the buildings, asbestos containing building materials (ACBMs) may be present. An ACBM survey and sampling will be conducted prior to any demolition activities. If asbestos is detected in the samples then the building materials will be properly abated by a licensed contractor in accordance with all applicable state (310 CMR 7.15) and federal regulations prior to demolition activities.

[13] http://www.mvrefusedistrict.com/about.html

5 ENVIRONMENTAL CONSEQUENCES

This Chapter describes the anticipated environmental, social, and economic consequences of the Proposed Action (the proposed Projects). Information pertaining to the environmental consequences was obtained through an evaluation of the conceptual design plans, on-site investigations, review of published information, agency correspondence, and discussions with Airport personnel and public officials.

This review of the proposed Projects is consistent with the requirements of the Massachusetts Environmental Policy Act (MEPA) implementing regulations (301 Code of Massachusetts Regulations [CMR] 11.00) and the Secretary's Certificate on the proposed Projects' Environmental Notification Form (ENF) (EEA# 15964).

This chapter was also prepared to be consistent with the National Environmental Policy Act (NEPA). Under NEPA, each environmental impact category has a significance threshold beyond which the impact is considered significant and an Environmental Impact Statement (EIS) is required for the Proposed Action. However, if mitigation measures included as part of the Proposed Action reduce the impacts below significant threshold levels, an EIS would not be necessary and the action may be concluded with a Finding of No Significant Impact (FONSI).

Most of the proposed Projects are included in the Airport's Capital Improvement Plan. The proposed Projects would provide improvements to enhance the safety and efficiency of both aircraft and landside Airport operations. **Table 5-1** Preferred Alternatives below summarizes the preferred alternative for each project, herein referred to as the Proposed Action. For project locations see **Figure 2-1**, and for detailed descriptions, an alternatives analysis for each project, and plans showing each project, please refer to Chapter 3 of this DEIR/EA.

The No-Build Alternatives assume that the Proposed Action is not implemented and the conditions at the Airport would remain unchanged. The No-Build Alternatives include preventive or routine maintenance activities at select runways and taxiways. Such activities, however, would not fully meet the maintenance needs of the infrastructure and/or rectify problematic geometries that compromise the safety of aircraft operations.

The set of preferred alternatives meet the purpose and need while also minimizing environmental impacts compared to other alternatives identified in the alternatives analysis. The potential impacts from the Proposed Action are discussed in the following sections and quantified to the extent possible. For the purposes of this impact analysis, depending on the nature of the potential impacts, the proposed Projects may be discussed individually, collectively, or grouped by location and/or function. In areas where quantitative measures cannot be provided, qualitative assessments are provided. The following resources are not present within the project area or immediate vicinity and therefore, do not require further evaluation:

- Wild and Scenic Rivers
- Surface Waters
- Wetlands

- Floodplains/Floodways
- Historic and Archaeological Resources (pending MHC confirmation of findings)

Table 5-1 Preferred Alternatives

Project	Preferred Alternative
Business Park Lots 34 and 38	Build Alternative: Build on both lots
Aircraft Hangar Development	Build Alternative: Construct two new hangars
Improve Fuel Farm Access and Safety	Build Alternative: Pave pad and access road
Airspace Vegetation Management	Runway 6-24 Build Alternative (vegetation management) Runway 15-33 Alternative 5 (Displaced Threshold with limited vegetation management)
Runway 15-33 Reconstruction	Alternative 5: Displace Runway 15 threshold 275 feet
Taxiway E Reconstruction	Alternative 5: Construct partial parallel taxiway
Regrade Runway 6-24 Side Safety Areas Regrading	No-Build Alternative
Terminal Building Renovation	Renovate and expand largely within existing footprint
Access Road Improvements	Right-Turn Lane
Aircraft Parking and Movement Areas	Construct new stub taxiway to Southeast Ramp and Reconfigure Southwest Ramp

5.1 TOPOGRAPHY, GEOLOGY AND SOILS (MEPA/NEPA)

5.1.1 Federal Farmland Soils Protection

The Agriculture and Food Act of 1981, Public Law 97-98, contained the Farmland Protection Policy Act (FPPA), which regulates Federal actions with the potential to convert farmland to non-agricultural uses. The FPPA requires Federal agencies to consider the adverse effects their programs may have on the preservation of farmland and to review alternatives that could minimize any unnecessary and irreversible conversions of farmland.

The FPPA does not apply to land that has already been committed to urban development, to non-agricultural development in a zoning ordinance or comprehensive plan, nor does it apply to prime farmland planned for industrial or commercial use. The areas proposed for soil disturbance for these Projects are all in areas designated for future development on the Airport's most recent "Ultimate Airport Layout Plan", prepared in 2016. Therefore, the soils in these areas are not subject to the FPPA.

5.1.2 No-Build Alternative

The No-Build Alternative assumes that the Proposed Action is not implemented, and that soils would remain unchanged; therefore, there will be no impacts to soils.

5.1.3 Proposed Action

Most of the areas proposed for soil disturbance have previously disturbed soils. The northern extension of Taxiway E may affect prime farmland soils, but as noted above, it is an area previously identified for airport development and is not suitable for farming due to proximity to runways and taxiways. The proposed vegetation management areas are identified as prime farmland soils, and logging equipment could cause some soil disturbance. However, the disturbance is not expected to substantially alter the soils nor to affect the characteristics which qualify them as prime farmland soils.

5.2 WATER RESOURCES (MEPA/NEPA)

This section describes the potential Project effects on water resources. FAA Order 1050.1F requires consideration of a projects potential to adversely affect surface waters, natural and beneficial water resource values, or water quality in ways that make obtaining a permit or authorization difficult. FAA Order 1050.1F and Order 5050.4B require EA's to include sufficient description of a proposed action's design and mitigation measures developed for non-point sources under Section 319 of the Clean Water Act, as well as construction controls to demonstrate the water quality standards and any permit requirements will be met.

Since there are no surface waters or wetlands within or in the immediate vicinity of Project areas, surface waters and wetlands are not addressed further here. The principal water resource of concern is the USEPA-designated sole source aquifer underlying the Airport. The aquifer supplies water to the entire island, including the Airport's supplier, the Oak Bluffs Water District.

5.2.1 Direct Impacts

No-Build Alternative

There would be no change in stormwater management, drainage patterns, or other conditions which affect water resources under the No-Build Alternatives. The Project areas would remain in active Airport use, there would be no new construction, the amount of impervious area would remain the same, and the existing stormwater collection system would stay in place. Therefore, no new direct or indirect impacts are anticipated under the No-Build Alternatives.

Proposed Action

The proposed Projects will result in a net decrease in pavement of approximately 1.9 acres. Nevertheless, each project includes permanent stormwater management measures that meet the guidelines of the Massachusetts Stormwater Handbook[14] to the extent practicable. Proposed stormwater management for Projects that would involve new pavement include the following:

- Business Park Lots 34 and 38 include 1.2 acres of new impervious surface and would continue to drain into the Business Park stormwater system, which is managed through infiltration systems and is not discharged off site. Stormwater management on individual lots is the responsibility of the individual leaseholders.
- The Aircraft Hangar Development would involve approximately 1.0 acres of new impervious surface and includes a new stormwater basin for each new building.
- The Improve Fuel Farm Access and Safety Project includes the replacement of the oil-water separator with a higher capacity unit to accommodate additional impervious surfaces.
- The Runway 15-33 and Taxiway E Reconstruction projects combined would result in a net reduction of approximately 6.0 acres of impervious surface primarily due to removing the runway shoulders. Four subsurface infiltration systems would be constructed along the runway and two along the taxiway, each consisting of a vegetated filter stirp draining to a deep sump and hooded catch basin and subsurface infiltration structure.
- The Access Road Improvement (right turn lane) would result in approximately 0.1 acre of new impervious and would include a water quality dry swale, deep sump and hooded catch basin, and subsurface infiltration structure.
- The Improve Aircraft Parking and Movement Areas Project (new stub taxiway to Southeast Ramp and reconfiguring Southwest Ramp) would increase impervious surface by 1.9 acre and would include a deep sump and hooded catch basin, sand filter, and subsurface infiltration systems.

The National Pollutant Discharge Elimination System (NPDES) stormwater program regulates stormwater discharges from municipal separate storm sewer systems (MS4s), construction activities, and industrial activities. Martha's Vineyard does not have MS4-regulated communities[15], and there are no discharges to Waters of the United States on the Airport, so NPDES regulation of industrial

[14] Massachusetts Department of Environmental Protection. (2008). *Massachusetts Stormwater Handbook, Volumes 1 and 2*.
[15] https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities, accessed 11/20/2020

stormwater runoff (and the associated Multi-Sector General Permit) does not apply. Runoff from construction activities is described below.

5.2.2 Construction Impacts

Any project that includes ground disturbance has the potential for erosion and sedimentation during construction activities. This may have adverse effects on receiving waters; however, due to the sandy soils that infiltrate water rapidly and the lack of wetlands and surface waters in the immediate vicinity of the proposed Projects, this is not a concern. Nevertheless, there is a potential for impacts and appropriate regulations will be followed and measures employed, as described in Section 5.2.4 below.

5.2.3 Indirect/Secondary Impacts

The proposed Projects are not expected to result in or induce projects or other activities that would adversely affect water resources. The Airport monitors indirect and secondary impacts to stormwater runoff through its spill prevention programs and operations and maintenance procedures. The Airport's primary water quality goal is to prevent or minimize discharges, thus limiting adverse water quality impacts associated with Airport activities.

Impacts to groundwater from historical use of aqueous film forming foam (AFFF) are being investigated at the Airport. AFFF contains per and polyfluoroalkyl substances (PFAS) which are regulated by the Massachusetts Department of Environmental Protection (MassDEP). Federal safety measures require the continued use of AFFF for emergencies, testing equipment, and training procedures at the Airport. The Airport has recently invested in technology that avoids discharging the foam during testing; however, PFAS impacted soil and groundwater is present on the airport property. In the event AFFF were discharged in a non-emergency situation, it would be collected in a storage tank from which it can be pumped out and disposed of properly.

The proposed Projects would not create new pathways for introduction of PFAS to the groundwater or soil. The Airport will continue to adhere to safety protocols related to the use of AFFF and comply with state requirements for handling of PFAS-impacted groundwater and soils.

5.2.4 Mitigation Measures

Permanent Stormwater Management

The permanent stormwater BMPs described in Section 5.2.1 were selected to meet the Massachusetts Stormwater Standards, including erosion control, controlling peak discharge rates, providing groundwater recharge, and providing pollutant removal, among other requirements.

The new stormwater management measures will also protect the sole-source aquifer and will meet or exceed the requirements of the MassDEP Stormwater Management Standards.

Stormwater Management During Construction

Generally, projects that disturb one or more acres must comply with the NPDES Construction General Permit (CGP). The proposed Aircraft Hangar Development, Runway 15-33 Reconstruction, and Taxiway E Reconstruction projects will each disturb over one acre of land and will require separate filings under the CGP. Any other projects that exceed one acre of disturbance will also require approvals. The USEPA

is the NPDES permitting authority for Massachusetts. The issuance of a NPDES permit for stormwater discharges associated with construction activities requires the preparation of a project-specific Stormwater Pollution Prevention Plan (SWPPP).

Controls would comply with Massachusetts and USEPA guidelines for construction sites, and could include sedimentation basins, stone check-dams, swales, or other temporary measures. Non-structural practices that may be used during construction include temporary stabilization, temporary seeding, permanent seeding, pavement sweeping, and dust control. These practices would be initiated as soon as practicable in appropriate portions of the work zones. Prior to any ground disturbance, an approved erosion control barrier would be installed at the downgradient limit of work. As construction progresses, additional barriers would be installed around the base of stockpiles and other erosion-prone areas. Barriers would be inspected and maintained properly throughout construction.

The Airport also has a Spill Prevention Control and Countermeasure (SPCC) Plan to address temporary impacts such as the potential discharge of oil or liquid hazardous materials into surface or ground waters.

5.3 Coastal Resources (MEPA/NEPA)

The Airport is located in a designated coastal zone for Massachusetts, the Cape Cod and Islands zone. However, due to the airport's centralized location on the island and lack of coastal features such as beaches, banks or dunes, the proposed Projects are not expected to have an impact on coastal resources. The ENF was distributed to the Massachusetts Coastal Zone Management Program and the and the DEIR/EA is also being distributed to the Program. The Airport will continue to coordinate with the CZMP as needed.

5.4 Air Quality (MEPA/NEPA)

This section provides an overview of the air quality analysis associated with the proposed Projects. This includes the assessment of operational emissions of the USEPA's "criteria pollutants" (and their precursors).[16] Construction-related emissions of the criteria pollutants associated with the proposed Projects are also qualitatively assessed.

NEPA requires the disclosure of a proposed action's impacts on the human environment, including air quality. The Clean Air Act, the other primary federal regulation that applies to the assessment of air quality impacts attributable to the proposed Projects, requires that a proposed action does not cause, or contribute to, a violation of the National Ambient Air Quality Standards (NAAQS) (40 CFR part 50). As described in Chapter 4, federal entities must meet General Conformity requirements by demonstrating that emissions from their actions will not exceed emission budgets established in a state's plan to attain or maintain the NAAQS. FAA determines whether the proposed Projects are exempt or on the Presumed to Conform List (72 Federal Register 41565, dated July 30, 2007). Projects that fall within the Presumed to Conform activities do not require an air quality analysis. An air quality analysis is required as the Taxiway E extension does not fall within the presumed to conform list.

16 USEPA. (2018). Nonattainment Areas for Criteria Pollutants (Green Book). Retrieved April 30, 2020, from https://www.epa.gov/green-book

MEPA requires air quality analyses for projects that will substantially affect mobile sources. Additionally, MEPA requires an analysis of greenhouse gas (GHG) emissions and mitigation measures to reduce emissions. GHG emissions are addressed below in Section 5.5.

5.4.1 No-Build Alternative

The No-Build Alternative assumes that the Proposed Action is not implemented, and therefore would have no effect on air quality.

5.4.2 Proposed Action

Air quality impacts associated with the operation of the proposed Projects have been considered in terms of mobile and stationary sources.

5.4.2.1 Mobile Source Emissions

Landside Mobile Source Emissions

Landside mobile source emissions include emissions from sources such as motor vehicles. **Table 5.2** describes how the Proposed Action could affect landside vehicular traffic and mobile source emissions.

Airside Mobile Source Emissions

Airside mobile source emissions result from aircraft engine operation, aircraft movements, and ground service equipment operation. The Proposed Action is not expected to increase the numbers or types of air traffic or ground service equipment. The proposed hangars could attract additional aircraft to the Airport, but in numbers which are well within the range of Airport estimates and projections for future air traffic. The Proposed Action also would not significantly alter aircraft movement patterns on the ground, although the Taxiway E extension would result in slightly different movement patterns.

Airside emissions were quantified to determine how the Proposed Action would affect air quality. Emissions were calculated using FAA's Aviation Environmental Design Tool (AEDT) to quantify emissions. The model incorporates aircraft types, numbers, movement patterns, and airport geometry, and produces emissions under existing and proposed conditions. The calculations were based on current aircraft operations under existing and proposed geometry. Based on these calculations, the Proposed Action would have the following slight increases in total annual emissions (in tons per year):

- Carbon monoxide (CO): 0.0109 ton
- Hydrocarbons (HC): 0.00082 ton
- Total organic gases (TOG): 0.00085 ton
- Volatile organic compounds (VOC): 0.00078 ton
- Non-methane hydrocarbons (NMHC): 0.0008 ton
- Oxides of nitrogen (NOx): 0.00002 ton
- Carbon dioxide (CO2): 0.0918 ton
- Water (H2O): 0.02713 ton
- Sulfur oxides (Sox): 0.00004 ton

Table 5-2 Potential Landside Mobile Source Emissions from Proposed Action

Project	Potential for Mobile Source Emissions (Other than Construction Emissions)
Business Park Lots 34 and 38	There would be an Increase in vehicle traffic upon completion of development. Increases were planned for and are expected to be minimal relative to local traffic.
Aircraft Hangar Development	There would be an increase in vehicle traffic to hangars. Approximately 15 shift workers will travel to and from the first hangar twice per day. Increases are expected to be minimal relative to local traffic. Increases air traffic is unknown at this time but are expected to be well within the volumes projected in planning documents such as the Airport Master Plan.
Improve Fuel Farm Access and Safety	No effect on vehicular travel or emissions.
Airspace Vegetation Management	No effect on landside mobile source emissions.
Runway 15-33 Reconstruction	No effect on landside mobile source emissions.
Taxiway E Reconstruction	No effect on landside mobile source emissions.
Access Road Improvements	The proposed right-turn lane will result in less idling time and more efficient traffic movements, and should result in a reduction in emissions.
Terminal Building Renovation	This project will not affect mobile source emissions.
Aircraft Parking and Movement Areas	No effect on landside mobile source emissions.

The Nonattainment Areas General Conformity De Minimis Emission Levels for O3 is 100 tons per year (NOx) and 50 tons per year (VOC) for areas with marginal and moderate ozone nonattainment inside an ozone transport region. The annual increase of 0.0008 ton is well below either of these thresholds. Based on these results, the Proposed Action will not have a significant effect on air quality and will not be a substantial source of pollutant emissions.

5.4.2.2 Stationary Emissions

The proposed terminal renovation would require a larger space to be heated and air conditioned. The hangars would also require additional heating and air conditioning. These emissions would be minimal and are not expected to require air quality permits as their rated capacities would be much smaller than

permit thresholds. See Section 5.5 below for the quantification of energy and related emissions estimates associated within these projects.

5.4.2.3 Construction Impacts (MEPA/NEPA)

Construction of the Proposed Action would result in short-term changes in air emissions from sources such as exhaust emissions from nonroad construction equipment such as haul trucks, site clearing, and grading. On-road vehicles include those associated with transport and delivery of supplies, materials, and equipment to and from the site, and construction worker trips. Additionally, fugitive dust emissions include site preparation, land clearing, material handling, equipment movement on unpaved roads and evaporative emissions from the application of asphalt paving. Construction contractors would be instructed to use diesel equipment with after-engine emissions controls, utilize ultra-low sulfur diesel fuel, and minimize idling to comply with minimum standards for construction vehicles.

Emissions from the operation of construction machinery (i.e., carbon monoxide [CO], nitrogen oxide [NOx], particulate matter [PM10, PM2.5], volatile organic compounds [VOCs], and GHG emissions) are short-term and not generally considered substantial.

5.4.2.4 Indirect/Secondary Impacts

The proposed Projects are not expected to result in or induce projects or other activities that would result in a substantial increase to pollutant emissions or otherwise contribute to a degradation of air quality. No indirect/secondary impacts are anticipated for air quality.

5.4.2.5 Mitigation Measures

The operations of the proposed Projects would not cause significant adverse direct or indirect air quality impacts as they would not cause, or contribute to, a violation of the NAAQS. As such, no mitigation measures are proposed related to operations.

The Airport is committed to ensuring that short-term construction-related air quality impacts from the proposed Projects are minimized to the extent practicable. With the implementation of the following measures during the construction periods, no significant adverse impacts are expected.

Demolition activities will comply with Air Pollution Control regulations pursuant to Massachusetts General Law (M.G.L.) Chapter 40, Section 54, as well as current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.05, 7.09 and 7.11. Fugitive dust emissions are proportional to the amount of earth moved and the length of travel on unpaved roads. Any impacts from fugitive dust particles would be of short duration and localized. Mitigating fugitive dust emissions involves curbing or eliminating its generation. Mitigation measures that will be used in site construction include wetting and stabilization to suppress dust generation, cleaning paved roadways, and scheduling construction to minimize the amount and duration of exposed earth.

The Airport will require contractors to utilize ultra-low sulfur diesel fuel for off-road construction vehicles and/or equipment. Construction contracts will require that gasoline and diesel motorized construction equipment be well maintained and in good running order during the work effort on the proposed Projects. All equipment and vehicles will be properly maintained and repaired to minimize exhaust emissions, including odors. Records of the routine maintenance programs for internal combustion engine-powered vehicles and equipment used for the proposed Project will be established and maintained. The proposed Projects will use alternative-fueled or electric equipment where feasible.

The construction of the proposed Projects will comply with the requirements of the MassDEP's Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. The Airport requires that contractors install emission control devices, such as diesel oxidation catalysts and/or diesel particulate filters on certain equipment types (front-end loaders, backhoes, excavators, cranes, and air compressors). Equipment will meet the USEPA's Tier 4 Emissions Standards (40 CFR part 1039), which require that emissions of particulate matter (PM) and nitrous oxides (NOx) be further reduced, where feasible. Idle reduction and dust and odor control would also be addressed. The contractors will enforce Massachusetts' Anti-Idling law (310 CMR 7.11) which requires that engines idle for no more than five minutes, with the installation of on-site anti-idling signage at loading and waiting areas. Additionally, the Airport will encourage its contractors to prepare transportation management plans or other development programs or incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport. Such programs may include the provision of off-Airport parking and shuttle services.

5.5 CLIMATE AND GREENHOUSE GAS EMISSIONS (MEPA/NEPA)

The Proposed Action's potential to affect climate change, or be impacted by climate change, are described in this section. GHG emissions associated with the proposed Projects were estimated in accordance with the MEPA GHG Emissions Policy and Protocol and NEPA guidelines.

Also in accordance with the Secretary's Certificate on the ENF, and per guidance provided in FAA's *1050.1F Desk Reference*, this section discusses the implications of climate change on the proposed Projects and the features incorporated into their designs that will increase their climate resilience.

The FAA has not established a significance threshold for climate impact, either in terms of GHG emissions or climate adaptation.

5.5.1 Greenhouse Gas Emissions (MEPA)

The Secretary's Certificate on the ENF requests an analysis of GHG emissions for the proposed terminal renovation and new hangars. This analysis considered the potential stationary and mobile GHG emissions associated with the proposed Projects in accordance with the Certificate and comments received from the Massachusetts Department of Energy Resources.

5.5.1.1 No-Build Alternative

The No-Build Alternative would continue promoting inefficient energy consumption and sometimes resulting in unnecessary idling and queue time from vehicles and aircraft due to current terminal deficiencies (i.e., passenger bottlenecks in accessing and moving through the terminal). The No-Build Alternative does not consider inclusion of "smart" and energy efficient building elements such as natural lighting, LED luminaires, integration of energy efficiency MEP systems, nor promote minimization of GHG emissions.

5.5.1.2 Build Alternatives

5.5.1.2.1 Direct Impacts from Stationary Sources

The airport terminal will be expanded from its existing 13,000 square feet to approximately 22,000 square feet of floor space, the minimum needed to meet current needs, as described in Chapters 2 and 3. The new hangars will add approximately 24,000 combined square feet.

Computer models of these facilities were developed and building consumption simulations were performed using the eQuest building energy analysis program[17]. The eQuest program uses the latest DOE-2.2[18] building energy analysis software as its calculating engine. This program permits modeling of a variety of building types and components including complex building geometry, lighting systems, HVAC systems, central plant equipment, and utility rate structure.

The eQuest models were generated utilizing documentation from the Airport's existing design and construction combined with the drawing files for the planned expansion of the airport and additional hangars. These two sources provided the needed information to develop the geometry and building shell for both the existing portion of the terminal and the planned expansion. The baseline model, which models building design using standard building components, utilized ASHRAE 90.1-2013 Appendix G guidance[19] to determine the inputs for the new building and assumptions required for the existing building. The analysis used local historical weather data known as "typical meteorological year", which is an average of data from 1969 to 1990. The full report of findings is in Appendix D.

The various energy conservation measures were modeled as independent measures and then included in a hypothetical proposed simulation of the building. This was done to demonstrate the impacts of the individual building envelope improvements. Note that the building envelope improvements were limited to the expanded section of the building and were not included in the existing building.

A Passive House alternative was modeled for one of the hangar buildings. The terminal expansion was not evaluated as Passive House for this exercise due to the existing building construction and the challenges it would present to achieving the passive house standard. The passive house approach was considered to be unrealistic and would require a renovation to the existing building on top of the expansion.

The individual terminal building energy conservation measures (ECMs) modeled are listed in **Table 5-3**.

[17] http://www.doe2.com/equest/
[18] DOE-2.2 is building energy analysis software used to run eQuest and is available at http://doe2.com/DOE2/.
[19] ASHRAE, IES and ANSI (2015). Standard 90.1 Appendix G 2013 Performance Rating Method.

Table 5-3 Energy conservation measures (ECMs) used in GHG modeling

A. Terminal

Energy Conservation Measure (ECM)	Description of Energy Conservation Measure
Baseline	Standard building components
ECM1 – Heat Pump System	This measure is a 10 percent improvement of the heating and cooling efficiency of the baseline heat pump system installed in the airport terminal that is existing and the expansion.
ECM2a –Variable Refrigerant Flow (VRF) System	This measure is for the HVAC system being replaced with a variable refrigerant flow heat pump system that is equal to a basic Daikin system installed in the existing terminal and the expansion.
ECM2b – VRF System with ERV (Energy Recovery Ventilator)	This measure is for the HVAC system being replaced with a variable refrigerant flow heat pump system that is equal to a basic Daikin system installed with an energy recovery ventilator installed in the existing terminal and the expansion.
ECM2c – Consortium for Energy Efficiency (CEE) VRF System with ERV	This measure is for the installation of a basic CEE Tier 1 variable refrigerant flow system installed in the existing terminal and the expansion.
ECM3 – Energy Recovery Units – (ERV) Heat Pump Heat	Adding an ERV (energy recovery ventilator) to the baseline heat pump system in the airport terminal and the expansion. Energy recovery ventilators are used to capture otherwise wasted energy that was used to cool or heat the conditioned air inside the building.
ECM4 – Lighting	Improving lighting so that the lighting power density (LPD) measured as watts per square foot n all spaces existing and in the expansion are a 20 percent improvement from the ASHRAE 90.1-2013 maximum watts per square foot allowed in the space by space method.
ECM5 – Daylighting Controls	This measure is for the installation of daylighting controls in the perimeter existing spaces of the existing building and the expansion.
ECM6a – Improved Curtainwall	This measure is for the improved performance of the curtainwall to be an advanced double pane low-e system with thermal breaks on the aluminum frame.
ECM6b – Improved Curtainwall Version 2	This measure is for the installation of a curtainwall that is a triple pane glazed curtain wall system.
ECM7a - Decreased Size of the Curtainwall	This measure is for the change in size of the curtainwall from the proposed design wall to one that is 1104 sf to 624 for a 43percent reduction in the overall window area.
ECM7b - Decreased Size of the Curtain Wall + Improved Glazing	This measure is for the change in size of the curtainwall from the proposed design wall to one that is 1104 sf to 624 for a 43 percent reduction in the overall window area and the improvement of the curtain wall.

Energy Conservation Measure (ECM)	Description of Energy Conservation Measure
ECM8 – Improved Envelope (Walls and Roof)	The improvement of the building envelope can provide comfort and energy improvements by installing a higher R-value roof and walls.
ECM9 – Improved Envelope (Walls, Roof and Curtain Wall)	This ECM is a combination of several shell or envelope measures to assess the overall impact of improving the walls, roof, and curtainwall.
ECM10 – Proposed Design (Walls, Roof, Curtain Wall, VRF w/ERV, Lighting, Lighting Controls)	The final ECM is a combination of several of the ECMs that are typically employed together. This ECM combines envelope measures with improved HVAC and lighting. The whole building approach of combining the ECMs typically yields the greatest synergies and highest savings.

B. Hangars

Energy Conservation Measure (ECM)	Description of Energy Conservation Measure
Baseline	Standard building components
ECM1 Heat Pump	The installation of heat pump systems in the hangars provides improved heating performance over traditional electric resistance heating elements for those spaces.
ECM2 Lighting	Improving lighting so that the lighting power density (LPD) measured as watts per square foot in all newly constructed hangar spaces is a 20 percent improvement from the ASHRAE 90.1-2013 maximum watts per square foot allowed in the space by space method.
ECM3 Hangar 1: Passive House	This measure addresses the requirements of improving the building performance to meet the requirements of passive house. Applied to Hangar 1
ECM3 Hangar 2: VRF	With the installation of a VRF system in the office area of Hangar 2, the buildings overall performance could see large improvements over the baseline heating and cooling.

The potential reductions in GHG emissions are listed in **Table 5-4**. The building comparisons are done using a common metric for benchmarking buildings against one another. This metric is known as Energy Use Intensity (EUI). EUI uses kbtu divided by the building or building zone square feet. These units are used because both electric and gas can be converted into this uniform unit of measurement and show the total energy needed to meet all the building loads. In this study all units of energy consumed by the buildings are shown as kWh and kbtu/sf or EUI for electricity. Gas was not used for the data presented in the study.

Table 5-4 Potential GHG Emissions Reductions with Energy Conservation Measures

Terminal	EUI	kWh	GHG Elec lbs/CO_2e	Savings - EUI (kbtu/ sf/yr)	Savings - kWh	Savings GHG Elec lbs/CO_2oe	Savings by %
Baseline	70.52	470030	350,902.78	0	0	0	
ECM1 Heat Pump	67.92	452660	337,935.13	2.61	17370	12967.64	4%
ECM2a VRF	65.73	438090	327,057.84	4.79	31940	23844.93	7%
ECM2b VRF w/ERV	63.84	425500	317,658.73	6.68	44530	33244.05	9%
ECM2c VRF(CEE) w/ERV	63.84	425490	317,651.26	6.68	44540	33251.52	9%
ECM3 ERV w/heat pump	68.17	454380	339,219.21	2.35	15650	11683.57	3%
ECM4 Lighting	67.51	449940	335,904.51	3.01	20090	14998.27	4%
ECM5 Lighting Controls Daylighting	66.56	443600	331,171.35	3.97	26430	19731.42	6%
ECM6a Curtainwall Glazing Improvement	68.39	455830	340,301.71	2.13	14200	10601.07	3%
ECM6b Curtainwall Glazing Improvement V2	67.99	453160	338,308.41	2.53	16870	12594.37	4%
ECM7a Curtainwall Reduced	68.84	458800	342,518.98	1.68	11230	8383.8	2%
ECM7b Curtainwall Reduced + Improved Glazing	67.74	451480	337,054.20	2.78	18550	13848.58	4%
ECM8 Improved Building Envelope 1	69.95	466200	348,043.47	0.57	3830	2859.3	1%
ECM9 Improved Envelope 2 (Walls, Roof and Curtain Wall)	67.87	452330	337,688.77	2.66	17700	13214.01	4%
ECM10 - Combined Proposed (Walls, Roof, Curtain Wall, VRF w/ERV, Lighting, Daylighting)	59.22	394670	294,642.47	11.31	75360	56260.31	16%
Hangar 1							
Baseline	41.68	277820	207,407.63	0	0	0	0%

Terminal	EUI	kWh	GHG Elec lbs/CO_2e	Savings - EUI (kbtu/ sf/yr)	Savings - kWh	Savings GHG Elec lbs/CO_2oe	Savings by %
ECM1 Heat Pump	34.62	230730	172,252.40	7.07	47090	35155.23	17%
ECM2 Lighting	28.47	189750	141,658.62	13.21	88070	65749.01	32%
ECM 3 Passive House	14.79	98570	73,587.83	26.89	179250	133819.8	65%
Hangar 2							
Baseline	18.82	125420	93,632.80	0	0	0	0%
ECM1 Heat Pump	12.94	86230	64,375.35	5.88	39190	29257.45	31%
ECM2 Lighting	11.63	77510	57,865.40	7.19	47910	35767.4	38%
ECM 4 VRF	11.32	75460	56,334.96	7.5	49960	37297.84	40%
Combined							
Combined Baselines (Terminal, Hangar 1 and Hangar 2)	131.02	873270	651943.21	0	0	0	0%
Combined Improved Heat Pump (Terminal, Hangar 1 and Hangar 2)	115.47	769620	574562.89	15.55	103650	77380.32	12%
Combined Improved Lighting (Terminal, Hangar 1 and Hangar 2)	107.61	717200	535428.53	23.42	156070	116514.7	18%
Combined Proposed (Terminal - Walls, Roof, Curtain Wall, VRF w/ERV, Lighting, Daylighting, Hangar 1- Lighting, Hangar 2 - VRF)	99.01	659880	492636.05	32.02	213390	159307.2	24%
NOTES							
EUI = Energy Use Intensity = kbtu divided by building or zone square footage CO_2e = carbon dioxide equivalent = a standard unit of carbon footprint							

The reductions in GHG emissions of the various terminal building ECMs varied from 1 percent to 9 percent and was 16 percent for a combination of ECMs that are typically employed together. The hangar buildings could achieve greater reductions in GHG emissions. Various combinations of ECMs applied to both the terminal and hangar buildings could achieve overall GHG emissions reductions of 12 percent to 24 percent.

These energy conservation measures will be considered when the project moves into the design stage.

Cape Electric was contacted regarding incentives and recommended determining incentives using MassSave Path 2, Whole Building EUI Reduction Path for commercial new construction. The terminal and hangar projects combined could achieve a 24.5 percent reduction in EUI, which allows for an incentive of $0.75/square foot for the project and $0.10/square foot for the design team. For just the terminal building, the EUI reduction of 16 percent translates to an incentive of $0.50/square foot for the project and $0.05/square foot for the design team.

5.5.1.2.2 Direct Impacts from Mobile Sources

The proposed Projects would not have a substantial impact on mobile source GHG emissions, as described in Section 5.4.2.1 above.

5.5.1.2.3 Direct Impacts from Land Alteration

Carbon sequestration is the process by which atmospheric CO_2 is taken up by trees, grasses, and other plants through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and in soils. The MEPA Certificate states: "According to the GHG Policy [MEPA Greenhouse Gas Policy], projects that alter over 50 acres of land must include the analysis of the carbon loss associated with the removal of trees and soil disturbance during the construction period and loss of carbon sequestration." The MEPA Certificate further states that the purpose of this analysis is to develop an estimate of GHG emissions associated with land alteration rather than an exact accounting.

While the preferred alternatives propose less than 50 acres of land alteration (not counting impervious surfaces that will remain impervious), they propose to remove trees on approximately 33.9 acres, approximately 26.2 acres of which is forested and the remainder is shrub-dominated. Trees are known to sequester relatively large amounts of carbon. Therefore, a land alteration GHG analysis was completed, focusing on the project components involving vegetation management.

The amount of carbon or carbon sequestration that would be lost with the Projects were calculated using two factors: one for biomass removed and one for carbon sequestration lost.

For a one-time loss of carbon due to biomass removal, the USEPA estimates that nationally, 22 metric tons (25 short tons) of carbon are stored per acre of forest land in above-ground biomass[20]. This equates to a one-time loss of 655 short tons of carbon stored in biomass from the alteration of forested land. Based on the average U.S. forest, the USEPA has estimated that 0.9 short ton of CO_2 are sequestered by

[20] USEPA. (2020). "Greenhouse Gases Equivalencies Calculator- Calculations and References." Retrieved 2 May 2020, from https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

one acre of forest annually[21]. As such, the annual carbon sequestration lost due to the Project's land alteration is estimated to be 24 short tons per year.

The actual biomass lost is likely to be substantially lower than this, for several reasons:

- Most of the trees in this area are less than 40 feet tall and therefore store less biomass than forests located elsewhere in the U.S. and referenced in the USEPA data.
- The soils are sandy and support lower growth rates than elsewhere.
- Portions of this area are dominated by shrubs with few trees to be currently removed. They are included as future vegetation management due to potential growth projections.
- When the project is completed, all of the cut areas will retain vegetation, which may include tall shrubs (such as scrub oak), shrubs which are occasionally mowed, and maintained grass areas. These areas presumably will provide some ongoing carbon sequestration in biomass and in photosynthesis.

5.5.1.3 Construction Impacts

Construction activities associated with the proposed Projects would result in a temporary increase in GHG emissions. The primary source of potential GHG emissions from these activities would be from the engines of construction equipment. GHG emissions from the operation of construction machinery are short-term and not generally considered substantial.

5.5.1.4 Indirect/Secondary Impacts

The proposed Projects are not expected to result in or induce projects or other activities that would result in a substantial increase to GHG emissions. GHG emissions associated with the use of electricity are considered indirect emissions and discussed above with respect to stationary source emissions.

5.5.1.5 Mitigation

Mitigation could consist of some combination of the building design measures discussed above.

The Airport is also currently working with a solar power contractor to investigate the feasibility of solar installations on existing buildings (specifically the Aircraft Rescue and Fire Fighting building) and parking lots (canopies). The renovated terminal would include solar-ready design and technology. The Airport intends to install two or three electric vehicle charging stations in the near future. It will continue to support bus transportation and discourage single-occupancy vehicle usage.

5.5.2 Adaptation and Resiliency (MEPA)

Martha's Vineyard Airport is located within the Massachusetts Coastal Zone at an approximate elevation of 67 feet above sea level. Massachusetts Office of Coastal Zone Management sea level rise web mappers were utilized to evaluate potential climate change effects on the proposed Project. Due to its elevation and its centralized location on Martha's Vineyard, sea level rise will not directly impact the Airport.

A 24-hour, one-percent annual chance ("100-year") storm event in Edgartown would have 7.38 inches precipitation, as calculated by the Northeast Regional Climate Center. This is approximately 4 percent

[21] USEPA. (2020). "Greenhouse Gases Equivalencies Calculator- Calculations and References." Retrieved 2 May 2020, from https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

higher than the 24-hour, one-percent annual chance storm predicted for 2008[22]. The Airport is on relatively level terrain with well-draining sandy soils and is not within a mapped floodplain.

The No-Build Alternative would not change existing Airport infrastructure or drainage patterns. This would be not incorporate the Proposed Action's reductions in impervious surfaces or improvements in stormwater management, and could result in relatively more erosion or other effects of large storm events.

The Proposed Action's stormwater management systems will be designed to meet state standards, including peak discharge rates. The proposed system will capture and treat runoff from proposed new pavement as well as areas of existing pavement. The net reduction in impervious surfaces combined with the proposed stormwater treatment will substantially improve stormwater management and thereby reduce, compared to the No-Build, the adverse effects of storm events.

During construction, the Airport will work with its contractors to develop construction management plans and strategies that address the known climate hazards, as applicable, for the purpose of protecting construction workers, equipment, and other assets. Such strategies may include stabilizing exposed areas and suspending construction during high wind events.

The proposed Projects are not expected to result in or induce projects or other activities that would affect the Airport or other local entities in their abilities to anticipate, cope with, and rebound from events and trends related to known climate change hazards. Improved stormwater management could reduce the potential hazards, particularly for properties downgradient or downstream of the Airport. No adverse indirect/secondary impacts are anticipated for climate resiliency.

5.6 Natural Resources and Energy Supply (NEPA)

FAA Order 1050.1F requires the review of the natural resource (e.g., water, asphalt, aggregate, wood, etc.) demands and energy requirements of a Proposed Action's construction, operation, and maintenance. Accordingly, this section assesses the proposed Projects in terms of their potential to use such resources in exceedance of available and future supplies. The FAA has not established a significance threshold for this environmental resource category. Energy usage is also addressed in Sections 5.4 and 5.5 above.

5.6.1 No-Build Alternative

The No-Build Alternative assumes that the existing Airport footprint and infrastructure remain unchanged. This alternative would not involve the usage of sand, gravel, fuel, and building materials needed for the Proposed Action. However, it would not result in the integration of more energy-efficient systems and technology to reduce energy consumption. It also would not provide more efficient vehicle traffic movements proposed with the Proposed Action.

Maintenance activities performed on an as needed basis would also continue to necessitate minor quantities of construction materials.

[22] http://precipchange.eas.cornell.edu/index.php?page=map&ryr=2&year=2018&color=amt&go=Refresh+Map

5.6.2 Proposed Action

The proposed Projects would not cause an increase in demand for natural resources or energy that would exceed available supplies. Energy demand for the proposed Projects, with the exception of the proposed building projects (Business Park Lots 34 and 38, Terminal Renovation, and Aircraft Hangar Development), is anticipated to be consistent with existing conditions. Potable water consumption associated with the proposed building projects is expected to be comparably small when considered against the entire Airport's water consumption, though the Airport will be incorporating sustainable measures to reduce water consumption (i.e., all new plumbing fixtures would be low-flow/flush). The terminal will be larger but will be servicing the same numbers of passengers and employees as under the No-Build. The hangars will have a small number of people at any given time. Business Park Lot 38 is an event service, renting out tents and similar equipment. The usage of Business Park Lot 34 is unknown at this time, but neither lot is, or is expected to be, a retail operation with frequent traffic.

Negligible to minor quantities of waste are expected to be generated during operations of the proposed building projects. The Airport has its own wastewater treatment facility. According to the facility's managers, the wastewater treatment facility the capacity to handle 37,000 gallons per day. The highest flow days are around 25,000 gallons per day (including Lot 38), so there is plenty of capacity for additional flows. Furthermore, wastewater facility managers say there is relatively little water usage or wastewater flow from hangars. For these reasons, it is assumed there is sufficient wastewater capacity to support the proposed projects.

Water and wastewater will continue to be managed according to applicable federal, state, and local laws and regulations.

Earth materials needed to construct the Proposed Action are listed in **Table 5-5**. These include existing soils (largely sand and gravel) to be excavated, gravel to be deposited, and topsoil to be placed. Efforts will be made to preserve and reuse existing topsoil. There is a at least one gravel pit on the island and this resource is not in short supply regionally.

No indirect impacts are expected in relation to natural resources and energy supply.

Construction of the proposed Projects would result in the temporary consumption of natural resources (e.g., construction materials and water) and energy supplies to power construction vehicles and equipment. A minor temporary increase in water demand would be associated with the control of fugitive dust and soil stabilization. The Airport anticipates adequate capacities of such resources to support the construction of the proposed Projects.

No adverse impacts to natural resources and energy supply are anticipated as a result of the proposed Projects. Accordingly, the Airport does not propose any mitigation measures beyond the energy efficiency measures discussed above and in Section 5.5 and in Chapter 6. There will also be the beneficial measures of installing LED technology into all new or replaced airfield lighting and signage, where appropriate, and incorporating low flow/flush into the proposed new buildings.

Table 5-5 Estimated Earthwork and Earth Materials for the Proposed Action

Project	Alt.	Excavation (CY)	Embankment (CY)	Gravel Borrow (CY)	Crushed Stone (P-209) (CY)	Topsoil (T-905) (SY)
Aircraft Hangar Development	2	1,400.00			1,100.00	5,150.00
Improve Fuel Farm Access and Safety	3	1,600.00			1,000.00	1,450.00
Runway 15-33 and Taxiway E Reconstruction	5-5	10,500.00	2,175.00		6,300.00	86,000.00
Access Road Improvements – Right-Turn Lane	8-1	400.00		230.00		750.00
Improve Aircraft Parking and Movement Areas – Southeast and Southwest Ramps	9-3	5,800.00			4,400.00	1,900.00
TOTAL		14,300.00	2,495.00	230.00	8,600.00	95,850.00

Notes:

CY = cubic yards; SY = square yards

The Business Park Lots are either developed or prepared for development and will be completed by others.

Other projects are not expected to require earthwork or earth materials.

5.7 NOISE (MEPA/NEPA)

Aircraft noise emissions, inherent to the operation of an airport, can affect the compatibility of airports and surrounding properties, particularly in the presence of noise-sensitive receptors. Churches, hospitals, schools, amphitheaters, and residential districts are receptors that are sensitive to elevated noise levels. Recreational areas and some commercial uses are moderately sensitive to elevated noise levels.

According to FAA Order 1050.1F, a significant noise impact would occur when a proposed action would increase noise by day-night average sound level (DNL) 1.5 decibels (dB) or more for a noise sensitive area resulting in noise exposure of DNL 65 dB or greater with the proposed action.

5.7.1 No-Build Alternative

As described in Section 4.9, a 2012 noise study found that noise in residential areas around the Airport were below the FAA residential noise impact level of 65 dBA, and that noise levels had decreased between 1999 and 2012. The No-Build Alternative does not preclude changes in the number of flights, flight patterns, aircraft types, or other factors that may affect noise. However, because prior noise levels were below impact thresholds, noise impacts remain unlikely. Furthermore, the Airport's "Noise Analysis Mitigation Program" initiated in 2003 would remain in place.

5.7.2 Proposed Action

The Proposed Action is not anticipated to increase aircraft operations nor will it substantially alter aircraft movement patterns. Therefore, it is not expected to affect noise levels or result in noise impacts at or around the Airport. However, as with the No-Build, the Proposed Action does not preclude changes in the number of flights, flight patterns, aircraft types, or other factors that may affect noise. The Proposed Action also would not alter the existing Noise Analysis Mitigation Program.

The Proposed Action will result in the removal of trees on Airport property, in adjacent easements, and potentially in the State Forest. Recreational trails are located in and near proposed vegetation management areas within the Runway 6 and 24 approaches. These include portions of the fire lanes and bike paths that run along or adjacent to all four sides of Airport property. Tree removal will make air traffic more visible to those on the ground, affecting their enjoyment of the State Forest. It is sometimes assumed that tree removal will result in higher noise levels around airports. However, the greatest noise levels come from airborne aircraft, where trees or other vegetation would have less ability to block noise from people on the ground. The noise effects are likely to be seen as an aesthetic nuisance but are not expected to rise to the level of a noise impact based on FAA criteria.

5.7.3 Construction Noise Impacts

The FAA does not provide significance thresholds for construction noise. Noise control within the Commonwealth of Massachusetts is regulated through 310 CMR 7.10. Specific to construction, no person shall cause unnecessary emissions of noise from "construction and demolition equipment which characteristically emit sound but which may be fitted and accommodated with equipment such as enclosures to suppress sound or may be operated in a manner so as to suppress sound..." There are no quantitative thresholds specified within the regulations pertaining to construction noise.

Temporary noise effects would result from construction activities and include noise generated from heavy equipment, truck traffic, and other construction activity. Construction activities would be carried out during normal daylight hours.

Roadways carrying worker vehicles and heavy truck traffic to and from the work area would experience an increase in traffic during certain periods of the day, however these traffic increases would be temporary in nature and not result in significant impacts to receptors adjacent to these routes. (See Section 5.8.3 below for more details on traffic generated by construction.) Noise generated from on-site construction equipment would be variable depending on the construction activity occurring on the project site. On-site construction activities include the demolition and construction of various airport facilities including demolition and construction of pavement, terminal building renovation, construction of the hangars, and tree removal.

5.7.4 Indirect/Secondary Impacts

The proposed Projects are not expected to result in or induce projects or other activities that would result in an increase to noise, including those with the potential to negatively impact traffic conditions. No indirect/secondary impacts are anticipated for noise and noise-compatible land use.

5.8 Traffic and Surface Transportation (MEPA/NEPA)

As required by the MEPA regulations under 301 CMR 11.07, this DEIR/EA assesses the potential impacts of the proposed Projects on traffic and pedestrian and bicycle transportation. As specifically called out in the Secretary's Certificate on the proposed Projects' ENF, this DEIR/EA identifies construction-period impacts and mitigation, as necessary, relative to traffic.

In accordance with FAA Order 1050.1F and FAA Order 5050.4B paragraph 706(e), the FAA requires project proponents to consider surface transportation when a proposed action has the potential to disrupt traffic patterns and substantially reduce the level of service of roads serving an airport and its surrounding communities. This section addresses this requirement in satisfaction of NEPA.

5.8.1 No-Build Alternative

Under the No-Build Alternatives, the Airport would not implement the proposed Projects. The number and types of vehicles accessing the Airport would be similar to existing trends and projections. The Airport access road would continue to have congestion and traffic delays in certain seasons and at certain times of the day.

5.8.2 Proposed Action

The Proposed Action's effects on vehicular traffic were listed in Section 5.4.2.1. Business Park Lots 34 and 38 and the Aircraft Hangar Development would each result in additional traffic, but the amount is small relative to local traffic. The Southwest Ramp reconfiguration will replace a portion of the lost vehicular parking spaces and will not in and of itself general additional traffic. Lot 38 is not a retail operation and the hangars are expected to accommodate up to 15 shift workers passing through twice per day. The new right-turn lane proposed for Access Road Improvements would not substantially improve the functioning of this intersection, but would reduce waiting times for right-turning traffic and thereby improve traffic flow.

5.8.3 Construction Impacts

Construction of the proposed Projects, including all staging areas, would be located on Airport property. As the Airport is on an island, materials are expected to be barged to and from the island, likely between either Woods Hole or Hyannis and the D.M. Packer Co. barge terminal in Vineyard Haven. From the barge terminal, material would likely be trucked to the Airport via Beach Road, Beach Street, State Road, Edgartown-Vineyard Haven Road, and Barnes Road. From Barnes Road, trucks would be via either directly access the Airport from Barnes Road or turn onto Edgartown-West Tisbury Road and access the Airport via the Business Park, Airport Road, or other access points. In some cases the trucks would first go to a processing facility on Edgartown-Vineyard Haven Road. Barnes Road, Edgartown-Vineyard Haven Road, and Edgartown-West Tisbury Road are predominately residential with areas of commercial and open space land uses. None of the roadways anticipated for use by construction vehicles would be temporarily closed or otherwise diverted. Airport access points, travel routes, and times of day are sometimes modified to minimize noise and disruption on local roads.

The numbers of construction vehicles were estimated based on the anticipated construction phasing of the proposed Projects (**Table 5-6**). Most projects are expected to require 50 or fewer truck round trips per quarter. The Runway 15-33 and Taxiway E Reconstruction projects are combined expected to require 376 truck round trips in the first quarter of 2023. The number of barges required for the proposed Projects are expected to range from zero to 45 (associated Runway 15-33 and Taxiway E Reconstruction in 2023). The number of workers required for each project (**Table 5-7**) is less than 100 person-days per quarter except for the Runway 15-33 and Taxiway E Reconstruction Project in 2023 (423 person-days in Q1) and the Aircraft Hangar Development in 2024 (159 person-days).

To reduce construction-related traffic for the construction of the proposed Projects from these baseline levels, the Airport will encourage its construction companies to prepare transportation management plans or other development programs or incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport. Such programs may include the provision of off-Airport parking and shuttle services.

Based on the anticipated volumes of construction-related traffic, along with the Airport's proposed minimization measures, construction of the proposed Projects is not expected to increase traffic congestion or otherwise contribute to a degradation of roadway level of service.

5.8.4 Mitigation Measures

The Airport will coordinate with the Martha's Vineyard Joint Transportation Committee and its Bicycle and Pedestrian Advisory Committee to ensure the continued and safe use of the bike paths on Barnes Road and Edgartown-West Tisbury Road. The Airport will also coordinate with the towns of Edgartown and West Tisbury on any construction-period signage and lighting that may be needed for safe traffic conditions, including the safe use of the bike path. Additionally, the Airport will encourage its contractors to prepare transportation management plans or other development programs or incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport. Such programs may include the provision of off-Airport parking and shuttle services.

The Airport generally aims to reduce single-occupancy vehicle trips by promoting the services of the Martha's Vineyard Transit Authority's bus service, and utilizing taxi and livery services that are also available to access the Airport. The Airport will coordinate with the Authority to ensure construction traffic does not disrupt bus travel or stops.

Table 5-6 Amount of Truck and Barge Traffic Required for Each Project, per Year and Construction Quarter (Round Trips from Site, Barges in Parentheses)

Project	'22 Q1	'22 Q2	'23 Q1	'23 Q2	'24 Q1	'24 Q2	'28 Q1	'28 Q2	'28 Q3	'28 Q4	'29 Q1	'29 Q2	'30 Q1	'30 Q2
Business Park Lots 34 and 38														
Improve Fuel Farm Access and Safety	38 (3)	24												
Aircraft Hangar Development	12 (3)	67												
Airspace Vegetation Management			44											
Runway 15-33 and Taxiway E Reconstruction			376 (44)	46										
Terminal Building Renovation							175 (21)	175 (21)	175 (21)	175 (21)	175 (21)	175 (21)		
Improve Aircraft Parking and Movement Areas – Southeast Ramp											44 (25)	44 (0)		
Access Road Improvements – Right-Turn Lane														50

Notes:
Business Park Lots 34 and 38 are at least partially constructed and will be completed by others.
No projects are proposed for construction in 2025 through 2027.
No construction is currently proposed in Q3 or Q4 except in 2028.

Table 5-7 Number of Laborers Needed for Each Project, per Year and Construction Quarter (Work Days per Quarter)

Project	'22 Q1	'22 Q2	'23 Q1	'23 Q2	'24 Q1	'24 Q2	'28 Q1	'28 Q2	'28 Q3	'28 Q4	'29 Q1	'29 Q2	'30 Q1	'30 Q2
Business Park Lots 34 and 38														
Improve Fuel Farm Access and Safety	26	47												
Aircraft Hangar Development	18	159												
Airspace Vegetation Management			57											
Runway 15-33 and Taxiway E Reconstruction			423	67										
Terminal Building Renovation							600	600	600	600	600	600		
Improve Aircraft Parking and Movement Areas – Southeast Ramp											42	77		
Access Road Improvements – Right-Turn Lane														71

Notes:
Business Park Lots 34 and 38 are at least partially constructed and will be completed by others.
No projects are proposed for construction in 2025 through 2027.
No construction is currently proposed in Q3 or Q4 except 2028.

5.9 BIOLOGICAL RESOURCES

FAA Order 10.50.1F lists several factors to consider for biological resources, including an action's potential to: have long-term or permanent loss of unlisted plant or wildlife species; adversely affect state-listed species and other special status species; substantially impact native species' habitats or populations; and adversely impact a species' reproductive success and mortality rates. The FAA has not established a significance threshold for non-federally listed species. As noted in Chapter 4, one federally listed species (northern long-eared bat) and 30 state-listed species are known to occur on or near Airport property, and most of the land area at the Airport is within State-designated Priority Habitat of Rare Species (and some within Estimated Habitat of Rare Wildlife) for rare plant, insect, and bird species.

5.9.1 No-Build Alternatives

The No-Build Alternatives would not result in any new construction; therefore, there would be no disturbance of soils or state-protected species habitat. There would be no direct, construction-period, or indirect/secondary impacts to biological resources under the No-Build Alternatives.

5.9.2 Proposed Action

5.9.2.1 Direct Impacts

The Proposed Action includes large areas of pavement that will be reconstructed and remain pavement (Runway 15-33 and Taxiway E) as well as large areas of grass that will be regraded and tree and shrub areas that will be cut. **Table 5-8** shows the total amount of land to be regraded; new, removed, and net change in impervious surface; and total acreage of proposed tree cutting. **Table 5-9** shows these totals for Priority and Estimated Habitat. **Table 5-10** shows how much of the affected land is grass, shrub, and forested land, separately for Priority and non-Priority Habitat. **Table 5-11** shows impacts to mapped shrubland and forest natural communities mapped within the runway approaches, primarily a function of vegetation management such as tree removal.

Overall Habitat Impacts

Overall, there will be a reduction of approximately 1.9 acres of impervious surfaces, due mainly to shoulder removal on Runway 15-33 and Taxiway E. These areas will be converted to grass. Approximately 12.0 acres of grass will be regraded, most of it along Runway 15-33 to meet FAA safety area guidelines. This will be a temporary impact.

Approximately 32.9 acres of trees will be cut, mostly for maintaining projected airspace, as shown in **Figures 5-1 through 5-4**. An additional 1.0 acre will be cut for the Southwest Ramp reconfiguration. Portions of these areas are dominated by shrubs which will be left in place, so the actual cutting area will be somewhat less, but it will be managed to prevent tree regrowth. Approximately 3.2 of the 32.9 acres are proposed within the State Forest, outside of current easements. Some of the vegetation management areas will be converted to grass and some to shrubs, with the acreages to be determined in consultation with the Department of Conservation and Recreation and the Natural Heritage and Endangered Species Program. The project will therefore result in an overall increase in both grass and shrub habitat. There will be a decrease in forested habitat.

The tree and shrub areas affected by the project were described in Chapter 4 and include native oak forests, mixed pitch pine and oak forests, successional white pine forests, areas dominated by tall shrubs (mainly scrub oak), and mixtures of these habitat types. The vegetation management will affect 17.3 acres of Coastal Forest/Woodland, an oak-dominated community; 5.2 acres of a relatively homogeneous successional white pine forest; 7.1 acres of Scrub Oak Shrubland; and lesser amounts of other mixed forest and forest/shrub communities.

Coastal Forest/Woodland is the most common habitat type on the island and regionally, and is not rare, although it may support rare species, as discussed further below. The white pine was not historically a dominant tree species in this area, but has taken advantage of fire suppression. It may be advantageous for rare species and other plant and animal life to remove the fast-growing colonial species and restore native habitat to some of the areas to be cut.

Table 5-8 Approximate Areas of Overall Disturbance for Proposed Action (Acres)

PROJECT	EXISTING VEGETATED LAND TO BE REGRADED	EXISTING VEGETATED LAND TO BECOME IMPERVIOUS	EXISTING IMPERVIOUS RETURNED TO GRASS	NET NEW IMPERVIOUS	VEGETATION MGMT.
1. Business Park Lots 34 and 38		1.2		1.2	
2. Aircraft Hangar Development	0.8	1.0		1.0	
3. Improve Fuel Farm Access and Safety	0.2				
4A. Airspace Vegetation Management - Runway 6	0.3				3.7
4B. Airspace Vegetation Management - Runway 24					19.7
5-5. Runway 15-33 and Taxiway E Reconstruction - Displace Runway 15 Threshold 275', Construct Partial Parallel Taxiway E and Remove Vegetation Obstructions	10.1	1.0	7.0	-6.0	9.5
7. Terminal Building Renovation					
8-1. Access Road Improvements - Right-Turn Lane	0.2	0.1		0.1	
9-2B and 9-3. Aircraft Parking and Movement Areas - New Stub Taxiway to Southeast Ramp and Reconfigure Southwest Ramp	0.5	2.5*	0.8	1.9	1.0*
TOTAL	12.0	5.8	7.7	-1.9	33.9

*1.0 acres of vegetated land to become impervious is forested and therefore also in the Vegetation Management column.

Table 5-9 Approximate Areas of Disturbance in Priority Habitat for Proposed Action (Acres)

PROJECT	EXISTING VEGETATED LAND TO BE REGRADED	EXISTING VEGETATED LAND TO BECOME IMPERVIOUS	EXISTING IMPERVIOUS RETURNED TO GRASS	NET NEW IMPERVIOUS	VEGETATION MGMT.
1. Business Park Lots 34 and 38		1.2		1.2	
2. Aircraft Hangar Development	0.7	1.0		1.0	
3. Improve Fuel Farm Access and Safety	0.1				
4A. Airspace Vegetation Management - Runway 6	0.3				2.8
4B. Airspace Vegetation Management - Runway 24					19.7
5-5. Runway 15-33 and Taxiway E Reconstruction - Displace Runway 15 Threshold 275 feet, Construct Partial Parallel Taxiway E and Remove Vegetation Obstructions	10.1	1.0	7.0	-6.0	9.5
7. Terminal Building Renovation					
8-1. Access Road Improvements - Right-Turn Lane					
9-2B and 9-3. Aircraft Parking and Movement Areas - New Stub Taxiway to Southeast Ramp and Reconfigure Southwest Ramp	0.3	0.2	0.2	0.0	
TOTAL	11.4	3.4	7.2	-3.8	32.0

Table 5-10 Approximate Impacts of Proposed Action to Grass, Shrub and Tree Areas (Acres)

	PRIORITY HABITAT GRASSED LANDS	PRIORITY HABITAT SHRUBS	PRIORITY HABITAT FORESTED LANDS	NON-PRIORITY HABITAT GRASSED LANDS	NON-PRIORITY HABITAT SHRUBS	NON-PRIORITY HABITAT FORESTED LANDS
1. Business Park Lots 34 and 38			1.2			
2. Aircraft Hangar Development	1.8			0.1		
3. Improve Fuel Farm Access and Safety	0.1			0.1		
4A. Airspace Vegetation Management - Runway 6			2.8	0.3		0.9
4B. Airspace Vegetation Management - Runway 24		0.5	18.8			
5-5. Runway 15-33 and Taxiway E Reconstruction - Reduce Runway 15 Distance by 275 feet, Construct Partial Parallel Taxiway E and Remove Vegetation Obstructions	9.4	0.5	9.9			
7. Terminal Building Renovation						
8-1. Access Road Improvements – Right-Turn Lane				0.2		
9-2B and 3. Improve Aircraft Parking and Movement Areas – New Stub Taxiway on Southeast Ramp and Reconfigure Southwest Ramp	0.5			1.1	0.4	1.0
TOTAL WITH PREFERRED ALTERNATIVES ONLY	11.8	1.0	32.7	1.8	0.4	1.9

Table 5-11 Approximate Impacts of Proposed Action to Mapped Natural Communities within Runway Approaches (Acres)

RUNWAY APPROACH	COASTAL FOREST/ WOODLAND	PITCH PINE - OAK FOREST/ WOODLAND HABITAT	PITCH PINE - SCRUB OAK COMMUNITY	SCRUB OAK SHRUBLAND	SUCCESSIONAL WHITE PINE FOREST	MIXED SUCCESSIONAL FOREST
RUNWAY 6	3.7	0.0	0.0	0.0	0.0	0.0
RUNWAY 24	10.7	0.0	0.0	3.1	5.2	0.7
RUNWAY 15	0.4	1.1	0.4	2.0	0.0	0.0
RUNWAY 33	2.5	1.0	0.0	1.9	0.0	0.0
TOTAL	**17.3**	**2.2**	**0.4**	**7.1**	**5.2**	**0.7**

Note: Natural communities were mapped in runway approach areas. There may be additional disturbance to vegetated lands, such as the open grassland on the airfield, that were not mapped as natural communities but could meet the criteria for certain natural communities.

LEGEND

- TREE SURVEY POINT WITH TREE-TOP ELEVATION
- TREE REMOVAL AREA
- APPROXIMATE AIRPORT PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- MOW AREA
- COASTAL FOREST/WOODLAND
- PITCH PINE - OAK FOREST/WOODLAND HABITAT
- PITCH PINE - SCRUB OAK COMMUNITY
- SCRUB OAK SHRUBLAND
- SUCCESSIONAL WHITE PINE FOREST
- MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE ELEVATIONS ARE FROM 2019 TREE-TOP SURVEY.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

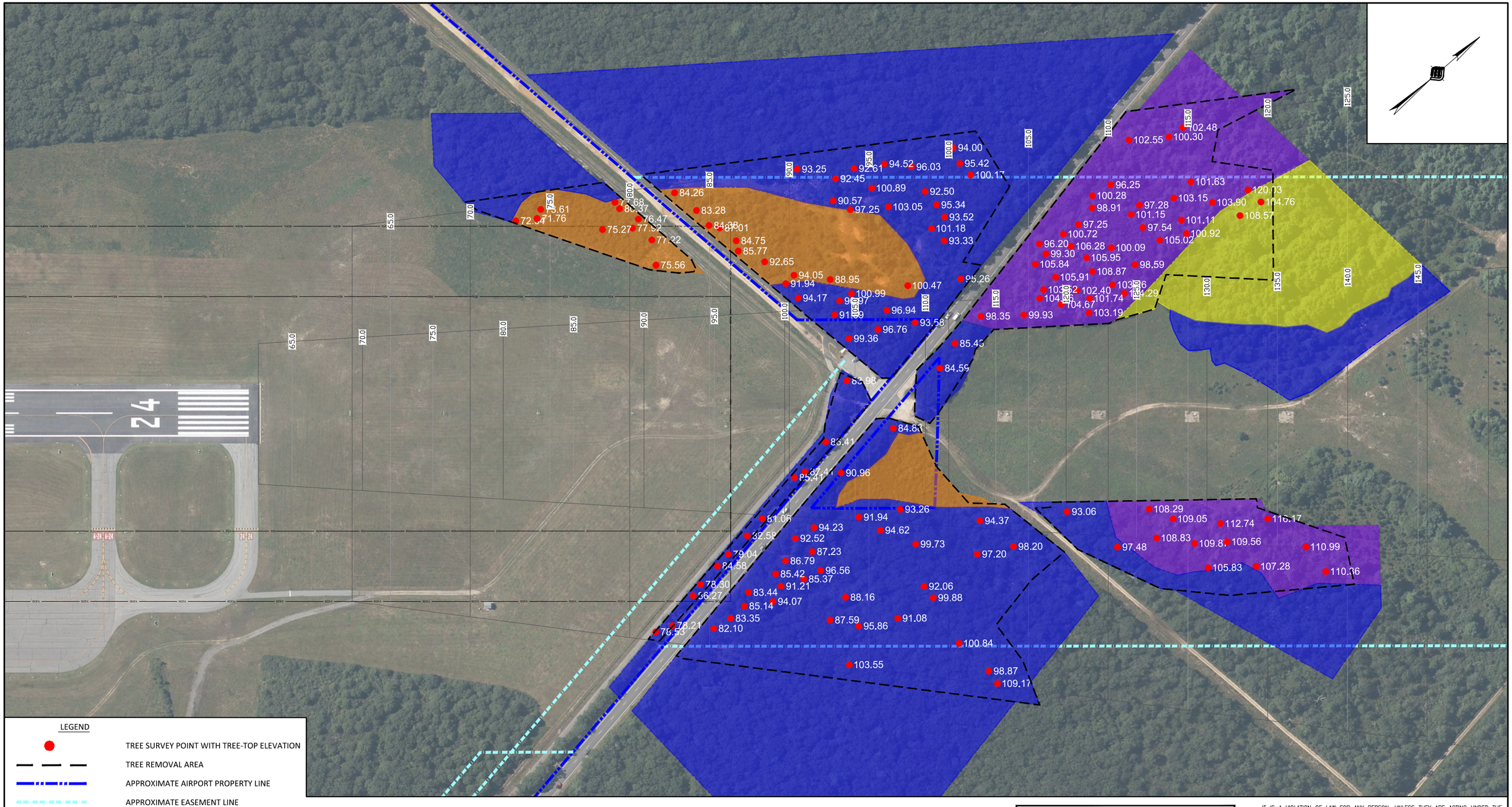
REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 6

SCALE: 1" = 100'	DESIGN: SRS	5-1
DRAWN: DMP	PROJECT: 18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	



LEGEND

- TREE SURVEY POINT WITH TREE-TOP ELEVATION
- TREE REMOVAL AREA
- APPROXIMATE AIRPORT PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- RSA — RUNWAY SAFETY AREA
- RDFA — RUNWAY OBJECT FREE AREA
- MOW AREA
- COASTAL FOREST/WOODLAND
- PITCH PINE - OAK FOREST/WOODLAND HABITAT
- PITCH PINE - SCRUB OAK COMMUNITY
- SCRUB OAK SHRUBLAND
- SUCCESSIONAL WHITE PINE FOREST
- MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE ELEVATIONS ARE FROM 2019 TREE-TOP SURVEY.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 24

SCALE: 1" = 100'	DESIGN: SRS
DRAWN: DMP	PROJECT:18226.07
CHECKED: MTO	DATE: NOVEMBER 2020

5-2

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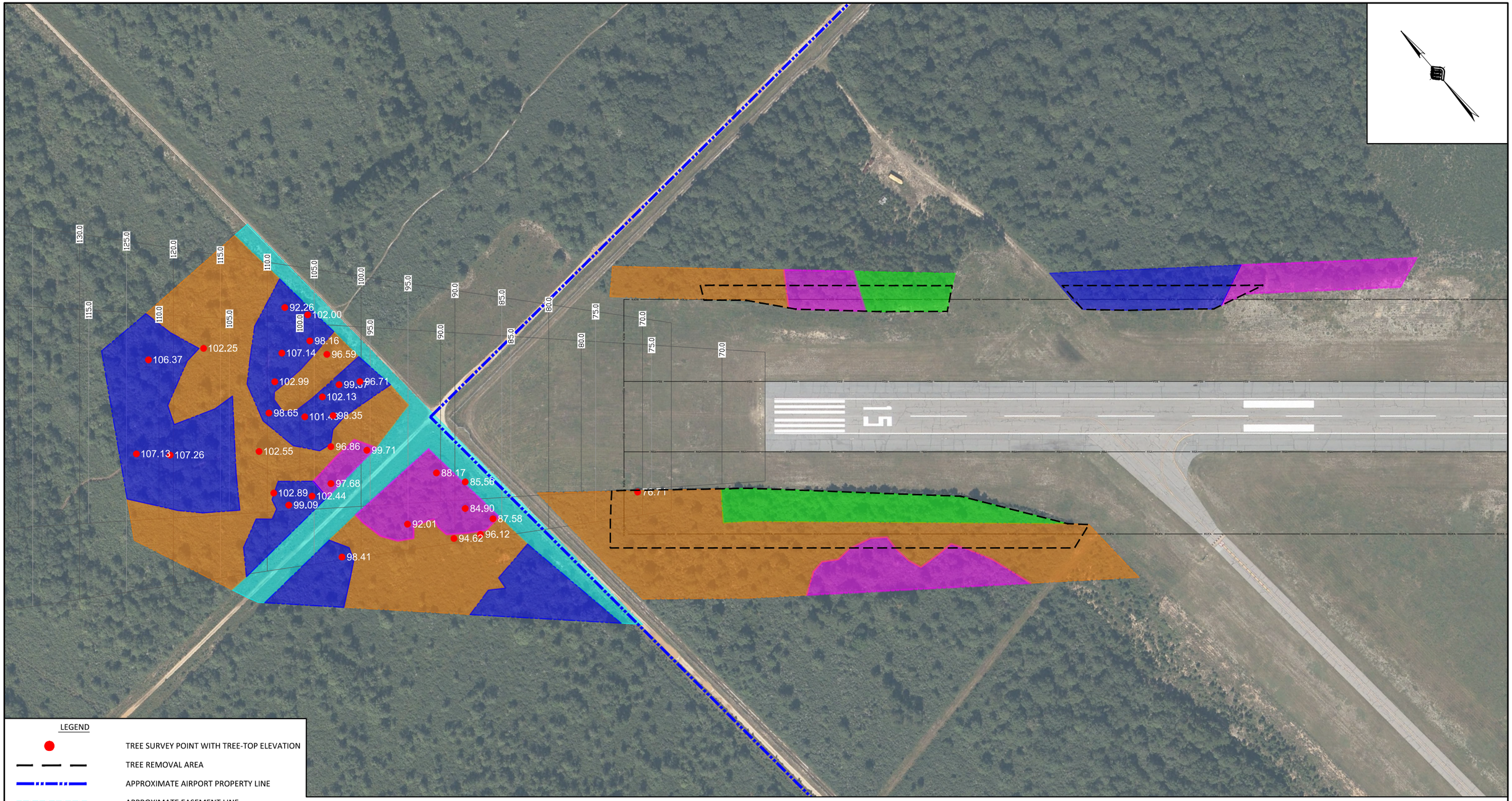


LEGEND

- TREE SURVEY POINT WITH TREE-TOP ELEVATION
- TREE REMOVAL AREA
- APPROXIMATE AIRPORT PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- MOW AREA
- COASTAL FOREST/WOODLAND
- PITCH PINE - OAK FOREST/WOODLAND HABITAT
- PITCH PINE - SCRUB OAK COMMUNITY
- SCRUB OAK SHRUBLAND
- SUCCESSIONAL WHITE PINE FOREST
- MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.
2. TREE ELEVATIONS ARE FROM 2019 TREE-TOP SURVEY.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

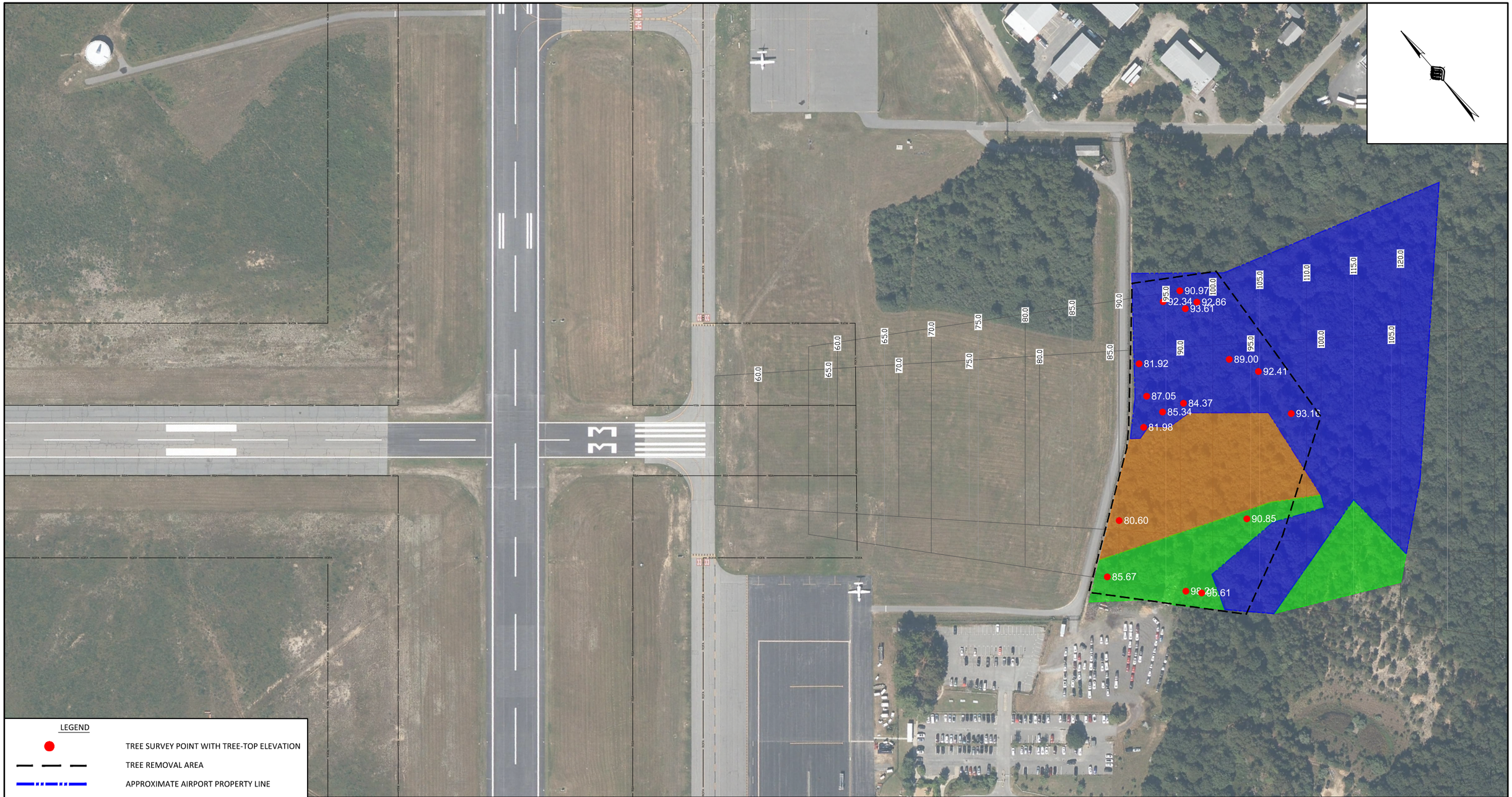
REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 15

SCALE: 1" = 100'	DESIGN: SRS	5-3
DRAWN: DMP	PROJECT:18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	



LEGEND

- TREE SURVEY POINT WITH TREE-TOP ELEVATION
- TREE REMOVAL AREA
- APPROXIMATE AIRPORT PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- MOW AREA
- COASTAL FOREST/WOODLAND
- PITCH PINE - OAK FOREST/WOODLAND HABITAT
- PITCH PINE - SCRUB OAK COMMUNITY
- SCRUB OAK SHRUBLAND
- SUCCESSIONAL WHITE PINE FOREST
- MIXED SUCCESSIONAL FOREST

NOTES:

1. NATURAL COMMUNITY MAPPING FROM FIELD STUDIES CONDUCTED BY GZA GEOENVIRONMENTAL, INC. IN 2020. MCFARLAND JOHNSON MADE MINOR CHANGES TO EXTEND COMMUNITY MAPPING TO LIMITS OF CLEARING.

2. TREE ELEVATIONS ARE FROM 2019 TREE-TOP SURVEY.

0 100 200 300 FT
SCALE

DRAFT EIR/EA

REV	DATE	DESCRIPTION	BY

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

MARTHA'S VINEYARD AIRPORT
WEST TISBURY, MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT

NATURAL COMMUNITY CLASSIFICATIONS - RUNWAY 33

SCALE: 1" = 100'	DESIGN: SRS	5-4
DRAWN: DMP	PROJECT:18226.07	
CHECKED: MTO	DATE: NOVEMBER 2020	

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Impacts to State-Listed Rare Species

The Natural Heritage and Endangered Species Program (NHESP) identified 30 State-listed rare species in the project area (Appendix F). Five are plants, all of which are found mainly in open grassland habitats, and one of which (lion's foot) can also be found in forest or shrub habitat. These species are expected to benefit from the increase in grassland and mowed shrub habitat. The species, their habitat needs[23][24] and potential impacts are discussed below.

Of the twenty rare Lepidoptera (moths or butterflies) species identified by NHESP, most are found in either scrub oak or blueberry/ericaceous shrub habitat. One, the Imperial moth, is found in pitch pine-oak barrens and woods. The Imperial moth could be adversely affected by the decrease in forested habitat, but most other species would see an increase in their preferred habitat.

One bee species, Walsh's Anthophora, is on the NHESP list. It is found in grasslands, utility rights-of-way, and fire breaks. This species would likely benefit from the increase in grassland and shrub habitats.

The one beetle species, the purple tiger beetle, is found in sandplain soils with sparse vegetative cover, often on dirt roads or paths. The Proposed Action would not increase or decrease the amount of such habitat, so no permanent adverse impact is expected.

The three bird species listed by NHESP are described below.

- The Eastern whip-poor-will nests in open woodlands and forages in open meadows and shrublands, and therefore could see a reduction in nesting habitat and an increase in foraging habitat. Because of the abundance of forested habitat, this change will probably not adversely affect this species.
- The grasshopper sparrow nests and forages in grasslands, a habitat which will increase in quantity at the Airport.
- The northern harrier nests and forages in grasslands and similar habitats and could benefit from the proposed Projects.

As design progresses, the Airport will continue seeking ways to avoid and minimize impacts to rare species. The Airport will continue to work with NHESP and the MA Department of Conservation and Recreation (DCR) to address rare species impacts.

Impacts to Federally Listed Rare Species

The northern long-eared bat is both federally and State-listed as a rare species and is found on the island of Martha's Vineyard; however, this species was not identified by NHESP in the Project area. The U.S. Fish and Wildlife Service, in response to an inquiry submitted on November 13, 2020, issued the following response (see Appendix F):

> The U.S. Fish and Wildlife Service (Service) received on November 13, 2020 your effects determination for the 'MVY Capital Improvement Projects' (the Action) using the northern long- eared bat (*Myotis septentrionalis*) key within the Information for

[23] GZA GeoEnvironmental, Inc. (2020). 2020 Interim Survey Report, Martha's Vineyard Airport (MVY).
[24] NHESP (2020). Walsh's Anthophora, *Anthophora walshi*. (Fact Sheet)

> Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).
>
> Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

It is concluded that no further action is necessary to comply with the U.S. Endangered Species Act.

5.9.2.2 Construction-Period Impacts

The Proposed Action would pave 3.4 acres of grass that is Priority Habitat while removing pavement from 7.2 acres, for a net reduction of 3.8 acres of impervious surfaces in Priority Habitat areas and a corresponding increase in grass. It is anticipated that 11.4 acres of existing state-protected species habitat would be temporarily impacted by regrading activities during construction. Where practical, state-listed plants will be removed from the work areas prior to grading and relocated to other areas of the Airport. Topsoil from disturbed areas may be stockpiled and reused after grading to promote re-seeding from the soil seedbank. Disturbed areas will be revegetated at the end of construction using a seed mix approved by the NHESP.

Vegetation will be managed (mostly tree removal and tree suppression) within approximately 32.0 acres of Priority Habitat that is currently a mixture of forest and shrub habitat. Specific means and methods have not been determined. However, measures that are likely to be implemented include:

- Tree removal will occur in winter to avoid construction activity during bird breeding seasons and insects' active seasons.
- Ways to minimize disturbance to the ground and existing desirable vegetation will be explored in consultation with NHESP and DCR. For example, where there is a single tree or a small clump of trees within a larger shrub area, the trees may be accessed on foot and cut with equipment carried by hand. These trees would not be skidded out or chipped but would be cut into pieces to maximize contact with the ground so they are less likely to become fire hazards.

These measures will be addressed within a state-listed species protection plan, which is expected to be required during Massachusetts Endangered Species Act permitting. Consultation with the NHESP during permitting under the Massachusetts Endangered Species Act will ensure that unnecessary impacts to biological resources are avoided or minimized.

5.9.2.3 Indirect/Secondary Impacts

Indirect and secondary impacts to biological resources may occur due to construction activities. BMPs will be employed during and after construction to minimize the potential for indirect impacts to state-listed species, including winter tree removal; prevention of invasive plant species introduction; and minimization of erosion of destabilized soils. Stockpiles will be surrounded by a perimeter of erosion controls and covered when not in active use. No significant indirect impacts to species or habitats are expected from the proposed Projects.

5.9.2.4 Mitigation

For each of the proposed Projects that would impact Priority Habitat, a work zone and anticipated area of disturbance for grading has been estimated. Due to the prevalence of state-protected species habitat at the Airport, the proposed Projects will be planned and constructed using avoidance and minimization techniques. BMPs will be employed to further reduce impacts and will include:

- Delineation of work areas;
- Contractor training;
- Transplanting;
- Seed bank preservation;
- Follow-up monitoring and reporting;
- Winter tree removal; and
- Tree removal using hand-carried equipment where appropriate.

All impacts to state-protected species habitat will be mitigated in accordance with the requirements of the Massachusetts Endangered Species Act. A state Conservation and Management Permit will be required for the proposed Projects that will include specific mitigation and monitoring commitments to ensure that the species affected will be afforded a net benefit through minimization and mitigation techniques.

Each of the proposed Projects will be reviewed with the NHESP to further develop Project-specific minimization and mitigation measures. The proposed mitigation program for impacts to state-listed species has yet to be determined; however, consultation with the NHESP is ongoing. Mitigation may consist of habitat management measures, payment in lieu of formal mitigation to provide habitat enhancement or protection off-Airport, or other measures. These commitments will be conditioned as part of the required Massachusetts Endangered Species Act permitting process.

5.10 Land Use and the Built Environment (MEPA/NEPA)

As required by the MEPA regulations under 301 CMR 11.07, this DEIR/EA assesses the potential impacts of the proposed Projects on the built environment, including zoning and relevant land use designations. There is no FAA significance threshold associated with this environmental resource category. For concerns related to land use compatibility and noise, see Section 5.7.

Airport development projects have the potential to cause land use impacts. The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of an airport's noise impacts. However, it can also be associated with disruptions of the surrounding community,

residential or business relocations, changes in vehicular traffic patterns, induced socioeconomic effects, and even off-airport effects from on-airport facilities such as lighting units.

In planning future airport developments, it is important to identify early in the planning process existing and planned land uses that could affect or be affected by the Airport improvements to avoid or minimize effects that would disrupt land use compatibility with the Airport. Chapter 4 identified and discussed existing and planned land uses in the vicinity of the Proposed Action. Sensitive land uses generally include residences, schools, religious institutions, parks and recreation areas, and other public places. Potential impacts to these sensitive receptors include noise generated by aircraft and ground traffic and safety hazards. Other potentially incompatible land uses near airports include facilities that generate high levels of electrical transmissions or bright lights, wildlife habitat that attracts birds and other animals with the potential to interfere with airport operations, and tall structures or other objects obstructing navigable airspace.

According to the *Airport and Airway Improvement Act* of 1982 (section 511(a) (5)), the EA shall include documentation that demonstrates that the Airport sponsor has, to the extent reasonable, taken the appropriate measures to place restrictions on the use of land, adjacent to or in the immediate vicinity of the Airport, to ensure that existing and planned land uses would remain compatible with normal airport operations, including the landings and takeoffs of aircraft.

5.10.1 No-Build Alternative

Under the No-Build Alternative, the existing Airport footprint would remain unchanged; therefore, no incompatible land uses would be introduced, and no surrounding land uses would be altered. Failure to maintain Airport infrastructure or to remove vegetation that is obstructing airspace could alter the aircraft types or numbers that can use the Airport or which runways can be used, which would adversely affect users of the Airport and needed Airport revenue.

5.10.2 Proposed Action

The Proposed Action would not affect the numbers of aircraft or their flight patterns at the Airport, and therefore would not affect noise conditions in surrounding areas. Tree removal will be visible along local roads and the bike path. However, the land uses on and off the Airport would not change and there would be no change in the compatibility of the Airport and surrounding land uses. Scenic and visual impacts are addressed further in Section 5.11.

The Projects include 3.2 acres of tree removal within the State Forest, outside of existing easements. (Appendix E includes the Airport's official property map, referred to as "Exhibit A".) If easements are required to remove trees from these areas, the easements would cover the full extent of potential future vegetation management, which is approximately 12 acres (6 acres on each side of the existing easement). The Airport would work closely with DCR to develop a vegetation and habitat management plan that is compatible with the management goals and uses of the State Forest.

The proposed right-turn lane on Airport Road will be visible but should improve traffic flows, so it will not have an adverse effect on surrounding land uses. None of the other projects are expected to be incompatible with, or to otherwise affect, surrounding land uses.

5.10.2.1 Indirect/Secondary Impacts

The Airport would work closely with DCR to ensure vegetation management on State Forest land is compatible with the management goals and uses of the State Forest. The Proposed Action will not introduce other land uses that would be incompatible with existing or proposed land uses in the Airport's surroundings. No significant Indirect and secondary impacts are expected.

5.10.2.2 Mitigation

The Airport will continue working with DCR to develop a vegetation and habitat management protocol that is compatible with the management goals and uses of the State Forest. The Airport will work with the towns and the Martha's Vineyard Joint Transportation Committee and its Bicycle and Pedestrian Advisory Committee to minimize temporary and permanent effects to the bike path.

5.11 Scenic Qualities, Open Space and Recreational Resources (MEPA); Visual Effects (NEPA)

As required by the MEPA regulations under 301 CMR 11.07, this DEIR/EA assesses the potential impacts of the proposed Projects on scenic qualities, open space, and recreational resources. Scenic qualities, open space, and recreational resources is not an environmental resource category listed in FAA Order 1050.1F, but the Order does require the assessment of visual effects (including light emissions). This involves visual resources and visual character that pertain to "the aesthetic value and any unique aspects of the area, including any protected visual resources."[25] There is no FAA significance threshold associated with this environmental resource category. Department of Transportation Act, Section 4(f) also pertains to recreational resources and visual effects (Section 5.12 below).

5.11.1 No-Build Alternative

Under the No-Build Alternative, the existing Airport footprint would remain unchanged; therefore, no change in scenic qualities, open space or recreational resources would occur.

5.11.2 Proposed Action

The Proposed Action involves 33.9 acres of vegetation management, some of which will be visible for a stretch of approximately 1,118 feet along Barnes Road and the associated bicycle path; and 1,292 feet along Edgartown-West Tisbury Road and the bicycle path. Motorists, walkers, and bicyclists will have a less obstructed view of the airfield and Airport infrastructure, such as runways, lighting, and navigational equipment. In tree removal areas, more grassland and shrubs and less forest land will be visible. However, all but 3.2 acres of the tree removal will be either on Airport property or within easements acquired specifically to keep regulated airspace free of trees and other obstructions. The reduction of 3.2 acres of forest along the sides of an existing 44-acre easement would not substantially change the view for passing motorists or pedestrians, but could be noticeable from certain portions of State Forest. The Airport will continue working with DCR to develop a vegetation and habitat management protocol that minimizes impacts to the State Forest and its users.

There would be additional lighting for the Hangar Development, extended Taxiway E, and Aircraft Parking and Movement projects, although new lighting would mostly be toward the interior of airport

[25] FAA Order 1050.1F. (2015)., *Environmental Impacts: Policies and Procedures*. July 16, 2015.

property; would be consistent in character with existing lighting; and are not likely to noticeably alter views from off airport property.

5.11.3 Construction-Period Impacts

The vegetation management (primarily tree removal) within and near the State Forest could temporarily disrupt use of the State Forest. Tree removal would be conducted in winter, when there are fewer users of the State Forest. The Airport would work with DCR to develop a plan that minimizes impacts to users of the State Forest and does not disrupt access to the resource.

No other Projects are expected to affect local scenic or aesthetic qualities during the construction period. Any visual impacts from the presence of construction vehicles and equipment would be temporary.

5.11.4 Indirect/Secondary Impacts

Tree removal within the State Forest would affect the scenic qualities of the State Forest by reducing forest cover and increasing shrublands. There are already extensive shrub habitats in the area, so the change is not incompatible. Indirect effects of the work might involve minor management measures such as rerouting of trails or planting screens. However, the change in cover type is not expect to have significant indirect or secondary impacts or to otherwise limit the accessibility or diminish the use of proximate open space and recreational resources.

5.11.5 Mitigation Measures

The Airport will continue working with DCR to develop a vegetation and habitat management protocol that is compatible with the management goals and uses of the State Forest. The Airport will work with the towns and the Martha's Vineyard Joint Transportation Committee and its Bicycle and Pedestrian Advisory Committee to minimize temporary and permanent effects to the bicycle path.

5.12 Section 4(f) Resources (NEPA)

Section 4(f) of the Department of Transportation Act of 1966 states that federal approval will not be given to projects requiring the use of any land from a public park, recreation area, wildlife/waterfowl refuge, or historic site unless there is no feasible or prudent alternative to the use of such land, and the project includes all possible planning to minimize harm resulting from the use. There are two types of use the FAA evaluates in regard to Section 4(f) resources: physical and constructive. Physical Use means the project would require physical taking of a Section 4(f) resource through acquisition or easement, occupation of a part or all of the property, or require alteration of facilities on the property. Constructive use of a Section 4(f) property occurs when the proximity impacts of a proposed action on an adjacent or nearby Section 4(f) property, after incorporation of impact mitigation, are so severe that the "activities, features, or attributes of a property are substantially impaired."[26]

FAA Order 1050.1F identifies the significance threshold for actions involving a Section 4(f) resource. For the proposed Projects, the determination of significance was based on the potential for the involvement of "more than a minimal physical use of a Section 4(f) resource" or a use that "constitutes a

[26] FHWA. (2019). "Section 4(f) Tutorial." Retrieved 1 July 1, 2020, from https://www.environment.fhwa.dot.gov/env_topics/4f_tutorial/overview.aspx?a=e#a.

'constructive use' based on FAA determination that the aviation project would substantially impair the Section 4(f) resource."

As described in Chapter 4, the Section 4(f) resources in the project area include the Manuel F. Correllus State Forest and the bicycle path.

5.12.1 No-Build Alternative

Under the No-Build Alternative, the existing footprint at the Airport would remain unchanged; therefore, there would be no impacts to or uses of Section 4(f) resources.

5.12.2 Proposed Action

The Proposed Action includes vegetation management on State Forest land and along the public bicycle path. (See **Figures 5-1 through 5-4** and the official Airport property map, Appendix E.)

Approximately 13.6 acres of the vegetation management on State Forest land would be within easements acquired specifically to allow unobstructed aircraft travel. Therefore, vegetation management in these easements is not considered a use of the Section 4(f) resource.

Approximately 3.2 acres of trees within the State Forest outside of easements will need to be removed. It has not been determined whether additional easement area must be acquired to remove the trees and ensure future vegetation management can occur. If needed, the additional easement acreage would be approximately 12 acres (6 acres on each side of the existing easement). Because of both Section 4(f) and Article 97 of the Amendments to the State Constitution, the Airport and FAA will have to come to an agreement with DCR prior to removing trees or obtaining an easement. Since it is assumed there will be agreement on the proposed work, it is further assumed the work will not constitute either a physical or constructive use of the resource. The resource would still be impacted, but the impact would be considered *de minimis*, and no individual Section 4(f) evaluation would be needed. If an agreement is not reached with DCR, then it is unclear how the work could proceed given the requirements of both Section 4(f) and Article 97.

Trees will also be removed along the bicycle path where it passes through the Runway 6 and 24 approaches. In these two areas, the bicycle path runs along the inside edge of Airport property, along Barnes Road and Edgartown-West Tisbury Road. In both areas, the Airport side of the bicycle path is bordered by grass and the Airport fence, with an unobstructed view of the airfield. There is an approximately 20- to 30-foot-wide swath of trees and shrubs between the bicycle path and the public roads. Removing the trees will make the roads and vehicle traffic more visible and audible to users of the bicycle path. The length of bicycle path affected are 1,118 feet along Barnes Road and 1,292 feet along Edgartown-West Tisbury Road.

Within the vegetation management areas, the bicycle paths are within easements granted specifically for the bike path. Along Barnes Road and part of Edgartown-West Tisbury Road, the paths are within an easement granted by the County to the State in 1973. There are no provisions relating to vegetation management in the easement, but since they are within runway approaches, it is assumed that vegetation management to remove airspace obstructions is an acceptable activity. Further west along Edgartown-West Tisbury Road, but still within the Runway 6 approach, the bike path passes through State Forest land for which the County holds an easement which allows it to remove any obstructions that may interfere with aircraft. Because the bicycle path is entirely within easements that allow, or do

not prohibit, necessary vegetation management, it is assumed the vegetation management would not be a physical or constructive use of the bicycle path resource. The visual effects of removing trees is considered a *de minimis* use.

5.12.3 Construction-Period Impacts

There would be a *de minimis* use of the bicycle path and the State Forest during the construction period. The vegetation management work could temporarily affect the ability to use the bicycle path. Construction vehicle access could also affect bicycle path use. The Airport will work with the towns and the Martha's Vineyard Joint Transportation Committee and its Bicycle and Pedestrian Advisory Committee to develop temporary signage and lighting and, if necessary, alternate bicycle path routes to ensure the broader bicycle path network remains useable and safe. The vegetation management work could also temporarily affect use of the State Forest. The Airport will work with DCR in efforts to maintain trail continuity during construction.

5.12.4 Indirect/Secondary Impacts

The proposed Projects are not expected to result in or induce projects or other activities that would result in a use of a Section 4(f) resource. No indirect/secondary impacts are anticipated for U.S. Department of Transportation Act, Section 4(f).

5.12.5 Mitigation

Impacts will be minimized to the extent possible by issuing public notices of construction; providing alternate trail routes if needed; and minimizing vegetation removal where appropriate. For example, tall shrubs such as scrub oak will be left in place along the bike path and within portions of the State Forest as a visual buffer between the State Forest and the Airport and between the bike path and the local roads. As noted above, the Airport will work with the towns and the Martha's Vineyard Joint Transportation Committee and its Bicycle and Pedestrian Advisory Committee in this regard.

5.13 Socioeconomic, Environmental Justice and Children's Health and Safety Risks

As required by the MEPA regulations under 301 CMR 11.07, this DEIR/EA assesses the potential impacts of the proposed Projects on economic and social conditions. Further, in accordance with the 2017 *Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs*, along with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, this DEIR/EA reviews the proposed Projects against their potential to result in the equitable allocation of benefits and burdens, as applicable. FAA Order 1050.1F requires the consideration of potential impacts of the proposed Projects on social elements, including socioeconomics, environmental justice, and children's health and safety risks. The FAA has not established a significance threshold relative to this environmental resource category.

Because there are no low-income or minority populations in the Airport vicinity, there are no impacts to such populations. Within Martha's Vineyard, the population over the age of 64 is above the 80th percentile.

5.13.1 No-Build Alternative

Under the No-Build Alternatives, the Airport would not significantly alter infrastructure or the nature of operations within the Project areas, and existing and projected levels of passenger and aircraft

operations at the Airport would not be affected. There would be no Project-related human health or environmental effects; therefore, there would not be any disproportionately high and adverse effects to children's health and safety risks.

The No-Build could result in negative socioeconomic impacts by limiting the ability of the Airport to operate safely and efficiently. In addition, the No-Build does not support jobs creation within the community, including direct and induced jobs associated with the construction phase.

5.13.2 Proposed Action

No significant changes are expected between pre-development and post-development socioeconomic conditions. The Proposed Action is located mostly on Airport property and is not anticipated to negatively affect landowners, and therefore would not produce a substantial change in the community tax base.

The Proposed Action would not disrupt or divide the physical arrangement of an established community and would not cause relocation of individuals or community business. Therefore, it can be concluded that disproportionately high and adverse human health or environmental effects are not anticipated to occur among any populations as a result of the Proposed Action.

No changes are expected between pre-development and post-development conditions regarding health and safety risks, other than the potential increased safety of air travel relative to the No-Build.

The proposed alternatives have been evaluated for their potential to have a disproportionate effect on children's environmental health or safety, including, but not limited to, water quality, air quality, and noise. The proposed Projects will not create or make more readily available products or substances that contact or ingestion through air, food, drinking water, recreational waters, or soil could harm children. It has been concluded that the Proposed Action is not of the nature or magnitude to have an adverse effect upon the health and safety of children. Mitigation is not proposed.

5.14 Hazardous Materials and Solid Waste (MEPA/NEPA)

The FAA has not established a significance threshold for hazardous materials, solid waste, or pollution prevention in FAA Order 1050.1F. The FAA has identified factors to consider in evaluating the context and intensity of potential impacts. If these factors exist, there is not necessarily a significant impact; rather, the FAA must evaluate these factors to determine if there are significant impacts. Factors to consider include, but are not limited to, situations in which the Proposed Action or alternative(s) would have the potential to:

- Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management.
- Involve a contaminated site (including, but not limited to, a site listed on the National Priorities List).
- Produce an appreciably different quantity or type of hazardous waste.
- Generate an appreciably different quantity or type of solid waste, use a different method of collection or disposal, and/or exceed local capacity.

- Adversely affect human health and the environment.

5.14.1 No-Build

The No-Build Alternatives would not result in any new construction, and therefore, there would be no new solid waste generation, disturbance of soil/groundwater or need for disposal of hazardous materials. Active Massachusetts Contingency Plan (MCP) disposal sites would continue to be assessed and remediated in order to achieve regulatory closure under the No-Build Alternatives.

5.14.2 Proposed Action

Solid waste is likely to be produced during the construction phase of the Proposed Action (see below). The amount of solid waste to be generated by the Proposed Action during the operational phase is not expected to be a significant increase over the current levels produced by current Airport operations. Solid waste would be produced by the businesses occupying Lots 34 and 38 of the Business Park and the new hangars. The renovated terminal would have more interior space but would not affect the numbers of passengers, airline staff, Airport employees and others that use the facility, so there should not be a substantial increase in waste generated.

Management and disposal of construction and vegetative debris will be in accordance with federal, state, and local regulations. As applicable, debris from demolition activities would be transported to an authorized facility with recycling capability with the potential to be used in future projects by others. Also, clean excavated soils may be reutilized on-site to the maximum extent possible and in accordance with site-specific design specifications. Excess soils could also be reutilized off-site, if warranted. Vegetative debris would be managed by chipping/grinding for use in landscape as mulch and compost, and excess disposed in accordance with applicable regulation.

Implementation and operation of the Proposed Action would comply with all applicable federal, state, and local regulations regarding hazardous materials, hazardous waste management, solid waste, and pollution prevention. The amount of solid waste to be generated by the Proposed Action during the operational phase is not expected to be a significant increase over the current levels produced by current Airport operations.

5.14.3 Construction-Period Impacts

Based on the presence of an active MCP site at the Airport, there is the potential to encounter contaminated soil and/or groundwater during the construction phases of the proposed Projects. Such an encounter would require special handling and management.

As described in Section 5.6.2, all of the projects requiring earthwork will have more excavation than embankment (fill). Excess soil generated as part of the construction of the proposed Projects will be reused or retained on-site to the extent practicable. Soils will be tested for contaminants in accordance with state guidelines. Should new contamination be discovered during construction, it will be assessed, and if necessary, remediated prior to and during construction activities per the Massachusetts Contingency Plan. If contaminated soil and/or groundwater require off-site disposal, they will be sent to a licensed disposal facility such as a landfill and stored to prevent future impacts to human health and the environment via appropriate containment. Contaminated groundwater would be treated prior to being discharged or would be stored in frac tanks (i.e., large capacity steel tanks) for off-site disposal at

an appropriate facility to be treated. Groundwater treatment generates waste such as spent carbon that would require proper disposal at a licensed receiving facility.

Based on the age of the buildings, asbestos containing building materials (ACBMs) may be present. An ACBM survey and sampling will be conducted prior to any demolition activities. If asbestos is detected in the samples then the building materials will be properly abated by a licensed contractor in accordance with all applicable state (310 CMR 7.15) and federal regulations prior to demolition activities.

Therefore, no adverse construction impacts are anticipated associated with the management of hazardous building materials.

5.14.4 Indirect/Secondary Impacts

Excess soil and groundwater generated during the construction phases of the proposed Projects will be properly managed in accordance with the Massachusetts Contingency Plan. The risk of improper off-site management of soil and groundwater is low given the existing regulations in place. Therefore, no adverse indirect/secondary impacts are anticipated during construction activities associated with the management of potentially impacted environmental media.

Solid waste such as construction and demolition debris will be recycled as appropriate and sent off-site to an appropriate receiving facility. The risk of improper disposal of these materials is low given that these materials will be tracked by the contractors. Therefore, no adverse indirect/secondary impacts are anticipated.

No use of oil and/or hazardous materials above existing conditions are anticipated at any of the proposed Projects. Accordingly, no adverse indirect/secondary impacts associated with the increased use of oil and/or hazardous materials is expected. The proposed hangars would provide a controlled environment to better protect on-Airport maintenance equipment and vehicles; no maintenance activities would be conducted within this facility.

5.15 Cumulative Impacts

In determining the significance of the impacts associated with the Proposed Action, it is necessary to consider the overall cumulative impact of the Proposed Action in combination with other projects. The Council on Environmental Quality regulations at 40 CFR 1508.7 defines cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions".

The geographic area of concern for this analysis is generally the Airport property, areas affected by vegetation obstruction removal, and the immediate surroundings. For the most part, this means the Airport, adjacent State Forest land, and a mixture of developed and undeveloped land immediately south of the Airport. The time period for cumulative effects analysis is the recent past and the future period during which the project is expected to affect a resource, ecosystem, or human community, roughly the past 10 to 15 years, and into the future only to the extent there are known development plans.

5.15.1 Past Projects

Recently completed projects at the Airport have included reconstruction of Taxiway A beginning in 2006 and completed in 2012, construction of the southeast ramp phase 1 completed in 2006, reconstruction of the Southwest Ramp from 2010 to 2012, obstruction removal within the approach to Runway 6 completed in 2006, conversion of derelict pavement near the southeast ramp area to grassland in 2009, creation of the buckmoth mitigation area and pathways completed in 2006, shifting of Runway 6/24 in 2010, rehabilitation of Runway 6-24 in 2018-2019, vegetation management for Taxiway E completed in 2009, and relocation of the localizer in 2014. Also during this time period, the Business Park continued to fill previously subdivided and approved lots.

5.15.2 Ongoing and Reasonably Foreseeable Projects

Aside from signage, pavement markings, and equipment purchases, there are no infrastructure projects currently under construction at the Airport. No substantial changes are proposed in the State Forest at this time, although there are ongoing discussions regarding fire lane management, trail development, and other management issues. The Airport is working with nearby residents affected by PFAS contamination regarding filtration systems, but no new infrastructure has been proposed. As of November 2020, the Airport Manager is not aware of any other large developments in the vicinity and town offices had not provided additional information.

5.15.3 Cumulative Effects of Proposed Action

The potential cumulative impacts of each component of the Proposed Action are described below.

Lots 34 and 38

Both lots were cleared and as a result impacted Priority Habitat, incrementally reducing the amount of such habitat available in the area. The Business Park was established over 20 years ago, with most lots developed between 1998 and 2001, followed by incremental building since that time. This area has long been targeted for commercial development and has received local permits and approvals for this use. However, portions of it have been designated Priority Habitat, and construction on Lots 34 and 38 have reduced that habitat. Sufficient mitigation will be provided such that it will not contribute to significant cumulative impacts. Furthermore, the consumption of water, electricity, and heating fuel, along with the production of wastewater, have been planned for and will not exceed the capacities of existing utilities.

Aircraft Hangar Development

The hangars will disturb Priority Habitat and create new impervious surfaces. Stormwater management practices will treat runoff and minimize contribution to water quality impacts. The Proposed Action overall will result in a reduction in impervious area and an increase in grass within Priority Habitat, and improvements in stormwater management. The buildings will increase wastewater production, and increase consumption of utilities such as water, electricity, and heating fuel. However, this consumption does not exceed the capabilities of existing utilities and is therefore not anticipated to result in cumulative impacts for those resources. No adverse cumulative impacts are expected from the proposed Aircraft Hangar Development.

Improve Fuel Farm Access and Safety

The proposed fuel farm will result in no change in footprint, no change in net impervious surfaces, and no change in use, therefore the fuel farm project is not anticipated to contribute to cumulative effects.

Airspace Vegetation Management – Runway 6

The proposed vegetation management on the Runway 6 end is located partly on airport property and partly on State Forest property within an easement that allows for vegetation removal. The proposed work involves the removal of trees within approximately 2.2 acres south of Edgartown-West Tisbury Road and 1.6 acres of trees north of the road. These areas will be converted to shrub habitat which supports a variety of rare moth and butterfly species, so the vegetation management will not contribute to adverse cumulative impacts.

Airspace Vegetation Management – Runway 24

The proposed obstruction removal on the Runway 24 end is located partially on Airport property, partially within an easement on State Forest property granted for the protection of aviation use and allowing for obstruction removal, and partially on State Forest property with no easement. While cutting the easement areas will reduce the amount of forest cover, it will improve habitat for certain rare species, and will be consistent with the intended use of the easement. Removing trees from State Forest will reduce the amount of forest land but will have other benefits, and this habitat type is still abundant on the island and on Cape Cod. Therefore, this work will not contribute to significant cumulative impacts.

Displace Runway 15 Threshold 275 Feet, Construct Partial Parallel Taxiway E and Remove Vegetation

This project proposes a substantial net reduction in paved surfaces and an increase in grassland. In combination with new stormwater treatment measures, this project will reduce stormwater runoff, improve stormwater treatment, and increase the amount of grassland habitat. The vegetation management at the Runway 15 and 33 ends will reduce the amount of forested habitat but will increase both grassland and shrub habitat. Grassland and shrub habitat both support a variety of rare plant and animal species. For these reasons, these project components will not contribute to adverse cumulative impacts.

Terminal Building Renovation

The Terminal Building Renovation will consume more water and energy than the current building. These are not in short supply and the building will employ a variety of water- and energy-saving fixtures and components. For these reasons, these project components will not contribute to adverse cumulative impacts.

Access Road Improvements

The proposed new right-turn lane will marginally improve traffic flow, thereby reducing vehicle fuel usage and emissions. It will have a relatively small footprint in non-Priority Habitat. For these reasons, this project will not contribute to adverse cumulative impacts.

Improve Aircraft Parking and Movement Areas

This project will improve the efficiency of aircraft ground movements and will not add net new impervious surfaces. It will also employ stormwater management of existing and proposed pavement, an improvement over existing treatment. For these reasons, this project will not contribute to adverse cumulative impacts.

6 MITIGATION AND DRAFT SECTION 61 FINDINGS

6.1 INTRODUCTION

The Martha's Vineyard Airport Five-Year Capital Improvement Plan Projects (the Projects) would provide needed infrastructure improvements to enhance the efficiency and safety of aircraft ground movements and general operations at the Martha's Vineyard Airport (the Airport). They would also utilize development potential within non-aeronautical parcels under Airport ownership to support Airport operations and increase Airport revenues. The proposed Projects are not expected to affect aircraft flight patterns or changes the sizes or types of aircraft that can use the Airport.

The Airport has designed and developed the proposed Projects to avoid and minimize impacts to environmental resources. To this end, the proposed Projects incorporate Best Management Practices (BMPs) for stormwater management and habitat protection, as well as Project enhancements associated with resource efficiency and resiliency planning. The proposed Projects will result in a reduction in overall impervious surfaces within the Airport boundary which, combined with the proposed stormwater treatment, would reduce stormwater runoff volumes and improve runoff water quality. They are also expected to result in unavoidable conversions of state-protected species habitat.

According to the Secretary of the Executive Office of Energy and Environmental Affairs' (EOEEA) Certificate on the Environmental Notification Form (ENF) for the proposed Projects, the Draft Environmental Impact Report (DEIR) is required to document the following:

> The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

Chapter 5, *Environmental Consequences* of this DEIR/Environmental Assessment (EA) identifies and discusses the Airport's planned beneficial measures and mitigation commitments for the proposed Projects. This chapter presents a summary of those measures and commitments with a focus on those requiring State Agency action consistent with the Secretary's Certificate and in accordance with M.G.L. c. 30, section 61.

6.2 MEPA HISTORY

The Airport filed the ENF for the proposed Projects on December 14, 2018. The ENF (EEA #16128) was noticed in the Environmental Monitor on December 26, 2018, and was available for public comment through February 12, 2019. MEPA held a public scoping meeting on January 31, 2019 at the Airport's Snow Removal Equipment Building, where it presented an overview of the proposed Projects and solicited public input. The Secretary published the Certificate on the ENF on February 22, 2019, and determined that the proposed Projects require the preparation of a DEIR. The Certificate included the scope of the DEIR.

6.3 REQUIRED STATE PERMITS AND REVIEWS

Table 6-1 summarizes the State Agency actions required to construct the proposed Projects, along with their current status. Chapter 7, *Regulatory Compliance* of this DEIR/EA provides a detailed discussion of these permits and reviews.

Table 6-1 Anticipated State Permits and Approvals for the Martha's Vineyard Airport Five-Year Capital Improvement Plan

Issuing Agency	Approval or Permit	Status
Executive Office of Energy and Environmental Affairs	Secretary's Certificate under the Massachusetts Environmental Policy Act (MEPA)	Draft Environmental Impact Report (DEIR) submitted herein. A Final EIR (FEIR) will be noticed following the close of the comment period and issuance of the Secretary's Certificate on the DEIR.
Department of Environmental Protection (MassDEP) Underground Injection Control (UIC) Program	UIC Class V Technical Compliance Form for Stormwater Wells	Determined during 30 percent design
Natural Heritage and Endangered Species Program (NHESP)	Conservation and Management Permit	Permit to be issued after the Secretary's Certificate on the FEIR
MassDEP	Massachusetts Contingency Plan	As required. Hazardous materials encountered during the development would be addressed in accordance with applicable Massachusetts Contingency Plan regulations.
MassDEP and Department of Labor Standards (DLS)	BWP AQ 04 Asbestos Removal Notification form	The Airport will submit a BWP AQ 04 Asbestos Removal Notification form to MassDEP if it is determined to be applicable.
MassDEP	BWP AQ 06 Notification Prior to Construction or Demolition form	As required prior to each construction project.
Massachusetts Department of Transportation	State Highway Access Permit	Required for changes to Airport Road intersection with Edgartown-West Tisbury Road
Department of Conservation and Recreation	Construction Access Permit	Expected to be required for vegetation management on State Forest outside of airport easements.
Massachusetts State Senate and House or Representatives	Article 97 of Amendments to Massachusetts Constitution	Applicability (for vegetation management or easements in State Forest) to be determined in consultation with Department of Conservation and Recreation. Requires two-thirds vote of state legislature.

6.4 DRAFT SECTION 61 FINDINGS

The following provides a draft Section 61 Finding that is intended to address the potential impacts of the proposed Projects. This draft can be used by State Agencies with permitting responsibilities (**Table 6-1**).

Project Name:	*Martha's Vineyard Airport Five-Year Capital Improvement Plan*
Project Location:	*Towns of West Tisbury and Edgartown, Massachusetts*
Project Proponent:	*Martha's Vineyard Airport Commission*
EEA Number:	15964

This Section 61 Finding for the Martha's Vineyard Airport Five-Year Capital Improvement Plan (the proposed Projects) (EEA #15964) has been prepared in accordance with the provisions of M.G.L. Chapter 30, Section 61 and 301 CMR 11.07(6)(k).

The potential environmental impacts of the proposed Projects have been characterized and quantified in the Draft Environmental Impact Report (DEIR), which is incorporated by reference into this Section 61 Finding. To the greatest extent practicable, the Martha's Vineyard Airport (the Airport) has taken all feasible measures to avoid and/or minimize adverse environmental impacts of the proposed Projects. The Airport has worked throughout the planning and environmental review process to develop measures to mitigate unavoidable impacts to the extent practicable. With the implementation of the proposed mitigation, conducted in cooperation with State Agencies, the [Agency Name] finds that there are no significant unmitigated impacts.

The Airport recognizes that the identification of effective mitigation, and implementation of that mitigation, throughout the life of the proposed Projects, is central to its responsibilities under MEPA. Accordingly, the Airport has prepared Section 6.5 of the DEIR that specifies, for each potential state permit, the beneficial measures and mitigation commitments that the Airport would provide. In Section 6.5, the Airport provides clear commitments to implement the mitigation measures; estimates the costs of each proposed measure, where available; identifies the parties responsible for implementation of measures; and provides a schedule for their implementation based upon the phasing of the proposed Projects.

The [Agency Name] has reviewed the MEPA filings for the proposed Projects, and finds that the environmental impacts resulting from Project construction are those impacts described in the DEIR, which would be updated as needed in permit applications submitted for compliance with federal and state environmental laws. Pursuant to M.G.L. Chapter 30, Section 61, the [Agency] finds that with the implementation of mitigation measures as identified in Section 6.5 of the DEIR, all practicable and feasible means and measures would have been taken to avoid or minimize potential damage to the environment due to the construction and operation of the proposed Projects. In making this finding, the [Agency] has considered reasonably foreseeable climate change impacts and effects such as predicted sea level rise.

6.5 BENEFICIAL MEASURES AND MITIGATION COMMITMENTS

Table 6-2 provides a high-level summary of the beneficial measures and mitigation commitments that the Airport pledges to implement as part of the proposed Projects. Those pertaining to State Agency action are discussed in detail in Sections 6.5.1 through 6.5.7 below. All measures are expected to be implemented by the Airport or its contractors according to the schedule of construction for the proposed Projects. Their costs are expected to be covered by the total Project costs estimated in Chapter 5, *Alternatives Analysis and Proposed Action*, though specific costs for stormwater BMPs are included in **Table 6-3** and proposed/potential energy efficiency measures at the proposed Construct Nobadeer Farm Crew Quarters and Construct Ground Service Equipment Building Projects are included in Appendix D, *Energy Model Documentation*.

Table 6-2 Summary of Beneficial Measures and Mitigation Commitments

Section	Resource Category[1]	Beneficial Measure/Mitigation Commitments
6.5.1	Water Resources (MEPA/NEPA)	• Permanent Best Management Practices (BMPs) including vegetated filter strips, water quality dry swales, new deep-sump and hooded catch basins, and subsurface infiltration structures • Implementation of an erosion and sedimentation control program for each construction project
6.5.2	Air Quality (MEPA/NEPA)	• Mitigating fugitive dust emissions by wetting and stabilizing exposed soils, cleaning paved roadways, and scheduling construction to minimize the amount and duration of exposed earth • Requiring compliance with the requirements of MassDEP's Clean Construction Equipment Initiative, which includes measures such as: o Requiring that contractors utilize ultra-low sulfur diesel fuel for off-road construction vehicles and/or equipment o Requiring that contractors install emission control devices on applicable equipment types • Requiring that gasoline and diesel motorized construction equipment be well maintained and in good running order to minimize exhaust emissions, including odor • Requiring record-keeping of the routine maintenance programs for internal combustion engine-powered vehicles and equipment • Where feasible, using alternative-fueled or electric equipment • Requiring construction equipment to meet the USEPA's Tier 4 Emissions Standards (40 CFR part 1039), which specify that emissions of particulate matter (PM) and nitrous oxides (NOx) be further reduced, where feasible • Requiring that contractors enforce Massachusetts' Anti-Idling law (310 CMR 7.11), which requires that engines idle for no more than five minutes, with the installation of on-site anti-idling signage at loading and waiting areas • Encouraging contractors to prepare transportation management plans or other development programs/incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport (e.g., the provision of off-Airport parking and shuttle services)

Section	Resource Category[1]	Beneficial Measure/Mitigation Commitments

6.5.3	Climate and Greenhouse Gas Emissions (MEPA/NEPA)	• At the proposed Terminal Building Renovation and Aircraft Hangar Development Projects:
		  ○ Designing new buildings with solar-ready rooftops to the extent required by the building code in effect at the time of construction and considering installation of solar panels
		  ○ Installing higher performance heat pumps
		  ○ Replacing HVAC with a variable refrigerant flow system
		  ○ Installing an energy recovery ventilator as part of the variable refrigerant flow system
		  ○ Improving lighting efficiency
		  ○ Install daylighting controls in certain areas
		  ○ Increasing wall and roof insulations
		  ○ Improving curtain wall glass performance, decreasing size of curtain wall, and improving curtain wall glazing
		  ○ Considering Passive House improvements to hangars
		• Examining the potential for solar photovoltaic systems at other Airport infrastructure, such as the Airport Rescue and Fire Fighting building and parking lots.
		• Considering the Massachusetts Department of Energy Resources' recommended energy conservation measures in future versions of the Airport's Capital Improvement Plan
		• Requiring compliance with the requirements of the MassDEP's Clean Construction Equipment Initiative
		• Requiring that gasoline and diesel motorized construction equipment be well maintained and in good running order
		• Requiring record-keeping of the routine maintenance programs for internal combustion engine-powered vehicles and equipment
		• Where feasible, using alternative-fueled or electric equipment
		• Requiring that contractors enforce Massachusetts' Anti-Idling law (310 CMR 7.11), which requires that engines idle for no more than five minutes, with the installation of on-site anti-idling signage at loading and waiting areas
		• Encouraging contractors to prepare transportation management plans or other development programs/incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport (e.g., the provision of off-Airport parking and shuttle services)

6.5.4	Natural Resources and Energy Supply (MEPA/NEPA)	• Energy efficiency measures discussed above under Section 6.5.3, *Climate and Greenhouse Gas Emissions* • Installing LED technology into all new or replaced airfield lighting and signage, where appropriate • Incorporating low flow/flush into the proposed new buildings • Managing waste according to applicable federal, state, and local laws and regulations

Section	Resource Category[1]	Beneficial Measure/Mitigation Commitments
6.5.5	Biological Resources (MEPA/NEPA)	• Avoidance and minimization measures will include delineation of work areas, contractor training, and where appropriate, bulk and manual transplanting, seed bank preservation, and follow-up monitoring • Mitigation measures may include habitat enhancement or in lieu fee and will be developed in conjunction with the NHESP through the permitting process
6.5.6	Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks (MEPA/NEPA)	• Drawing from the local workforce to the extent practicable • Coordinating with the towns and local groups to ensure continued safe usage of the bike path and other recreational facilities during project construction
6.5.7	Hazardous Materials, Solid Waste, and Pollution Prevention (MEPA/NEPA)	• Notifying MassDEP if a reporting condition is identified per the Massachusetts Contingency Plan (i.e., the identification of contaminants above the Reportable Concentrations that have not otherwise been reported, a release of OHM above a reportable quantity, etc.) • Managing soils and groundwater in accordance with the applicable state and federal regulations including appropriate regulatory submittals such as a Release Abatement Measure Plan for work conducted within the limits of the active disposal site boundary associated with RTN 4-0027571 • Sampling potential asbestos containing building materials (ACBMs) and abating all asbestos according to all applicable state (310 CMR 7.15) and federal regulations prior to demolition activities. • Submitting a BWP AQ 06 Notification Prior to Construction or Demolition form to MassDEP if it is determined to be applicable. • Implementing spill response programs in the event of a spill or leak associated with vehicles, aircraft operations, or heavy machinery, and contacting the appropriate regulatory agency • Continuing to update the Airport's existing Spill Prevention, Control and Countermeasure Plan to reflect any major changes to on-site petroleum product or liquid hazardous waste storage • Performing special handling, dust control, and management of contaminated soil and groundwater to provide adequate protection to workers and any nearby sensitive receptors • Coordination with MassDEP on managing soils with PFAS contamination, if any. • A permanent identification number would be obtained in accordance with 310 CMR 30.000 if a proposed Project generates hazardous waste and/or waste/oil

Section	Resource Category[1]	Beneficial Measure/Mitigation Commitments
	Topography, Geology, and Soils (MEPA/NEPA)[2]	The proposed Projects would not require State Agency action with respect to topography, geology, and soils . As discussed in Chapter 5, *Environmental Consequences,*, the proposed Projects have no potential for an adverse impact on this environmental resource category. Therefore, no beneficial or mitigation measures are proposed.
--	Tidelands and Coastal Resources (MEPA/NEPA)	The proposed Projects would not require State Agency action with respect to tidelands and coastal resources. As analyzed in Chapter 5, *Environmental Consequences*, the proposed Projects are not expected to result in an adverse impact on this environmental resource category. Therefore, no beneficial or mitigation measures are proposed.
--	Noise and Noise-Compatible Land Use (MEPA/NEPA)	The proposed Projects would not require State Agency action with respect to noise and noise-compatible land use. Noise is not anticipated to exceed FAA thresholds for noise abatement, nor is it expected to require a State Agency permit or approval.
--	Surface Transportation (MEPA)[3]	The airport access road improvements (adding a right-turn lane) would require a State Highway Access Permit from the Massachusetts Department of Transportation. As discussed in Chapter 5, *Environmental Consequences*, the Airport will coordinate with the Towns of West Tisbury and Edgartown on permanent and construction-period signage and lighting, as necessary, to promote the safe use of the Bicycle Path. It will also encourage contractors to prepare transportation management plans or other development programs/incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport (e.g., the provision of off-Airport parking and shuttle services).
--	Scenic Qualities, Open Space and Recreational Resources (MEPA) and Visual Effects (Including Light Emissions) (NEPA)	The proposed Projects would not require State Agency action with respect to scenic qualities, open space and recreational resources, and visual effects. As discussed in Chapter 5, *Environmental Consequences*, the Airport will coordinate with the Towns of West Tisbury and Edgartown on permanent and construction-period signage and lighting, as necessary, to promote the safe use of the Bike Path. The Airport will also limit uncontrolled light emissions by shielding exterior light fixtures to the extent practicable.
--	Historical, Architectural, Archaeological, and Cultural Resources (MEPA/NEPA)	The proposed Projects would not require State Agency action with respect to historical, architectural, archaeological, and cultural resources. As discussed in Chapter 7, *Environmental Consequences*, the proposed Projects have no potential for an adverse impact on this environmental resource category. Therefore, no beneficial or mitigation measures are proposed.
--	Department of Transportation Act, Section 4(f) (NEPA)	The proposed Projects would not require State Agency action with respect to Department of Transportation Act, Section 4(f). As discussed in Chapter 5, *Environmental Consequences*, the Airport will coordinate with the Towns of West Tisbury and Edgartown on permanent and construction-period signage and lighting, as necessary, to promote the safe use of the Bike Path.

Section	Resource Category[1]	Beneficial Measure/Mitigation Commitments
		The Airport will coordinate with the Department of Conservation and Recreation regarding vegetation management timing and methods to minimize disruption of users of the State Forest.
--	Land Use and the Built Environment (MEPA/NEPA)	The proposed Projects would not require State Agency action with respect to land use and the built environment.

Notes:

1 Environmental resource categories as specified in MEPA regulations under 301 CMR 11.07 and FAA Order 1050.1F and Order 5050.4B.

2 This resource category includes the NEPA category of "Farmlands."

3 Surface Transportation is typically addressed under socioeconomic considerations under FAA Order 1050.1F. For this DEIR/EA, this resource category is addressed in a separate section.

6.5.1 Beneficial Measures and Mitigation Commitments – Water Resources

Specific stormwater BMPs were evaluated to improve water quality of stormwater runoff and to minimize potential impacts of on downstream wetlands, surface waters, and groundwater. Stormwater BMPs that will be employed to control runoff, address peak rate attenuation, provide groundwater recharge, and improve water quality for the proposed Projects include:

- Vegetated filter strips;
- Water quality dry swales;
- New deep-sump and hooded catch basins;
- Subsurface infiltration structures.

The Airport selected these BMPs due to consideration of soil texture, groundwater, land area, topography, existing utilities, aesthetics, Airport operating considerations, setback and permitting requirements, and maintenance. The new stormwater management systems will protect the sole-source aquifer and will meet or exceed the requirements of the USEPA's National Pollutant Discharge Elimination System General Permit and the MassDEP's Stormwater Management Standards.

Additionally, an erosion and sedimentation control program will be implemented to minimize temporary impacts to resource areas during the construction phases of the proposed Projects. This program incorporates BMPs specified in guidelines developed by the USEPA and MassDEP.

Proper implementation and maintenance of the erosion and sedimentation control program would:

- Minimize exposed soil areas through sequencing and temporary stabilization;
- Place structures to manage construction stormwater runoff and erosion; and
- Establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

Controls would comply with criteria contained in the National Pollutant Discharge Elimination System General Permit for Discharges from Large and Small Construction Activities issued by the USEPA. Non-structural practices that may be used during construction include temporary stabilization, temporary seeding, permanent seeding, pavement sweeping, and dust control. These practices would

be initiated as soon as practicable in appropriate portions of the work zones. Any areas of exposed soil or stockpiles that would remain inactive for more than 14 days would be covered with a layer of straw mulch.

Table 6-3 lists the estimated costs for the abovementioned stormwater BMPs at each of the proposed Projects.

Table 6-3 Estimated Costs of Infiltration Best Management Practices

Project	Proposed Measure	Estimated Cost of Drainage Improvements
Business Park Lots 34 and 38	Existing system	None (ties into existing system)
Aircraft Hangar Development	Subsurface stormwater management system	Unknown; responsibility of tenant
Improve Fuel Farm Access and Safety	Deep sump hooded catch basin and oil grit separator	$15,000
Airspace Vegetation Management	None	None
Runway 15-33 and Taxiway E Reconstruction	Deep sump hooded catch basin and subsurface infiltration structure	$330,000
Terminal Building Renovation	None	None
Access Road Improvements – Right-Turn Lane	Water quality dry swale, deep sump hooded catch basin and subsurface infiltration structures	$27,200
Aircraft Parking and Movement Areas – New Stub Taxiway on Southeast Ramp and Reconfigure Southwest Ramp	Subsurface stormwater management systems	$260,000

Source: McFarland Johnson, 2020

Prior to any ground disturbance, an approved erosion control barrier would be installed at the downgradient limit of work. As construction progresses, additional barriers would be installed around the base of stockpiles and other erosion prone areas. As appropriate, the barriers would be entrenched into the substrate to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it would be removed by hand or by machinery operating upslope of the barriers. This material would be either reused within the Project areas or disposed of at a suitable offsite location. Any damaged sections of the barrier would be repaired or replaced immediately upon discovery.

6.5.2 Beneficial Measures and Mitigation Commitments – Air Quality

The operations of the proposed Projects would not cause significant adverse direct and indirect impacts as they would not cause, or contribute to, a violation of the National Ambient Air Quality Standards. As such, no mitigation measures are proposed related to operations.

The Airport is committed to ensuring that short-term construction-related air quality impacts from the proposed Projects are minimized to the extent practicable. With the implementation of the following measures during the construction periods, no significant adverse impacts are expected.

Demolition activities will comply with Air Pollution Control regulations pursuant to M.G.L. Chapter 40, Section 54, as well as current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.05, 7.09 and 7.11. Fugitive dust emissions are proportional to the amount of earth moved and the length of travel on unpaved roads. Any impacts from fugitive dust particles would be of short duration and localized. Mitigating fugitive dust emissions involves curbing or eliminating its generation. Mitigation measures that will be used in site construction include wetting and stabilization to suppress dust generation, cleaning paved roadways, and scheduling construction to minimize the amount and duration of exposed earth.

The Airport will require contractors to utilize ultra-low sulfur diesel fuel for off-road construction vehicles and/or equipment. Construction contracts will require that gasoline and diesel motorized construction equipment be well maintained and in good running order during the work effort on the proposed Projects. All equipment and vehicles will be properly maintained and repaired to minimize exhaust emissions, including odors. Records of the routine maintenance programs for internal combustion engine-powered vehicles and equipment used for the proposed Project will be established and maintained. The proposed Projects will use alternative-fueled or electric equipment where feasible.

The construction of the proposed Projects will comply with the requirements of MassDEP's Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. The Airport requires that contractors install emission control devices, such as diesel oxidation catalysts and/or diesel particulate filters on certain equipment types (front-end loaders, backhoes, excavators, cranes, and air compressors). Equipment will meet the USEPA's Tier 4 Emissions Standards (40 CFR part 1039), which require that emissions of particulate matter (PM) and nitrous oxides (NOx) be further reduced, where feasible. Idle reduction and dust and odor control would also be addressed. The contractors will enforce Massachusetts' Anti-Idling law (310 CMR 7.11) which requires that engines idle for no more than five minutes, with the installation of on-site anti-idling signage at loading and waiting areas. Additionally, the Airport will encourage its contractors to prepare transportation management plans or other development programs or incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport. Such programs may include the provision of off-Airport parking and shuttle services.

6.5.3 Beneficial Measures and Mitigation Commitments – Climate and Greenhouse Gas Emissions

As discussed in Chapter 7, *Environmental Consequences*, greenhouse gas (GHG) impacts associated with the operation of the proposed Projects have been considered in terms of stationary and mobile sources. The means by which the Airport intends to reduce such emissions are described below.

6.5.3.1 Stationary Source Emissions

In response to the Secretary's Certificate on the ENF filing, the Airport analyzed stationary source emissions at the proposed Terminal Building Renovation and Aircraft Hangar Development Projects. These analyses were based on energy modeling using the conceptual plans for the buildings and greenhouse gas conversion factors prescribed by the MEPA Greenhouse Gas Policy.[27]

The design options for the proposed Terminal Building Renovation Project provide multiple alternatives with substantial energy savings. These energy conservation measures could individually result in a 9 percent reduction of energy consumption and greenhouse gas emissions for the proposed Terminal Building Renovation Project compared to the Base Case. A combination of these improvements could achieve a 16 percent reduction. These and other measures will be re-assessed when this proposed Project enters the design stages in the coming years.

For the proposed Aircraft Hangar Development Project, the Airport proposes to mitigate greenhouse gas emissions by some combination of heat pumps, lighting, VRF, and Passive House construction designs. Energy savings of these measures range from 17 to 65 percent compared to the Base Case. Combinations of these measures applied to the terminal and both hangars could yield greenhouse gas reductions of 12 to 24 percent.

Stationary Source Emissions - On-Site Renewables

The Airport plans on constructing the Terminal Building Renovation with a solar-ready rooftop and will examine the potential for solar photovoltaic systems to be implemented on both this and the Aircraft Hangar project when the Projects have transitioned from concept to detailed design. At this stage, the terminal building design has been oriented to maximize south-facing rooftop area for a photovoltaic array. At a minimum, these buildings will have solar-ready rooftops to the extent required by the building code in effect at the time of construction. Solar-ready zones will be free from obstructions such as vents and chimneys and will be designed to support the structural loads associated with a solar photovoltaic system. The ability of the hangars to accommodate photovoltaic systems will be determined during final design. These buildings must face the aircraft apron, and this in turn affects building orientation.

Stationary Source Emissions - Potential Energy Conservation Measures for Existing Buildings

While no modifications are currently proposed to existing Airport buildings, future versions of the Capital Improvement Plan may incorporate these types of projects. The Airport will include the Massachusetts Department of Energy Resources' recommendation to consider the following energy conservation measures for such project types in future capital improvement plans:

- High-performance building envelopes;
- Electrification of space and water heating using heat pump technology;
- Heat recovery systems;
- Passive House building design; and
- Rooftop and/or ground-mounted solar photovoltaic systems.

[27] A conversion factor of 682 lbs. per MWh was used for electricity (2017 ISO New England Air Emissions Report), while a value of 12.7 lbs. per gal was used for propane (U.S. Energy Information Administration).

6.5.3.2 Mobile Source Emissions

The proposed Projects would not have a substantial impact on mobile source greenhouse gas emissions. Accordingly, the Airport does not propose any mitigation measures. However, the Airport generally aims to reduce single occupancy vehicle trips by promoting the services of the Martha's Vineyard Transit Authority's bus service, and utilizing taxi and livery services that are also available to access the Airport.

Temporary mobile source greenhouse gas emissions associated with construction will be mitigated to the extent feasible. Construction contracts will require that gasoline and diesel motorized construction equipment be well maintained and in good running order during the work effort on the proposed Projects. Records of the routine maintenance programs for internal combustion engine-powered vehicles and equipment used for the proposed Project will be established and maintained. The proposed Projects will use alternative-fueled or electric equipment where feasible.

The construction of the proposed Projects will comply with the requirements of MassDEP's Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. The contractors will enforce Massachusetts' Anti-Idling law (310 CMR 7.11) which requires that engines idle for no more than five minutes, with the installation of on-site anti-idling signage at loading and waiting areas. Additionally, the Airport will encourage its contractors to prepare transportation management plans or other development programs or incentives that aim to reduce worker travel by single-occupancy vehicle to the Airport. Such programs may include the provision of off-Airport parking and shuttle services.

6.5.3.3 Land Alteration Emissions

Trees will be removed from approximately 32 acres of land within runway approaches and safety areas. To minimize the lost carbon sequestration benefits of these areas (and maximize their ecological value), many of these areas will retain existing shrub vegetation. Most other vegetation management areas will be mowed infrequently, annually or less often, which will allow plants to sequester carbon from the atmosphere.

6.5.4 Beneficial Measures and Mitigation Commitments – Natural Resources and Energy Supply

No adverse impacts to natural resources and energy supply are anticipated as a result of the proposed Projects. Accordingly, the Airport does not propose any mitigation measures beyond the energy efficiency measures discussed above in Section 6.5.3, *Beneficial Measures and Mitigation Commitments – Climate and Greenhouse Gas Emissions*, as well as the beneficial measures of installing LED technology into all new or replaced airfield lighting and signage, where appropriate, and incorporating low flow/flush into the proposed building projects. The Airport will manage waste according to applicable federal, state, and local laws and regulations.

6.5.5 Beneficial Measures and Mitigation Commitments – Biological Resources

Due to the prevalence of state-protected habitat at the Airport, the proposed Projects will be planned and constructed using avoidance and minimization techniques. These will be employed to further reduce impacts and will include:

- Delineation of work areas;
- Contractor training;
- Manual and bulk transplanting;

- Seed bank preservation; and
- Follow-up monitoring and reporting.

All impacts to state-protected species habitat will be mitigated in accordance with the requirements of the Massachusetts Endangered Species Act. A state Conservation and Management Permit will be required for the proposed Projects that will include specific mitigation and monitoring commitments to ensure that the species affected will be afforded an overall net benefit.

Each of the proposed Projects will be reviewed with the NHESP to further develop Project-specific minimization and mitigation measures. The proposed mitigation program for impacts to state-listed species has yet to be determined; however, consultation with the NHESP is ongoing and it is expected that mitigation may consist of payment in lieu of formal mitigation to provide habitat enhancement or protection off-Airport, or other measures. These commitments will be conditioned as part of the required Massachusetts Endangered Species Act permitting process.

The proposed vegetation management within the State Forest, within and outside of existing easements, will be coordinated with the Department of Conservation and Recreation. Tree removal outside of easements will require a DCR permit and may require approval under Article 97 of the Amendments to the Massachusetts Constitution. Preliminary discussions with DCR staff indicate the vegetation management area can be managed in a way that is consistent with the Airport's requirements and the interests and purposes of the State Forest. Specifically, a habitat that is more consistent with the native natural communities in this area, that supports state-listed rare species, and that maintains the vegetation heights required for clear aircraft operation may be achievable. The Airport will continue to work with DCR, NHESP, FAA and MassDOT on this effort.

6.5.6 Beneficial Measures and Mitigation Commitments – Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

No adverse impacts to socioeconomics, environmental justice, and children's environmental health and safety risks are anticipated as a result of the proposed Projects. Accordingly, the Airport does not propose any mitigation measures beyond the beneficial enhancements of drawing from the local workforce to the extent practicable.

6.5.7 Beneficial Measures and Mitigation Commitments – Hazardous Materials, Solid Waste, and Pollution Prevention

Notification to the MassDEP will be required if a reporting condition is identified per the Massachusetts Contingency Plan, such as when oil and/or hazardous material is detected in soil and/or groundwater above the applicable standards. Any soil encountered during construction with oil and/or hazardous material above the Massachusetts Contingency Plan Reportable Concentrations would be managed appropriately in accordance with the applicable state and federal regulations. The Airport will continue to coordinate with MassDEP on handling of soils that may be contaminated with PFAS.

Should impacted soil be generated during Project-related excavation that requires export or on-site reuse, this material would be properly characterized and managed in accordance with applicable regulations. Proper management would ensure appropriate reuse within the Project areas to prevent exposure to contaminants or, if the soil cannot be reused, export to appropriate destinations. If oil and/or hazardous material impacted groundwater is encountered during Project construction, it would

also be managed in accordance with applicable regulations. If the volume of groundwater effluent is limited and subsequent off-site disposal is deemed the most cost-effective disposal option, the groundwater can be temporarily stored in fractionation tanks and hauled off-site to a treatment facility. For managing larger volumes of groundwater, it may be more cost effective to obtain a USEPA Remediation General Permit for discharge to surface waters/storm drains or a permit from the local sewer authority, if allowed, for discharge to sanitary sewers. Contaminated soil and groundwater handling and management during construction will be conducted in accordance with the appropriate submittals (i.e., Release Abatement Measures and/or Immediate Response Actions), including permits and permissions as appropriate. Based on the presence of an active disposal site associated with the Airport, any intrusive construction activities within this disposal site boundary must be conducted under a Release Abatement Measure Plan in accordance with 310 CMR 40.0440.

At the completion of response actions for disposal sites for which the Airport is listed as the Responsible Party, but regulatory closure has not yet been achieved, response actions would continue with the intent of achieving a Permanent Solution. The Airport would also work with the other Responsible Parties who oversee response actions at disposal sites within the Project areas in order to ensure that work is conducted in a coordinated fashion. Furthermore, per the Massachusetts Contingency Plan, construction activities associated with the proposed Projects would not prevent or impede the implementation of response actions within active disposal sites.

Spills and leaks associated with vehicles, aircraft operations, and heavy machinery can be appropriately mitigated through the implementation of spill response programs that specify procedures for emergency response in the event a spill or leak occurs. Depending on the nature of the spill or discharge to the environment, it may also be necessary to contact regulatory agencies. The agency to be contacted will depend on the nature and amount of the spilled material and the location of the spill. The Airport's existing Spill Prevention, Control and Countermeasure Plan would also be continually updated in order to reflect any major changes to on-site petroleum product or liquid hazardous waste storage.

Mitigation measures during construction will include special handling, dust control, and management of contaminated soil and groundwater in order to prevent construction delays and to provide adequate protection to workers and any nearby sensitive receptors. All response actions must ensure that any nearby or adjacent receptors are adequately protected. In the event that a proposed Project generates hazardous waste and/or waste oil, a permanent identification number would be obtained in accordance with 310 CMR 30.000.

6.6 MEPA Greenhouse Gas Emissions Self-Certification

In accordance with the MEPA GHG Policy, the Airport will provide a self-certification to the MEPA Office signed by an appropriate professional following completion of construction of each proposed Project indicating that all of the greenhouse gas mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source greenhouse gas emission and transportation-related measures, have been incorporated into the project. These measures are discussed above under Section 6.5.3.

7 REGULATORY COMPLIANCE

This section discusses the state and federal permits that the Martha's Vineyard Airport (the Airport) anticipates for the Five-year Capital Improvement Plan Projects (the Projects).

7.1 SUMMARY OF REGULATORY COMPLIANCE

The anticipated permits and approvals needed for the proposed Projects and the status of these approvals are listed in **Table 7-1**.

Table 7-1 Anticipated Permits and Approvals for the Martha's Vineyard Airport Five-Year Capital Improvement Plan

Issuing Agency	Approval or Permit	Status
Executive Office of Energy and Environmental Affairs	Secretary's Certificate under the Massachusetts Environmental Policy Act (MEPA)	Draft Environmental Impact Report (DEIR) submitted herein. A Final EIR (FEIR) will be noticed following the close of the comment period and issuance of the Secretary's Certificate on the DEIR.
Federal Aviation Administration (FAA)	Finding of No Significant Impact (FONSI) under the National Environmental Policy Act (NEPA)	Environmental Assessment (EA) submitted herein, FONSI anticipated at the conclusion of the NEPA process
FAA	Airport Layout Plan Approval	Approval to be issued after the FONSI
FAA	40 CFR Part 77, Form 7460-1 Construction or Alteration Requiring Notice	As required prior to construction
USEPA Region 1	National Pollutant Discharge Elimination System, Construction General Permit	A Notice of Intent and a construction-related stormwater pollution prevention plan will be developed by the contractors prior to construction of each project
DEP Underground Injection Control Program	UIC Class V Technical Compliance Form for Stormwater Wells	Determined during 30% design
Natural Heritage and Endangered Species Program	Conservation and Management Permit	Application to be submitted after the Secretary's Certificate on the FEIR
Massachusetts Department of Environmental Protection (MassDEP)	Massachusetts Contingency Plan	As required. Hazardous materials encountered during the development would be addressed in accordance with applicable Massachusetts Contingency Plan regulations.
MassDEP and Department of Labor Standards (DLS)	BWP AQ 04 Asbestos Removal Notification form	The Airport will submit a BWP AQ 04 Asbestos Removal Notification form to MassDEP if it is determined to be applicable.

Issuing Agency	Approval or Permit	Status
MassDEP	BWP AQ 06 Notification Prior to Construction or Demolition form	The Airport will submit a BWP AQ 06 Notification Prior to Construction or Demolition form to MassDEP if it is determined to be applicable.
Commonwealth of Massachusetts	Article 97 of Amendments to Massachusetts Constitution	Applicability to be determined as design progresses.
Massachusetts Department of Conservation and Recreation	Construction Access Permit	Applicability to be determined as design progresses.
Massachusetts Department of Transportation	State Highway Access Permit	Required for changes to Airport Road intersection with Edgartown-West Tisbury Road
Martha's Vineyard Commission	Development of Regional Impact Permit	Applicability to be determined as design progresses; likely to be required for hangar development.

It should be noted that the proposed Projects are in Dukes County, which is designated as in Attainment for all National Ambient Air Quality Standards established by the USEPA except 8-hour ozone. Accordingly, it is not necessary to demonstrate conformity with the Massachusetts State Implementation Plan for improving air quality.

7.2 MASSACHUSETTS ENVIRONMENTAL POLICY ACT

The proposed Projects will exceed MEPA review thresholds under 301 CMR 11.03(6)(b)(6), as they will directly alter more than 25 acres of land and will disturb more than 2 acres of designated Priority Habitat. The Airport filed an Environmental Notification Form (ENF) for the proposed Projects, noticed in the MEPA Environmental Monitor on December 26, 2018, and received the Certificate on the ENF from the Secretary of the Executive Office of Energy and Environmental Affairs on February 22, 2019. The Certificate on the ENF required the Airport to prepare a Draft Environmental Impact Statement (DEIR). Since the ENF was submitted and the MEPA Certificate issued, the Airport became aware of vegetation obstructing airspace that should be kept clear of obstructions. A subsequent obstruction analysis confirmed that there are existing or potential vegetation obstructions (mostly trees) within all four runway approaches. The Airport is now proposing to remove these obstructions. In accordance with MEPA regulations at 301 CMR 11.10(1), this new project component requires that a Notice of Project Change (NPS) be submitted with the Draft EIR/EA. This document constitutes the combined NPS and DEIR.

The Airport has prepared this NPS/DEIR to comply with the specific requirements of the Certificate on the ENF and MEPA more broadly. The Secretary will solicit comments on this document, and based on its review, issue a certificate on the NPS/DEIR that verifies the adequacy of the document. Following issuance of the Secretary's Certificate on the DEIR, the Airport will prepare a Final EIR (FEIR) per the Secretary's direction. This NPS/DEIR is combined with a federal Environmental Assessment (EA) for review by the Federal Aviation Administration (FAA) under NEPA.

7.3 NATIONAL ENVIRONMENTAL POLICY ACT

The FAA has determined that the proposed Projects require an EA under NEPA. The Airport has prepared this Draft EA that identifies alternatives to the Projects, where applicable, and documents the potential environmental effects associated with their construction and operation. None of the Projects are expected to result in significant adverse environmental impacts.

7.4 AIRPORT LAYOUT PLAN APPROVAL

The Airport prepared this Draft EA in part because it is seeking FAA approval to modify its Airport Layout Plan through the proposed Projects. In accordance with FAA Order 5050.4B, FAA's approval of the Airport Layout Plan requires NEPA review.[28] FAA's approval of the Airport Layout Plan will incorporate the proposed Projects described herein.

7.5 FAA PART 77 NOTIFICATION

In administering Title 14 of the Code of Federal Regulations (CFR) Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of the navigable airspace. To accomplish this, proposed construction or alterations meeting the requirements in 14 CFR Part 77, Section 77.9 must be submitted to the FAA for evaluation. (This includes construction or alterations on any airport listed in the Airport/Facility Directory or any construction or alteration that exceeds the height of an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point on the nearest runway.) Specifically, FAA Form 7460-1, Notice of Proposed Construction or Alteration, must be completed and filed with the FAA if proposed work meets the requirements. For the CIP Projects, FAA Form 7460-1 will likely be needed for most construction activities and for new structures within the airport property line or exceeding the imaginary surface height described above. The Airport will submit FAA Form 7460-1 or its electronic equivalent (https://oeaaa.faa.gov/oeaaa/external/portal.jsp), as needed, prior to construction of the Projects.

7.6 USEPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

As the proposed Projects would result in disturbance of over 1 acre, they will require completion and submittal of a Stormwater Notice of Intent to the USEPA for coverage under the NPDES Construction General Permit for stormwater discharge from construction activities. The General Permit requires the development and implementation of project-specific Stormwater Pollution Prevention Plans that include specific sedimentation and erosion control measures that will be implemented for the entire duration of construction activities. Proper implementation of the Stormwater Pollution Prevention Plans will ensure that no adverse impacts would occur from construction-related runoff.

NPDES also regulates discharges of stormwater runoff from industrial sites, including airports, to Waters of the U.S. Discharges are regulated through the Multi-Sector General Permit program. Because the Airport does not have any stormwater discharges to Waters of the U.S., it is not subject to this permit program.

28 FAA. 2006. Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.

7.7 MASSACHUSETTS UNDERGROUND INJECTION PROGRAM

As project designs advance, details of the stormwater system will be reviewed to determine whether an underground injection permit from DEP will be required for any proposed underground systems that may be used to infiltrate stormwater below ground.

7.8 MASSACHUSETTS ENDANGERED SPECIES ACT

Due to the anticipated temporary and permanent impacts to Priority Habitat and possible rare species takings, the proposed Projects will require a Conservation and Management Permit from MassWildlife's Natural Heritage and Endangered Species Program to satisfy requirements of the Massachusetts Endangered Species Act. The Conservation and Management Permit requires documentation of avoidance and minimization measures during design, development of minimization measures during construction, and mitigation measures that will result in an overall net benefit to the species of concern.

7.9 MASSACHUSETTS CONTINGENCY PLAN

During construction, any encountered soil and groundwater contamination issues will be addressed, as needed, in compliance with the Massachusetts Contingency Plan. A Soil Management Plan may be required to determine whether any excavated soils that are generated can be reused onsite, and/or determine requirements for off-site reuse, recycling, or disposal. A Soil Management Plan, if needed, would be developed under the supervision of a Massachusetts Licensed Site Professional. The Soil Management Plan would be developed in concert with a Groundwater Management Plan, which will address requirements for dewatering and collection, testing and/or treatment, and disposal or discharge of water pumped from excavations, if required.

7.10 MASSDEP NOTIFICATION PRIOR TO CONSTRUCTION OR DEMOLITION AND ASBESTOS REMOVAL NOTIFICATION

In accordance with the Air Quality Regulations at 310 CMR 7.09(2), project proponents must submit a BWP AQ 06 Notification Prior to Construction or Demolition form to MassDEP for any construction or demolition of an industrial, commercial or institutional building, or residential building with 20 or more dwelling units, at least ten working days prior to initiation of the construction or demolition project. This is expected to apply to the hangar buildings to be demolished on the Southwest Ramp. The Proponent should propose measures to prevent or alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition. In addition, an AQ 04 (ANF-001) Asbestos Removal Notification form must be submitted to the MassDEP and the Department of Labor Standards (DLS) if any asbestos abatement will be required, at least ten (10) working days prior to initiation of the abatement activities.

7.11 ARTICLE 97

Article 97 of the Amendments to the Massachusetts Constitution (Article 97) states in part:

> The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other

> natural resources is hereby declared to be a public purpose... Lands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by a two thirds vote, taken by yeas and nays, of each branch of the general court.

The Executive Office of Environmental Affairs (now the EOEEA) issued its *EOEA Article 97 Land Disposition Policy* (Article 97 Policy) on February 19, 1998. The Article 97 Policy defines land disposition as "a) any transfer or conveyance of ownership or other interests; b) any change in physical or legal control; and c) any change in use, in and to Article 97 land or interests in Article 97 land owned or held by the Commonwealth or its political subdivisions, whether by deed, easement, lease or any other instrument effectuating such transfer, conveyance or change." Conversations with MA Department of Conservation and Recreation (DCR) staff (S. Provenchur and others, pers. com.) indicate that permanent vegetation management within the State Forest constitutes a change in use and requires an easement, and that these would be subject to Article 97.

The Article 97 process requires a formal request with proper documentation (justification, title, survey, appraisal, etc.), agreement between the Airport and the DCR, coordination with EOEEA, approval of the EOEEA Secretary, along with a two-thirds vote of the legislature.

The Airport has been working with DCR staff since spring 2020 and the applicability of Article 97 has not yet been determined. Based on coordination to date, the Airport believes it can come to an agreement with DCR and meet Article 97 requirements.

7.12 Department of Conservation and Recreation

The DCR issues short-term and long-term Construction Access Permits for a variety of activities at parks, beaches, state forests, and reservations. These may cover temporary or permanent impacts. The application process requires engineering plans and application forms. The vegetation management on the State Forest outside of easement areas is expected to require a permit. The Airport will be working closely with DCR throughout project planning, design, permitting, and potentially the Article 97 process. The Airport expects to come to an agreement with DCR on the proposed work and expects it will be able to obtain the necessary permit.

7.13 MA Department of Transportation

MassDOT requires Vehicle Access Permits under M.G.L. Chapter 81, Section 21 and 720 CMR 13.00 for "Physical modifications to existing residential or commercial driveways or streets at their intersection with" state highways. Permit applications require engineering plans with grading and drainage. The District Highway Director determines whether and what category of permit is needed, reviews applications, and issues or denies the State Highway Permit.

7.14 Development of Regional Impact

The Martha's Vineyard Commission (MVC) Act (Chapter 831 of the Acts of 1977, as amended) authorizes the Commission to review developments that exceed certain thresholds and could affect more than one town. Such projects are labeled Developments of Regional Impact (DRIs). Once officially classified as a DRI, the project must be approved by the MVC before a town board may issue a required permit or take

any action. The Commission weighs the potential benefits and detriments of the proposal to determine whether the application should be approved, approved with conditions, or denied.

The Hangar Development project is likely to exceed the threshold for a DRI and require approval. Because the hangars are consistent with existing Airport land uses, does not expand the Airport's overall capacity, and is consistent with local and regional land use planning, approval is expected.

8 PUBLIC AND AGENCY COORDINATION

Both MEPA and NEPA require opportunities for public and agency input into the EIR/EA and documentation of the coordination efforts. This section identifies the Airport's ongoing efforts to coordinate with local, state, and federal agencies, as well as the public.

MEPA regulations (301 CMR 11.00) include specific requirements for filing environmental reports and ensuring inclusive public involvement. This includes at least one voluntary public informational meeting to be held prior to or during MEPA review of this DEIR/EA and a 30-day comment period beginning with its notice of availability in the Environmental Monitor.[29] The Airport is committed to ensuring that no person is excluded from these activities.

The Environmental Notification Form was formally noticed in the December 26, 2018 Environmental Monitor, and was distributed to local, state, and federal agencies. Its availability and the public meeting notice were announced in two local newspapers (Martha's Vineyard Times and Vineyard Gazette). A public meeting was held on January 31, 2019 to allow opportunities for the public to review plans and ask questions. Comments submitted on the Environmental Notification Form are included with the MEPA Certificate in Appendix A.

To ensure the public has been provided the information necessary to evaluate the proposed Project's potential impacts, this DEIR/EA will be made available during and after the 30-day public comment period at the Airport (71 Airport Road, Vineyard Haven), the Edgartown Town Library (26 West Tisbury Road, Edgartown), and West Tisbury Library (1042 State Road, Vineyard Haven). An accessible electronic version of the draft will be made available on the Airport's website (www.mvyairport.com). The Airport will also promptly send a copy of this DEIR/EA via postal mail to anyone requesting it during the comment period, free of charge.

Under NEPA, in accordance with FAA Order 1050.1F[30] and Council on Environmental Quality guidelines[31], project proponents are required to seek information from the public and other stakeholders regarding environmental concerns surrounding a proposed action, disclose potential environmental impacts resulting from a proposed action, and solicit comments on these findings. Specific requirements for ensuring proper public input include direct coordination with resource agencies, industry groups, and the affected community.

The Airport sought agency and public comment on the proposed Projects through the Airport Master Plan process and early design stages of the proposed Projects, including a public meeting on December 6, 2012.

The Airport has met the requirements for the filing of the ENF and the Notice of Project Change and Draft EIR/EAR. The principal public, resource/regulatory agency, and tribal coordination activities are listed in **Table 8-1** below. Formal correspondence and meeting minutes are included in Appendix F.

29 The MEPA Environmental Monitor can be found at http://eeaonline.eea.state.ma.us/eea/emepa/emonitor.aspx.
30 FAA Order 1050.1F. (2015)., *Environmental Impacts: Policies and Procedures*. July 16, 2015.
31 Council on Environmental Quality. (1978). *Regulations for Implementing the National Environmental Policy Act, 40 CFR 1500.* http://ceq.hss.doe.gov/nepa/regs/ceq/toc_ceq.htm

Table 8-1 Coordination with the public and resource or regulatory agencies

Organization	Dates	Topics
NHESP	6/13/2017	Proposed projects, a land planning study, and potential surplus mitigation
MEPA	8/7/2017	Overall list of projects, MEPA/NEPA thresholds, and the required documentation the project would need
MEPA	2/9/2018	Proposed projects in detail and documentation timing and process
NHESP	8/14/2018	Rare species issues associated with the upcoming Capital Improvement Plan projects and the Business Park lots 34 and 38
Martha's Vineyard Times and Vineyard Gazette	12/20/2018 and 12/21/2018	A Public Notice of Environmental Review was published in each paper advertising the ENF submittal and public meeting
Various (see ENF Distribution List)	By 12/26/2018	Copy of ENF submitted to federal, state, and local agencies
EOEEA/MEPA	12/26/2018	Publication of the Public Notice in the Environmental Monitor
EOEEA/MEPA	1/31/2019	MEPA consultation session: site walk and ENF public meeting to inform interested members of the public on the proposed projects
EOEEA/MEPA and commenting agencies	2/22/2019	EOEEA/MEPA issues MEPA Certificate on ENF, including comments from several agencies
Massachusetts Historical Commission (MHC)	3/1/2019	Archaeological sensitivity assessment and permit application for intensive survey submitted to MHC
MHC	3/25/2019	MHC issues permit for intensive survey
Wampanoag Tribe	4/2019	Archaeological field work
MHC	7/15/2019	Archaeological intensive survey report submitted to MHC

Organization	Dates	Topics
MHC	8/15/2019	MHC response to archaeological intensive survey report
DCR	12/16/2019	This meeting was held to discuss the vegetation obstruction removal associated with the runway projects in the EA/EIR and potential impacts to rare species
DCR and NHESP	4/1/2020	The call was held to discuss proposed vegetation management at the Airport and surrounding Correllus State Forest.
NHESP	4/7/2020	The call was held to discuss previous rare species studies undertaken and studies needed for the proposed projects
NHESP and DCR	Six meetings, May 2020 through October 2020	This series of meetings was held to discuss variations and alternatives to the vegetation obstruction removal needs associated with the runway projects in the EA/EIR
Forest Reserve Scientific Advisory Committee	7/8/2020	Airport consultant attended Committee meeting to discuss proposed vegetation management.
NHESP	8/17/2020	List of state-listed rare species provided by NHESP
NHESP	10/22/2020	This meeting was held to present to NHESP the materials from the 10/14/20 biweekly meeting with DCR staff, to answer questions she may have, and discuss permitting options pertaining to rare species.
Wampanoag Tribe	10/26/2020	Archaeological survey plan submitted
State Senator Julian Cyr and State Representative Dylan Fernandes	10/28/2020	Vegetation management plans provided
MEPA	11/2/2020	The purpose of this call was to provide the MEPA office with an update on the EA/EIR for the proposed projects and discuss timing.

Organization	Dates	Topics
DCR and NHESP	11/10/2020	Field meeting to review potential vegetation management areas
U.S. Fish and Wildlife Service	11/12/2019	Information request submitted regarding rare species; response received same day
DCR	12/2/2020	Conference call to discuss easement deed provisions and permitting options for proposed vegetation management
DCR and NHESP	12/17/2020	Conference call to discuss runway approach surfaces, revised vegetation management proposal, and potential easement limits
Wampanoag Tribe	1/2021	Tribal representative observed archaeological field work

9 RESPONSES TO COMMENTS

MEPA regulations at 301 CMR 11.07 require responses to comments on the Environmental Notification Form to be include in the Draft Environmental Impact Report. Below each comment submitted by each commenter are provided in tabular format. The comment number includes a letter or number that refers to the commenter and a number that refers to individual comments made by that commenter. Commenters and their identifiers include:

Commenter	Identifier
MEPA CERTIFICATE	
Executive Office of Energy and Environmental Affairs (MEPA Certificate on the EENF)	C
ORGANIZATIONS	
BiodiversityWorks	BW
MA Department of Environmental Protection	DEP
MA Department of Energy Resources	DER
MA Department of Transportation	DOT
MassAudubon	MA
MA Historical Commission	MHC
MA Division of Fisheries and Wildlife	DFW
Martha's Vineyard Commission	MVC
Vineyard Conservation Society	VCS
Town of West Tisbury Conservation Commission	CC
INDIVIDUALS (in alphabetical order)	
Jeffrey Agnoli	1
Angela Andersen	2
Paul Bailey	3
Jason Balaban	4
May Baldwin	5
Ollie Becker	35
Valerie and John Becker	6
Geraldine Brooks	7
Wesley Brown	8
Elisabeth Carnie, Odin Robinson, and Runar Finn Robinson	9
Miranda Edison	10
Holly Eger	11
Marilyn Feinberg	12
John Freedman	13
Nicole Galland	14
K. Gardner	15
Edward Gargan	16
Robert Green/Linda DeWitt	17

Commenter	Identifier
Benjamin Lambert Hall, Jr., Esq.	18
Thomas Hodgson	19
Nathaniel Horwitz	20
Tony Horwitz	21
Robert Huebscher	22
Cindy Kane	23
Barbara Kassel	24
Patricia Lent McCarron	25
Salem Mekuria	26
Hunter Moorman	27
Susan Murphy	28
Beatrice Nessen	29
Dana Parkhill-Day	30
Zeev Pearl	31
Robert Richheimer	32
Matthew Sudarsky	33
Klaus D. Vogt	34

Commenter	Comment#	Topic	Comment	Response
Matthew A. Beaton, Secretary, Executive Office of Energy and Environmental Affairs (EEA)	C-1	General	The Proponent will be required to clarify the phasing of the projects in the DEIR.	Phasing by year and quarter is discussed in Section 5.8.
Matthew A. Beaton, EEA	C-2	General	In the DEIR, the Proponent must provide responses to all comments received on the ENF. The Scope for the DEIR requires the Proponent to resolve inconsistencies in the ENF, describe the purpose of each component of the project, and provide greater detail with respect to potential environmental impacts and proposed mitigation measures. The DEIR should clarify the extent to which the project is intended to support current and anticipated levels of passenger volumes and aircraft activity or promote increased airport operations.	This section provides responses to comments; inconsistencies in the ENF have been resolved; Chapter 2 describes the purpose and need for all projects; and details on impacts and mitigation, to the extent available, are provided throughout. As described in Chapter 2, the projects are intended to support current activity and anticipated growth and not to expand capacity.
Matthew A. Beaton, EEA	C-3	General	The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. The DEIR should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible	The DEIR includes the contents required by Section 11.07 of the MEPA regulations as well as NEPA.
Matthew A. Beaton, EEA	C-4	Project Descriptions	The DEIR should include plans and a detailed description of existing conditions. It should describe the projects and identify any changes since the filing of the ENF. The DEIR should include updated site plans for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify buildings, uses	See Figure 1-2 for existing airport infrastructure and Chapter 4 for existing environmental conditions in general. Projects, including changes since the ENF, are listed in Section 1.1 and described in detail

Commenter	Comment#	Topic	Comment	Response
			within buildings, public areas, impervious areas, and stormwater and utility infrastructure.	in Chapter 3 along with project plans.
Matthew A. Beaton, EEA	C-5	Permitting	The DEIR should identify and describe State, federal and local permitting and review requirements associated with the projects and provide an update on the status of each of these pending actions. It should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the projects' consistency with those standards.	Expected permits, principal permit requirements and the Projects' consistency with permit programs are addressed in Chapter 7.
Matthew A. Beaton, EEA	C-6	General	To provide context for the projects, the DEIR should provide an overview of the airport's functions and activities related to GA and commercial services, with a focus on the role each of the project components plays in the operation of the airport. It should provide a general description of airport operations, including hours of operation, conditions under which each runway is used, airplane taxiing and parking, use of hangars and Transportation Security Administration (TSA) procedures.	An overview of airport airside and landside facilities and airport activity is provided in Chapter 1.
Matthew A. Beaton, EEA	C-7	Noise and Lighting	The DEIR should address noise and lighting associated with operation of the airport, review past and future monitoring and identify measures undertaken by the airport to minimize these impacts.	As discussed in Section 5.7, the Projects will not change aircraft operations and should have a negligible effect on noise. Section 5.11 addresses visual effects.
Matthew A. Beaton, EEA	C-8	General	It should include data on past, current and projected levels of passenger volumes and aircraft operations on both an annual basis and for peak summer months.	This is provided in Chapter 1.
Matthew A. Beaton, EEA	C-9	Alternatives Analysis	The DEIR should clarify whether the proposed projects will increase the capacity of the airport to accommodate additional passengers and/or aircraft. I note that the ENF was not entirely clear on whether	The Projects are intended to support existing Airport passenger volume and aircraft activity along with projected growth. It is not

Commenter	Comment#	Topic	Comment	Response
			the project components are necessary to support existing operations, including but not limited to achieving FAA design standards, or are proposed to meet projected demand and/or to promote increased passenger and aircraft activity. For example, the ENF proposed to increase parking spaces but did not identify the purpose of the increase or explain how that is consistent with data indicating there would be no increase in vehicle trips. The DEIR should clarify this issue for the various project components.	expected to expand the capacity of the Airport. The purpose and need for each project are addressed in Chapter 2.
Matthew A. Beaton, EEA	C-10	Alternatives Analysis	The objective of the MEPA review process is to avoid or minimize and mitigate Damage to the Environment to the greatest extent feasible. Consistent with that goal, an alternatives analysis is required…	The alternatives analysis is documented in Chapter 3.
Matthew A. Beaton, EEA	C-11	Project Phasing	The ENF included a schedule for the construction of the nine projects in three phases. However, the Proponent has indicated that implementation of some of the projects will be determined based on demand. For the hangars, terminal expansion, vehicular parking, and airplane parking projects, the DEIR should identify thresholds, such as passenger and/or aircraft operation levels, that would prompt the implementation of those projects. With respect to the proposed expansion of the parking lots, the DEIR should describe a phased approach for incrementally constructing additional spaces as necessary.	The vehicular parking expansion is no longer proposed. The terminal renovation has been scaled back and will only accommodate current needs. The hangars will be constructed as demand arises. The aircraft parking improvement will only accommodate a portion of the parking that has been lost in recent years. See Chapter 3.
Matthew A. Beaton, EEA	C-12	Biological Resources	In order to qualify for a CMP, the Proponent must demonstrate that the projects will avoid, minimize and mitigate impacts to rare species. The analysis must include: (1) an assessment of alternatives to temporary and permanent impacts to the species; (2) a demonstration that an insignificant portion of the	Impacts to rare species habitat is included in the alternatives analysis in Chapter 3 and in Chapter 5, Section 5.9. Because the projects will increase the most important rare species habitat, both grassland

Commenter	Comment#	Topic	Comment	Response
			local population will be impacted; and, (3) the development and implementation of a conservation and management plan that provides a long-term net benefit to the conservation of the local population of the impacted species.	habitat and shrub habitat, they are expected to result in a net benefit to most rare species. The Airport is continuing to work with NHESP to determine appropriate mitigation.
Matthew A. Beaton, EEA	C-13	Biological Resources	The DEIR should provide an updated estimate of the area of rare species habitat altered by each project component. It should identify habitat areas that could be protected or managed to mitigate project impacts. The DEIR should review the existing CMP and describe previous or on-going habitat mitigation measures provided by the airport.	See Section 5.9. The Airport is continuing to work with NHESP to determine appropriate mitigation. The Airport will provide an accounting of the prior CMP impacts and mitigation measures in preparing a new mitigation plan and CMP application.
Matthew A. Beaton, EEA	C-14	Surface Transportation	The DEIR should describe the existing layout and number of parking spaces. It should provide an analysis of the airport's year-round parking needs and identify any circumstances under which capacity may be exceeded by demand. The DEIR should explain how the proposed number of vehicle parking spaces was selected and compare the proposed number of spaces to parking supply rates published in the Institute of Transportation Engineers' (ITE) Parking Generation and as required by local zoning codes. As noted above, the DEIR should identify potential phasing and land banking of parking spaces so that new spaces are not constructed unless they are needed.	The vehicular parking expansion is no longer proposed.
Matthew A. Beaton, EEA	C-15	Surface Transportation	The DEIR should explain why an increase in vehicle trips is not anticipated, particularly if additional parking spaces are provided. If, based on further analysis, the Proponent determines that the project may generate a significant number of new vehicle trips, then the DEIR should provide a transportation	The Projects are not expected to result in significant new vehicular traffic volumes, as described in Section 5.8.

Commenter	Comment#	Topic	Comment	Response
			analysis consistent with the EEA/MassDOT Transportation Impact Assessment (TIA) Guidelines issued in March 2014.	
Matthew A. Beaton, EEA	C-16	Surface Transportation	The DEIR should provide a comprehensive review of transit service to the airport provided by the Vineyard Transit Authority or other entities. It should identify any opportunities to expand transit service to the site or other measures that could minimize trips to the airport by single-occupancy vehicles.	Existing bus service is described in Section 4.11. As described in Section 5.8.4, the Airport generally aims to reduce single-occupancy vehicle trips by promoting the services of the bus service.
Matthew A. Beaton, EEA	C-17	Surface Transportation	The DEIR should provide a more detailed description of the design of the turning lane and additional information on the volume of vehicles exiting, the number of vehicles making left or right turns and the speed and traffic conditions on Edgartown-West Tisbury Road, including travel speed and interval between vehicles. The DEIR should evaluate the alternative airport access drives proposed by the Martha's Vineyard Commission, including a connection between the terminal area and the business park and a roundabout at the intersection of Airport Road at Edgartown-West Tisbury Road.	Chapter 3 includes a detailed description of all of the airport access road improvement alternatives and the basis for selecting the preferred alternative. More detail on vehicular traffic may be found in the Surface Transportation Study in Appendix G.
Matthew A. Beaton, EEA	C-18	Climate Change	MEPA review of projects subject to an EIR must consider the reasonably foreseeable climate change impacts and GHG emissions of projects subject to MEPA review (and effects such as predicted sea level rise); and (2) ensure that projects subject to MEPA take all feasible measures to avoid, minimize, or mitigate "Damage to the Environment" (as defined in the MEPA statute), including GHG emissions.	Climate change effects and potential GHG emissions and mitigation measures are discussed in detail in Section 5.5.
Matthew A. Beaton, EEA	C-19	Climate Change	The DEIR should discuss potential effects of climate change to the project site…	Existing and potential climate change effects to the Airport are discussed in Sections 4.7 and 5.5.

Commenter	Comment#	Topic	Comment	Response
Matthew A. Beaton, EEA	C-20	Greenhouse Gas Emissions	the project is subject to review under the GHG Policy. The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of the Policy, which requires projects to quantify carbon dioxide (CO2) emissions and identify measures to avoid, minimize or mitigate these emissions. The analysis should quantify the direct and indirect CO2 emissions for the project's energy use by buildings with conditioned spaces (stationary sources) and transportation-related emissions of vehicles travelling to and from the airport (mobile sources)...The DEIR should identify and commit to mitigation measures to reduce GHG emissions.	GHG emissions are addressed in Section 5.5.1, and include emissions from proposed buildings and air traffic. The projects are not expected to significantly affect vehicular traffic volumes. The projects have been scaled back since the ENF and emissions from construction activities are not expected to be substantial. Potential mitigation measures for buildings are being evaluated and will continue to be considered in final design.
Matthew A. Beaton, EEA	C-21	Greenhouse Gas Emissions	The DEIR should include an analysis that calculates and compares GHG emissions associated with: 1) a Base Case that conforms to the 9th Edition of the Massachusetts Building Code, which incorporates the standards of the International Energy Conservation Code (IECC 2015) and American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE 90.1 2013, plus amendments) and 2) a Mitigation Alternative that achieves greater reductions in GHG emissions. As requested by the Department of Energy Resources (DOER), the analysis should demonstrate that the project is taking all feasible measures to mitigate GHG impacts.	The GHG analysis (Section 5.5.1 and Appendix D) evaluates a base case and several mitigation measures, individually and in combination. As noted in the DEIR/EA, the Airport commits to considering these design measures during final design.
Matthew A. Beaton, EEA	C-22	Greenhouse Gas Emissions	The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible.	The Airport commits to taking all reasonable and practicable measures to minimize GHG emissions. Specific measures to adopt will be determined during final design.

Commenter	Comment#	Topic	Comment	Response
Matthew A. Beaton, EEA	C-23	Greenhouse Gas Emissions	The DEIR should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printouts for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). Other tables and graphs, such as the table of mitigation measures recommended by DOER, may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary. The DEIR should provide data and analysis in the format requested in DOER's letter.	Models used, specific measures modeled, and modeling assumptions are described in Section 5.5.1 and Appendix D. Results are provided in tabular form for each measure modeled, in both tpy and percentage reductions in emissions.
Matthew A. Beaton, EEA	C-24	Greenhouse Gas Emissions	The DEIR should present an evaluation of mitigation measures identified in DOER's comment letter. In particular, the feasibility of each of the mitigation measures outlined below should be assessed, and if feasible, GHG emissions reduction potential associated with major mitigation elements should be evaluated to assess the relative benefits of each measure.	The mitigation measures recommended by DOER have generally been evaluated; see Section 5.5.1, Appendix D, and responses to the DOER comment letter.
Matthew A. Beaton, EEA	C-25	Greenhouse Gas Emissions	The DEIR should explain, in reasonable detail, why certain measures that could provide significant GHG reductions were not selected – either because it is not applicable to the project or is deemed technically or financially infeasible. At a minimum, the DEIR	These measures were included in the analysis. The Airport has committed to constructing "solar-ready" rooftops on new construction and is separately

Commenter	Comment#	Topic	Comment	Response
			should consider the following GHG mitigation measures: • High-performing building envelope; • Electric heat pump or variable refrigerant flow (VRF) space and service water heating systems; • Passivehouse building design; and, • Rooftop and/or ground-mounted solar photovoltaic (PV) systems including, at a minimum, solar-ready rooftops on the terminal and hangar buildings.	investigating the applicability on existing Airport buildings.
Matthew A. Beaton, EEA	C-26	Greenhouse Gas Emissions	The DEIR should include an analysis of utility company incentives, Alternative Energy Credits (AEC), and other incentives for energy-efficient building design and on-site renewable energy generation, and evaluate the applicability of the incentive programs to the project. I encourage the Proponent to consult with DOER prior to completing the GHG analysis.	Incentive rates for the terminal renovation and hangar development have been estimated on a preliminary basis and are discussed in Section 5.5.1. After the model has been reviewed and finalized, incentives will be determined based on the percentage of Energy Use Intensity or EUI reduction, with the amount of the credit calculated on a per-square-foot basis.
Matthew A. Beaton, EEA	C-27	Greenhouse Gas Emissions	The DEIR should note whether the project will seek certification by the Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, and if so, to what level. If applicable, the DEIR should identify specific measures that will be incorporated into the project design to achieve the LEED certification.	The Airport will investigate the feasibility of constructing new structures to achieve LEED certification during final design.
Matthew A. Beaton, EEA	C-28	Greenhouse Gas Emissions	If a Transportation Impact Assessment is prepared for the DEIR, the GHG analysis should also include an evaluation of potential GHG emissions associated with mobile emissions sources. The DEIR should follow the guidance provided in the GHG Policy for	No Transportation Impact Assessment has been prepared or is needed for these Projects.

Commenter	Comment#	Topic	Comment	Response
			Indirect Emissions from Transportation to determine mobile emissions…	
Matthew A. Beaton, EEA	C-29	Greenhouse Gas Emissions	The Proponent should thoroughly explore means to reduce overall single occupancy vehicle trips. The DEIR should also review measures to promote the use of low-emissions vehicles, including installing electric vehicle charging stations and providing designated parking spaces for these vehicles. I encourage the Proponent to consider participating in MassEVolves, the Commonwealth's program for supporting the use of zero emissions vehicles	The Airport generally encourages customers to use the public transit system. The Airport is investigating the feasibility of electric vehicle charging stations as part of its green energy initiative, and expects to install two or three within the next year or so.
Matthew A. Beaton, EEA	C-30	Greenhouse Gas Emissions	The Build with Mitigation model should incorporate TDM measures and any roadway improvements implemented by the project, and document the reductions in GHG emissions associated with the mitigation.	The proposed access road improvement (new right-turn lane) will reduce vehicle queue lengths and stopped time at the Airport exit, and as a result may reduce vehicular emissions. The slight increase in traffic from Lots 34 and 38 and the new hangars would incrementally increase emissions.
Matthew A. Beaton, EEA	C-31	Greenhouse Gas Emissions	In accordance with the GHG Policy, projects that alter over 50 acres of land are required to analyze the carbon loss associated with removal of trees and soil disturbance during the construction period and loss of carbon sequestration. The purpose of this analysis is to develop an estimate, not an exact accounting of GHG emissions associated with land. The DEIR should describe the methodology and data used to develop the analysis, identify associated impacts on GHG emissions, and identify measures to avoid, minimize and mitigate impacts.	GHG emissions from land alteration have been quantified and are detailed in Section 5.5.1.2.3.

Commenter	Comment#	Topic	Comment	Response
Matthew A. Beaton, EEA	C-32	Greenhouse Gas Emissions	The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.	This commitment is included in Section 6.6. It would be signed by an appropriate professional following completion of construction of each proposed Project.
Matthew A. Beaton, EEA	C-33	Hazardous Waste	The DEIR should provide an overview of the status of the assessment of the PFAS release and any planned or completed remedial actions undertaken pursuant to the MCP.	The current status of PFAS investigations and findings on and around the Airport are described in Section 4.17.3.
Matthew A. Beaton, EEA	C-34	Hazardous Waste	The DEIR should provide an estimate the volume of material to be excavated and identify the presence of soil and/or groundwater contaminants in the areas where excavation is proposed. It should estimate the volume of contaminated material, review testing, treatment and disposal options and identify construction-period mitigation measures to minimize impacts to public health and the environment associated with the excavation and handling of contaminated soil.	Earthwork volumes for each project are included in Section 5.6. As described in Sections 5.2.3, 5.14, and elsewhere, investigation of the location and extent of contaminated soil and groundwater is ongoing, and appropriate measures will be taken during construction to ensure that contamination is detected and managed in accordance with applicable laws and regulations.
Matthew A. Beaton, EEA	C-35	Stormwater	The DEIR should identify all measures that will be employed to protect the water quality of the sole source aquifer, provide a description of the proposed stormwater management system and identify Best Management Practices (BMP) that will be incorporated into its design. I encourage the	Stormwater Best Management Practices are identified for each of the proposed construction projects. See Section 5.2. The concepts have been developed to be consistent with the state's Stormwater Management Standards.

Commenter	Comment#	Topic	Comment	Response
			Proponent to include Low Impact Design (LID) techniques such as rain gardens in the site design.	
Matthew A. Beaton, EEA	C-36	Stormwater	The DEIR should identify any infiltration systems that may require registration under MassDEP's Underground Injection Control (UIC) program.	Infiltrations systems are proposed in several places. Applicability under the Underground Injection Control Program will be determined during 30 percent design.
Matthew A. Beaton, EEA	C-37	Stormwater	It should review any applicable NPDES performance standards related to discharges of pollutants from airplane deicing operations.	The Airport currently does not have any discharges to Waters of the U.S., and they are not currently subject to the NPDES program for industrial site runoff (Multi-Sector General Permit), which regulates deicing.
Matthew A. Beaton, EEA	C-38	Water and Wastewater	The DEIR should describe the existing and proposed drinking water and wastewater facilities and review any capacity constraints. According to MassDEP, the Oak Bluffs Water District, which supplies drinking water to the site, has in recent years withdrawn close to or more than its authorized volume of 0.93 million gpd and will likely require a new Water Management Act permit from MassDEP to address its projected future demand. The DEIR should identify opportunities for water conservation at the airport, including water conserving plumbing and reuse of rainwater and greywater for irrigation.	As described in Section 4,8, the Airport drinking water is supplied via the Oak Bluffs Water District and, combined with an interconnection with the Edgartown Water Department, provides a stable water supply for the Airport. There is no indication water supplies are insufficient, and the business park lots were previously approved for water system hookup. The Airport has committed to water-conserving measures such as low flow/flush toilets for new construction (Section 5.6.2).

Commenter	Comment#	Topic	Comment	Response
Matthew A. Beaton, EEA	C-39	Historical and Archaeological Resources	The DEIR should provide a summary of the results of any cultural resource surveys and report on its consultation with MHC.	Results of archaeological surveys (and MHC responses) are described in Section 4.13.
Matthew A. Beaton, EEA	C-40	Construction	The DEIR should identify construction-period impacts and mitigation relative to rare species, noise, air quality, water quality, and traffic. It should describe truck routes and other mitigation measures that may be implemented to minimize impacts to residential areas by trucks travelling to the site during the construction period. Construction equipment should use engines meeting Tier 4 federal emissions standards, or if unavailable, confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters.	Construction-period impacts for each resource are described in Chapter 5. Section 5.8.3 addresses construction traffic, including truck routes and numbers of trucks. The Airport is committing to meeting Tier 4 standards where feasible. Construction contractors would be instructed to use diesel equipment with after-engine emissions controls, utilize ultra-low sulfur diesel fuel, and minimize idling to comply with minimum standards for construction vehicles.
Matthew A. Beaton, EEA	C-41	Construction	The DEIR should provide detailed information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. I strongly encourage the Proponent to incorporate C&D recycling activities as a sustainable measure for the project.	As described in Section 5.14.4, solid waste such as construction and demolition debris will be recycled as appropriate and sent off-site to an appropriate receiving facility.
Matthew A. Beaton, EEA	C-42	Construction	The DEIR should note whether asbestos-containing material is present in any buildings to be demolished and identify appropriate reporting, handling and disposal procedures.	As described in Section 4.17.5, asbestos containing building materials (ACBMs) may be present. An ACBM survey and sampling will be conducted prior to any demolition activities. If asbestos is detected in the samples then the

Commenter	Comment#	Topic	Comment	Response
				building materials will be properly abated by a licensed contractor in accordance with all applicable state (310 CMR 7.15) and federal regulations prior to demolition.
Matthew A. Beaton, EEA	C-43	Solid Waste	I refer the Proponent to the comprehensive review of construction-period regulatory requirements in MassDEP's letter. The DEIR should describe how the project will comply with all applicable requirements.	See responses to MassDEP comments.
Matthew A. Beaton, EEA	C-44	Mitigation and Section 61	The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that adequate measures are in place to mitigate impacts associated with each development phase.	Chapter 6, Mitigation and Draft Section 61 Findings, includes these elements to the extent they can be currently known and quantified. Mitigation for rare species, habitat impacts and the State Forest are currently under discussion with the relevant agencies.
Matthew A. Beaton, EEA	C-45	Circulation	The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction.	The MEPA Certificate and attached comment letters are in Appendix A. This chapter (9) includes responses to each comment.

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Matthew A. Beaton, EEA	C-46	Circulation	The Proponent should circulate the DEIR to those parties who commented on the ENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations.	These parties are included in the distribution list, included as Appendix B.
Matthew A. Beaton, EEA	C-47	Circulation	Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments.	The distribution will be made as noted and hard copies will be available from the Airport upon request. A notice of availability will be sent with the website address, a notice regarding hard copies, comment deadlines, and appropriate addresses for submission of comments.
	C-48	Circulation	The DEIR submitted to the MEPA office should include a digital copy of the complete document.	A digital copy is being provided.
	C-49	Circulation	A copy of the DEIR should be made available for review at the Edgartown and West Tisbury public libraries.	Both public libraries will receive a copy of the DEIR/EA.

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Luanne Johnson, Biodiversity-Works	BW-1	Biological Resources	The applicant should provide more detail on the listed species that were found during surveys in the proposed project area and the specific areas where they were detected.	Rare species findings are reported in Section 4.10. Not all locational information is included due to sensitivity of the species.
Luanne Johnson, Biodiversity-Works	BW-2	Permit Compliance	Regarding the Conservation Management Permit (004-039 DFW), developed in 2004, that outlines habitat maintenance and monitoring, has the applicant maintained the habitats as agreed, or is there room for improvement? If there is room for improvement in the applicant's habitat management, we ask that the MEPA reviewers instruct them to increase their effort to manage for priority species habitat and designate the funding required to do so.	The Airport is continuing to work with NHESP to determine appropriate mitigation. The Airport will provide an accounting of the prior CMP impacts and mitigation measures in preparing a new mitigation plan and CMP application.
Luanne Johnson, Biodiversity-Works	BW-3	Mitigation	If the proposed project is permitted, we ask the MEPA reviewers to require off-site mitigation in the adjacent Manuel Corellus State Forest, which the airport habitat was a part of until it was taken and fenced for airport use. This area of the island is a 'hot spot' for rare species adapted to the scrub oak, pitch pine, and barrens of the state forest. Thus, any take of priority habitat should be offset by mitigation that provides a net gain for rare species in the area.	Mitigation will be determined in consultation with regulatory authorities.
Luanne Johnson, Biodiversity-Works	BW-4	Regional Impacts	The applicant should provide a detailed assessment of the negative and positive potential impacts of this expansion and improvement plan on the entire island verses only the two towns that surround the airport. As this is a regional airport, it impacts the entire island. There will certainly be increased air traffic and vehicle traffic with these proposed changes and expansion. How will these increases affect traffic congestion, air, noise, and light pollution? How much will they contribute to greenhouse gas emissions?	Indirect effects (effects further away in time or space) are addressed in Chapter 5 for resources which they are applicable. Cumulative effects are addressed in Section 5.15. The projects as currently proposed are not expected to significantly affect air or vehicular traffic.

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Luanne Johnson, Biodiversity-Works	BW-5	Hazardous Materials	In light of the recent well contamination near the airport, the applicant should provide detail on how they plan to prevent any water contamination and mitigate if any water quality impacts associated with the project.	Section 5.2.2 addresses contaminated water during construction and Section 5.14 addresses hazardous waste in general.
Luanne Johnson, Biodiversity-Works	BW-6	Alternatives	Instead of removing both side safety areas runway 15/33 and constructing the new Taxiway connected to the center of runway 15/33, we propose an alternative. Could runway 15/33 be shifted east to cover over the eastern side safety area and a portion of the old central 15/33 runway, then, the new runway be added?	This alternative was considered. It was found to include substantially greater impact to rare species habitat than other alternatives and was not pursued for that reason. It would also be substantially more expensive than the other Runway 15-33 alternatives as it would require an entirely new runway.
Luanne Johnson, Biodiversity-Works	BW-7	Alternatives	We object to the proposed paving of 4.1 acres of grass when ample area exists in a nearby area that is already paved. That area is where there are dilapidated old hangers that could be removed. It seems excessive to pave 4.1 acres of priority habitat to meet only a transient demand.	Further analysis has indicated that this additional paved apron is not needed at this time, so it is not proposed.
Luanne Johnson, Biodiversity-Works	BW-8	Alternatives	The applicant should provide more detail on the proposed tenant of the 80' x 80' hanger. Would this be a long-term need or a short-term need? What time of year is the 80' x 80' hanger space needed	Leased space is contracted through an open bidding process, and prior to bidding, the Airport cannot designate which tenant will occupy a future hangar. The interested party would house helicopters in the hangar which would be used to carry shift workers offshore.
Luanne Johnson, Biodiversity-Works	BW-9	Alternatives	We would like the applicant to provide detail on design of this paved area under fuel tanks. Will it have a system to recover spilled fuel from tanks should there be a rupture or failed connection between a tank and transport vehicle? The current	As described in Section 3.1.3, this alternative will include the replacement of the existing oil-water separator with a unit designed to meet the current

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			gravel substrate did not appear to have any spilled fuel recovery features, so this upgrade would provide an opportunity to install this safety feature.	MassDEP stormwater standards for land use with higher potential pollution loads (LUHPPL). The improvements to drainage also include the addition of a new deep sump and hooded catch basin.
Luanne Johnson, Biodiversity-Works	BW-10	Alternatives	On the site visit, the manager noted that about 20 staff cannot fit their cars into the staff parking area during peak season. The current staff parking lot seems to have some wasted space. Could it be reconfigured to provide additional spaces for employee parking that would accommodate another 20 vehicles? It would be better to lose some fragments of landscaping at the current employee lot than to create new paved parking. Also, as peak season tends to be during July and August, why would additional parking need to be paved? Couldn't it just be grass that is parked on during those months and unused the rest of the year? The applicant should provide more detail on why additional parking is needed elsewhere. The gravel lot seems sufficient for the rental cars as it is.	There are no plans to change employee parking but it could be modified in the future without adding additional pavement or overall parking capacity. No vehicular parking expansion is currently proposed.
Jonathan E. Hobill, MA Department of Environmental Protection (MassDEP)	DEP-1	Wetlands	The ENF states that there are no wetlands on the airport property and therefore the Project is not subject to the Wetlands Protection Act	That is the Airport's understanding as well.
Jonathan E. Hobill, MassDEP	DEP-2	Water Resources	The Proponent should be aware that the Oak Bluffs Water District has been withdrawing close to or over its authorized water withdrawal volumes (0.93 MGD) in recent years. Furthermore, the Department of	As described in Section 4.8, the Airport drinking water is supplied via the Oak Bluffs Water District

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			Conservation and Recreation (DCR) approved Water Needs Forecasts (WNF) for the Oak Bluffs in 2015 identified a demand of 1.08 MGD with an additional 10% available for a projected demand of 1.19 MGD by the year 2031. In light of these circumstances, the Oak Bluffs Water District must address its system-wide water demand increases by applying for and obtaining a new Water Management Act (WMA) permit from MassDEP. MassDEP encourages the Project Proponent to work with the Oak Bluffs Water District to mitigate the additional demand proposed by the Project.	and, combined with an interconnection with the Edgartown Water Department, provides a stable water supply for the Airport. The Airport has committed to water-conserving measures such as low flow/flush toilets for new construction (Section 5.6.2).
Jonathan E. Hobill, MassDEP	DEP-3	Wastewater	The proposed changes will increase the wastewater generated by the facility to 12,095 gallons per day. The facility is served by a wastewater treatment facility with a groundwater discharge permit number 171-4, issued May 15, 2017 for 37,000 gallons per day. Therefore, there is enough capacity to accommodate the proposed increase in wastewater flow. Furthermore, the Department has approved improvements to the wastewater treatment facilities, which are currently under way.	That is consistent with the Airport's understanding.
Jonathan E. Hobill, MassDEP	DEP-4	Construction/ Permitting	The Project construction activities will disturb 26.5 acres of land and therefore will require a NPDES Stormwater Permit for Construction Activities.	The Projects will disturb well over one acre of land and therefore will be subject to the NPDES Stormwater Permit for Construction Activities.
Jonathan E. Hobill, MassDEP	DEP-5	Permitting	The Proponent should also determine if any of the following U.S. EPA NPDES permits are necessary prior to commencing Project construction: Dewatering General Permit Remediation General Permit Sector S – Air Transportation Facilities	The Airport does not expect to require a Dewatering General Permit, Remediation General Permit, or NPDES Sector S Multi-Sector General Permit.

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			Under the 2015 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)…	
Jonathan E. Hobill, MassDEP	DEP-6	Water Resources/ Stormwater	The Proponent should be aware that the conveyances of stormwater through underground stormwater infiltration structures are subject to the jurisdiction of the MassDEP Underground Injection Control (UIC) program. These structures must be registered with MassDEP UIC program…	The Airport has committed to registering proposed underground infiltration systems in accordance with the UIC Program.
Jonathan E. Hobill, MassDEP	DEP-7	Alternatives	Under the section discussing the Runway 6/24 Side Safety areas, etc. the text of the MEPA filing states that 82.3 acres of re-graded grass will result. However, the table in Proposed Project Area figure states that 62.3 acres will be regraded. This discrepancy should be explained or corrected.	This alternative was redesigned based on new FAA guidance and would impact 26.4 acres of land. This alternative is not the preferred alternative; the No-Build is preferred.
Jonathan E. Hobill, MassDEP	DEP-8	Construction/ Hazardous Waste	There is no description regarding how the regrading will be completed, including the volume of soil that is expected to be excavated, if any. Thus far, several potential areas where AFFF was used, released, or deployed have been identified. Any soil excavation completed at MVAC must include soil stockpiling, PFAS analysis and proper disposal as described below. Due to the potential of encountering PFAS-impacted soil as part of this Project, MassDEP recommends that the soil proposed to be excavated be characterized for PFAS prior to initiating the Project. As such, MassDEP requests that the airport co-ordinate the capital improvement plan with the Licensed Site Professional (LSP) overseeing the PFAS assessment to ensure the proper management of potential PFAS-contaminated soil. In addition, if any soil is determined to be impacted with PFAS, the soil must be excavated and stockpiled on, and covered	Soils that may be disturbed by the proposed Projects will be tested for PFAS prior to disturbance. The soil will then be managed in accordance with applicable laws and regulations, which are currently in flux. The Airport and its LSP will continue coordinating with MassDEP in this regard.

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			with, polyethylene sheeting until the soil can be properly disposed of. If the soil is not pre-characterized, it must be stockpiled in this manner until it can be characterized for disposal. All potential disposal and reuse options must be discussed with MassDEP. Furthermore, under the MCP, a Release Abatement Measure (RAM) Plan will be required prior to initiating soil excavation if it is determined that the soil is impacted or if the soil is not pre-characterized.	
Jonathan E. Hobill, MassDEP	DEP-9	Construction/ Hazardous Waste	Soil excavated in the vicinity of the tanks should be evaluated (including PFAS analysis) to determine how to properly manage that soil. The contractor should work cooperatively with MVAC's LSP to ensure proper MCP compliance. If a release condition occurs or is discovered, appropriate notification to MassDEP must be made per 310 CMR 40.0000. In addition, if contaminated concrete/debris is encountered, MassDEP's Bureau of Waste Prevention should be consulted for proper disposal options. If a MassDEP MCP reporting requirement is observed during the work, MVAC must notify MassDEP within the required time frames as specified in 310 CMR 40.0000.	As described in Section 5.14.3, soils will be tested for contaminants in accordance with state guidelines. Should new contamination be discovered during construction, it will be assessed, and if necessary, remediated prior to and during construction activities per the Massachusetts Contingency Plan. If contaminated soil and/or groundwater require off-site disposal, they will be sent to a licensed disposal facility such as a landfill and stored to prevent future impacts to human health and the environment via appropriate containment. Contaminated groundwater would be treated prior to being discharged or would be stored in frac tanks (i.e., large capacity steel tanks) for off-site disposal at an appropriate facility to be treated.

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Jonathan E. Hobill, MassDEP	DEP-10	Hazardous Waste	A reportable release of tetrachloroethylene (also known as perchloroethylene or PCE) was discovered in this area in 1995. MassDEP assigned RTN 4-0012087 to this release. Additional RTNs were assigned to residences whose private wells were impacted by PCE. These RTNs were closed out and/or linked to RTN 4-0012087. The PCE release resulted in impacts to soil, groundwater, and downgradient drinking water supply wells. A Permanent Solution with No Conditions was submitted on July 25, 2017. If the soil within the delineated site boundaries is going to be excavated as part of this Project, refer to 310 CMR 40.1067 to determine if additional requirements of the MCP apply.	See response to comment DEP-9.
Jonathan E. Hobill, MassDEP	DEP-11	Construction	Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise. To determine the appropriate requirements please refer to: · 310 CMR 7.09 Dust, Odor, Construction, and Demolition · 310 CMR 7.10 Noise	The Airport has committed to meet these regulatory requirements, as stated in Sections 5.4.2.5 and 5.7.3.
Jonathan E. Hobill, MassDEP	DEP-12	Construction/ Greenhouse Gas Emissions	MassDEP requests that all non-road diesel equipment rated 50 horsepower or greater meet EPA's Tier 4 emission limits, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with appropriate emissions reduction equipment. Emission reduction equipment includes EPA-verified, CARB-verified, or MassDEP-approved diesel oxidation catalysts (DOCs) or Diesel Particulate Filters (DPFs). The Proponent should maintain a list of the engines, their emission tiers, and, if applicable, the best	Section 5.8.3 addresses construction traffic, including numbers of trucks. The Airport is committing to meeting Tier 4 standards where feasible. Construction contractors would be instructed to use diesel equipment with after-engine emissions controls, utilize ultra-low sulfur diesel fuel, and minimize idling to comply with minimum standards for construction vehicles.

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			available control technology installed on each piece of equipment on file for Departmental review.	
Jonathan E. Hobill, MassDEP	DEP-13	Construction/ Greenhouse Gas Emissions	MassDEP reminds the Proponent that unnecessary idling (i.e., in excess of five minutes), with limited exception, is not permitted during the construction and operations phase of the Project (310 CMR 7.11). With regard to construction period activity, typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent install permanent signs limiting idling to five minutes or less on-site.	Construction contractors would be instructed to minimize idling to comply with minimum standards for construction vehicles (Section 5.8.3).
Jonathan E. Hobill, MassDEP	DEP-14	Hazardous Waste	A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include, but not limited to, refueling of machinery, storage of fuels, and potential on-site activity releases.	The Airport also has a Spill Prevention Control and Countermeasure (SPCC) Plan to address temporary impacts such as the potential discharge of oil or liquid hazardous materials into surface or ground waters. This will be updated as needed for construction projects.
Jonathan E. Hobill, MassDEP	DEP-15	Solid and Hazardous Waste	Waste materials that are determined to be solid waste (e.g., construction and demolition waste) and/or recyclable material (e.g., metal, asphalt, brick, and concrete) shall be disposed, recycled, and/or otherwise handled in accordance with the Solid Waste Regulations including 310 CMR 19.017: Waste Bans. Asphalt, brick and concrete (ABC) rubble, such as the rubble generated by the demolition of buildings or other structures must be handled in accordance with the Solid Waste regulations. These regulations allow,	As described in Section 5.14.4, solid waste such as construction and demolition debris will be recycled as appropriate and sent off-site to an appropriate receiving facility.

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			and MassDEP encourages, the recycling/reuse of ABC rubble. The Proponent should refer to MassDEP's Information Sheet, entitled " Using or Processing Asphalt Pavement, Brick and Concrete Rubble, Updated February 27, 2017 ", that answers commonly asked questions about ABC rubble and identifies the provisions of the solid waste regulations that pertain to recycling/reusing ABC rubble.	
Jonathan E. Hobill, MassDEP	DEP-16	Construction/Hazardous Waste	The proposed Project includes the demolition of structures which may contain asbestos. The Project Proponent is advised that demolition activity must comply with both Solid Waste and Air Quality Control regulations….	As described in Section 4.17.5, asbestos containing building materials (ACBMs) may be present. An ACBM survey and sampling will be conducted prior to any demolition activities. If asbestos is detected in the samples then the building materials will be properly abated by a licensed contractor in accordance with all applicable state (310 CMR 7.15) and federal regulations prior to demolition activities.
Jonathan E. Hobill, MassDEP	DEP-17	Construction/Air Quality	In accordance with the Air Quality Regulations at 310 CMR 7.09(2), the Proponent must submit a BWP AQ 06 Notification Prior to Construction or Demolition form to MassDEP for any construction or demolition of an industrial, commercial or institutional building or residential building with 20 or more dwelling units at least ten (10) working days prior to initiation of said construction or demolition project. The Proponent should propose measures to prevent or alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition.	The Airport will submit a BWP AQ 06 Notification Prior to Construction or Demolition form to MassDEP if it is determined to be applicable.

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Jonathan E. Hobill, MassDEP	DEP-18	Mitigation and Section 61	In accordance with 301 CMR 11.07(6)(k), this chapter should also include separate updated draft Section 61 Findings for each State agency that will issue permits for the Project. The draft Section 61 Findings should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.	Chapter 6, Mitigation and Draft Section 61 Findings, includes these elements to the extent they can be currently known and quantified. Mitigation for rare species, habitat impacts and the State Forest are currently under discussion with the relevant agencies.
Jonathan E. Hobill, MassDEP	DEP-19	General	It should be noted that on page 5 of the document the Proponent sates:" The Project consists of the following ten components"; however only 9 items are listed.	There are currently nine projects. See Chapter 1 for a listing of current projects and the corresponding ENF versions.
Paul F. Ormond, P.E., MA Department of Energy Resources (MA DOER)	DER-1	GHG Emissions	We've reviewed the Environmental Notification Form (ENF) for the above project. The proposed project includes a 13,000-sf airport terminal expansion. For this project, key GHG mitigation strategies include…	The first 6 pages of the DOER letter contain an overview of the general kinds of energy-saving measures that are available. The GHG analysis considered these measures, as described in detail in Section 5.5.1 of the DEIR/EA and in the responses to the comments below.
Paul F. Ormond, P.E., MA DOER	DER-2	GHG Emissions	Future submissions should demonstrate that the project is taking all feasible measures to avoid, minimize and mitigate GHG emissions.	GHG emissions have been avoided and minimized by selecting alternatives with the smallest footprints that meet current and anticipated needs. The terminal expansion in particular has been substantially scaled down.
Paul F. Ormond, P.E., MA DOER	DER-3	GHG Emissions	Above-code envelope should be used throughout…	As shown in Section 5.5.1 and Appendix D, an improved envelope, improved curtain wall, and reduced curtain wall were among the measures modeled. The envelope

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				measures were modeled as independent measures and then included in a hypothetical proposed simulation of the building. This was done to demonstrate the impacts of the individual building envelope improvements. Note that the building envelope improvements were limited to the expanded section of the building and were not included in the existing building.
Paul F. Ormond, P.E., MA DOER	DER-4	GHG Emissions	Project should use electric heat pump (or VRF) space heating for all buildings and electric heat pump water heating.	Electric heat pumps and VRFs were modeled; see Section 5.5.1. They will be considered during final design. The inclusion of Heat Pump Water Heaters would also be a likely consideration in final design, although the domestic hot water load represents only 3 percent of the terminal and was not included in the modeling to address the larger loads in simulation.
Paul F. Ormond, P.E., MA DOER	DER-5	GHG Emissions	An evaluation of Passivehouse is recommended as a possible option.	A Passive House alternative was modeled for one of the hangar buildings. The terminal expansion was not evaluated as Passive House for this exercise due to the existing building construction and the challenges it would present to achieving the passive house standard. The passive house approach was considered to be unrealistic and would require a

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				renovation to the existing building on top of the expansion.
Paul F. Ormond, P.E., MA DOER	DER-6	GHG Emissions	Estimate AECs and MassSave incentives, as described above. MassSave estimates should be based on in-person meeting. Obtain MassSave estimates for the scenarios described above.	Incentive rates for the terminal renovation and hangar development have been estimated on a preliminary basis and are discussed in Section 5.5.1. After the model has been reviewed and finalized, incentives will be determined based on the percentage of Energy Use Intensity or EUI reduction, with the amount of the credit calculated on a per-square-foot basis.
Paul F. Ormond, P.E., MA DOER	DER-7	GHG Emissions	All roofs should be solar ready. A detailed evaluation of setbacks, shading, and rooftop appurtenances should be undertaken to assess extent of solar readiness. Scale plans should be prepared showing extent of Code-required solar readiness and above-code solar readiness	The Airport has committed to making new rooftops solar ready, and the terminal roof was designed specifically for solar technology. The Airport is also working with a contractor to investigate the potential for solar to be installed on an existing building and in parking lots.
Paul F. Ormond, P.E., MA DOER	DER-8	GHG Emissions	Submit project modeling files to the DOER on a flash drive.	Modeling files are available upon request.
Paul F. Ormond, P.E., MA DOER	DER-9	GHG Emissions	Compare model results total and individual end uses with representative, prototype buildings developed by Pacific Northwest National Labs/Department of Energy found at the link below. Provide a summary explaining potential differences.	No Pacific Northwest National Labs prototypes exist for airport terminals or hangars, therefore no basis for comparison existed from prototype models. Alternatively, case studies were used to inform

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				the end-uses associated with airport terminal buildings. The total loads were also compared to the airport case study during the baseline model development and for each energy conservation measure.
Paul F. Ormond, P.E., MA DOER	DER-10	GHG Emissions	Include a table similar to the example below. For "code value" ensure that the value incorporates any improved efficiency per requirements of Section C406.1 of the Massachusetts' amendments.	See Table 5-3 in Section 5.5.1.
David J. Mohler, MA Department of Transportation (MassDOT)	DOT-1	Surface Transportation	The project exceeds the Massachusetts Environmental Policy Act (MEPA) threshold for parking (300 spaces) and will require a Vehicular Access Permit for modifications to the Airport Road approach as it intersects Edgartown-West Tisbury Road, a state-owned roadway.	The parking expansion has been eliminated from consideration. Parking proposed for the new hangars and the Southwest Ramp reconfiguration will be well below 300 spaces. It is assumed a Vehicular Access Permit will be required for the proposed new right-turn land on Airport Road.
David J. Mohler, MassDOT	DOT-2	Surface Transportation	The ENF filing includes scant information regarding potential traffic impacts as a result of the renovation and expansion project. Notably, the construction of 549 parking spaces will more than double the existing parking capacity, creating a total of 918 parking spaces. In consulting with the project Proponent, it is possible this figure is erroneous; much of the existing parking supply may be removed as part of the project. No new vehicle trips were anticipated to result from the project, nor were figures for existing vehicle trips reported in the ENF.	The terminal area vehicular parking expansion is no longer proposed. Minimal new vehicle trips will result from Lots 34 and 38 of the Business Park, the new hangar construction, or the Southwest Ramp reconfiguration.

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David J. Mohler, MassDOT	DOT-3	Surface Transportation	The Draft Environmental Impact Report (DEIR) should provide justification regarding why the expansion would not result in new vehicle trips. Even if the project were to generate additional vehicle trips, it is highly unlikely based on the information provided that it would trigger EIR thresholds for transportation and/or result in MassDOT recommending that the Proponent submit a Transportation Impact Assessment (TIA). Nevertheless, the Proponent should provide as part of the DEIR submission any transportation analysis that it intends to complete as a result of the improvement project for our review.	The only projects that could result in additional vehicular traffic (other than construction activity) are the two new hangars and Lots 34 and 38 of the Business Park. The hangars would result in small numbers of trips per day (perhaps 30 for one hangar), and the Business Park lots are not expected to be retail operations.
David J. Mohler, MassDOT	DOT-4	Surface Transportation	In addition, the DEIR should also address: • The identification and documentation of nearby transit services provided by the Vineyard Transit Authority (VTA) and/or by private shuttle operators. As appropriate, the Proponent should conduct outreach to the VTA regarding improving transit services to the project site.	Existing bus service is described in Section 4.11. As described in Section 5.8.4, the Airport generally aims to reduce single-occupancy vehicle trips by promoting the services of the bus service.
David J. Mohler, MassDOT	DOT-5	Alternatives	Derivation of the proposed parking supply for the project. The number of proposed spaces should be compared to the amount required based on information contained in ITE's Parking Generation (4th edition) as well as the requirements of local zoning codes. The Proponent should investigate reducing parking or land banking of parking spaces until and unless needed, based on monitoring conducted at a future date.	The expanded vehicular parking is no longer proposed.
E. Heidi Ricci, MassAudubon	MA-1	Purpose and Need, Alternatives Analysis	The EIR should evaluate each item in relation to whether it is required to meet essential airport operational and safety needs.	The need for each project is addressed in Chapter 2.

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E. Heidi Ricci, MassAudubon	MA-2	General	For essential project components that will be advanced, an analysis of design options to avoid, minimize and mitigate environmental impacts.	The alternatives analysis in Chapter 3 documents avoidance and minimization in the design and selection of alternatives. Chapter 5 describes project impacts and mitigation, while Chapter 6 provides a summary of mitigation.
E. Heidi Ricci, MassAudubon	MA-3		Existing and proposed habitat conditions and management plans, taking into account the site's context surrounded by (formerly part of) the Manuel Correllus State Forest, and the presence on and around the airport of diverse habitats including grassland, scrub-shrub, and forested lands supporting more than twenty state-listed rare species including birds, invertebrates, and plants as well as many other uncommon or declining species.	Biological resources are addressed in Sections 4.10 (existing) and 5.9 (impacts). Approximately 30 state-listed species are present along with Priority and Estimated Habitat and the surrounding State Forest. The Airport is working with NHESP and DCR regarding mitigation for rare species and habitats.
E. Heidi Ricci, MassAudubon	MA-4	Water Resources	A comprehensive water management plan for the site that is fully protective of the island's Sole Source Aquifer.	There will be a net reduction in impervious surfaces and the Projects include stormwater management measures designed in accordance with the state's Stormwater Management Handbook. This will include treatment of runoff from many impervious surfaces that currently have little or no treatment.
E. Heidi Ricci, MassAudubon	MA-5	Biological Resources	The current review should evaluate the effectiveness of previously approved habitat management plans and opportunities to further enhance habitat for rare and declining species.	The Airport will provide an accounting of the prior CMP impacts and mitigation measures in preparing a new mitigation plan and CMP application.

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E. Heidi Ricci, MassAudubon	MA-6	Biological Resources	A carefully designed and implemented grassland management plan (including mowing schedules) for the site could potentially enable the property to support species including Grasshopper Sparrow, Eastern Meadowlark, and Savannah Sparrow.	There will be an increase in grassland habitat as a result of the project and therefore presumably a net benefit to grassland plant and animal species. Any habitat management would need to take into consideration potential conflicts between wildlife and aircraft safety.
E. Heidi Ricci, MassAudubon	MA-7	Biological Resources	The Pitch Pine/Scrub Oak habitat around the airfield, both on the property and in the adjacent state forest, is important to several species including the Eastern Towhee, Prairie Warbler, and Eastern Whip-poor-will. Whip-poor-wills are listed as being of Special Concern in Massachusetts (https://www.mass.gov/files/documents/2016/08/tm/antrostomus-vociferus-2015.pdf), and the Manuel Correllus State Forest and vicinity is listed as one of "only six sites in Massachusetts that support 20 or more pairs of Whip-poor-wills."	Rare species and habitat are addressed in Sections 4.10 and 5.9.
E. Heidi Ricci, MassAudubon	MA-8	Mitigation, Biological Resources	Given that this is a project of significance to the entire island, mitigation should be designed broadly. It should include consultation with the Department of Conservation and Recreation (DCR) and a commitment to support DCR in cooperative ecological monitoring and management in the forest surrounding the airport. In particular, we suggest the pursuit of a multi-year research plan focused on monitoring Eastern Whip-poor-wills in the state forest. Northern Bobwhite, American Woodcock, and Chuck-will's-widow also have been documented in the area surrounding the airport. Other species of interest that utilize the area include Snowy Owls in	Impacts to rare species and their habitat are addressed in Section 5.9. The Airport is working closely with both NHESP and DCR regarding impacts to rare species, habitat and the State Forest and mitigation for these impacts.

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			winters, and in surrounding woodlands Long-Eared Owl, Saw-whet Owl, Eastern Screech-Owl, and Great Horned Owls. The Pitch Pine/Scrub Oak habitat on and around the airport also supports several rare species of moths.	
E. Heidi Ricci, MassAudubon	MA-9	Water Resources	The airport is situated in the center of the island, directly on top of the Sole Source Aquifer. The EIR should summarize historic and existing water contamination on the property, and should include a comprehensive plan for protecting the aquifer during all ongoing operations. The ENF proposes to alter 118 acres of land and to increase impervious surfaces by 17.4 acres. Alternatives for avoiding a net increase in imperviousness should be considered. In particular, the need for the proposed addition of 549 new parking spaces should be given close scrutiny and options to avoid or minimize those impacts should be considered.	Water resource contamination is addressed in Sections 5.2 and 5.14. Stormwater management is addressed in Section 5.2.1 and 5.2.4. There will be a net reduction in impervious surfaces from the project along with improved stormwater management for existing impervious surfaces. Expanded vehicular parking is no longer proposed.
Brona Simon, MA Historical Commission (MHC)	MHC-1	Historic and Archaeological Resources	The MHC requests that an archaeological reconnaissance survey (950 CMR 70) be conducted for the project, including the proposed well house demolition. The purpose of the survey is primarily to develop an archaeologically sensitivity assessment for the project impact area. The results of the survey will provide information, and recommendations for further intensive (locational) archaeological survey, if any, to assist in consultation to consider alternatives to avoid, minimize, or mitigate any adverse effects to significant historic and archaeological resources.	Section 4.13 provides results of archaeological investigations. The former well house was demolished as part of a previous project and received Section 106 clearance from FAA.
Thomas W. French, Ph.D., MA Division of	DFW-1	Biological Resources	All projects that will occur within Priority and Estimated Habitat for state-listed species, which are not otherwise exempt from MESA review pursuant to 321 CMR 10.14, require a direct filing with the	The Airport will continue to work with the Division/NHESP regarding the Projects and expects to submit a Conservation and Management

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Fisheries and Wildlife (MassWildlife)			Division for compliance with the Massachusetts Endangered Species Act (MESA 321 CMR 10.00). The Proponent has initiated consultation with the Division concerning the proposed Capital Improvements Projects. As project plans are developed, the Proponent should continue to consult with the Division to minimize impacts to state-listed species and their habitats. Although a formal MESA filing has not yet been submitted, the Division anticipates – based on previously submitted information and ongoing consultations with the Proponent – that the Capital Improvement Plan (CIP) Projects, as proposed, will likely result in a Take (321 CMR 10.18 (2)(b)) of state-listed species.	Permit application following completion of MEPA/NEPA processes. See Sections 4.10, 5.9, and Chapters 6 and 7.
Thomas W. French, Ph.D., MassWildlife	DFW-2	Biological Resources	Projects resulting in a Take of state-listed species may only be permitted if the performance standards for a Conservation and Management Permit (CMP; 321 CMR 10.23) are met. For a project to qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.	The Airport has taken several measures to avoid and minimize impacts (see Chapter 3), and continues to work with NHESP to develop suitable mitigation for impacts. The Airport commits to meeting these performance standards.
Thomas W. French, Ph.D., MassWildlife	DFW-3	Biological Resources	The Proponent should continue proactive consultations with the Division to determine a suitable long-term net benefit for state-listed species.	The Airport will continue proactive consultations with the Division to determine a suitable long-term net benefit for state-listed species.

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Thomas W. French, Ph.D., MassWildlife	DFW-4	Biological Resources	At this time, as the full scope of these projects and their impacts to state-listed species and their habitats have not been determined, thus details of the long-term net benefit required under a CMP have not been finalized. However, the Division anticipates that a suitable long-term net benefit could be achieved through the protection of suitable, high quality habitat, management of habitat, and/or an evaluation of the long term net-benefit that may be available as a component of CMP 004-039.DFW; therefore the Division anticipates that the CIP Projects should be able to meet the performance standards of a CMP.	The Airport has committed to achieving a long-term net benefit and meeting performance standards.
Thomas W. French, Ph.D., MassWildlife	DFW-5	Biological Resources	As our MESA review is not complete, no alteration to the soil, surface, or vegetation and no work associated with the proposed project shall occur on the property until the Division has made a final determination.	No such work will occur on the property until the Division has made a final determination.
J. Taylor, Martha's Vineyard Commission	MVC-1	Purpose and Need	…the ENF does not appear to clearly articulate the need or alternatives regarding expansion items, particularly for parking of planes and cars. The ENF should clearly quantify desired growth from the projects (as opposed to simple maintenance); both the need for growth and the impacts of growth. The ENF includes confusing inconsistencies regarding growth. For example, parking for cars is proposed to increase by 549, to be added to the present 369 spaces. Trip generation, however, is projected to remain flat at 1,300+.	The need for each project is described in Chapter 2. The expanded vehicular parking is no longer proposed.
J. Taylor, Martha's Vineyard Commission	MVC-2	Water Resources	The DEIR should expand on the stormwater proposals, beyond the ENF statement "Permanent stormwater management measures such as catch basins and infiltration practices will be implemented	Stormwater management is addressed in Section 5.2.1 and 5.2.4. There will be a net reduction in impervious surfaces from the

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			to provide treatment of runoff from new impervious surfaces."	project along with improved stormwater management for existing impervious surfaces. Expanded vehicular parking is no longer proposed.
J. Taylor, Martha's Vineyard Commission	MVC-3	Purpose and Need, Water Resources, Environmental Consequences	The ENF appears to adequately describe the need for and details of the proposed fuel farm remediation. The DEIR should expand on the need to protect the sole source aquifer and south shore ponds from contamination via groundwater movement.	The importance of the sole source aquifer is addressed in Section 4.4.4. Measures to protect it are described in Section 5.2 and elsewhere.
J. Taylor, Martha's Vineyard Commission	MVC-4	Purpose and Need, Energy, GHG Emissions	The DEIR should quantify the demand for building expansion, and differentiate between need to upgrade the facility for workplace safety and to adequately meet TSA standards, separate from the need for growth to meet demand. Commercial passenger traffic was reported to have declined since a peak in the 1980's, and is expected to be flat in the near future (although General Aviation passenger volume grows; GA is served by a separate building). A well-founded estimate for growth in commercial passenger volume should be included in the DEIR, along with assessment of impacts of that growth. The DEIR should include any proposed "green" construction for the building expansion. Are solar facilities allowed by the FAA? Will the roof produce solar power?	Chapter 1 describes existing air traffic and passenger volumes. The proposed Projects are intended to meet current and anticipated traffic volume and are not intended to expand capacity. Energy-saving measures under consideration for buildings are addressed in Section 5.5.1.
J. Taylor, Martha's Vineyard Commission	MVC-5	Purpose and Need, Surface Transportation	The DEIR should clearly explain the need to increase vehicle spaces by 549, to be added to the present 369 spaces; particularly since trip generation is projected to remain flat at 1,300+. The DEIR should quantify the need, including at the very least: parking counts at the airport separated by time of day, week and month, length of stay, etc.; counts from comparable	The vehicular parking expansion is no longer under consideration. Existing bus service is described in Section 4.11. As described in Section 5.8.4, the Airport generally aims to reduce single-occupancy

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			facilities such as the Tisbury Park'n'Ride, indicating capacity of other facilities to absorb the estimated growth at the airport. Review of alternatives should include upgrades to taxi and bus service facility, and use of existing large parking facilities such as the Tisbury Park'n'Ride.	vehicle trips by promoting the services of the bus service.
J. Taylor, Martha's Vineyard Commission	MVC-6	Surface Transportation	Additional turning lanes are typically mitigation measures applied when addressing capacity issues. The extent by which a right turn lane may reduce some of the stacking that periodically occurs at the exit is a function of a) the volume of vehicles exiting, b) the number of exiting vehicles turning left vs. right, c) the length of the turning lane, and d) the speed and interval of vehicles on Edgartown-West Tisbury Rd. The DEIR should include data quantifying these variables.	A Surface Transportation Study was completed for the project and is included in Appendix G. The Surface Transportation Study analyzed the volume of the vehicles exiting, the number of exiting vehicles turning left vs. right, the length of the turning lane, and the speed and interval of vehicles on Edgartown-west Tisbury Road.
J. Taylor, Martha's Vineyard Commission	MVC-7	Surface Transportation	The DEIR should thoroughly explore alternatives to the right turn lane. An additional proposal that could significantly reduce the volume of vehicles exiting left from the entrance is to open a roadway between the terminal area and the business park road network…	Alternative Access Road Improvements are addressed in Section 3.1.10. The new internal roadway alternative would reduce the number of vehicles attempting to turn left from Airport Road but would not help those who are traveling east on Edgartown-West Tisbury Road. It would also cost approximately $3.6 million and would impact Priority Habitat, and was therefore eliminated from consideration.
J. Taylor, Martha's Vineyard Commission	MVC-8	Surface Transportation	Consideration should be given to the option of planning for a roundabout at the exit's intersection with Edgartown-West Tisbury Road, to reduce speed generally (from 35 mph to 20 mph) and to minimize	As described in Section 3.1.10, this alternative would provide the greatest improvement to traffic exiting the Airport, but would

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			any stacking and idling of vehicles; as a future option for left-turning vehicles exiting the Airport, as traffic volume grows on the receptor Edgartown-West Tisbury Road.	reduce the level of service for through traffic on Edgartown-West Tisbury Road, and was eliminated due to loss of habitat and reduced travel efficiency.
J. Taylor, Martha's Vineyard Commission	MVC-9	Purpose and Need	The DEIR should quantify the demand for new hangar construction, beyond the request of one potential lessee. Are the present hangars climate controlled? Are the proposed hangars to be climate controlled? If so, the DEIR should quantify the proposed energy needs and sources.	New hangars would only be constructed if there was demand for them. While there is currently demand for one new hangar, interest in hangars arises occasionally, and the Airport needs to be able to be responsive to those needs. One existing hangar in the Southwest Ramp is climate-controlled, and would be demolished under Alternative 9-3. The new hangars would be climate-controlled and were included in the GHG analysis in Section 5.5.1.
J. Taylor, Martha's Vineyard Commission	MVC-10	Purpose and Need	The DEIR should quantify the need for expansion of paved outdoor plane parking. Any proposed expansion of paved plane parking (i.e. not grass) should clearly quantify the impacts of adding impervious surfaces, and clearly explain the need. The DEIR should clearly explain the need for these surfaces to be paved, rather than grass; particularly since both the Southwest and the Southeast Ramp expansions lie within Priority Habitat.	The need for aircraft parking and movement areas is addressed in Section 3.1.11. The preferred alternative proposes minimal expansion to replace parking and movement areas lost in recent years, and would be outside of Priority Habitat.
J. Taylor, Martha's Vineyard Commission	MVC-11	Land Use, Socioeconom-ics	The ENF states consistency with economic and development components of the Island Plan. The Island Plan, however, proposes economic development in the already-established town	The proposed Projects would occur largely in and around areas that are already developed and zoned for development and would not

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			centers, rather than sprawl into more rural parts. The Island Plan recognizes the importance of visitor services to the economic well-being, but also cautions against over-development or inappropriate development that could detract from the natural and cultural resources that are the foundation of the appeal to visitors. The DEIR should address the following economic objectives of the Island Plan: a. Look to the creative stewardship of the Island's rich natural resource base to generate interesting, meaningful living-wage jobs. b. Strengthen ad gradually realign our core, visitor-based economic activities…If we overbuild the Island, however, our natural and cultural resources can become endangered, therefore undermining the economy. c. Locate commercial activities appropriately…Keep retail activities and visitor services concentrated in vibrant, walkable, town centers…and avoid retail development in other areas…. d. Protect community character by ensuring that buildings fit their context – especially as seen from public places such as roads and public waters… e. Encourage use of environmentally sound "green building" techniques and minimize the negative environmental impacts of building and human habitation.	therefore contribute to sprawl. Responding to the specific economic objectives of the Island Plan: a. While the proposed development would have impacts, it would contribute to the island's natural resource base by reducing impervious surfaces and increasing habitat for certain rare species. It would support local jobs through the business park and hangar developments. b. The improvements would support the core visitor-based economic activities without detracting from natural and cultural resources. c. Commercial activity would be limited to the active portions of the airport and business park. d. New and renovated buildings would fit their contexts. e. "Green building" construction is under consideration; see Section 5.5.1.

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J. Taylor, Martha's Vineyard Commission	MVC-12	Land Use, Socioeconomics, Purpose and Need	The ENF states consistency with infrastructure components of the Island Plan, stating: "Improving facilities at the airport will better accommodate existing and projected airport traffic; providing an alternative to vehicular traffic". The statement does not differentiate between: existing and proposed air traffic; existing and proposed vehicular traffic. Throughout the ENF, there is a lack of differentiation between intentions for the proposals to address existing air or vehicular traffic, or to address proposed growth in air or vehicular traffic. The DEIR should quantify existing and proposed traffic need, as well as review of alternatives for such measures as those addressing vehicular traffic and parking. The DEIR should clearly explain why parking for cars is proposed to increase by 549, to be added to the present 369 spaces; trip generation, however, is projected to remain flat at 1,300+. On page 25 the ENF states the "The airport will continue to serve as a Bus Hub", but there is nothing in the plan to ensure that this in fact will continue to be the case. The DEIR should include proposals for safer drop-off, pick-up areas for the buses. The DEIR should address, at a minimum: a. Use physical traffic calming techniques to slow traffic and improve safety in neighborhoods…The general aim is to minimize congestion and improve safety at critical roads and intersections by emphasizing traffic management over major physical modifications (more roads, wider roads, traffic lights) that would degrade the character of the Island. b. Improve the efficiency and promotion of the Island's buses, taxis and ferries.	The projects will not significantly affect vehicular traffic volumes, as described in Sections 5.4.2.1 and 5.8.2. Current and projected traffic volumes are based on a traffic study, which is included in Appendix G. The previously proposed vehicular parking expansion is no longer proposed. The new vehicular parking at the Southwest Ramp is less than the number of spaces being removed by that project. The parking proposed for the new hangars is the minimum needed for those facilities. The proposed new right-turn lane on Airport Road will improve traffic congestion for traffic exiting Airport Road. The Airport is committed to retaining its bus service and will continue to accommodate and promote it. Drop-off and pickup areas are not currently proposed to be modified but may be examined during terminal renovation design.

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J. Taylor, Martha's Vineyard Commission	MVC-13	Land Use, Socioeconomics	The DEIR should address, at a minimum, the following: a. Preserve and reinforce the traditional settlement pattern of the Island…Limit significant new development in outlying areas. b. Restore and improve areas that were developed in problematic ways in the past…Destroyed or fragmented habitat in rural areas can be restored, as can the character of country roads with overly visible new development.	New development is proposed in previously developed areas within the airport and its business park, and will be in character with those areas. The tree removal will alter views along the roads and bike path but will not be a visually intrusive change.
J. Taylor, Martha's Vineyard Commission	MVC-14	General	Although the ENF is consistent with the RTP and TIP from a verbiage standpoint, the proposal itself is far too vague to evaluate at this time without more information.	Additional detail is provided in the DEIR/EA, although some design details will be developed in further detail during final design.
Brendan O'Neill, Vineyard Conservation Society	VCS-1	Biological Resources	The current ENF cites yet-to-be-determined mitigation measures for impacts on 20 acres of rare species habitat. As more thoroughly described below, VCS respectfully recommends consideration of off-site mitigation at the adjacent Correllus State Forest, of which the airport was once the heart. A dedicated fund for management at the State Forest would help address chronic underfunding problems at the Forest. It would also be a way to honor the airport's origin in this important public open space resource.	The Airport is working with NHESP and DCR to address impacts to rare species habitat and the State Forest. Mitigation may consist of habitat management measures, payment in lieu of formal mitigation to provide habitat enhancement or protection off-Airport, or other measures. These commitments will be conditioned as part of the required Massachusetts Endangered Species Act and DCR permitting processes.
Brendan O'Neill, Vineyard Conservation Society	VCS-2	General	The sENF should cite an additional trigger for ENF and mandatory EIR review: transportation impacts, specifically the proposed construction of a new runway or terminal at an existing airport, expansion of an existing runway at an airport, and construction of a new taxiway at an airport.	No new or expanded runways are proposed and a terminal renovation is proposed. One taxiway is proposed to be extended.
Brendan O'Neill,	VCS-3	General	The applicant should be directed to include a detailed description of the negative and positive potential	Chapter 5 addresses environmental impacts, including, where

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Vineyard Conservation Society			environmental impacts of the Project, not just on the immediate two-town surroundings of the airport property, as described in the ENF, but also the "Region", which in this case is the rest of the Island of Martha's Vineyard.	applicable, induced/secondary and cumulative effects.
Brendan O'Neill, Vineyard Conservation Society	VCS-4	General, Environmental Consequences	The ENF fails to adequately present the context for this centrally-located project, including data describing all of Martha's Vineyard, an island of some 57,000 acres, encompassing six towns. 11.05(2) requires consideration of cumulative environmental impacts, in this case being air pollution, water quality, greenhouse gas emissions, and noise and light pollution on a six-town island.	The relevant context of the projects is described in Chapters 1 and 4. Cumulative impacts are addressed in Section 5.15.
Brendan O'Neill, Vineyard Conservation Society	VCS-5	Environmental Consequences	Applicant should be directed to address growth impacts on the island and strategies to avoid Damage to the Environment from aircraft emissions, including Hazardous Air Pollutants (HAP) and greenhouse gases that contribute to global climate change.	Air quality and GHG emissions are addressed in Section 5.4 and 5.5, respectively.
Brendan O'Neill, Vineyard Conservation Society	VCS-6	Air Quality	Because air quality is a listed Concern, applicant should determine cumulative emissions from project operations of all CMR-listed pollutants (including PM, CO, lead, SO, VOC, NO, any HAP), test those findings against Federal Potential Emissions criteria, and detail control strategies if significant impacts are described.	The Projects will have minimal effect on air or vehicle traffic and therefore will result in minimal missions from these sources. GHG emissions from new or renovated buildings are described in Section 5.5.
Brendan O'Neill, Vineyard Conservation Society	VCS-7	GHG Emissions	This project will encourage more frequent air travel, which has a greater carbon footprint as compared to the alternatives – ferry and car travel. Applicant should set that out in the submission.	The Projects are not expected to affect the numbers or kinds of air operations.
Brendan O'Neill, Vineyard	VCS-8	GHG Emissions	With respect to GHG emissions (including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride), the	An analysis of GHG emissions is included in Section 5.5 and follows

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Conservation Society			applicant should address calculation, change, and mitigation of the Carbon Dioxide Equivalent of the Project (the amount of CO2 by weight that would produce the same amount of global warming impact as a given weight of another greenhouse gas) based on the best available science.	the protocol required in the MEPA Certificate on the ENF.
Brendan O'Neill, Vineyard Conservation Society	VCS-9	Water Resources	The ENF Project Description correctly cites location of the Project on a Sole Source Aquifer. Applicant should provide additional information on the purpose and history of this designation, its definition under the federal regulations, and its implications for the Project, as subject to MEPA review.	The Sole Source Aquifer and potential impacts are addressed in Chapters 4 and 5.
Brendan O'Neill, Vineyard Conservation Society	VCS-10	Hazardous Waste, Water Resources	Additionally, consistent with addressing cumulative environmental impacts on the Region, and in light of the recent release of toxic chemicals at the airport which have contaminated down-gradient private wells, the applicant should quantify and outline proposed mitigation measures with respect to water quality impacts due to the Project.	The potential for encountering contaminated soil or groundwater is addressed in Section 5.14. The science, regulation, and local information on contamination, particularly PFAS, are evolving rapidly. The work will be conducted consistent with all applicable laws and regulations.
Brendan O'Neill, Vineyard Conservation Society	VCS-11	Biological Resources	The ENF Project Description correctly cites the fact that portions of the Project are within Priority Habitat as designated by NHESP. Applicant should be assess whether the Project's central location on the island, in particular its being surrounded by State Forest land, may amplify Environmental Impacts in the form of habitat fragmentation.	The Projects will reduce the acreage of impervious surfaces and increase the amount of Priority Habitat in grassland. The Projects will remove trees while increasing the amount of shrub habitat, which supports many rare species.
Brendan O'Neill, Vineyard Conservation Society	VCS-12	Land Use	The ENF should cite the fact that the 688-acre Project area was once the heart of the Island's dedicated conservation land, the Manuel Correllus State Forest. The land on which the airport sits was taken by the U.S. government in 1941 to create a naval air station	The airport setting and history are described to the extent they are relevant to the impact assessment required by NEPA and MEPA laws and regulations.

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			to be used during wartime; in 1959 the facility was conveyed to the County.	
Brendan O'Neill, Vineyard Conservation Society	VCS-13	Alternatives	It is our understanding from reading press accounts that the terminal expansion component of the Projects currently under MEPA review is speculative. There may not actually be funding for this component. We ask that it be excised from the submission as part of the sENF filing. If the terminal component remains a part of the filing, we ask that the applicant provide expanded data in support of the claim of "insufficient capacity to meet current demands".	The terminal project has been scaled down to the minimum to meet current and projected passenger volumes and facility needs.
Brendan O'Neill, Vineyard Conservation Society	VCS-14	Purpose and Need	We ask that the applicant provide clearer and more persuasive evidence of a safety rationale for converting 4.1 acres of grass to pavement.	The Projects will result in a net reduction in impervious surfaces. Need is addressed in Chapter 2.
Brendan O'Neill, Vineyard Conservation Society	VCS-15	Alternatives, Impacts	The ENF leaves open the question of how the traverse grade criteria involving the non-conformity will be addressed. We ask that the applicant provide an answer and assess the associated environmental impacts.	The Regrade Runway 6-24 Side Safety Areas project is described in Section 3.1.8, but the preferred alternative is the No-Build Alternative.
Brendan O'Neill, Vineyard Conservation Society	VCS-16	Alternatives	We ask that the applicant provide more detail on the identity of the proposed tenant of the 80' x 80' hangar, as well as any proposed legal arrangements.	Leased space is contracted through an open bidding process, and prior to bidding, the Airport cannot designate which tenant will occupy a future hangar. The interested party would house helicopters in the hangar which would be used to carry shift workers offshore.
Brendan O'Neill, Vineyard	VCS-17	Funding, Alternatives	In a sENF, applicant should make clear which elements of the several projects under MEPA review are funded, in what amounts, and through which	The projects are mostly funded through the FAA's Airport Improvement Program. Funding

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Conservation Society			funding sources. We were able to locate the missing attachments to the ENF showing the Priority Habitat areas, as well as the maps of what is actually being proposed at the website of our regional planning agency, the MV Commission. Applicant should remedy this deficiency.	comes via the Airway Trust Fund, which is funded by taxes on airplane tickets and aviation fuel. There may be contributions from state and local funds, although funding for individual projects may vary. Development of lots 34 and 38 of the Business Park have and would be privately financed. Priority Habitat mapping and proposed projects are included in the DEIR/EA figures.
Brendan O'Neill, Vineyard Conservation Society	VCS-18	Alternatives	Several of the project requests under MEPA review appear to be inconsistent with the airport's own 2016 MV Airport updated master plan: 1.4.2.2 – Aircraft Storage Hangars – the Master Plan states that a building assessment conducted in 2013 concluded that 30 percent of the hangars are not currently occupied, concluding that "…the airport has adequate aircraft hangar storage." Still, one of the 10 projects under MEPA review is for a net increase in hangar space. Similarly, with respect to parking, the 2016 updated plan states that "…the existing parking capacity of 226 spaces will be sufficient to meet near term and long term parking demand."	Under the proposed projects, some outdated hangar space would be removed and new hangar space constructed. This would serve both to improve hangar space and improve and consolidate aircraft parking areas. Additional vehicle parking in the terminal area is no longer proposed. Additional vehicle parking is only proposed to replace that being lost to the Southwest Ramp improvements and to service the new hangars.
Tara Whiting-Wells, West Tisbury Conservation Commission(WT ConComm)	CC-1	Open Space, Groundwater	WT ConComm has oversight and management of the adjacent 365 acre Margaret K. Littlefield Greenlands property ("Greenlands", Assessor's Map 18 Lot 1), bought in 1982 with state Self Help funds to protect future drinking water supplies. We are concerned with how present and future airport expansion plans will affect this important water source for West	The Greenlands parcel is noted in the DEIR/EA. It is not expected to be directly or indirectly affected by any of the proposed Projects.

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			Tisbury and Oak Bluffs. The island has a sole source aquifer upon which Greenlands and the airport are squarely located.	
Tara Whiting-Wells, WT ConComm	CC-2	Hazardous Waste	Given the current PFAS (from firefighting foam) plume emanating from the airport now impacting private wells south and east of the airport, for which remediation remains uncertain, how will these proposed projects, and future airport expansion, affect public and private water supplies? In 1996, a plume of tetrachloroethylene was discovered to originate from a dry cleaning business at the airport. This reached nearly a mile south of the airport, indicating the chemical had been mishandled for years. This plume was overlooked for years despite at least periodic testing ("The Water Below", Alex Elvin, MV Magazine, December, 2018).	The potential for encountering contaminated soil or groundwater is addressed in Section 5.14. The science, regulation, and local information on PFAS are evolving rapidly. The work will be conducted consistent with all applicable laws and regulations. The Airport and its LSP will continue coordinating with MassDEP in this regard.
	CC-3	Water Supply and Wastewater	Additionally, the ENF suggests that water use will increase by approximately five and a half million gallons per year and wastewater generation will increase to roughly four and a half million gallons per year. Past history of airport activity, and resulting negative impacts, to surrounding groundwater are a source of continuing concern to the WT ConComm	There is sufficient capacity in the public water system and wastewater treatment facility to handle the proposed Projects, as described in Section 5.6.2. Stormwater runoff treatment will improve over existing conditions.
	CC-4	Lighting	There does not appeal' to be any information in the ENF about how much additional lighting will be required with this expansion, particularly for the new parking areas. We are concerned about how this will affect known populations of protected invertebrates and birds, on both Priority Habitat at tire airport and in the adjacent Greenlands and Manuel F. Correllus State Forest	The expanded parking is no longer proposed. Additional lighting would be needed for certain projects, such as the Aircraft Hangar Development, Taxiway E Reconstruction, and Southwest Ramp projects. These would be within or immediately adjacent to existing airport infrastructure and

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				lighting would be of a similar nature.
	CC-5	Alternatives, Impacts	Not all project components in ENF are mandated by FAA; for instance, paving the four and a half acre turf tie down area. The guiding mantra of Natural Heritage and Endangered Species Program review is to 'avoid and minimize' impacts to rare species. All projects combined, a total of nearly eighteen acres is proposed to be converted to impervious asphalt. This ENF does not identify protected rare species, or plans for mitigating impacts to same.	The paved turf tie-down expansion is not a preferred alternative. Overall there would be a reduction in impervious surface. Impacts are being avoided and minimized to the extent practicable, as discussed in Section 5.9 and elsewhere.
	CC-6	Purpose and Need	Components of the ENF do not match existing goals/plans as stated in the airport's own Master Plan. In the 2013 Master Plan, thirty percent of hangars were determined to be not currently occupied, concluding that the airport has adequate hangar storage, yet now they propose a net increase in hangar space. The 2016 Master Plan Update determined the existing two hundred twenty-six parking spaces to be sufficient to meet near term and long term parking demand, yet now they propose 549 additional spaces.	Under the proposed projects, some outdated hangar space would be removed and new hangar space constructed. This would serve both to improve hangar space and improve and consolidate aircraft parking areas. Additional vehicle parking in the terminal area is no longer proposed. Additional vehicle parking is only proposed to replace that being lost to the Southwest Ramp improvements and to service the new hangars.
	CC-7	Alternatives, Impacts	In the ENF, the airport states "The airport does not have facilities to store large corporate aircraft. The airport has current demand from a new tenant interested in leasing an eighty by eighty foot (15,900 square feet) hangar and basing their aircraft here". This is a troubling new development, and will no doubt lead to further development of such private	The Projects overall will result in a reduction of impervious surfaces, including within Priority Habitat. No change in fuel storage is proposed. Climate change impacts are addressed in Section 5.5. Indirect and cumulative effects are

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			facilities at the airport, with additional alteration/elimination of Priority Habitat, now and in the future. We are concerned with how this will ratchet up jet fuel storage and pollution from same, both via spills and from emissions during landings and takeoffs. Review of this ENF should include impacts to climate change, as well as predicted traffic impacts to the island as a whole, aka the "Region". It is disingenuous for the Airport Commission to suggest that people flying in, commercially or on private jets, are not bringing cars to the island and impacting existing traffic issues. People coming off planes rent cars and people coming off private jets have at least one car already on the island.	addressed in Chapter 5. No effects on aircraft traffic and minimal effects on vehicular traffic are expected.

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Jeffrey Agnoli	1-1	Biological Resources	There are two dozen rare, threatened, or endangered plant, animal, and insect species in the airport area. How would their situation not be worsened by an expansion?	The Projects would result in an increase in grassland and shrub habitats, which most of the rare species in this area depend on. Rare species impacts are addressed in Section 5.9.
Jeffrey Agnoli	1-2	Water Resources	The Gazette has also reported the contamination of wells by the carcinogenic PFAS, clearly linked to the airport's operational practices. How would this contamination not be worsened by the expansion?	The Projects are not expected to increase aircraft operations or flight patterns or to significantly alter their movements on the ground, so the Projects themselves are not expected to affect the potential for PFAS contamination. There is a potential for PFAS involvement during construction. The Airport's practices in regard to PFAS are addressed in Section 5.14.
Jeffrey Agnoli	1-3	Purpose and Need	It appears the "need" behind this expansion is being driven by private aircraft concerns.	Each project's need is different, as described in Chapter 2.
Jeffrey Agnoli	1-4	Noise	…they are concerned by the already high levels of noise these aircraft produce, especially during the warmer months.	The Projects are not expected to change the numbers or flight patterns of aircraft, so no effect on noise is expected.
Jeffrey Agnoli	1-5	Climate Change	Many of these citizens are also concerned by the larger environmental impacts of jet-fuel burning by aircraft, especially since far less negative impacts are created by using the available modes of transportation.	The Projects will have a negligible effect on aircraft emissions, as addressed in Sections 5.4 and 5.5.
Jeffrey Agnoli	1-6	Funding	A final point is the use of taxpayer funds, which are behind the money that would go to pay for this ludicrous proposal.	The projects are mostly funded through the FAA's Airport Improvement Program. Funding comes via the Airway Trust Fund, which is funded by taxes on

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				airplane tickets and aviation fuel. There may be contributions from state and local funds, although funding for individual projects may vary. Development of lots 34 and 38 of the Business Park have and would be privately financed.
Jeffrey Agnoli	1-7	General	This airport expansion proposal harms the environment, wastes essential funds, and serves no important purpose.	Comment noted.
Angela Andersen	2-1	Biological Resources	The plan to expand our airport put into action would be a tragedy for this island with its fragile ecosystem.	Impacts are addressed in Chapter 5. Impacts to biological resources are addressed in Section 5.9.
Angela Andersen	2-2	Project Description	The last thing we need is bigger planes bringing more people or tripling the parking spaces.	The Projects would not affect aircraft sizes or allow larger aircraft to use the Airport. The parking expansion is not proposed.
Paul Bailey	3-1	Purpose and Need	With regard to the planned airport expansion, why? Data supports declining passenger traffic.	The Projects are intended to accommodate existing and projected levels of traffic, but will not in and of themselves increase traffic.
Paul Bailey	3-2	Noise and Traffic	The airport commission has failed to demonstrate what benefit the expansion will bring to MV residents other than air craft noise and motor vehicle traffic when passengers disembark from the aircraft.	The Projects are not expected to significantly increase aircraft noise or vehicular traffic.
Paul Bailey	3-3	Groundwater	More importantly, airport commission should more timely address the ongoing water table contamination that has been traced back to airport operations.	The Airport is separately addressing existing PFAS in groundwater.
Jason Balaban	4-1	Impacts	The more we accommodate growth, the more growth will occur but let's not forget what's made Martha's	The Projects are not expected to promote or result in growth.

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			Vineyard such a popular destination in the first place - it's a small, sequestered, natural respite.	
Jason Balaban	4-2	Quality of Life	An overwhelming majority of islanders, seasonal residents and visitors see the island this way and enjoy what it offers.	Comment noted.
Jason Balaban	4-3	Noise, Air, Economics/Funding	Let's not increase noise pollution, air pollution, and the economy to satisfy the very few – that make little sense and has no justification.	The Projects will not significantly increase noise or air pollution. In terms of economics, two lots are proposed in the Business Park, and the Airport will continue to serve as an important part of the island's economic life.
May Baldwin	5-1	Purpose and Need	We already have to adjust to the noise and pollution of way too many private jets who I imagine this expansion is really for.	The Projects would not expand runways or the kinds of aircraft that can use the Airport. The Projects will not significantly affect noise or air pollution.
Ollie Becker	35-1	Impacts	I am a year round resident here, and am extremely concerned about the impact this expansion will have on the surrounding wildlife, and the community at large. With recent reports of contamination to the water table, increasing the scale of the airport becomes even more concerning. I am sure you are aware of the many endangered species that reside in the woodlands abutting the airport, and this expansion will clearly compromise that habitat. Furthermore, the air traffic patterns are directed over coastal salt ponds, which are home to rare bird species like Ospreys. The noise from the current amount of jet traffic is already disruptive, and aiming to increase this doesn't make any sense. This expansion is not based out of need either, the statistics of how the airport is currently used simply	The Projects would not expand runways or the kinds of aircraft that can use the Airport. Impacts are addressed in Chapter 5.

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			don't support this level of development, and the residents here (both summer and year round) already feel there is too much disruption from jet traffic as is. Please consider limiting the expansion of the airport or blocking it completely, thank you for your time.	
Valerie and John Becker	6-1	Traffic	We are writing with strong objection to any expansion of the airport to handle increased traffic flow.	The Projects would not affect aircraft traffic volumes and do not propose expansion in vehicular traffic.
Geraldine Brooks	7-1	Biological Resources	None of this benefits those of us who call the island home, including the non-human species, some of them already endangered.	The Projects would have a net benefit to rare species, largely by increasing the amounts of grassland and shrub habitats where many of the rare species are found.
Geraldine Brooks	7-2	Quality of Life and Biological Resources	We live in a rural community with a sensitive environment. Yes, it is a summer resort. But what people come here for--why it is a valued place--is because it is quiet and rural, with a wonderful undegraded ecosystem.	Impacts to biological resources are described in Section 5.9.
Wesley Brown	8-1	Quality of Life and Traffic	There are so many planes flying in and out now that it has a serious impact on the quality of life for residents.	The Projects would not affect aircraft traffic volumes.
Wesley Brown	8-2	Noise	There have been times when I couldn't even hear the tv because of the planes flying over my house which by the way is miles from the airport but in the landing approach path.	The Projects are not expected to affect aircraft volumes or flight patterns. Noise is addressed in Section 5.7.
Wesley Brown	8-3	Noise, Biological Resources, State Forest, and Quality of Life	The environment will be seriously impacted with more noise, making more ground impervious, affecting wildlife in the surrounding area which borders the State Forest, and further bringing down the quality of life on the Vineyard.	The Projects are not expected to significantly affect noise conditions; there will be a net reduction in impervious surfaces; and there would be changes in the kinds of wildlife habitat, as described in Section 5.9.

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Elisabeth Carnie, Odin Robinson, and Runar Finn Robinson	9-1	Purpose and Need, Biological Resources	This extension is unnecessary and would be harmful to the local ecosystem.	Project purpose and need are addressed in Chapter 2, and biological resources in Section 5.9.
Elisabeth Carnie, Odin Robinson, and Runar Finn Robinson	9-2	Biological Resources	According to the Vineyard Gazette article there are many endangered species and habitats at risk in this proposal.	Rare species are addressed in Section 5.9. There would be an increase in grassland and shrub habitat, which support most of the local rare species.
Alaina Darr	18-1	Runway Infrastructure	(A copy of Benjamin Hall's comment)	(See response to Benjamin Hall, Comment 18-1)
Miranda Edison	10-1	Proposed Action Description	I am writing in response to the proposal to increase the runway area on Martha's Vineyard.	No increase in runway area is proposed.
Miranda Edison	10-2	Noise and Quality of Life	Right next to the airport is a prime public lowbush blueberry patch that makes hundreds of pies. People walk their dogs and bike in there: we don't wanna hear more planes, bringing more people into the island and overwhelming nature.	The Projects are not intended to increase the numbers of aircraft or passengers. The Projects would increase the amount of shrub habitat.
Holly Eger	11-1	Traffic	The island cannot handle more traffic… More airplane traffic is absolutely the last thing we need.	The Projects are not intended to increase the numbers of aircraft or vehicular traffic.
Holly Eger	11-2	Biological and Recreational Resources	The area around the airport is sacred forest and bicycle trails.	Biological resources are addressed in Sections 4.10 and 5.9. Recreational resources are addressed in Sections 4.12 and 5.11.
Marilyn Feinberg	12-1	General	I am vehemently against an airport expansion.	The Projects would not expand runways or alter the kinds of aircraft that can use the Airport.

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Marilyn Feinberg	12-2	Purpose and Need	The current airport is sufficient for an island the size of the Vineyard... there are the occasional line at the peak of the season and those are quite orderly.	The Projects propose expanding the terminal and other facilities to meet current needs.
John Freedman	13-1	Impacts	The proposed projects at Martha's Vineyard Airport (MVY) will have many impacts on the immediate environment as well as important ones on the entire island: increased traffic and congestion of a small island ecosystem, with all the accompanying human effects of requiring more food and goods to be brought on island, and more garbage to be hauled off.	Impacts in general are addressed in Chapter 5; natural resources and energy supply in Section 5.6; solid waste in Section 5.14.
John Freedman	13-2	State Forest/Section 4(f)	You must consider the impact upon the Manuel Correllus State Forest, within which MVY sits and from which it has already carved out a substantial portion.	The Projects proposed vegetation management in the State Forest, as described in Sections 5.9, 5.11, and 5.12.
John Freedman	13-3	Stormwater, Aquifer/Groundwater Pollution, Noise, Air Quality	As a result, permeable surface will be reduced (potentially impairing the island's aquifer, its only water supply), while noise and air pollution will increase.	The Projects propose reducing impervious surface acreage. There will be no significant effect on noise or air pollution, as described in Sections 5.7 and 5.4, respectively.
Nicole Galland	14-1	Quality of Life	It is objectionable both environmentally and culturally, and is absolutely indefensible to anyone who has any understanding of and interest in the integrity of the Vineyard community (not to mention our ecosystem).	Comment noted.
Nicole Galland	14-2	Traffic	We have already reached road saturation without adding more airport traffic.	The Projects would have a negligible effect on vehicular traffic.
Nicole Galland	14-3	General	Expansion for expansion's sake is always irresponsible on an island - but given there is no FBO at the MVY airport, it is even more irresponsible and reckless.	The Projects would accommodate existing air and passenger traffic.

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K. Gardner	15-1	Traffic	While having a safe functioning airport on the Island is important, accommodating private jets and increasing the airport capacity to hold three times as many parking spaces (and the implied exponential growth in air traffic) will have an irreversible impact on the island, changing it forever.	The Projects do not expand the Airport's capacity for jet traffic. The vehicular parking expansion is no longer proposed.
K. Gardner	15-2	Purpose and Need	…building an oversized airport will result in expanded air traffic that the Island is not (and should not become) prepared to accommodate.	The Projects would accommodate existing air and passenger traffic.
Edward Gargan	16-1	Proposed Action	I write to oppose the proposal by the martha's vineyard airport commission to sharply increase the airport's footprint by significantly enlarging the two principal ramp areas, to construct a new taxiway, and to renovate the two existing runways so that larger planes can land and with greater frequency.	The aircraft ramp projects will primarily compensating for losses to ramp space incurred over the last several years; the Southwest Ramp will be altered by removing existing buildings and adding some pavement. No new taxiway is proposed and the runways would not be expanded to accommodate larger planes or greater frequencies of flights.
Edward Gargan	16-2	Proposed Action, Traffic	By making it easier to land larger commercial jets sound pollution on all four quarters of the airport – now to be facilitated by the renovation of both runways – will be not only measurably greater from larger individual aircraft but from an enhanced number of flights.	The Projects would not alter flight patterns or the sizes of aircraft that can use the Airport. No significant change in noise is expected.
Robert Green/Linda DeWitt	17-1	Water Resources, Air Quality	Water and air quality, natural habitat must be safe guarded.	Impacts to these resources are addressed in Sections 5.2, 5.4, and 5.9, respectively.
Robert Green	17-2	General	I found the disconnect between airport officials on the energy and environmental issues deeply concerning. i.e. Lack of planning for any renewables,	Impacts are addressed in Chapter 5.

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			the development and utilization of land lacking little consideration of impacts.	
Benjamin Lambert Hall, Jr., Esq.	18-1	Runway Infrastructure and Alternatives	The future extension south of the alternate runway 33 and the installation of instrument landing on that runway… are critical to the safety of future aviation on the island. Any proposed alternative use of land south of that runway (such as that for a proposed expansion of the business park) would undermine the absolute primary focus of the Airport as being (safe) aviation above all else…	No work (other than vegetation management) is proposed directly south of Runway 15-33.
Thomas Hodgson	19-1	Purpose and Need	I think that this airport expansion proposal, number 15964, is not needed in its present large scale and large expense. Expansion of the airport is not necessary.	Comment noted. See Chapter 2, Purpose and Need, for the need for each project.
Thomas Hodgson	19-2	Purpose and Need	Renovating the landing areas is understandable. Lengthening them is not, as they are already sufficient for all but the largest of aircraft.	No runway lengthening is proposed.
Thomas Hodgson	19-3	Purpose and Need	Doubling the terminal size is a preposterous solution for a brief period of long lines during the summer season.	A scaled-down version of the terminal renovation is not proposed. See Chapters 2 and 3.
Thomas Hodgson	19-4	Stormwater	The proposed extent of land alteration, paving, and so on, would be a blow to the Island's already stressed environment.	Comment noted.
Thomas Hodgson	19-5	Purpose and Need	The proposal calls for 549 more parking spaces. It's hard to understand why so many are proposed.	The vehicular parking expansion is no longer proposed.
Thomas Hodgson	19-6	Hazardous Waste	It has recently been discovered that this facility's improper disposal of chemicals has contaminated nearby wells.	PFAS contamination is addressed in Section 5.14. The Airport is investigating and managing this under a separate endeavor.
Nathaniel Horwitz	20-1	Purpose and Need	Therefore, I speak from extensive personal experience with regards to the unnecessary nature of the proposed expansion. The waits are not bad	The terminal renovation is intended to accommodate existing passenger

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			compared to any other form of transportation and parking is rarely an issue. The airport is reliable and pleasant the vast majority of the time — it's in fact the best American airport I've encountered in terms of wait times, cleanliness, functionality, etc.	volumes and terminal needs, as described in Chapter 2.
Nathaniel Horwitz	20-2	Surface Transportation, Purpose and Need	Expanding the airport's car and plane capacity will not effectively accommodate the existing traveler population as intended: it will just encourage more flights, more visitors, more cars — and therefore more crowding, more congestion, and more pollution.	No expansion in vehicular parking is proposed. The runway and taxiway improvements will not expand the airport's capacity. There would be an increase in hangar space which will allow for optimal storage and maintenance of aircraft but will not in and of itself expand Airport capacity.
Nathaniel Horwitz	20-3	State Forest/Section 4(f)	Furthermore, to grow the airport at the expense of the local state forest, which is environmentally important and a great island feature for both residents and tourists, would be shameful.	The minimum amount of vegetation obstruction removal to meet FAA requirements for maintaining current operations is proposed. No other impacts to the State Forest are proposed.
Nathaniel Horwitz	20-4	Funding	I have flown privately via the MV airport, and to use federal (or local) taxpayer dollars to help our richest community members with private travel is an absurd use of resources.	Comment noted.
Tony Horwitz	21-1	Traffic	As a year-round resident, I've watched the summer crowds steadily increase to the point where we struggle to get out our driveway weekends because of backed-up traffic… Airport expansion will greatly exacerbate this.	The Projects collectively will have little effect on vehicular traffic, as described in Section 5.8.
Tony Horwitz	21-2	Purpose and Need	It's evident from the reporting in the M.V. Times that much of the proposed expansion is to accommodate private planes and "large corporate aircraft."	The Airport cannot dictate the ownership or sizes of aircraft using the Airport. The Projects would not affect the ownership, sizes, or

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				numbers of aircraft using the Airport.
Robert Huebscher	22-1	Funding	Can you please tell me how much a private jet pays to land and take off at MVY? What about a private propeller plan? A commercial plane? Does this money go to the airport commission to maintain the airport?	Private planes pay landing fees and ramp fees, with the fee depending on weight classes. Airlines are charged enplanement and passenger facility charge fees. Revenue also comes from fuel sales, leases, and other sources. Federal funding comes through FAA, and state funding is also provided. There is no local funding outside of the airport itself; it is locally self-sufficient.
Cindy Kane	23-1	Water Resources, Hazardous Waste	We have already been reading about the poisoned wells, and the quality of life that is impacted by the many abutters to the airport.	PFAS contamination is addressed in Section 5.14. The Airport is investigating and managing this under a separate endeavor.
Cindy Kane	23-2	Purpose and Need	The airport expansion plan does not reflect the values of our small rural island.	Comment noted.
Barbara Kassel	24-1	Purpose and Need, Alternatives	I like the airport as it is, but I understand that improvements need to be made to address the structure itself, the added TSA requirements and the repairs of the runways. That will probably mean some expansion of the building itself to have a waiting area after passing the security check point. I support that.	Comment noted.
Barbara Kassel	24-2	Purpose and Need, Alternatives	I do not think that it should be expanded as planned to a very large structure, added hangers, more parking spaces, and more concrete! This is a small island. I am sick of all the corporate jets coming in with the uber wealthy. I am sorry to say this, but it is true. The whole tenor of the island has been	The terminal project has been scaled down and no parking expansion is proposed. The Airport cannot dictate the ownership or sizes of aircraft using the Airport.

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			changing to accommodate the super rich and their huge homes, private planes, private beaches, private everything. We don't need more corporate jets flying on and off the island and hangers for them. We don't need more parking spaces. We need a functioning small airport that serves the needs of the people who come to the island, and moreover, those that call it their home.	
Patricia Lent McCarron	25-1	General, Recreational Resources	I have been a resident of Martha's Vineyard for over thirty years. I am extremely concerned about the proposed expansion of the airport. On a personal note, I ride my bike around the State Forest and the airport every day when the weather allows.	The Projects would not in and of itself increase aircraft traffic or volumes. Impacts on the bike path during and after construction are addressed in Section 5.11.
Patricia Lent McCarron	25-2	Purpose and Need	Please listen to what people have to say very carefully and critically. Just because we can do this, doesn't mean that we should. I fear that this is an example of chasing tourist dollars to the point of destroying the special character of the place, which is the very reason that tourists want to come here.	The overall purpose and the need for individual projects are addressed in Chapter 2.
Salem Mekuria	26-1	Biological Resources	I cannot believe that this fragile eco system that is the natural habitat of of so many precious animals, which is the reason why people come to admire and enjoy, is being threatened by the officials who should be in charge of defending and preserving it.	Impacts to rare species and habitats are addressed in Section 5.9.
Salem Mekuria	26-2	Purpose and Need	I am outraged and so disappointed by such hubris, and for what!?	Comment noted.
Hunter Moorman	27-1	Impacts	Both our natural environment and our community will be adversely impacted by airport "improvements".	Impacts to environmental and other resources are addressed in Chapter 5.
Hunter Moorman	27-2	Purpose and Need	The airport cannot control some aspects of its operations, but it does have other tools to use to limit current overcrowding as well as future growth and their adverse impacts on Martha's Vineyard.	Comment noted. The alternatives analysis in Chapter 3 provides the rationale for selection of the proposed alternatives.

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Hunter Moorman	27-3	Impacts, Climate Change and GHG Emissions	Air travel is harmful to the environment and to the climate. This is not the time to expand. It is the time to practice intelligent management of growth.	The Projects will not affect air traffic volumes or flight patterns, and therefore will have little effect on climate change or GHG emissions, as described in Section 5.5.
Hunter Moorman	27-4	Impacts, Alternatives	No reasonable, credible assessment of the recommended alternative can be made from this report.	More detail on alternatives is provided in Chapter 3, and impacts are addressed in Chapter 5.
Hunter Moorman	27-5	Purpose and Need	This is not an airport that needs to double the size of its terminal.	The terminal project has been scaled down.
Hunter Moorman	27-6	Impacts	Air traffic produces a range of environmental degradation, including not only harm to rare species habitat and water contamination, but also particulate, noise, and light pollution.	The Projects would not affect the numbers or kinds of air traffic using the Airport. Impacts are addressed in Chapter 5.
Hunter Moorman	27-7	Air traffic	This community calls upon the airlines to remove the source of the congestion they have caused by reworking their schedules to spread the traffic and demand out across a longer day.	Comment noted. The Airport cannot dictate airline schedules.
Hunter Moorman	27-8	Funding/Economics	Before the airport doubles the size of the terminal to accommodate excess traffic, it should make use of those tools to reduce airline traffic demand.	The terminal project has been scaled down. The Airport cannot dictate airline schedules.
Susan Murphy	28-1	Purpose and Need	The notion that congestion of the summer should dictate this project is clearly an example of thinking that does NOT reflect the needs or desires of the people who live here, however dependent we may be on summer visitors.	Comment noted.
Susan Murphy	28-2	Surface Transportation	The island roads are at capacity in July and August. Gridlock occurs now in West Tisbury, not just Oak Bluffs, Edgartown, and Vineyard Haven. Just getting groceries has to be timed between Steamship Authority ferry arrivals. Expanding the airport's	The Projects would have little effect on vehicular traffic, as described in Section 5.8.

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			capacity to receive even MORE people in the summer is NOT what we need.	
Susan Murphy	28-3	Purpose and Need	I understand the need to expand space or re-configure existing space for TSA needs. But to replace the terminal and to expand parking and upgrade runways for more jet traffic? Build hangars for private jets?	The terminal project has been scaled down, no parking expansion is proposed, and the project will not affect the numbers or kinds of aircraft that can use the airport.
Susan Murphy	28-4	Purpose and Need	What seems to be driving this is the availability of federal money for airport upgrades.	The overall purpose and the need for each project is addressed in Chapter 2.
Beatrice Nessen	29-1	Purpose and Need	Why expand the terminal and parking lots for two months of the year. This seems senseless to.	The terminal project has been scaled down, no parking expansion is proposed.
Beatrice Nessen	29-2	Biological Resources and State Forest/Section 4(f)	The noise and loss of open space will have adverse effects on the wildlife and bird life resulting from both construction and long term by increased air traffic, both from private plans and increasingly larger commercial flights.	There would be no loss of open space, although there would be trees removed from the State Forest. There would be an increase in grassland and shrubland which support most of the rare species in the area. The Projects would not affect the numbers or kinds of air traffic using the Airport. Impacts are addressed in Chapter 5.
Dana Parkhill-Day	30-1	Biological Resources	The airport is a dead zone in the winter, it's only busy in the summer and I can tell you that to lose more acreage of natural wildlife and plant life on this small island is not worth an expansion.	See response to 29-2 above.
Zeev Pearl	31-1	Biological Resources	As a resident of Martha's Vineyard (Edgartown) I believe that the environmental impact on the fragile eco-system of the Vineyard should be thoroughly considered prior to any approval of any expansion of MVY, let alone the contemplated major MVY Expansion Project.	See response to 29-2 above.

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Zeev Pearl	31-2	Water Resources, Hazardous Waste	It is not surprising that risky levels of PFAS were found in 13 out of 96 wells south of MVY according to recent reports in local newspapers.	PFAS contamination is addressed in Section 5.14. The Airport is investigating and managing this under a separate endeavor.
Zeev Pearl	31-3	State Forest/Section 4(f)	In addition, more than doubling the number of parking spaces and creating more impervious areas therefor, may adversely affect the state forest around the airport, a crucial resource in keeping the Vineyard green.	The parking expansion is no longer proposed and there will be a net decrease in impervious surfaces. Impacts to the State Forest are addressed in Sections 5.9 and 5.11.
Robert Richheimer	32-1	General	NO! Not a cent!	Comment noted.
Robert Richheimer	32-2	General	Our airport is perfect..	Comment noted.
Matthew Sudarsky	33-1	Funding	The money should be put to cleaning up the polluted groundwater.	Comment noted.
Klaus D. Vogt	34-1	Finances	There must be more places in the country in need of funds than this small island airport, where just a certain elite vacations for weeks during just July to September.	Comment noted.
Klaus D. Vogt	34-2	Purpose and Need	The airport's capacity for its 16.000 residents is sufficiently adequate.	The Projects would not affect the numbers or kinds of aircraft using the Airport.