

CONSULTING SCIENTISTS,  
PLANNERS & ENGINEERS

Project Site

ECOLOGICAL SCIENCES



#### SERVICES PROVIDED

**Compliance monitoring**

**Conservation Commission peer review services**

**Construction monitoring**

**Expert testimony**

**Functions and values assessments**

**Wildlife habitat and vernal pool evaluations**

**Wetland mitigation plans**

**Wetland resource area delineations**

**Wetland, waterways & rare species assessments**

**Epsilon's Ecological Sciences group provides permitting and compliance assistance to public and private sector clients on issues relating to wetlands, waterways, and rare and endangered species. We provide comprehensive federal, state, and local regulatory permitting throughout New England and New York.**

Epsilon has a diverse staff of biologists, ecologists, and freshwater and coastal wetland scientists with the capabilities to provide a full range of wetland and ecological consulting services. Our staff are highly trained, and include certified professional wetland scientists, soil scientists, ecologists, marine scientists, stormwater management inspectors, and regulatory permitting experts. Many Epsilon scientists have certifications through professional societies and state certification programs, and serve as active instructors and trainers in wetland and ecological sciences.

Epsilon provides delineation and mapping services for coastal and inland wetland resource areas and ecological evaluations throughout the northeastern United States in accordance with local, state and federal methodologies and criteria. Epsilon's staff are also experienced wildlife habitat evaluators, compliance professionals, and restoration and mitigation area designers.

Epsilon is a premier regulatory permitting and licensing firm in the Northeast market. Our team of scientists work collaboratively with our clients to streamline the environmental permitting review process, and to provide strategy and practicable solutions to regulatory permitting.

**CONSULTING SCIENTISTS,  
PLANNERS & ENGINEERS**

**TRANSPORTATION  
INFRASTRUCTURE SERVICES**



**Epsilon**  
ASSOCIATES INC.

**SERVICES PROVIDED**

**Massachusetts Environmental Policy Act (MEPA)**

**National Environmental Policy Act (NEPA)**

**Local, state, and federal environmental permitting**

**Wildlife Hazard Assessments (WHAs)**

**Wetland mitigation design and monitoring plans**

**Rare species surveys**

**Cultural resource assessments**

**Historic resource assessments**

**Visual impacts**

**Noise impact evaluations**

**Air quality assessments**

**Chapter 91 Waterways licensing**

**Construction compliance**

**Post-construction environmental monitoring**

**Dredging/dredged material management plans**

**Wetland Delineation**

**Wildlife Habitat Evaluations**

**Stream Assessments using Corps protocols**

**Sediment sampling plans and implementation**

**Bankfull measurements**

[www.epsilonassociates.com](http://www.epsilonassociates.com)

**Epsilon works to help advance public infrastructure projects alongside transportation engineers and state agencies, particularly throughout the Commonwealth and Greater New England. Our infrastructure work includes permitting for a broad range of public facilities, such as airports, bridges, roads, railways, and shared-use paths.**

Epsilon's depth of technical and regulatory services enables us to work with clients from the conceptual design of a project through its completion. Some of our lifecycle services include producing ecological assessments for both freshwater and coastal ecosystems, supporting alternative analyses for bridge types, developing permitting applications, designing wetland mitigation areas, monitoring construction, conducting stream assessments using Corps protocols, sediment sampling plans and implementation, and bankfull measurements. Our work integrates the specific needs of our clients to provide real-world environmental permitting solutions to a variety of small and large-scale transportation infrastructure projects.

Epsilon has strong working relationships with the MassDEP's Highway and Variance Permit Review Team, MassDOT Highway's Environmental Services Division, and other regulating bodies. Towns, municipalities, and transportation industry engineers and managers use Epsilon's guidance to comply with federal, state, and local environmental requirements, thus ensuring timely, safe, and sustained operations.

**ENVIRONMENT • ENERGY • INDUSTRY • COMMUNITY**

**SAFETY/IMPROVEMENT**

**Plymouth Municipal Airport Master Plan Improvement Projects**  
Plymouth, MA

**Massport - L.G. Hanscom Field Aviation Improvement Project**  
Bedford, MA

**Taunton Municipal Airport Improvements Project**  
Taunton, MA

**New Bedford Airport Runway 5-23 Safety Improvement Project**  
New Bedford, MA

**Cape Cod Gateway (Formerly Barnstable Municipal Airport)**  
Hyannis, MA

**Westfield-Barnes Airport**  
Westfield, Massachusetts

**Nantucket Airport Expansion Project**  
Nantucket, MA

**Norwood Memorial Airport Taxiway A, C, D Relocation and Wildlife Fence Replacement**  
Norwood, MA

**WILDLIFE HAZARD ASSESSMENTS AND BIRD MONITORING**

**Beverly Regional Airport Wildlife Hazard Assessment**  
Taunton, MA

**Orange Municipal Airport Wildlife Hazard Assessment**  
Orange, MA

**Logan International Airport Bird Monitoring Project**  
Boston, MA

**Norwood Memorial Airport**  
Norwood, MA

**George Harlow Airport (Marshfield Municipal Airport)**  
Marshfield, MA



**CONSULTING SCIENTISTS,  
PLANNERS & ENGINEERS**

**AIRPORT SERVICES**



**SERVICES PROVIDED**

**Wildlife Hazard Assessments**

**Wildlife habitat and vernal pool evaluations**

**Wetland resource area delineations**

**Rare species assessments**

**Wetland mitigation plans**

**Environmental site analysis**

**Wetlands functions and values assessments**

**Compliance and construction monitoring**



**Epsilon has extensive experience supporting airport projects in the Commonwealth of Massachusetts as well as throughout New England. Our engineers, environmental scientists, and planners help to bring airports into compliance with federal, state, and local environmental requirements. We are able to integrate the various disciplines in which we specialize to help clients implement their projects.**

As the Federal Aviation Administration and MassDOT Aeronautics Division continue to update regulations to ensure airport safety and reduce environmental impacts, airport owners and operators must continuously ensure they stay on top of new environmental regulations. At Epsilon, we can help you meet new standards or remain in compliance with already set regulations and standards.

We regularly provide our airport clients with a full range of technical and regulatory expertise ranging from environmental assessments and permitting to construction and compliance monitoring. We support a range of airport projects including runway extensions, taxiway relocations/ construction, vegetation management, and hangar development.

# AIRPORT SERVICES

## NORWOOD MEMORIAL AIRPORT

Norwood, Massachusetts

Epsilon led the environmental permitting at the Norwood Memorial Airport to assist the airport with relocating Taxiway "A," the parallel taxiway to Runway 17/35. The relocation provides the desired separation from a B-II runway in accordance with FAA Advisory Circulars. Subsequent projects involve realignment of Taxiways C and D at the airport to remove a direct apron to runway connection. Relocating the taxiway has required approvals from the U.S. Army Corps of Engineers, MassDEP (Wetlands Variance), and the NHESP for impacts to wetlands, land, and rare species habitats. In addition, Epsilon conducted a Wildlife Hazard Assessment in accordance with FAA Advisory Circulars and guidance documents

**Epsilon's Services:** MEPA, NEPA, Rare Species Monitoring, Wildlife Hazard Assessment



## CAPE COD GATEWAY

Hyannis, Massachusetts

Epsilon is leading environmental review of projects included in the Master Plan update for the Cape Cod Gateway Airport. Environmental review includes compliance with federal, state, and local requirements, including NEPA and MEPA. Components of this effort include review of the airport's terminal space, runway expansion, construction of new taxiways, and other proposed airside and landside improvements. Key environmental challenges included developing mitigation strategies for protecting sensitive environmental habitats, wetlands, water resources, and air quality.

Epsilon is also leading extensive community outreach efforts, public presentations, and collecting public input. Epsilon is preparing the Draft and Final Environmental Impact Reports/ Environmental Assessments under MEPA/NEPA, along with review under Cape Cod Commission regulations. Epsilon navigated the project through new MEPA requirements related to Environmental Justice and Climate.

**Epsilon's Services:** Environmental Assessments under MEPA/NEPA, Public outreach, regulatory compliance, Section 106 compliance, historic resources inventory/ research, Strategic planning



## WESTFIELD BARNES AIRPORT

Westfield, Massachusetts

Epsilon scientists provided environmental consulting services associated with aviation easement acquisitions, relocation and widening of Taxiway B south, and new taxiway connectors and aprons at Westfield Barnes Airport in Westfield, MA. This project required development of draft and final EAs under NEPA and a Single EIR under MEPA environmental regulatory review – along with navigating MEPA's new Environmental Justice requirements. Epsilon scientists also delineated wetland resources and permitted the project under the state's Wetland Protection Act (NOI) and Clean Water Act (CWA) Section 401 Water Quality Certification requirements. Epsilon assisted the Airport to amend its Vegetation Management Plan to include newly acquired areas requiring obstruction removal based on an updated obstruction analysis. To successfully complete this project, Epsilon coordinated with NHESP regulatory staff to obtain project approvals.

**Epsilon's Services:** Vegetation Management, Wetland Delineation, MEPA/NEPA, Wetlands Permitting, MEPA Environmental Justice and Climate requirements, Historic Resources, Mitigation strategies



## AIRPORT VEGETATION MANAGEMENT

Various Airports, Massachusetts

Epsilon scientists updated four Airport Yearly Operational Plans at airports across the state as part of the MassDOT Aeronautics Division's Statewide Vegetation Management Program. For this project, Epsilon reviewed background vegetation management documentation, conducted airport site visits, and utilized GIS to update management plan graphics. Epsilon also streamlined updated documentation for vegetation management, made recommendations for management activities, and developed a permitting strategy that minimized the need for additional new permits. The Yearly Operational Plans are an important tool for airports to conduct maintenance activities, to prevent and remove obstructions, including within and around wetland areas, in accordance with previously permitted VMP plans.

**Epsilon's Services:** Vegetation Management, Wetland Delineation, Wetlands Permitting, Permitting/Mitigation strategies



## TAUNTON MUNICIPAL AIRPORT

Taunton, Massachusetts

Epsilon's Taunton Municipal Airport work includes leading environmental review and permitting to support the airport's safety, ensuring compliance with FAA standards, and maintaining the airport's financial self-sufficiency. These airport improvements include relocation of Taxiway A to meet FAA design standards for runway to taxiway separation distance and installation of a new AST for AvGas and Jet fuel. Epsilon was responsible for managing and supervising wetland and wildlife data collection reports, determining wetland mitigation requirements, MEPA/NEPA filings, and environmental permitting.

**Epsilon's Services:** Wetland Delineation and Mitigation Plans, Wildlife Habitat Evaluations, MEPA/NEPA, Wetlands Permitting, Historic Resources, and Construction Supervision and Compliance



## PLYMOUTH MUNICIPAL AIRPORT

Plymouth, Massachusetts

This project increased the length of Runway 15/33 by 1,000 feet to meet FAA design standards that would enable the airport to safely accommodate the design aircraft (Hawker 850XP). A portion of Taxiway "S" was also relocated 20 feet south to meet the 240-foot runway separation criteria for B-II aircraft. Construction of the extensions of Runway 33 required the permanent fill of approximately one acre of freshwater wetlands. The project also required trees and other obstructions to be removed from approximately 61 acres, including wetlands and habitat of state-protected grassland bird species. Approvals from the U.S. Army Corps of Engineers, MassDEP and local and state agencies were required for impacts to wetlands, land and rare species habitats.

**Epsilon's Services:** Wetland Delineation, Vernal Pool Assessments, Wildlife Habitat Evaluation, MEPA/NEPA, Wetlands & Rare Species Permitting, GHG Analysis, Mitigation Design

