GENERAL REFERENCES

Title 14 Code of Federal Regulations, Part 77, *Objects Affecting Navigable Airspace.*

Title 14 Code of Federal Regulations, Part 139, *Airport Operating Certification.*

Title 36 Code of Federal Regulations, 800.2, *Parks, Forests, and Public Property, Section 106 Process.*

CT Department of Environmental Protection. State of Connecticut Department of Environmental Protection Ground Water Quality Classifications. 2009.

CT Department of Environmental Protection. State of Connecticut Department of Environmental Protection Surface Water Quality Classifications. 2006.

CT Department of Environmental Protection. State of Connecticut Department of Environmental Protection Surface Water Quality Standards. 2002.

CT Department of Environmental Protection. State of Connecticut Department of Environmental Protection Ground Water Quality Standards. 1996.

Coastal Zone Management Act of 1972, as amended through the *Coastal Zone Reauthorization Amendments of 1990* and *PL 104-150*, *Coastal Zone Protection Act of 1996*.

Comprehensive Environmental Response, Compensation, and Liability Act. 1986, as amended.

Department of Transportation Act of 1966 (recodified in 1983 as 49 USC, Subtitle I, Section 303(c), *Section 4(f).*

Endangered Species Act, Section 7(c), (16 USC 1531 *et seq.*), 1973.
Environmental Protection Agency.

Environmental Protection Agency. *Resource Conservation and Recovery Act*. 1986, as amended.

Executive Order 11988. *Floodplain Management.* May 24, 1977.

Executive Order 11990. *Protection of Wetlands*. May 24, 1977.

Executive Order 12898. *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. February 11, 1994.

Executive Order 13045, *Protection of Children From Environmental Health Risks and Safety Risks* April 21, 1997.

Farmland Protection Policy Act, Subtitle 1 of Title XV, Section 1539-1549, June 17, 1994.

Farmland Protection Policy Act (FPPA), 7 USC 4201-4209 as amended by section 1255 of the Food Security Act of 1985, 16 USC 3801-3862.

Federal Emergency Management Agency. *Flood Insurance Rate Map*, Community Panel Number 090016 0001-0004 dated June 16, 1992.

Federal Water Pollution Control Act of 1972, USC Title 33, Chapter 26, as amended by the *Clean Water Act*, 2002 Section 404, CFR 33, Parts 320-330.

Fitzgerald and Halliday Inc. Wetland Field Investigation and Delineation. Fitzgerald and Halliday, Inc. 2009

National Ambient Air Quality Standards, USC Title 42, Chapter 85, as amended by the *Clean Water Act*, 2002 Section 404, CFR 40, Part 50.

National Environmental Policy Act of 1969, as amended through 2000 (42 USC 4321 *et seq.*).

National Historic Preservation Act of 1966, as amended (16 USC 470 *et seq.*).

National Historic Preservation Act, Section 106, 36 CFR Part 60*, National Register of Historic Places*. 1966.

National Historic Preservation Act, Section 106, 36 CFR Part 800, *Protection of Historic and Cultural Properties*.

United States Department of Commerce, Census Bureau. 2000 Census Data. Accessed via http://www.census.gov, 2007.

United States Department of Agriculture. Web Soil Survey (State of Connecticut, Version 7, December 3, 2009 (July 9, 2009).

United States Department of Transportation. *Department of Transportation (DOT) Order 5610.2 to Address Environmental Justice in Minority Populations and Low-Income Populations*. Federal Register, Volume 62, Number 72. April 15, 1997.

Wild and Scenic Rivers Act, 16 USC 1271-1287, as amended through PL 90-542, August 8, 2002.

FAA REGULATIONS

Federal Aviation Administration Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures,* March 2006.

Federal Aviation Administration Order 5050.4A, Paragraph 23.

Federal Aviation Administration Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions,* April 2006.

Federal Aviation Administration Order 6560.10B.

Federal Aviation Administration Order 6750.15D and 6750.16D.

Federal Aviation Administration, *Environmental Desk Reference for Airport Actions,* October 2007.

Federal Aviation Administration Advisory Circular, 150/5300-13, Change 14, *Airport Design,* November 1, 2008.

Federal Aviation Administration Advisory Circular, 150/5300-33B, *Hazardous Wildlife Attractants on or Near Airports*.

● **AGENCY COORDINATION - AGENCIES CONTACTED**

*** NO OUTGOING LETTERS ARE INCLUDED IN APPENDIX, UNLESS INDICATED.**

William Hyatt, Acting Bureau Chief
CT DEP – Bureau of Natural Resources
79 Elm Street
Hartford, CT 06106-5127

H. Curtis "Curt" Spalding, Regional Administrator
US EPA
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Karen Senich, Executive Director and SHPO
CT Commission on Culture and Tourism
One Constitution Plaza, 2nd Floor
Hartford, CT 06103

John Carey, PE
CT DOT - Division of Traffic Engineering
2800 Berlin Turnpike
Newington, CT 06131

Robert Kaliszewski, Director/Ombudsman
CT DEP – Office of Planning and Program Development
79 Elm Street
Hartford, CT 06106-5127

Willie R. Taylor
US DOI-Office of Environmental Policy and Compliance
1849 C Street, NW MS 2462
Washington, DC 20240

Tom Chapman, Supervisor
US FWS - New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301

John Mengacci, Under Secretary
Office of Policy and Management
450 Capitol Avenue
Hartford, CT 06101-1379

Stanley Gorski, Field Office Supervisor
US Department of Commerce – NOAA
Sandy Hook Field Office
74 Magruder Road
Highlands, NJ 07732

Rick Potvin, Refuge Manager
US FWS - Stewart B. McKinney National Wildlife Refuge
733 Old Clinton Road
Westbrook, CT 06498

Honorable Rodney Butler
Chairman, Mashantucket Pequot Tribe of CT
2 Matts Path
Mashantucket, CT 06338
(Outgoing letter of 11/4/11 included herein)

Daniel Forrest
CT State Historic Preservation Office
One Constitution Plaza, 2nd Floor
Hartford, CT 06103
(Outgoing letter of 3/25/11 included herein)

● **AGENCY COORDINATION - AGENCY RESPONSES RECEIVED AS OF FEBRUARY 28, 2011**

DATE	COORDINATION
2/5/10	Letter from John Carey, CT DOT – Bureau of Engineering and Construction
2/16/10	Letter from Thomas Chapman, US FWS – New England Field Office
2/19/10	Letter from David Fox, CT DEP – Office of Environmental Review
2/22/10	Letter from Louis Chiarella, US Department of Commerce – National Marine Fisheries Service
4/19/10	Letter from Gary Lorentson, Town of Stratford – Planning and Zoning Department
4/25/11	Electronic mail from Richard Doucette, Federal Aviation Administration
5/23/11	Record of Conversation with David Fox, CT DEP – Department of Environmental Protection

● **ESSENTIAL FISH HABITAT ASSESSMENT, DATED NOVEMBER 2010**

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546
Phone:
(860) 594-2710

February 5, 2010

Ms. Jennifer M. Lutz
Project Manager
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, MD 21030

Dear Ms. Lutz:

Subject: Reference No. 38397150
Igor I. Sikorsky Memorial Airport
Town of Stratford

This is in reply to your January 15, 2010 letter regarding the proposed relocation of Route 113 (Main Street).

This office does not have any traffic engineering comments at this time. It is recommended that the Department of Transportation's Design Development Unit review the proposed horizontal alignment changes to Route 113. By copy of your letter and this reply, the Design Development Unit will review the proposal and respond directly back to you.

If you should have any questions, please contact Mr. Joseph P. Ouellette, investigating traffic engineer, at (860) 594-2721.

Very truly yours,

John F. Carey, P.E.
Manager of Traffic Engineering
Bureau of Engineering and
Construction

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
http://www.fws.gov/newengland

REF: 38397150

February 16, 2010

Jennifer M. Lutz
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, MD 21030

Dear Ms. Lutz:

This responds to your letter, dated January 15, 2010, requesting that we review improvements to Runway 6 at Sikorsky Memorial Airport in Bridgeport, Connecticut for information on the presence of federally-listed or proposed endangered or threatened species. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 15 U.S.C. 1531, *et seq.*).

This office reviewed the May 1999 Environmental Impact Statement (EIS) addressing proposed improvements to Runway 6-24 and commented on potential impacts to the federally-threatened piping plover (*Charadrius melodus*) in a letter dated July 17, 1998. At that time, we concurred with a preliminary determination of "not likely to adversely affect" the piping plover conditioned on the inclusion of minimization measures in the implementation of the project. The measures included time-of-year restrictions for installation of the MALSF lighting system, construction of runway modifications, and the change in approach elevations.

The revised alternative for Runway 6-24 is similar in scope to the original EIS alternative 1-G; it is slightly longer (50 feet) and includes an Engineered Materials Arresting System (EMAS). Although new runway edge lights and runway end identifier lights will be installed, the previously proposed MALSF lighting system is not part of the project.

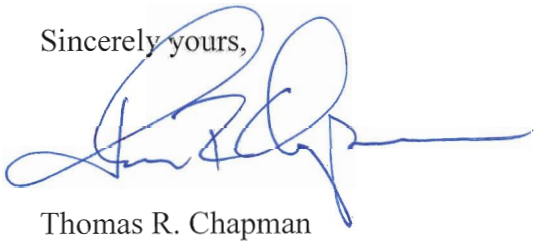
Piping plovers consistently nest in the vicinity of the project area, primarily at Long Beach and Milford Sandbar in Milford, and periodically nest on Milford Point (Milford) and Short Beach in Stratford. In our July 17, 1998 letter, we identified the remote possibility that piping plovers might be affected by increased light levels from the proposed MALSF associated with two of the alternatives. However, the revised 1-G alternative eliminates the installation of the MALSF and impacts from increased runway lighting are not anticipated.

The information provided in your letter did not describe approach elevations that will occur for the shortened 1-G runway; therefore, in order to avoid adversely affecting breeding piping plovers in the vicinity of the airport, we recommend that the approach elevation over Milford Point remain at 200 feet above mean sea level or greater. We also reiterate our recommendation provided in our July 17, 1998 letter that runway modifications and change in approach elevations must be in place prior to March 15, before piping plovers return to nearby beaches, in order to avoid disturbing breeding plovers.

Based on information currently available to us, no other federally-listed or proposed threatened or endangered species under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the vicinity of the project area.

Thank you for your cooperation, and please contact Ms. Susi von Oettingen at 603-223-2541, extension 22, if we can be of further assistance.

Sincerely yours,



Thomas R. Chapman
Supervisor
New England Field Office

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

February 19, 2010

Jennifer M. Lutz
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, Maryland 21030

Dear Ms. Lutz:

I am responding to your letter of January 19, 2010 to Robert Kaliszewski requesting comments on a reevaluation of the Final Environmental Impact Statement (FEIS) for various projects at Igor Sikorsky Memorial Airport in Stratford, including rehabilitation of Runway 6-24, Runway Safety Area (RSA) improvements at both runway ends and relocation of Main Street. I have circulated your request to various offices in the Department and this is a coordinated reply. Our comments outline some issues that can be considered during the reevaluation process as well as others that will require additional detail during subsequent permitting for the projects.

Overall, the development of a new preferred alternative, largely based on Alternative 1-G in the DEIS, avoids many of the most adverse impacts to coastal resources associated with the preferred alternative detailed in the FEIS. Our comments include some factors to consider in an effort to further minimize these impacts.

The length of the RSA for Runway 6 has been reduced to 100' but its width remains at 500'. Will grading the extreme ends of each side of the RSA, that encroach into tidal wetlands, provide an additional measure of safety? It seems that, if the intervening areas along the sides of the runway end are to remain unimproved, any plane excursion from the runway would have to traverse these areas to reach the outer side edge of the RSA. Similarly, one corner of the RSA for Runway 24 appears to encroach into tidal wetlands. Could this corner remain undisturbed without compromising safety, particularly since it is at the beginning of the RSA, nearest the runway end? In both of these cases, it appears that minor adjustments in the size of the RSA can be made and encroachment into tidal wetlands virtually eliminated.

Any activities that are proposed waterward of the high tide line or in tidal wetlands will require authorization from the Office of Long Island Sound Programs (OLISP) in accordance with the statutes governing structures, dredging and filling in tidal, coastal, and navigable waters [sections 22a-359 through 22a-363f of the Connecticut General Statutes (CGS)] and the Tidal Wetlands Act [sections 22a-28 through 22a-35 of the CGS], respectively. For further information, contact the office at 860-424-3034. Fact sheets regarding OLISP permit programs and permit application forms can be downloaded at: http://www.ct.gov/dep/cwp/view.asp?a=2709&q=324222&depNav_GID=1643#LongIslandSound.

It is strongly recommended that URS Corp. and the applicant(s) conduct a pre-application meeting with OLISP (and other DEP staff) as the project progresses. A pre-application site visit would also be useful in that the site could be walked and URS could guide all involved through the proposal. In general, it would be helpful if OLISP was provided with plans that show the overall construction limits along and at each runway end, or several plans which relate to each aspect of the work regulated by OLISP that shows the construction limits associated with each. OLISP would then be able to provide detailed guidance or recommendations. An assessment of impacts should also be provided, with specific amounts of temporary vs. permanent impacts to tidal wetlands to determine the amount/extent of mitigation to be required, which would likely be on-site

For the relocation of Main Street, it appears that a section of tidal wetlands will be impacted and that a new culvert/tide gate will be placed or the existing culvert modified. Specifically, several existing conditions plans and sections as well as a proposed conditions plans and sections should be provided. All sheets should clearly show all existing coastal resources, tidal elevations, etc. It would also be helpful if site photographs were provided.

The jurisdiction over inland wetlands depends on the nature of the applicant. For State departments, agencies or instrumentalities, any work or construction activity within the inland wetland areas or watercourses on-site will require a permit from the Inland Water Resources Division pursuant to section 22a-39(h) of the CGS. Therefore, if ConnDOT or other State entity is the applicant, a DEP permit will be required. Otherwise, inland wetlands are regulated by the Stratford Inland Wetlands & Watercourses Commission, pursuant to section 22a-42 of the CGS. The role of ConnDOT in the projects should be clarified.

In addition, State funding for projects within the 100-year flood zone must be certified by the sponsoring agency as being in compliance with flood and stormwater management standards specified in section 25-68d of the CGS and section 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA) and receive approval from the Department. Fact sheets regarding IWRD permit programs and permit application forms can be downloaded at:
http://www.ct.gov/dep/cwp/view.asp?a=2709&q=324222&depNav_GID=1643#InlandWaterResources.

The Natural Diversity Data Base, maintained by DEP, contains numerous records of populations of species listed by the State, pursuant to section 26-306 of the CGS, as endangered, threatened or special concern in vicinity of the project area. Given the amount of time that has elapsed since this project was last reviewed, a new search of the data base was performed. The attached species list enumerates these species (multiple listings of the same species indicates multiple records within the project vicinity) as well as significant natural communities within the project area vicinity. The potential to impact these species should be evaluated. The selection of a preferred alternative that minimizes encroachment into wetland areas, as noted above, tends to limit potential impacts to many of these species. However, it should be noted that some of these species do occur in upland areas of the airport.

This information is not the result of comprehensive or site-specific field investigations. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern as well as enhance existing data. Such new information is incorporated into the Data Base as it becomes available. Also be advised that this is a preliminary review and not a final determination. A more detailed review will be conducted as part of subsequent environmental permit applications submitted to DEP for the proposed site.

The revised proposal encroaches on less Stratford Army Engine Plant (SAEP) land than earlier proposals; however, there are still environmental issues to address. Although no specific release location has been documented on that part of the SAEP site that is proposed for Main Street relocation, the SAEP has documented, through limited sampling, that the soils in the proposed relocation footprint are polluted above DEP remediation criteria. This is not unexpected for the site, which has numerous areas where the soils are contaminated without being related to a specific identifiable release, or are affected by asphaltic materials. The road construction project should include further characterization of the polluted soils to ensure that any disturbed soil is properly handled during construction.

In addition, the SAEP is currently subject to a RCRA Stewardship Permit (Permit Number: DEP/HWM/CS-134-00) issued by DEP, to perform closure, post-closure care and corrective action measures at the former hazardous waste storage, treatment and disposal facility. The permit requires that all areas of the site be brought into conformance with DEP's Remediation Standard Regulations (RSR) [sections 22a-133k-1 through 22a-133k-3 of the RCSA]. To the extent that additional characterization identifies soil areas that exceed criteria, actions to remove, treat, or render inaccessible the identified soils must be taken to achieve RSR compliance. Environmental Land Use Restrictions could be a part of such remedy. Any remedial actions must be within the framework of the Stewardship permit. Issues surrounding responsibility for achieving RSR compliance as it relates to transfer of the SAEP land for the relocation of the road will have to be resolved.

The new alignment for Main Street will also include work within or adjacent to a suspected Raymark waste disposal footprint. The drawing identifying proposed project elements does locate the area where EPA found disposed Raymark waste in the vicinity of proposed project item # 16 . The actual area containing Raymark waste could be larger or smaller than the area represented in the drawing by irregular black-lined lobes on either side of the relocated Main Street, just southeast of the improved RSA.

Given the potential for pollution in soils on both the SAEP and abutting properties, it is recommended that the construction project include provision for field oversight and screening by an environmental professional to ensure that any incompletely characterized polluted soils are recognized and appropriately handled should they be encountered during construction. The construction plan should also include contingencies for developing a contaminated soil management plan should such soil be encountered.

In addition, the SAEP has also identified that there is pollution above ecological screening levels in the sediment in the tidal ditch leading from their outfall location to the marine basin. If the tidal and culvert removal will modify this ditch flow, such that this sediment might be

mobilized prior to implementation of any necessary remedy by SAEP, this could increase ecological impact of the project.

Thank you for the opportunity to become involved with the FEIS reevaluation. In order to expedite Departmental review, please forward four copies of the document to this office when it has been prepared and I will circulate it to the relevant offices. If you have any questions concerning these comments, please contact me at 860-424-4111 or david.fox@ct.gov.

Sincerely,

David J. Fox

David J. Fox
Senior Environmental Analyst
Office of Environmental Review

cc: Kristen Bellantuono, DEP/OLISP
Ron Curran, DEP/RD
Jenny Dickson, DEP/WD
Ken Feathers, DEP/RD
Robert Hannon, DEP/OPPD
Lauren Kostiuk, DEP/WEED
Mark Johnson, DEP/IFD
Dawn McKay, DEP/WD
Carol Szymanski, DEP/OLISP
Steve Tessitore, DEP/IWRD

Species List for Request Number R17473

2/16/2010

Scientific Name	Common Name	State Protection Status
Animals		
Ammodramus caudacutus	Saltmarsh Sharp-tailed Sparrow	SC
Ammodramus maritimus	Seaside Sparrow	SC
Asio flammeus	Short-eared Owl	T
Bartramia longicauda	Upland Sandpiper	E
Botaurus lentiginosus	American Bittern	E
Charadrius melodus	Piping Plover	T
Circus cyaneus	Northern Harrier	E
Eremophila alpestris	Horned Lark	E
Eremophila alpestris	Horned Lark	E
Gallinula chloropus	Common Moorhen	E
Ixobrychus exilis	Least Bittern	T
Passerculus sandwichensis	Savannah Sparrow	SC
Passerculus sandwichensis princeps	Ipswich Sparrow	SC
Passerculus sandwichensis princeps	Ipswich Sparrow	SC
Podilymbus podiceps	Pied-billed Grebe	E
Rallus elegans	King Rail	E
Sterna antillarum	Least Tern	T
Sterna antillarum	Least Tern	T
Toxostoma rufum	Brown Thrasher	SC
Tyto alba	Barn Owl	E
Natural Communities		
Brackish intertidal marsh		
Coastal sand dunes		
Salt marsh		
Saltwater intertidal beaches and shores		
Saltwater intertidal flat		
Plants		
Aristida tuberculosa	Beach Needlegrass	E
Aristida tuberculosa	Beach Needlegrass	E
Atriplex glabriuscula	Orache	SC
Diplachne maritima	Saltpond Grass	E
Honckenya peploides	Sea-beach Sandwort	SC
Panicum amarum	Panic Grass	T
Platanthera ciliaris	Yellow-fringe Orchid	T
Scirpus cylindricus	Salt-marsh Bulrush	SC
Viola brittoniana	Coast Violet	E
Viola brittoniana	Coast Violet	E
Viola brittoniana	Coast Violet	E

E = Endangered, T = Threatened. SC = Special Concern, SC* = Special Concern, Presumed Extirpated

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

FEB 22 2010

Jennifer M. Lutz
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, MD 21030

Re: URS Project 38397150: Reevaluation of the Environmental Impact Statement for Igor I. Sikorsky Memorial Airport, Stratford, CT

Dear Ms. Lutz:

The National Marine Fisheries Service (NMFS) has reviewed the January 15, 2009 request for information regarding fisheries resources for the reevaluation of the Environmental Impact Statement (EIS) regarding the revised Runway Safety Area (RSA) improvements at the Igor I. Sikorsky Memorial Airport in Stratford, Connecticut. The proposed RSA improvements include the construction of two RSA's, the rehabilitation of the existing runway, removal and relocation of the taxiway, the removal and relocation of Main Street, and removal and relocation of a private driveway. The work also includes the removal of a berm, tide gate and culvert adjacent to a marine basin and tidal wetlands associated with Long Island Sound.

NMFS has been involved with this project during the previous EIS process. In a letter dated July 16, 1998, NMFS provided comments on the Draft EIS for the Proposed Improvements to Runway 6-24. The following comments focus on the newly proposed alternative to the runway improvements and are intended to identify and address potential adverse impacts to essential fish habitat (EFH) for public trust resources.

Essential Fish Habitat

EFH has been designated for 17 federally managed species within and adjacent to the proposed work area. A complete list of species and life stages that have been designated for the proposed project location can be found on the NMFS Habitat Conservation Division website at http://www.nero.noaa.gov/ro/doc/webintro.html.

Among those species listed, particular attention should be focused on winter flounder (*Pseudopleuronectes americanus*) habitat that may be adversely affected by this project. Adult winter founder utilize shallow near shore areas such as the marine basin for spawning and feeding, while eggs, larvae, and juveniles use the area for early life stage development. Recent stock assessments for winter flounder indicate that recruitment continues at record low levels and spawning stock biomass is less than sustainable levels despite commercial harvest controls (Northeast Fisheries Science Center 2008). This resource status of an ecologically and commercially important species accentuates the critical need to protect winter flounder habitat for spawning and egg life stages.

Inland and tidal wetlands are located throughout the project site and will be impacted as a result of the proposed construction. Wetlands are designated by the U.S. Environmental Protection Agency as "special aquatic sites" under the Section 404(b)(1) of the Federal Clean Water Act, due to their important role in the marine ecosystem for foraging species, including winter flounder. Impacts to such habitats would result in negative consequences for fisheries resources, as these environments are particularly valuable in exporting nutrients, filtering runoff from upland sources, and providing spawning, nursery, and shelter habitat for most of the species utilizing the area, including those managed under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The filling of wetlands leads to the physical loss of habitat, loss or impairment of wetland functions and changes in hydrologic patterns.

EFH Assessment

The MSA and the Fish and Wildlife Coordination Act require Federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure.

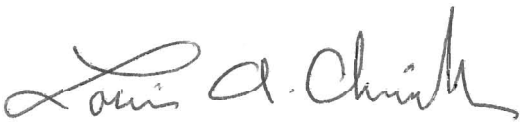
The required contents of an EFH assessment includes: 1) a description of the action; 2) an analysis of the potential adverse effects of the action on EFH and the managed species; 3) conclusions regarding the effects of the action on EFH; and 4) proposed mitigation, if applicable. Other information that should be contained in the EFH assessment, if appropriate, includes: 1) the results of on-site inspections to evaluate the habitat and site-specific effects; 2) the views of recognized experts on the habitat or the species that may be affected; 3) a review of pertinent literature and related information; and 4) an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH. Upon submittal of an EFH assessment, NMFS will provide conservation recommendations for the proposed project.

Protected Resources

NMFS Protected Resources Division has reviewed the project materials. While listed sea turtles are seasonally present in Long Island Sound, due to the habitat characteristics of the project area, no listed species are likely to be present. Should you have any questions regarding listed species, please contact Julie Crocker at (978) 282-8480 or by e-mail at (Julie.Crocker@noaa.gov).

Thank you for your coordination with NMFS regarding this issue. Should you have any questions regarding this letter, please contact Jenna Flynn at (978) 675-2176.

Sincerely,



Louis A. Chiarella
New England Field Office Supervisor
for Habitat Conservation

<glorentson @townofstratford .com>
04/19/2010 11:42 AM
Please respond to <glorentson@townofstratford.com>

To <Jennifer_Lutz@URSCorp.com>
cc
bcc
Subject RE: Request for Land Use and Zoning Data : Sikosky Memorial Airport

History: This message has been replied to.

Hi Jennifer,

This is to confirm that no new land use surveys have been conducted within the vicinity of the airport since 1999 and the same zoning classifications in the vicinity are still vaid with no new changes. There are no new developments going on in the area except that the former Exxon / Mobil industrial building containing 292,000 sq. ft at 495 Lordship Blvd will be converted to a film and digital media studio. The 40 acre property on the south side of Lordship Boulevard across from Access Road, owed by Stratford Development was approved in 1999 and is still valid today for a total of 500,000 sq. ft. of mixed industrial and commercial space. Nothing has been built yet on that property. We have not yet received any plans to utilize or build on the Army Engine Plant property.

I hope this answers your questions.

Sincerely,

Gary Lorentson, Planning & Zoning Administrator
Planning & Zoning Department
Town of Stratford
2725 Main Street
Stratford, CT 06615
Telephone: (203) 385-4017
Facsimile: (203) 381-6928
E-Mail: Glorentson@townofstratford.com
Web: www.townofstratford.com

U.S. Department
of Transportation
**Federal Aviation
Administration**

New England Region
Office of the Regional Administrator

12 New England Executive Park
Burlington, MA 01803

2010

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

The Honorable Rodney Butler
Chairman, Mashantucket Pequot Tribe of Connecticut
2 Matts Path
Mashantucket, CT 06338

Dear Chairman Butler:

Government-to-Government Consultation Invitation
Airport Project at Sikorsky Airport in Connecticut

The Federal Aviation Administration (FAA), in cooperation with the airport owner and operator, is proposing a project at Sikorsky Airport in Stratford, Connecticut, as outlined herein.

Purpose of Government-to-Government Consultation

The purpose of Government-to-Government consultation as described in the National Historic Preservation Act, Section 106, Federal Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," and FAA's Order 1210.20, "American Indian and Alaska Native Tribal Consultation Policy and Procedures," is to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA undertakings that uniquely or significantly affect Tribes.

Consultation Initiation

With this letter, the FAA is inviting the Mashantucket Pequot Tribe of Connecticut to consult on concerns that may significantly affect your Tribe related to the proposed airport improvements. Early identification of Tribal concerns will allow the FAA and the airport owner and operator to consider ways to avoid, mitigate, or minimize potential impact to Tribal resources and practices as project alternatives are developed and refined.

Project Information

Two projects are currently under consideration at Sikorsky Airport in Bridgeport. First, the FAA and the City of Bridgeport propose to install runway safety areas. This will require a relocation of a portion of Route 113/Main St. in the northern portion of the airport. Enclosed is a document describing that project. Second, the City of Bridgeport and Volo Aviation propose to build a fuel farm in the central portion of the airport. Enclosed is a short document describing that project.

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional, and cultural importance to the Tribe. We would be happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response will assist us in incorporating your concerns into project planning. For that reason, we respectfully request that you contact FAA within thirty days of your receipt of this correspondence as to your interest in Government-to-Government Consultation regarding these projects.

You may contact FAA's Regional Tribal Consultation Official, Barbara Travers-Wright, by telephone at 781-238-7025, or by e-mail at Barbara.Travers-Wright@faa.gov. At that time, the consultation request will be provided to the FAA, Airports Division.

Sincerely,

ORIGINAL SIGNED BY
ANN C MOLUCA

for Amy L. Corbett
Regional Administrator

Enclosures

cc: Kathleen K. Knowles, Mashantucket Pequot Indian Tribe, Tribal Historic Preservation Officer (Certified Mail – Return Receipt Requested)

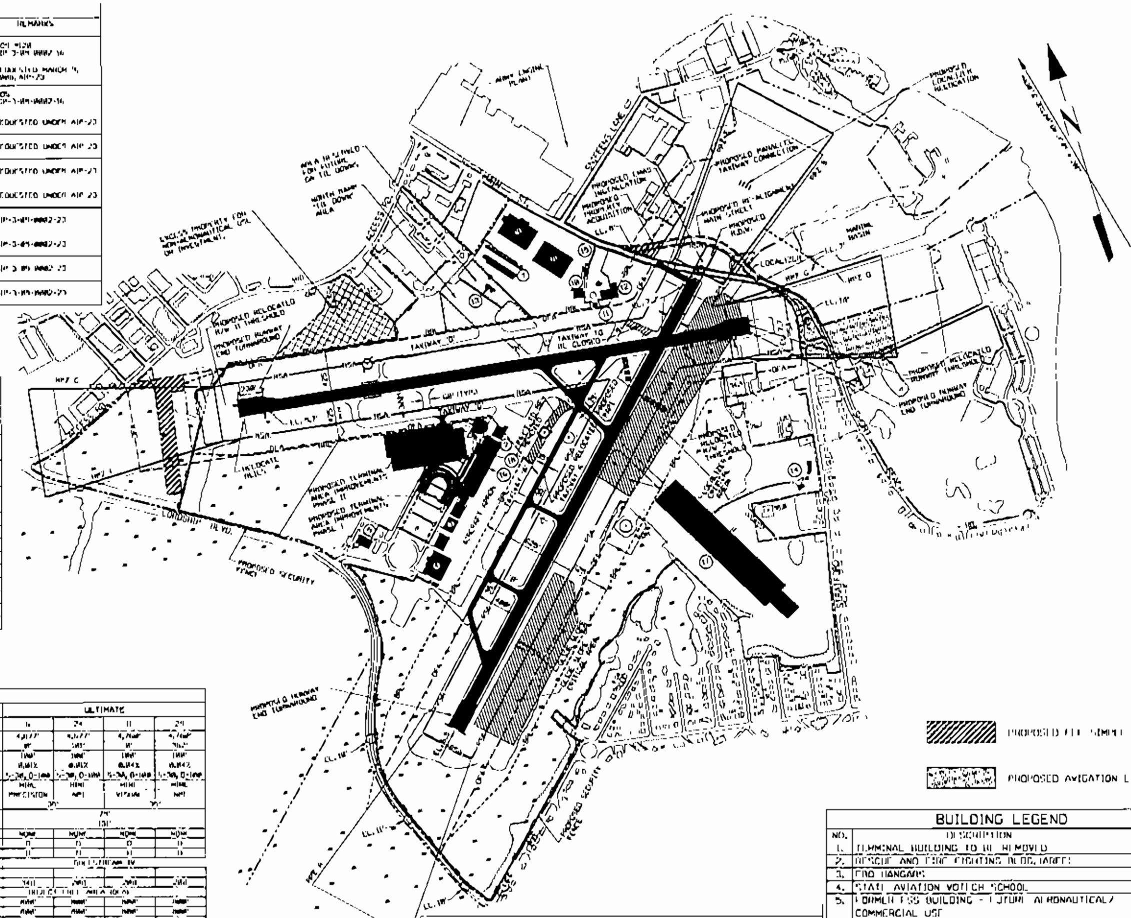
bcc: ANE-1P (with enclosures)

ANE - 610: RDoucette: rd: (781)238-7613: 100722: G:\Correspondence and Coordination\Government-To-Government

NON CONFORMING CONDITIONS				
DESCRIPTION	EXISTING/ PLANNED	STANDARD	DATE APPROVED	REMARKS
TAXIWAY D SEPARATION FROM R/W 11-29	VARIES 200' TO 300'	300'	JUNE 5, 2003	MOS #128 AIP 3-09-0002-16
TAXIWAY SIGN #2 LOCATION	PLACED BEHIND ENTRANCE	PLACED BEFORE ENTRANCE		REQUESTED MARCH 5, 2008, AIP-23
SUPPLEMENTAL WIND CONE LOCATION R/W 6	240' FROM R/W ℄	250' MINIMUM	JAN. 27, 2004	MOS AIP-3-09-0002-16
R/W 29 OFA	800' WIDE x 178' BEYOND R/W THRESHOLD	800' WIDE x 1,000' BEYOND R/W THRESHOLD		REQUESTED UNDER AIP-23
R/W 6 OFA	800' WIDE x 300' BEYOND THRESHOLD	800' WIDE x 1,000' BEYOND THRESHOLD		REQUESTED UNDER AIP-23
R/W 11 OFA	800' WIDE x 1,000' BEYOND R/W THRESHOLD	800' WIDE x 1,000' BEYOND R/W THRESHOLD		REQUESTED UNDER AIP-23
R/W 24 OFA	800' WIDE x 300' BEYOND THRESHOLD	800' WIDE x 1,000' BEYOND THRESHOLD		REQUESTED UNDER AIP-23
R/W 6 SAFETY AREA	200' BEYOND THRESHOLD	1,000' BEYOND THRESHOLD	2-19-09	AIP-3-09-0002-23
R/W 24 SAFETY AREA	300' BEYOND THRESHOLD	1,000' BEYOND THRESHOLD	2-19-09	AIP-3-09-0002-23
R/W 11 SAFETY AREA	500' WIDE x 178' BEYOND THRESHOLD	500' WIDE x 1,000' BEYOND R/W THRESHOLD	2-19-09	AIP-3-09-0002-23
R/W 29 SAFETY AREA	500' WIDE x 178' BEYOND THRESHOLD	500' WIDE x 1,000' BEYOND THRESHOLD	2-19-09	AIP-3-09-0002-23

LEGEND

DESCRIPTION	EXISTING	ULTIMATE
PROPERTY LINE (FEE SIMPLE)		
OBJECT FREE AREA (OFA)	---OFA---	—OFA—
FENCE LINE		
ON AIRPORT BUILDINGS		
OFF AIRPORT BUILDINGS		
OPERATIONAL PAVED SURFACES		
BUILDING RESTRICTION LIMITS (BRL)	---BRL---	—BRL—
LIGHTED WIND CONE & SEG. CIRCLE		
NAVAID CRITICAL AREA		
RUNWAY PROTECTION ZONE (RPZ)		
RUNWAY SAFETY AREA		
AIRPORT REFERENCE POINT (ARP)		
RUNWAY THRESHOLD LIGHTS	○○○ ○○○	
REILs	△	▲
MALSR		
VASI/PAPI	□	■
AIRPORT BEACON	☆	SAME



RUNWAY DATA		EXISTING				ULTIMATE			
DESCRIPTION	RUNWAY	6	24	11	29	6	24	11	29
LENGTH		4,677'	4,677'	4,761'	4,761'	4,677'	4,677'	4,761'	4,761'
DISPLACED THRESHOLD		0'	120'	0'	384'	0'	581'	0'	762'
WIDTH		150'	150'	150'	150'	100'	100'	100'	100'
RUNWAY GRADIENT		0.01%	0.01%	0.04%	0.04%	0.01%	0.01%	0.04%	0.04%
PAVEMENT STRENGTH		S-30, D-100	S-30, D-100	S-30, D-100	S-30, D-100	S-30, D-100	S-30, D-100	S-30, D-100	S-30, D-100
LIGHTING		HIRL	HIRL	HIRL	HIRL	HIRL	HIRL	HIRL	HIRL
MARKINGS		PRECISION	NPI	VISUAL	NPI	PRECISION	NPI	VISUAL	NPI
TAXIWAY WIDTH		VARIES 35'-100'				35'		35'	
TAXIWAY SAFETY AREA (WIDTH)		79'				79'			
TAXIWAY OBJECT FREE AREA (WIDTH)		131'				131'			
APPROACH LIGHTING		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
AIRCRAFT APPROACH CAT.		C	C	C	C	D	D	D	D
AIRCRAFT DESIGN GROUP		II	II	II	II	II	II	II	II
DESIGN AIRCRAFT		GULFSTREAM III				GULFSTREAM IV			
APPROACH SLOPE	EXISTING	25:1	29:1	6:1	10:1				
	STANDARD	34:1	34:1	20:1	34:1	34:1	20:1	20:1	20:1
OBJECT FREE AREA (OFA)									
WIDTH	EXISTING	800'	800'	800'	800'	800'	800'	800'	800'
	STANDARD	800'	800'	800'	800'	800'	800'	800'	800'
LENGTH BEYOND RUNWAY END	EXISTING	300'	0'	1,000'	100'	300'	300'	1,000'	178'
	STANDARD	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'
RUNWAY SAFETY AREA (RSA)									
WIDTH	EXISTING	500'	500'	500'	500'	500'	500'	500'	500'
	STANDARD	500'	500'	500'	500'	500'	500'	500'	500'
LENGTH BEYOND RUNWAY END	EXISTING	100'	0'	1,000'	100'	100'	300'	178'	178'
	STANDARD	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'	1,000'
RUNWAY END COORDINATES	NORTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	WEST	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RUNWAY PROTECTION ZONES	A	B	C	D	A	C	F	G
LENGTH	1,700'	1,700'	1,700'	1,700'	1,700'	1,700'	1,700'	1,700'
INNER WIDTH	500'	500'	500'	500'	500'	500'	500'	500'
OUTER WIDTH	1,010'	1,010'	1,010'	1,010'	1,010'	1,010'	1,010'	1,010'
SLOPE	25:1	29:1	6:1	10:1	34:1	20:1	20:1	20:1

AIRPORT DATA		EXISTING	ULTIMATE
MEAN MAXIMUM TEMPERATURE		82.8°F	82.8°F
MAGNETIC DECLINATION		W13.80° 1994	W14°05' 2007
AIRPORT REFERENCE POINT (NAD 83)	LAT.	41°09'48.54"N	41°09'48.63"N
	LONG.	73°07'34.24"W	73°07'35.74"W
AIRPORT ELEVATION		10' MSL	10' MSL
AIRPORT & TERMINAL NAVAIDS		REIL PAPI VASI VOR ILS / VOR REIL VASI	REIL PAPI VOR ILS / REIL VOR PAPI
AIRPORT ROLE		GENERAL AVIATION/ CORPORATE	GENERAL AVIATION/ CORPORATE

BUILDING LEGEND		
NO.	DESCRIPTION	HEIGHT MSL
1.	TERMINAL BUILDING TO BE REMOVED	49.2'
2.	RESCUE AND FIRE FIGHTING BLDG. (ARFF)	34.1'
3.	FBO HANGARS	41.4'
4.	STATE AVIATION VOTECH SCHOOL	45.1'
5.	FORMER FSS BUILDING - FUTURE AERONAUTICAL/ COMMERCIAL USE	20.3'
6.	INVEST 11	30.0'
7.	T - HANGAR COMPLEX (TO BE RELOCATED)	19.5'
8.	HANGAR	62.3'
9.	HANGAR	60.6'
10.	HANGAR	35.3'
11.	FBO OFFICE TO BE RETAINED FOR AERONAUTICAL USE OR REMOVED	35.6'
12.	HANGAR TO BE RETAINED FOR AERONAUTICAL USE OR REMOVED	40.6'
13.	T - HANGARS (TO BE REMOVED)	23.2'
14.	CIVIL AIR PATROL (CAP)	16.3'
15.	FUEL FARM	
16.	PROPOSED CORPORATE HANGARS	
17.	T - HANGAR COMPLEX	
18.	ADMIN. BLDG ATCT, BEACON	49.2'
19.	FUEL FARM	

IGOR I. SIKORSKY MEMORIAL AIRPORT

STRATFORD CONNECTICUT

Sponsoring Body:

CITY OF BRIDGEPORT CONNECTICUT

FAA A.I.P. Project Number:

3-09-0002-23

Drawing Name:

AIRPORT LAYOUT PLAN

CERTIFICATION:

THE CITY OF BRIDGEPORT CERTIFIES THAT ALL AIRPORT ELEMENTS SHOWN ON THIS ALP ARE IN ACCORDANCE WITH CRITERIA CONTAINED IN THE CURRENT EDITION OF FAA ADVISORY CIRCULAR 150/5300-13 EXCEPT AS NOTED IN THE TABLE ENTITLED NON CONFORMING CONDITIONS

JOHN RICCI, AIRPORT MGR. ______ DATE ______

FEDERAL AVIATION ADMINISTRATION

APPROVED: ______ FAA NEW ENGLAND REGION ______ DATE ______

CT. DEPARTMENT OF TRANSPORTATION

APPROVED: ______ AVIATION DIVISION ______ DATE ______

IGOR SIKORSKY MEMORIAL AIRPORT COMMISSION

APPROVED: ______ Chairman ______ DATE ______

REVISIONS			
No.	Description	Date	By
△	ADDED FUEL FARM 19	07/15/10	GWD

FIGURE 3

Designer: GWD	Checked by:
Technician: MJB	Project Number: 38397046
Autocad Drawing Reference:	
Date: FEBRUARY, 2009	Sheet Number: 3 of 6
Scale:	

URS

500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT 06067

U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
New England Region

12 New England Executive Park
Burlington, MA 01803

March 25, 2011

Daniel Forrest
CT State Historic Preservation Office
One Constitution Plaza, 2nd Floor
Hartford CT 06103

Dear Mr. Forrest:

For several years, The FAA and the City of Bridgeport have been attempting to make important safety improvements at Sikorsky Memorial Airport. To date, no improvements have been implemented.

Attached is a plan showing the project now under consideration. The project includes reconstruction (in place) of the existing runway, and relocation of a portion of Route 113 adjacent to the airport to construct a runway safety area. Based on current information, there appear to be no historic properties affected. If you have any questions or concerns regarding this project, please do not hesitate to contact me at your earliest convenience.

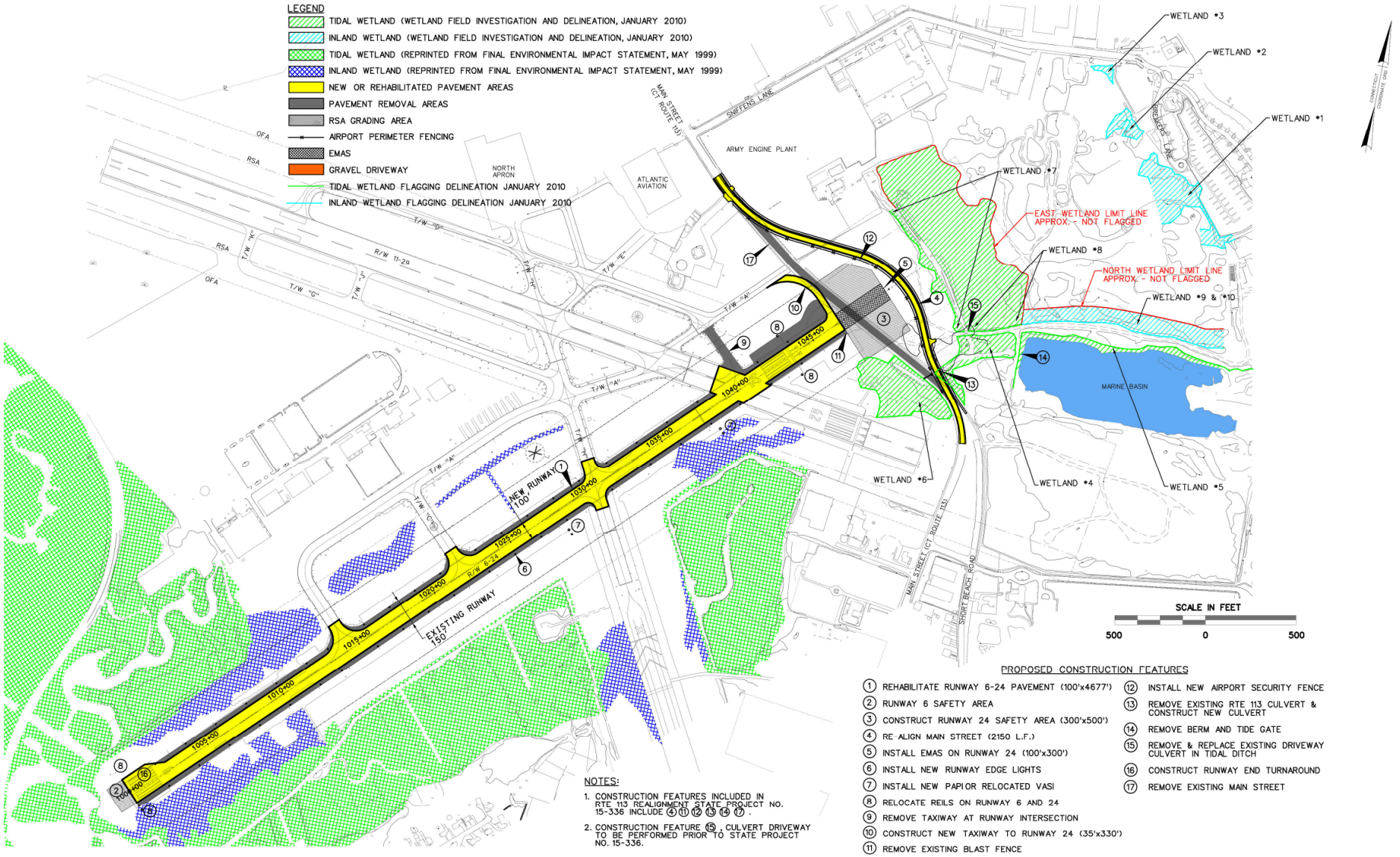
This letter is submitted in order to assist the FAA in fulfillment of our responsibilities under the National Historic Preservation Act, Section 106.

Sincerely,

R. Doucett

Richard P. Doucette, Manager of Environmental Programs
Airports Division, FAA New England Region

ALTERNATIVE 1-G MODIFIED WITH INSTALLATION OF EMAS



PROPOSED CONSTRUCTION FEATURES

1. REHABILITATE RUNWAY 6-24 PAVEMENT (100'x4677')
2. RUNWAY 6 SAFETY AREA
3. CONSTRUCT RUNWAY 24 SAFETY AREA (300'x500')
4. RE-ALIGN MAIN STREET (2150 L.F.)
5. INSTALL EMAS ON RUNWAY 24 (100'x300')
6. INSTALL NEW RUNWAY EDGE LIGHTS
7. INSTALL NEW PAPI OR RELOCATED VASI
8. RELOCATE REILS ON RUNWAY 6 AND 24
9. REMOVE TAXIWAY AT RUNWAY INTERSECTION
10. CONSTRUCT NEW TAXIWAY TO RUNWAY 24 (35'x330')
11. REMOVE EXISTING BLAST FENCE
12. INSTALL NEW AIRPORT SECURITY FENCE
13. REMOVE EXISTING RTE 113 CULVERT & CONSTRUCT NEW CULVERT
14. REMOVE BERM AND TIDE GATE
15. REMOVE & REPLACE EXISTING DRIVEWAY CULVERT IN TIDAL DITCH
16. CONSTRUCT RUNWAY END TURNAROUND
17. REMOVE EXISTING MAIN STREET

NOTES:

1. CONSTRUCTION FEATURES INCLUDED IN RTE 113 REALIGNMENT STATE PROJECT NO. 15-336 INCLUDE ④ ⑪ ⑫ ⑬ ⑭ ⑰ .
2. CONSTRUCTION FEATURE ⑮ , CULVERT DRIVEWAY TO BE PERFORMED PRIOR TO STATE PROJECT NO. 15-336.

From:	Richard Doucette/ANE/FAA ANE-610, Planning & Program
To:	Daniel.Forrest@ct.gov
Date:	04/25/2011 03:16 PM
Subject:	Sikorsky Airport

Thirty days has passed since the FAA submitted its finding of "no historic properties affected" by the Sikorsky Memorial Airport runway safety project. No response was received from the SHPO, and therefore our responsibilities under Section 106 of the NHPA are fulfilled.

Ltr to CT SHPO re Sikorsky RSAs.doc

Richard Doucette
Environmental Program Manager
FAA New England Region, Airports Division
(781) 238-7613

URS	URS CORPORATION RECORD OF CONVERSATION	HUNT VALLEY, MD

Spoke With

Name:	Phone Number:	Recorded By:
David Fox	(860) 424-4111	Gerry D'Amico
Company:	**Date:**	**Time:**
CT DEP Office of Environmental Review	5/23/2011	3:45 pm
Client:	**Phone Number:**	**Extension:**

Project Information & Routing

❑ Incoming ❑ Outgoing

Project Name: BDR - Written Reevaluation

Billable to Project:

	For Information:	For Action:
Route To:		

Items Discussed

After introductions, I explained that we had received his letter dated February 19, 2010, and was informing him that we would be publishing the Written Reevaluation about the first of June, and publishing for final comments. We expect that the ROD would be published in July 2011.

I noted that we had reviewed the comments in his letter and would attempt to mitigate the concerns of the CTDEP during the design phase, in particular the recommendation to minimize or re-design the safety area dimensions to avoid the wetland impacts, particularly on the outer edges of the safety area beyond the runway thresholds. I noted that as the design progressed we would have a second look at the need to impact these areas.

I noted that there would be very little impact to wildlife habitat along the runway, since we would be narrowing the runway by removing pavement and then restoring the area with grass. I also noted that this work was to occur on an active airport and airports are not wildlife refuges, although we would make effort to minimize the overall environmental impacts.

Mr. Fox indicated that he was not the wildlife biologist or botanist that had commented on the report, but he would be interested in reviewing the final report and passing it on to his associates in the Department.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

FEB 22 2010

Jennifer M. Lutz
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, MD 21030

Re: URS Project 38397150: Reevaluation of the Environmental Impact Statement for Igor I. Sikorsky Memorial Airport, Stratford, CT

Dear Ms. Lutz:

The National Marine Fisheries Service (NMFS) has reviewed the January 15, 2009 request for information regarding fisheries resources for the reevaluation of the Environmental Impact Statement (EIS) regarding the revised Runway Safety Area (RSA) improvements at the Igor I. Sikorsky Memorial Airport in Stratford, Connecticut. The proposed RSA improvements include the construction of two RSA's, the rehabilitation of the existing runway, removal and relocation of the taxiway, the removal and relocation of Main Street, and removal and relocation of a private driveway. The work also includes the removal of a berm, tide gate and culvert adjacent to a marine basin and tidal wetlands associated with Long Island Sound.

NMFS has been involved with this project during the previous EIS process. In a letter dated July 16, 1998, NMFS provided comments on the Draft EIS for the Proposed Improvements to Runway 6-24. The following comments focus on the newly proposed alternative to the runway improvements and are intended to identify and address potential adverse impacts to essential fish habitat (EFH) for public trust resources.

Essential Fish Habitat
EFH has been designated for 17 federally managed species within and adjacent to the proposed work area. A complete list of species and life stages that have been designated for the proposed project location can be found on the NMFS Habitat Conservation Division website at http://www.nero.noaa.gov/ro/doc/webintro.html.

Among those species listed, particular attention should be focused on winter flounder (*Pseudopleuronectes americanus*) habitat that may be adversely affected by this project. Adult winter founder utilize shallow near shore areas such as the marine basin for spawning and feeding, while eggs, larvae, and juveniles use the area for early life stage development. Recent stock assessments for winter flounder indicate that recruitment continues at record low levels and spawning stock biomass is less than sustainable levels despite commercial harvest controls (Northeast Fisheries Science Center 2008). This resource status of an ecologically and commercially important species accentuates the critical need to protect winter flounder habitat for spawning and egg life stages.

Inland and tidal wetlands are located throughout the project site and will be impacted as a result of the proposed construction. Wetlands are designated by the U.S. Environmental Protection Agency as "special aquatic sites" under the Section 404(b)(1) of the Federal Clean Water Act, due to their important role in the marine ecosystem for foraging species, including winter flounder. Impacts to such habitats would result in negative consequences for fisheries resources, as these environments are particularly valuable in exporting nutrients, filtering runoff from upland sources, and providing spawning, nursery, and shelter habitat for most of the species utilizing the area, including those managed under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The filling of wetlands leads to the physical loss of habitat, loss or impairment of wetland functions and changes in hydrologic patterns.

EFH Assessment

The MSA and the Fish and Wildlife Coordination Act require Federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure.

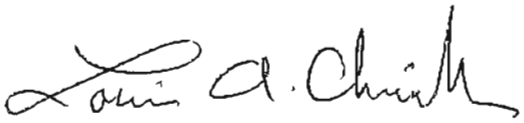
The required contents of an EFH assessment includes: 1) a description of the action; 2) an analysis of the potential adverse effects of the action on EFH and the managed species; 3) conclusions regarding the effects of the action on EFH; and 4) proposed mitigation, if applicable. Other information that should be contained in the EFH assessment, if appropriate, includes: 1) the results of on-site inspections to evaluate the habitat and site-specific effects; 2) the views of recognized experts on the habitat or the species that may be affected; 3) a review of pertinent literature and related information; and 4) an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH. Upon submittal of an EFH assessment, NMFS will provide conservation recommendations for the proposed project.

Protected Resources

NMFS Protected Resources Division has reviewed the project materials. While listed sea turtles are seasonally present in Long Island Sound, due to the habitat characteristics of the project area, no listed species are likely to be present. Should you have any questions regarding listed species, please contact Julie Crocker at (978) 282-8480 or by e-mail at (Julie.Crocker@noaa.gov).

Thank you for your coordination with NMFS regarding this issue. Should you have any questions regarding this letter, please contact Jenna Flynn at (978) 675-2176.

Sincerely,



Louis A. Chiarella
New England Field Office Supervisor
for Habitat Conservation

URS	URS CORPORATION RECORD OF CONVERSATION	HUNT VALLEY, MD

Spoke With

Name:	Phone Number:	Recorded By:
Susan Tuxbury		Gerry D'Amico
Company:		**Date:** **Time:**
NOAA - NMFS		11/17/10
Client:		**Phone Number:** **Extension:**
		(978) 281-9178

Project Information & Routing

❑ Incoming ❑ Outgoing

Project Name: **Sikorsky**

Billable to Project:

	For Information:	For Action:
Route To:		

Items Discussed

Gerry D'Amico spoke with Susan (Sue) Tuxbury, U.S. Department of Commerce - National Oceanic and Atmospheric Administration, National Marine Fisheries Service on Wednesday, November 17, 2010 regarding the draft Essential Fish Habitat (EFH) Assessment prepared by URS in August 2010. S. Tuxbury offered three (3) comments on this EFH:

1. Since the tide gate impedes access to the tidal ditch, there is no fish access to this ditch;

2. Include the total tidal wetland impacts caused by removing the berm and tide gate to the EFH;

3. If sediment controls are in place during construction, there is no requirement to limit construction outside the winter flounder spawning season.

S. Tuxbury asked that we revise the EFH and re-submit; the final EFH can be included in the EIS update as an appendix.

ESSENTIAL FISH HABITAT ASSESSMENT

INTRODUCTION

This Essential Fish Habitat Assessment is being prepared in support of the Written Reevaluation of the Environmental Impact Statement that is currently being prepared for the proposed Runway Safety Area (RSA) improvements for Runway 6-24 at Igor I. Sikorsky Memorial Airport (Airport) in Stratford, Connecticut (see **Exhibit 1.0-1** and **Exhibit 1.0-2**). The Airport occupies a 600-acre site in the Town of Stratford in Fairfield County, Connecticut. The Airport is approximately four miles southeasterly of the City of Bridgeport and approximately 20 miles southwest of New Haven, Connecticut. The Airport has a listed elevation of 10 feet above mean sea level and is located on a peninsula bounded by Main Street (Connecticut Route 113) on the east and Lordship Township, Prospect Drive, and Stratford Road on the south and west, and a portion of the Great Meadows on the north. The Airport is owned and operated by the City of Bridgeport

The improvements proposed in the Written Reevaluation include the following (see **Exhibit 2.2-1**):

1. Rehabilitate Runway 06-24
2. Construct Runway 6 Safety Area
3. Construct Runway 24 Safety Area
4. Re-Align Main Street
5. Install Engineered Materials Arresting System (EMAS) on Runway 24
6. Install New Runway Edge Lights
7. Install New Precision Approach Path Indicators (PAPI) for Runway 24
8. Relocate Runway End Identifier Lights (REILS) on Runways 6 and 24
9. Remove Taxiway at Runway Intersection
10. Construct New Taxiway to Runway 24
11. Remove Existing Blast Fence
12. Install New Airport Security Fence
13. Remove Existing Route 113 Culvert and Construct New Culvert
14. Remove Berm and Tide Gate
15. Remove and Replace Existing Driveway Culvert
16. Construct Runway End Turnaround
17. Remove Existing Main Street

ESSENTIAL FISH HABITAT DESIGNATIONS

Based on data supplied by the NOAA/Fisheries, the area on the Hoosatonic River adjacent to the Airport has been identified as containing Essential Fish Habitat (EFH). These species and life stages are identified in the following table:

SPECIES	EGGS	LARVAE	JUVENILES	ADULTS
Atlantic Salmon			X	X
Pollock			X	X
Whiting				X
Red Hake	X	X	X	X
Winter Flounder	X	X	X	X
Windowpane Flounder	X	X	X	X
Atlantic Sea Herring			X	X
Bluefish			X	X
Atlantic Mackerel	X	X	X	X
Summer Flounder			X	
Scup	X	X	X	X
Black Sea Bass			X	
King Mackerel	X	X	X	X
Spanish Mackerel	X	X	X	X
Cobia	X	X	X	X
Sand Tiger Shark		X		

Particular concern has been expressed for the Winter Flounder (*Pseudopleuronectes americanus*), which utilize the shallow near shore areas as such in the marine basin for spawning and feeding, while eggs, larvae, and juveniles use the area for early life stage development.

PROJECT IMPACTS AND MITIGATION MEASURES

Project 14 (Remove Berm and Tide Gate) is the only project listed that would have a direct impact on the marine basin. Project 13 (Remove Existing Route 113 Culvert and Construct New Culvert) and Project 15 (Remove and Replace Existing Driveway Culvert) would have minor impacts on the tidal ditch that flows into the marine basin. These are discussed in more detail below:

Project 13: The existing driveway culvert was installed prior to Airport ownership in 1973 and is non-functioning. The culvert has been filled with debris and silt. The project would remove and replace this culvert. The new culvert would include flared end sections to limit silt and gravel runoff from the roadway surface into the culvert and placement of a trash rack at the head of the culvert to minimize free floating vegetation from flowing into the culvert during tidal flow. The excavation and replacement of this culvert is expected to be completed with one working day. Mitigation measures include completing this work prior to removing the Tide Gate to minimize siltation; placement of siltation controls, and using best management practices during construction.

Project 14: A tide gate was constructed prior to 1950 at the head of the marine basin by the US Army Corps of Engineers. This tide gate was to be operated manually during high tide/flood conditions to

minimize flooding of Main Street and the US Army Engine Plant parking area on Sniffens Lane. This tide gate has not been used since ownership of the property was transferred to the Airport/City of Bridgeport in 1973. The tide gate is currently not functional since the gate valve has been removed and the connecting culvert has filled with silt and debris. The project would remove the tide gate and a portion of the adjacent berm (see **Exhibit 1.0-4**). The total resource impacts due to this work will be:

Tidal Open Water	500 square feet
Tidal Wetland;	1700 square feet

The excavation work required to remove the tide gate and berm is expected to be completed in one day. The exposed area will be replanted with compatible vegetation. Mitigation measures would include limiting construction to installing siltation controls including installation of a turbidity control curtain and using best management practices during the construction.

Project 15: The existing culvert under CT Route 113 was installed prior to 1970 and is no longer functioning due to silt and debris in the culvert. CT Route 113 is owned and maintained by the CT Department of Transportation (CTDOT). CT Route 113 is to be re-aligned to allow for the construction of the Runway 24 Safety Area. The realignment would necessitate removing the existing culvert and placing a new culvert on a slightly different alignment under the new roadway. Removing and replacing this culvert is expected to be completed within one week. Mitigation measures include completing the work prior to removing the tide gate and berm to minimize any siltation into the marine basin, placing siltation controls during the construction, replacing compatible vegetation in any exposed areas, and using best management practices during the construction.

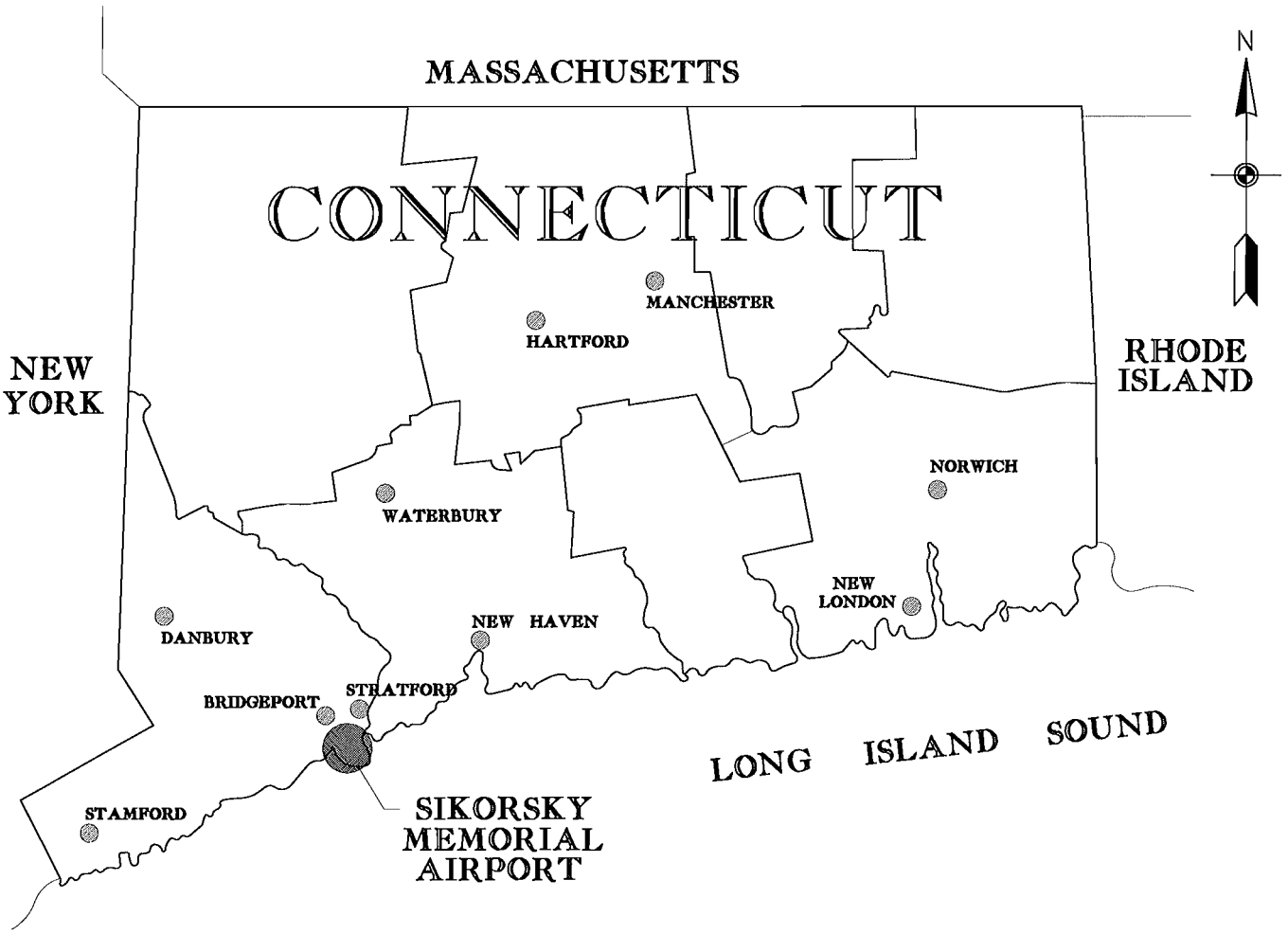
ASSESSMENT

The listed species are not estuarine residents but may visit the Hoosatonic River and the marine basin on a casual or seasonal basis, primarily during the summer months. The one exception would be the winter flounder, which may spawn in the area from February through June.

In order to minimize any disturbance, including siltation of the marine basin during the excavation/removal of the tide gate, work on this removal/excavation would be undertaken during the fall/early winter months (September thru January). In water work at this time of year will minimize any impact to the marine basin and have no impact on the Hoosatonic River. The construction impact is a one time disturbance and full restoration of the site would occur within weeks of the work. No long term adverse impacts are expected.

CONCLUSION

No long term adverse impacts are anticipated to the marine basin or Hoosatonic River. Removal of the tide gate will improve tidal flow throughout the estuary and could ultimately improve tidal vegetation and marine life.



IGOR I. SIKORSKY MEMORIAL AIRPORT
STRATFORD, CONNECTICUT

URS

LOCATION MAP

EXHIBIT

1.0-1

4/21/2010
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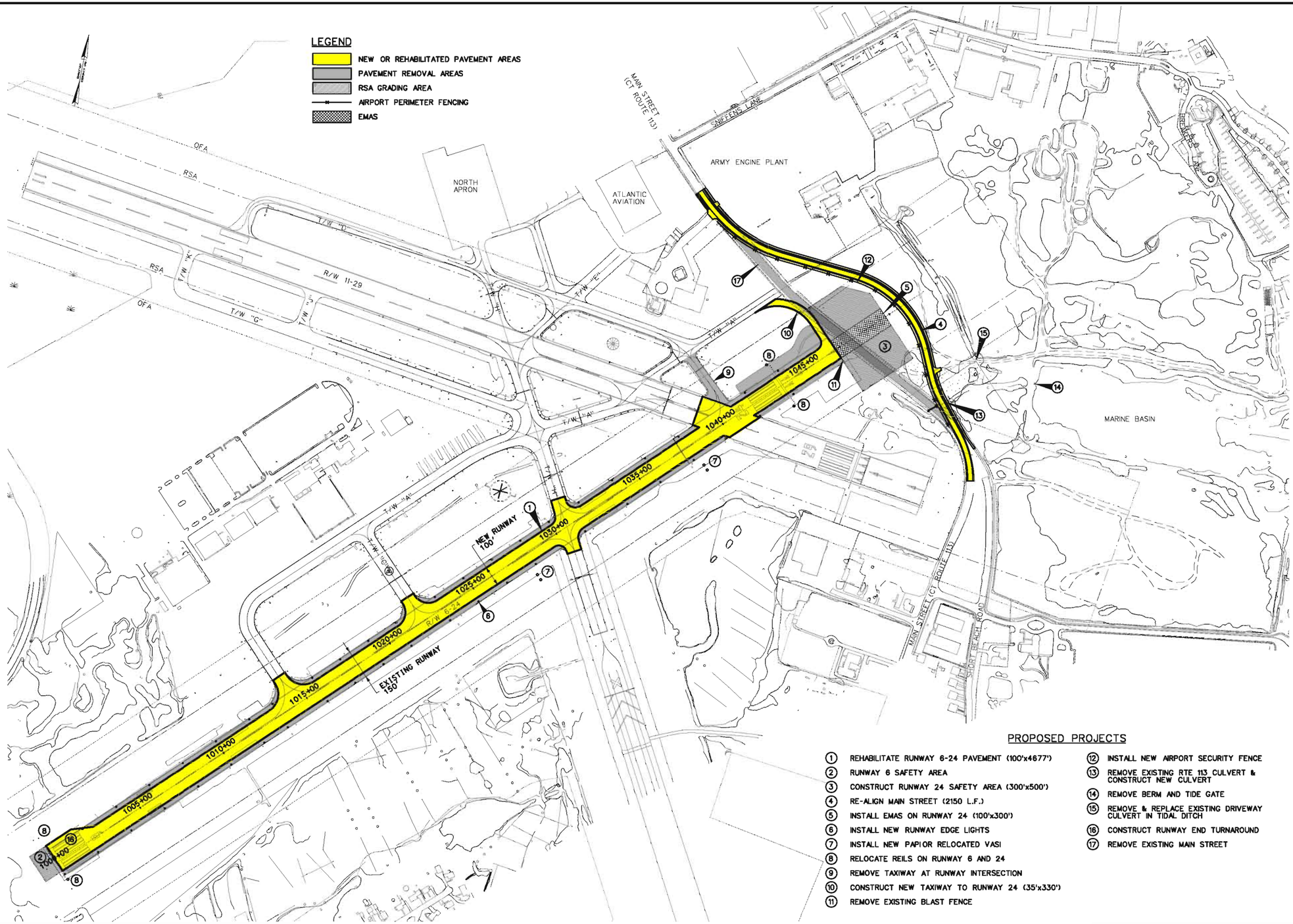


PROPOSED PROJECTS

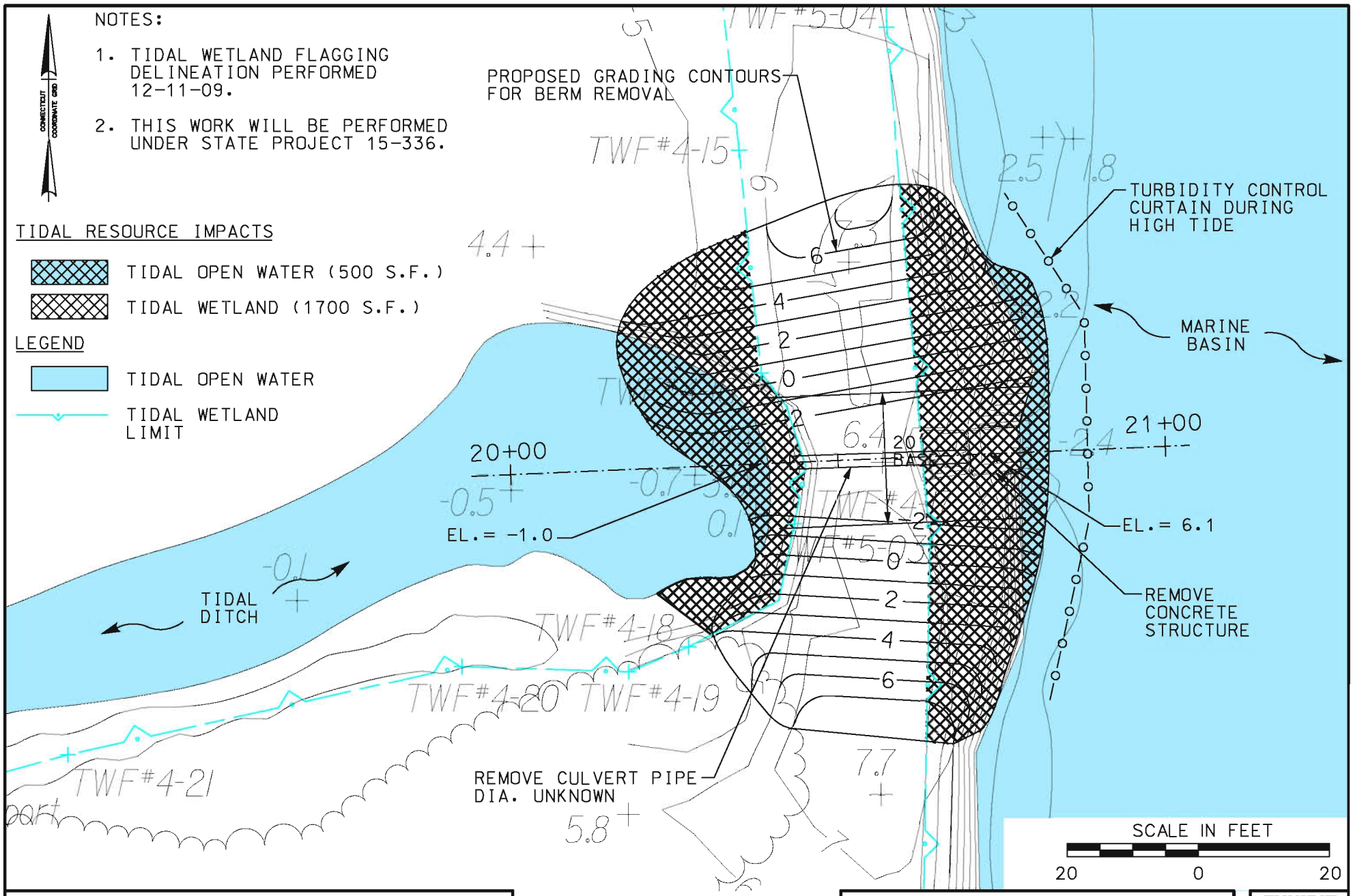
1. REHABILITATE RUNWAY 6-24 PAVEMENT (100'x4677')
2. RUNWAY 6 SAFETY AREA
3. CONSTRUCT RUNWAY 24 SAFETY AREA (300'x500')
4. RE-ALIGN MAIN STREET (2150 L.F.)
5. INSTALL EMAS ON RUNWAY 24 (100'x300')
6. INSTALL NEW RUNWAY EDGE LIGHTS
7. INSTALL NEW PAPI OR RELOCATED VASI
8. RELOCATE REILS ON RUNWAY 6 AND 24
9. REMOVE TAXIWAY AT RUNWAY INTERSECTION
10. CONSTRUCT NEW TAXIWAY TO RUNWAY 24 (35'x330')
11. REMOVE EXISTING BLAST FENCE
12. INSTALL NEW AIRPORT SECURITY FENCE
13. REMOVE EXISTING RTE 113 CULVERT & CONSTRUCT NEW CULVERT
14. REMOVE BERM AND TIDE GATE
15. REMOVE & REPLACE EXISTING DRIVEWAY CULVERT IN TIDAL DITCH
16. CONSTRUCT RUNWAY END TURNAROUND
17. REMOVE EXISTING MAIN STREET

IGOR I. SIKORSKY MEMORIAL AIRPORT
STRATFORD, CONNECTICUT

URS

ALTERNATIVE 1G MODIFIED WITH INSTALLATION OF EMAS

EXHIBIT
1.0-3



IGOR I. SIKORSKY MEMORIAL AIRPORT
STRATFORD, CONNECTICUT

URS

BERM AND TIDE GATE AT MARINE BASIN
PROPOSED PLAN

EXHIBIT
1.0-4

3.1. AIR QUALITY

This section describes existing air quality conditions in the area surrounding Sikorsky Memorial Airport (BDR) in Fairfield County, Connecticut, including: applicable air quality regulations, agencies responsible for regulating area air quality, existing air monitoring data, and details about the area's compliance with existing air quality regulations.

3.2. FEDERAL AND STATE AIR QUALITY REGULATIONS

Title I of the federal Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to regulate levels of pollutants in the ambient (i.e. "outdoor") air that endanger public health or environmental welfare. To fulfill this requirement, EPA has identified pollutants that fit the endangerment criteria (known as "criteria" pollutants) and established National Ambient Air Quality Standards (NAAQS) to control them. On the state-level, regulatory agencies are then charged with monitoring the local air quality with respect to NAAQS-regulated pollutants and implementing controls if violations of the NAAQS are found to occur. State air quality agencies may also strengthen or supplement the NAAQS if regional air quality conditions merit such action. Additionally, the General Conformity Rule requires actions affecting air quality in EPA-identified NAAQS violation areas (called "non-attainment areas") to demonstrate that they do not cause or contribute to continued NAAQS violations, by conforming to the state-level air quality plan developed to address the air quality problem.[1] Notably, transportation improvement actions are subject to separate requirements under the Transportation Conformity Rule.[2] This section describes the NAAQS and related state requirements as well as the General and Transportation Conformity processes.

3.2.1. NATIONAL AMBIENT AIR QUALITY STANDARDS

As described, the NAAQS represent levels of EPA's "criteria" pollutants in the ambient air over which additional damage to local or regional air quality would be incurred. Primary NAAQS are those intended to safeguard human health; secondary NAAQS are designed to prevent environmental degradation.

Areas possessing levels of these pollutants in the ambient air that are below the applicable NAAQS are said to be in "attainment" of the NAAQS; areas with measured levels exceeding the NAAQS are designated "non-attainment". Non-attainment designations can vary based on the severity of the NAAQS violations (i.e. "severe", "moderate"), dictating how stringently air quality must be controlled in the area, and over what timeframe. State agencies in non-attainment areas are then required to develop and submit State Implementation Plans (SIPs) to EPA, outlining measures and control strategies that demonstrate how the infractions will be remedied by EPA's established deadlines.

Table 3.2.1-1 below describes pollutants for which NAAQS have been established: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter measuring less than 10 micrometers in diameter (PM_{10}), particulate matter measuring less than 2.5 micrometers in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). **Table 3.2.1-2** summarizes the current NAAQS established by EPA and supplemented by the State of Connecticut, and includes Fairfield County area attainment designations. As shown, the Fairfield County area is currently designated "moderate" non-attainment of the 8-hour O_3 standard promulgated in 1997. Further, the area is currently designated non-attainment of both the annual and 24-hour standards for $PM_{2.5}$.The area's level of compliance with the NAAQS is further addressed in **Sections 3.4 and 3.5**.

[1] 40 CFR Part 93, Subpart B
[2] 40 CFR Part 93, Subpart A

TABLE 3.2.1-1 EPA CRITERIA AIR POLLUTANTS

Pollutant	Characteristic	
Carbon Monoxide (CO)	CO is a colorless, odorless, tasteless gas and is largely the product of incomplete combustion of fossil fuels from mobile sources (e.g., motor vehicles). Other sources include industrial processes and coal, kerosene, and wood-burning stoves in homes.	
Lead (Pb)	Lead is a naturally occurring heavy metal and can be toxic if inhaled or ingested. The lead content of motor vehicle emissions, historically the largest source, has significantly declined with the widespread use of unleaded fuel. Currently, smelters and battery plants are the major sources of lead emissions.	
Nitrogen Dioxide (NO_2)	NO_2 is one component of a larger group of nitrogen-containing compounds called Nitrogen Oxides (NO_x), which are further described below in relation to Ozone (O_3). EPA has established separate NAAQS for NO_2 due to its documented short and long term health effects, causing it to be monitored and evaluated separately from other NO_x components.	
Ozone (O_3)	O_3 is formed when precursor pollutants NO_x and volatile organic compounds (VOC), described below, react in the presence of sunlight. Ozone is subject to long-range transport and is considered a "regional" pollutant.	
	Nitrogen Oxides (NO_x)	NO_x includes nitric oxide (NO), nitrogen dioxide (NO_2), and the nitrate radical (NO_3), and is produced during both fossil-fuel combustion and the mixing of fuel and air at high temperatures and pressures.
	Volatile Organic Compounds (VOCs)	VOCs include all compounds containing both carbon and hydrogen. These compounds exist primarily in the gaseous form and are generated as either exhaust or evaporative by-products from the use of fossil fuels.
Particulate Matter (PM)	PM comprises very small particles of dirt, dust, soot, or liquid droplets called aerosols. Precursors may include sulfur compounds, VOC, NO_x and ammonia (NH_3). PM is segregated by sizes (i.e., < 10 and < 2.5 microns as PM_{10} and $PM_{2.5}$, respectively), and originates from the exhaust of internal combustion engines or from the breakdown and dispersion of other solid materials (e.g., fugitive dust).	
Sulfur Dioxide (SO_2)	Sulfur is a contaminant of fossil fuels. Emitted as a gas (sulfur dioxide, SO_2) or a solid (sulfates, SO_4), SO_x is an exhaust product of internal combustion engines. Coal-fired power plants are typically the largest sources of sulfur dioxide.	

Source: KB Environmental Sciences, 2010.

TABLE 3.2.1-1 NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Primary Standards		Secondary Standards		Attainment Status
	Level	Averaging Time	Level	Averaging Time	
Carbon Monoxide (CO)	9 ppm (10 mg/m^3)	8-hour (1)	None		Attainment
	35 ppm (40 mg/m^3)	1-hour (1)	None		Attainment
Dioxin	1.0 pg/m^3	Annual Mean (10)	None		N/A
Lead (Pb)	0.15 µg/m^3 (2)	Rolling 3-Month Average	Same as Primary		Attainment
Nitrogen Dioxide (NO_2)	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Same as Primary		Attainment
	0.100 ppm	1-hour (3)	None		Pending
Ozone (O_3)	0.075 ppm (2008 std)	8-hour (7)	Same as Primary		Pending
	0.08 ppm (1997 std)	8-hour (8)	Same as Primary		Moderate
	0.12 ppm	1-hour (9)	Same as Primary		N/A
Particulate Matter (PM_{10})	150 µg/m^3	24-hour (4)	Same as Primary		Attainment
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual (Arithmetic Mean) (5)	Same as Primary		Non-attainment
	35 µg/m^3	24-hour (6)	Same as Primary		Non-attainment
Sulfur Dioxide (SO_2)	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m3)	3-hour (1)	Attainment
	0.14 ppm	24-hour (1)			

Source: U.S. EPA and Connecticut Department of Environmental Protection, 2010.

(1) Not to be exceeded more than once per year.

(2) Final rule signed October 15, 2008.

(3) To attain this standard, the 3-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 (effective January 22, 2010).

(4) Not to be exceeded more than once per year on average over 3 years.

(5) To attain this standard, the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m^3.

(6) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m^3 (effective December 17, 2006).

(7) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

(8) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

(c) EPA is in the process of reconsidering these standards (set in March 2008).

(9) (a) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").

(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is < 1.

(10) State-level standard regulating emissions of dioxin and 2,3,7,8-TCDD equivalents, mainly from stationary sources. Not to be exceeded. This standard is assessed against individual stationary sources in the area.

3.2.2. GENERAL CONFORMITY

Originally promulgated in 1993, the General Conformity Rule of the CAA ensures that actions occurring in EPA-designated non-attainment areas do not impede the progress the improvement of air quality as outlined in an area's SIP. In addition, actions that are initiated, overseen or funded by federal agencies in non-attainment areas must be shown to conform to the applicable SIP, else be precluded by further funding or federal assistance.

The General Conformity process requires air quality impacts associated with actions occurring in non-attainment areas to be quantified in an emissions inventory, representing the total gross emissions caused by the action per year. An emissions inventory typically quantifies all direct and indirect emissions from sources associated with the action and compares them to the emissions that would normally occur had the action not taken place (i.e. the "No-action Alternative"). Direct emissions are defined as those that occur directly as a result of the action (i.e. increased aircraft emissions at an airport due to installation of a new runway); indirect emissions refer to those emissions that occur as a consequence of the action (i.e. emissions from construction equipment installing the runway, or emissions from delayed aircraft due to the airfield construction).

An applicability test is then conducted on the emissions inventory results, comparing them to de minimis thresholds established in the General Conformity Rule, which can vary based upon pollutant and the severity of the area's air quality problem.[3] As mentioned in **Section 3.2.1**, the Fairfield County area is currently designated non-attainment for O_3 and $PM_{2.5}$. The de minimis thresholds applicable to Fairfield County are presented on **Table 3.2.2-1** below. Annual emissions from an action that are below the de minimis thresholds are considered de minimis emissions, meaning that they are in conformance with the area's SIP to improve air quality. Emissions that exceed the de minimis thresholds are considered to hamper the SIP's effective progress, and hence would need to be fully offset before a favorable General Conformity Determination could be issued on the project.

TABLE 3.2.1-1 GENERAL CONFORMITY DE MINIMIS THRESHOLDS

Pollutant		De minimis Threshold (tons per year)
O_3 ("Moderate" non-attainment areas)	NO_x	100
	VOC	50
$PM_{2.5}$ (all non-attainment areas) (1)	NO_x	100
	$PM_{2.5}$ (direct)	100
	SO_2	100

Source: 40 CFR Part 93, Subpart B, effective January 31, 1994, as amended April 6, 2010.
(1) EPA requires that SO2 be evaluated as a precursor to PM2.5 in all instances. NOx is a precursor unless state and federal agencies agree it is not for that area. VOC and ammonia are not considered precursors unless EPA and state agencies determine otherwise. Notably, Connecticut considers all $PM_{2.5}$ precursors significant in their current SIP.

[3] Notably, prior to General Conformity Rule revisions promulgated by EPA in April 2010, emissions from an action would also have to be compared to a regional emissions budget, and were required to constitute less than ten percent of that budget in order to be considered de minimis. However, the recent revisions have removed the regional applicability requirement from the General Conformity Rule.

Full offset of emissions can be demonstrated in one of the following four methods, after which a favorable General Conformity Determination can be issued:

1) The state air quality regulatory agency can make a determination that the emissions are already accounted in the applicable State Implementation Plan emission budgets,
2) The state agency can agree to revise the SIP emissions budgets to include the emissions,
3) The sponsor of the action causing the emissions can purchase offsets or emissions reduction credits (ERC) in the same non-attainment area, or
4) The sponsor must mitigate the emissions to the required level by implementing emissions reduction measures.

3.2.3. TRANSPORTATION CONFORMITY

The Transportation Conformity Rule establishes separate conformity requirements for government funded roadway improvements, and other actions on regionally significant roadways identified in the area's Transportation Improvement Plan (TIP), such that these actions are in accordance with the area SIP to control air quality. To this end, state agencies in non-attainment areas must demonstrate that regional transportation air quality analyses fit within applicable SIP emissions budgets approved by the EPA. Typically, Transportation Conformity determinations are the responsibility of the local Metropolitan Planning Organization (MPO) or the State Department of Transportation (DOT).

3.3. AIR QUALITY REGULATORY AGENCIES

Management of air quality in the Fairfield County area is the joint responsibility of federal, state and local agencies. **Table 3.3-1** summarizes agency roles and responsibilities pertaining to air quality management in the area surrounding BDR.

TABLE 3.3.1-1 REGULATORY AGENCIES

Agency		Responsibilities
Federal	Environmental Protection Agency (EPA)	Sets air quality standards (NAAQS), controls and requirements. Designates NAAQS non-attainment areas. Delegates pollution control responsibilities and enforcement to state and local agencies.
	Federal Aviation Administration (FAA)	Regulates aviation activity and safety. Funds and oversees improvements to airport infrastructure. Serves as "lead" agency when evaluating environmental impacts of federally funded airport actions.
	Federal Highway Administration (FHWA)	Regulates roadway and motor vehicle activity and safety. Funds and oversees improvements to highway and roadway infrastructure. Serves as "lead" agency when evaluating environmental impacts of federally funded projects on highways and roadways.
State	Connecticut Department of Environmental Protection (CT DEP)	Develops SIPs, control strategies, and permit programs to comply with federal air quality regulations. Strengthens and supplements federal regulations where appropriate. Funds and conducts outdoor air monitoring programs.
	Connecticut Department of Transportation (ConnDOT)	Regulates roadway improvements and manages traffic flow as extension of FHWA. Bureau of Aviation and Ports oversees use of state aviation facilities as extension of FAA.
Local	Greater Bridgeport Regional Planning Agency (GBRPA)	Metropolitan Planning Organization (MPO) for area surrounding BDR. Assists ConnDOT and CT DEP with Bridgeport area transportation and air quality planning.

Source: KB Environmental Sciences, 2010.

3.4. EXISTING AIR QUALITY CONDITIONS

This section presents air monitoring data for the area surrounding BDR, and describes the area's level of compliance with the NAAQS and other air quality regulations.

3.4.1. AIR MONITORING DATA

As required by the EPA, the CT DEP has established and maintains a permanent network of air quality monitors. The monitors record concentrations of EPA- and state-regulated pollutants in the ambient air to gauge compliance with the NAAQS as well as progress with SIP air quality goals. Air quality monitoring data collected at stations near BDR for the years 2006 through 2008 are shown on **Table 3.4.1-1** below. For ease of reference, the applicable NAAQS for each monitored pollutant is included on the table. Bold values on the table represent violations of the applicable NAAQS. As shown, violations of the 24-hour NAAQS for $PM_{2.5}$ occurred in 2006 and 2008. Violations of the 8-hour O_3 standard are also shown at multiple monitors for all three calendar years.

TABLE 3.4.1-1 AMBIENT AIR MONITORING DATA (2006 – 2008)

Site	Site ID	Distance from BDR	Pollutant	Averaging Time	NAAQS	2006	2007	2008
Edison School	90010012	2.49 miles NW	SO_2	Annual	0.03 ppm	0.005	0.004	0.003
				24-hour	0.14 ppm	0.021	0.017	0.016
				3-hour	0.5 ppm	0.033	0.029	0.021
Roosevelt School	90010010	3.58 miles W	CO	1-hour	35 ppm	--	3.8	3.2
				8-hour	9 ppm	--	1.8	2.0
			PM_{10}	24-hour	150 µg/m^3	61	43	49
			$PM_{2.5}$	Annual	15.0 µg/m^3	12.52	12.66	12.83
				24-hour	35 µg/m^3	**36.7**	30.2	**35.5**
Sherwood Island State Park	90019003	11.5 miles SSW	CO	1-hour	35 ppm	--	1.1	1.6
				8-hour	9 ppm	--	0.8	1.1
			NO_2	Annual	0.053 ppm	0.014	0.014	0.012
				1-hour (1)	0.100 ppm	0.086	0.07	0.062
			O_3	8-hour	0.075 ppm	**0.089**	**0.083**	**0.090**
			PM_{10}	24-hour	150 µg/m^3	38	30	55
			$PM_{2.5}$	Annual	15.0 µg/m^3	10.73	10.91	10.66
				24-hour	35 µg/m^3	31.3	29.0	30.9
			SO_2	Annual	0.03 ppm	0.003	0.002	0.002
				24-hour	0.14 ppm	0.017	0.013	0.014
				3-hour	0.5 ppm	0.025	0.025	0.022
Stratford Lighthouse	90013007	1.76 miles SE	O_3	8-hour	0.075 ppm	**0.095**	**0.092**	**0.078**

Source: EPA AirData, accessed April 03, 2010.
Bolded values represent infractions of the NAAQS.
(1) EPA does not yet report the appropriate averaging statistic for the 1-hour NO_2 standard; As a result, the first max concentration is reported here.

3.4.2. ATTAINMENT STATUS

Fairfield County currently comprises a portion of the New York-New Jersey-Long Island NY-NJ-CT non-attainment area. The area was designated "moderate" non-attainment in 2004 with respect to the 8-hour O_3 NAAQS promulgated in 1997. EPA required that states possessing non-attainment areas submit attainment demonstration SIPs by 2008. Because EPA also requires that "moderate" O_3 non-attainment areas demonstrate compliance with the NAAQS no later than six years after designation, the Fairfield County area must be in compliance with the 1997 O_3 NAAQS by June 2010.

Additionally, the NY-NJ-CT non-attainment area has been classified as non-attainment for the annual $PM_{2.5}$ NAAQS in 2005 and non-attainment for the 24-hour PM2.5 NAAQS shortly after its promulgation in 2006. With respect to these designations, non-attainment areas must submit SIPs by April 2008 and attain the standard no later than five years after their designation.

Historically, the Fairfield County area was part of the 1-hour O_3 Greater Connecticut Non-attainment area prior to the repeal of the 1-hour O_3 NAAQS. Moreover, portions of the Fairfield County area were included in both the former New Haven-Meriden-Waterbury and the NY-NJ-CT CO non-attainment areas for the years 1992 through 1998. These areas were re-designated as "maintenance" of the applicable CO NAAQS in 1998 and 1999, respectively.

3.5. STATE IMPLEMENTATION PLANS

To satisfy EPA's requirements listed above, CT DEP prepared an 8-Hour Ozone Attainment Demonstration SIP and submitted it to EPA on February 1, 2008. The document presented national, regional and local estimates and control programs necessary to attain the NAAQS by EPA's established deadline. However, EPA proposed to disapprove the Attainment Demonstration SIP in May of 2008, contending that it did not display enough compelling evidence to ensure attainment by June 2010. EPA's ruling has yet to be finalized, due in part to CT DEP's recent petition to extend EPA's attainment deadline.

CT DEP also submitted their Fine Particulate Matter (PM 2.5) Attainment Demonstration SIP to EPA on November 18, 2008, demonstrating how the area would attain the annual $PM_{2.5}$ NAAQS by April 2010. EPA is still reviewing this submittal and has yet to render an approval. In addition, CT DEP made revisions to its Regional Haze SIP on November 18, 2009, to assure EPA that the effort to increase visibility in the area is harmonized to the attainment strategies contained in the $PM_{2.5}$ SIP.

4.1 AIR QUALITY

This section outlines the air quality impact analysis conducted on the proposed improvements to runway safety areas at BDR, and includes a description of airport air emissions sources; a description of the No-Action alternative and proposed project; an overview of the methodology used to estimate the project-related emissions; the results of the emissions inventory; and any required actions that would result as a consequence of General Conformity or Transportation Conformity regulations within the CAA.

4.2 AIRPORT EMISSIONS SOURCES

The principal emissions sources currently operating at BDR include aircraft, minimal auxiliary power units (APUs), a small fleet of ground support equipment (GSE), and fuel storage and transfer facilities. Construction of the RSAs at BDR will also involve temporary emissions from construction equipment, asphalt paving, and the generation of fugitive dust during land clearing and pavement demolition. **Table 4.2.1-1** below describes sources of air emissions typically occurring at BDR, including the source type, description of activity, and a listing of the pollutants emitted.

TABLE 4.2.1-1 AIRPORT-RELATED SOURCES OF AIR EMISSIONS

Source	Pollutants[1]	Characteristics
Aircraft and Auxiliary Power Units (APU)	CO, Lead, NO_x, PM, SO_2, VOC,	Emitted as the exhaust products of fuel combustion in aircraft engines, and in APU providing on-board back-up power and comfort control. The quantities and types can vary based on engine power setting and duration of operation. Emissions are generally assessed based on a typical landing/take-off cycle (i.e. taxi and delay, take-off, climb-out, approach and landing).
Ground Support Equipment (GSE)	CO, NO_x, PM, SO_2, VOC	Emitted as the exhaust products of fuel combustion from the operation of service trucks and other equipment servicing the aircraft and the airport. Emissions differ by engine type, fuel type and activity level.
Motor Vehicles	CO, NO_x, PM, SO_2, VOC	Emitted as the exhaust products of fuel combustion from the operation of passenger, employee and other on-road vehicles operating on-airport property. Emissions differ by the engine type, fuel type, operating speed, ambient conditions, roadway conditions and distance travelled.
Stationary Source Facilities	CO, NO_x, PM, SO_2, VOC	Results from the combustion of fossil fuels from generators providing emergency power.
Fuel Storage and Transfer	VOC	Emissions are evaporative, resulting from vapor displacement and loss during storage during transfer. The level of emissions depend on the type of storage device, the type and amount of fuel stored, transfer and refueling methods, efficiency of vapor recovery and atmospheric conditions (i.e. temperature and relative humidity).
Construction Activities	CO, NO_x, PM, SO_2, VOC	Emissions in this category are temporary and result from construction equipment exhaust, VOC emissions from asphalt paving operations and PM emissions due to entrainment of dust resulting from construction, demolition and site clearing operations.

Source: KB Environmental Sciences, 2010.

4.3 NO-ACTION ALTERNATIVE

Historically, BDR has serviced a significant level of commercial service carriers for an airport its size, although currently most activity at the airport is classified as General Aviation (GA). Further, because the level of annual GA operations currently occurring at BDR is less than 180,000, no quantitative

assessment of air quality under the No-Action alternative is required by the NEPA per FAA Order 5050.4B.

4.4 PROPOSED PROJECT

The FAA has recently determined that Runway 24 at BDR does not meet the dimension requirements for runway safety areas (RSAs) necessary to ensure passenger safety at FAR Part 139 certified airports.[4] Consequently, pursuant to Order 5200.8, the FAA has mandated that RSA improvements be made to Runway 24 to comply with the safety requirements. These improvements mainly involve expansion of the airport property at the end of Runway 24, and relocation of the section of Connecticut Route 113 bordering this area, such that adequate space is provided at the end of the runway to ensure safe aircraft operation.

4.5 EMISSIONS INVENTORY METHODOLOGY

The assessment of air quality impacts presented in this section has been prepared pursuant to the requirements of the General Conformity Rule (40 CFR 93), and in accordance with the following guidance:

- FAA Order 1050.1E Change 1 – Environmental Impacts: Policies and Procedures
- FAA Order 5050.4B – National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions
- FAA Environmental Desk Reference for Airport Actions

Methodologies and data used to quantify air emissions from operational and construction sources at BDR are discussed in greater detail in the forthcoming sections.

4.5.1.1 OPERATIONAL EMISSIONS

Again, it is not expected that aircraft activity will exceed 180,000 GA operations in the construction project year of 2012, nor is it expected that airport activity will increase in any way due to the proposed improvements to the RSAs. As a result, no quantitative assessment of operational emissions is required under the NEPA as directed by FAA Order 5050.4B.

4.5.1.2 CONSTRUCTION EMISSIONS

The NEPA recommends disclosure of construction related emissions resulting from airport improvements during air quality impact evaluation. Moreover, the General Conformity Rule of the CAA mandates that all indirect emissions associated with an action occurring in a non-attainment area, including construction emissions, be compared against the appropriate de minimis thresholds in the General Conformity applicability test.

Construction emissions represent a temporary source of air emissions, occurring from the operation of fossil-fueled construction equipment, service vehicles, and worker vehicles accessing and leaving the site; pavement of newly constructed areas; and disturbance of unpaved land areas during the construction process. Activities anticipated to occur during the RSA construction include land clearing, earthworks and excavation, concrete and pavement installation, and finishing work.

To estimate air emissions of EPA criteria pollutants from construction equipment exhaust, activity data taken from the proposed RSA construction schedule, including equipment activity factors, expected hours of use or miles travelled, and brake-specific horsepower, were applied to emissions rates generated using EPA's approved emissions rate models NONROAD2008a (for off-road equipment) and MOBILE6.2 (for on-road motor vehicles). Emissions rates for calendar year 2012 were developed using area-specific

[4] FAA Advisory Circular AC 150/5300-13, *Airport Design.*

input parameters consistent with those applied in recent SIP emissions inventories, including area meteorological data, fuel parameters, and equipment population distributions. Emissions model default parameters were applied wherevere area specific data was unavailable. VOC emissions from asphalt paving and PM emissions from disturbance of unpaved areas were quantified using the estimated dimensions of the project area as reported in provided plans, and emissions rates taken from EPA guidance and other relevant publications.[5] [6]

4.6 EMISSIONS INVENTORY RESULTS

Table 4.6-1 presents the results of the BDR construction emissions inventory by pollutant and by project component, representing the estimated level of emissions expected to occur as a result of the RSA construction in calendar year 2012. For ease of evaluation of these emissions against the General Conformity regulations, the appropriate de minimis thresholds are also included for each applicable pollutant. As shown, the project is expected to generate 0.84 tons of VOC, 4.29 tons of CO, 5.95 tons of NO_x, 0.02 tons of SO_2, 19.53 tons of PM_{10} and 2.32 tons of $PM_{2.5}$.

TABLE 4.6-1 2012 CONSTRUCTION EMISSIONS INVENTORY

	012 Construction Emissions (tons per year)					
	VOC	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$
Off-Road Equipment	0.43	2.49	5.89	0.02	0.42	0.41
On-Road Vehicles	0.07	1.80	0.06	<0.01	<0.01	<0.01
Asphalt Paving	0.34	--	--	--	--	--
Fugitive Dust	--	--	--	--	19.11	1.91
Total	0.84	4.29	5.95	0.02	19.53	2.32
"Moderate" O_3 De minimis Level	50		100			
$PM_{2.5}$ De minimis Level			100	100		100

Source: KB Environmental Sciences, 2010.

4.6.1 GENERAL CONFORMITY APPLICABILITY TEST

As shown on **Table 4.6-1**, the total project-related emissions of CO are well below the applicable de minimis thresholds for CO maintenance areas. VOC and NO_x emissions are also well below the applicable de minimis thresholds for a "moderate" O_3 non-attainment area, signifying that project emissions do not interfere with the air quality goals of the area's O_3 SIP, and that the project is therefore considered a de minims action.

In addition, because the CT DEP evaluates emissions of $PM_{2.5}$ precursors NO_x and SO_2 in addition to directly emitted $PM_{2.5}$ in their $PM_{2.5}$ Attainment Demonstration SIP, the project emissions are also compared against the applicable $PM_{2.5}$ de minimis thresholds for these pollutants. Again, as shown on **Table 4.6-1**, project-related emissions of NO_x, SO_2 and directly emitted $PM_{2.5}$ are well below the applicable de minimis thresholds. Accordingly, the project is considered a de minimis action and conforms to the area's $PM_{2.5}$ SIP.

[5] Asphalt paving emissions factors obtained from data available from the National Association of Clean Air Agencies (NACAA, formerly STAPPA-ALAPCO)

[6] Fugitive dust particulate matter emissions factors obtained from EPA's *Compilation of Air Pollutant Emissions Factors (AP-42)*, Fifth Edition, January 1995.

Notably, in revisions to the General Conformity regulations finalized in April 2010, EPA removed the regional significance test from the applicability requirements of the General Conformity Rule. Hence, no regional significance analysis was conducted on the project-related construction emissions. However, it is not expected that these emissions would constitute greater than ten percent of the regional emissions budget in either applicable SIP, the criteria for regional significance under the previous regulations.

4.6.2 MITIGATION

Although the improvements to BDR are considered de minimis actions with respect to the General Conformity Regulations and no emissions mitigation is required to demonstrate conformity with area air quality plans, the following mitigation measures can be implemented to reduce the overall air quality impacts expected to occur:

- Reduce equipment idling times,
- Use cleaner burning or low emissions fuels in equipment,
- Encourage employee carpooling,
- Limit construction activities when atmospheric conditions are conducive to O_3 formation (i.e. "high ozone days"),
- Limit construction activities during high wind events to prevent dust generation,
- Utilize warm-mix asphalt during paving operations,
- Water or apply dust suppressants to unpaved areas regularly,
- Cover materials stockpiles,
- Install pads to deter track-out as vehicles enter and leave the work site, and
- Reduce vehicle speeds on unpaved roads.

4.6.3 TRANSPORTATION CONFORMITY

Installation of the Runway 24 RSA requires the relocation of a portion of State Route 113 bordering the airport property. Accordingly, because the action shall occur in a non-attainment area, the relocation could be subject to the CAA's Transportation Conformity Rule.

The Rule states that Transportation Conformity is not applicable to individual projects that are not FHWA or Federal Transit Authority (FTA) projects unless they are considered "regionally significant" for the purpose of regional emissions analysis.[7] Coordination with the GBRPA is pending to determine whether the relocation of State Route 113 associated with the BDR improvements is considered "regionally significant".

[7] 23 CFR Part 93

5.1 CONSTRUCTION ACTIVITIES

For this assessment, construction-related emissions are primarily associated the exhaust from heavy equipment (i.e., backhoes, bulldozers, graders, etc.), delivery trucks and construction worker vehicles getting to and from the site; dust from site preparation, land clearing, material handling, equipment movement on unpaved areas, and demolition activities; and, fugitive emissions from the storage/transfer of raw materials. These emissions are temporary in nature and generally confined to the construction site and the access/egress roadways.

Emissions from construction activities were estimated based on the projected construction activity schedule, the number of vehicles/pieces of equipment, the types of equipment/type of fuel used, vehicle/equipment utilization rates, and the year construction occurs. Data regarding the number of pieces and types of construction equipment to be used on the project, the deployment schedule of equipment (monthly and annually), and the approximate daily operating time (including power level or usage factor) were estimated for each individual construction project based on a schedule of construction activity. **Table 5-1** details the proposed RSA construction schedule and a list of construction equipment and assumptions used in the analysis.

TABLE 5-1 2012 CONSTRUCTION SCHEDULE FOR THE PROPOSED PROJECT

Off-road Equipment	Fuel	Size (HP)	Hours per day	Pieces of Off-Road Equipment in Use Each Working Day									
				M	A	M	J	J	A	S	O	N	D
Smooth Drum Roller (Cat 563C)	D	145	8	0	1	1	1	1	0	0	0	0	0
Soil Compactor (CAT 816)	D	170	8	0	1	2	2	0	0	0	0	0	0
Water Truck	D	225	8	1	1	1	1	1	1	1	1	0	0
Bulldozer (Cat D-8)	D	500	8	1	1	1	0	0	0	0	0	0	0
Bulldozer (Cat D-4)	D	84	8	1	1	1	0	0	0	0	0	0	0
Rubber Tired Loader (Cat 950)	D	170	8	2	2	2	1	0	0	1	0	0	0
Asphalt Paving Machine (Cedar Rapids)	D	260	8	0	0	0	1	1	1	0	0	0	0
Asphalt Roller - steel wheel	D	130	8	0	0	0	1	1	1	0	0	0	0
Asphalt Roller - rubber tire	D	130	8	0	0	0	1	1	1	0	0	0	0
Dump Trucks (Mack)	D	325	8	6	6	6	8	8	8	2	1	1	0
Excavator (Cat 325)	D	168	8	1	1	1	1	0	0	0	0	0	0
Excavator (Cat 350)	D	286	8	1	2	2	0	0	0	0	0	0	0
Rubber Tire Backhoe (Cat 416)	D	87	8	1	1	1	1	1	1	2	2	1	0
Power Broom (Ford 2120)	D	42	2	0	0	0	1	1	1	1	1	1	0
Power Grader (Cat 160M)	D	213	8	1	1	1	1	1	1	1	1	1	0
On –Road Vehicles	Fuel	Speed (mph)	Trip Miles	Number of trips per working day									
				M	A	M	J	J	A	S	O	N	D
Employees	G	45	30	20	25	30	30	30	30	25	20	5	5
Company Pickups	D	30	15	3	4	4	5	5	4	3	2	2	1

Source: URS Corporation, 2010.

The emission inventories for off-road (non-highway) equipment were calculated using emission factors obtained from the EPA's NONROAD emissions model (Version 2008s), and/or the U.S. EPA Compilation of Air Pollutant Emission Factors (AP-42). Emission factors for on-road (highway) pickups, employee vehicles, and other on-road regulated vehicles were obtained from the MOBILE6.2 motor vehicle emission model for the construction year 2012. Emissions model input parameters were developed to be as consistent with Connecticut SIP and other regional air quality analyses as possible. Emissions model default parameters were assumed where this data were unavailable. To remain conservative, the highest seasonal emission rate (i.e. summer versus winter) was selected and applied to emissions calculations. **Table 5-2** presents the emission factors which were used in the analysis.

TABLE 5-2 2012 CONSTRUCTION EQUIPMENT EMISSIONS FACTORS

Equipment Type	Fuel Type	VOC	CO	NOx	SO2	PM10	PM2.5
On-road Motor Vehicles (g/mi)[1]							
Light Duty Truck (30 mph)	Diesel	0.37	0.61	0.48	0.005	0.06	0.04
Light Duty Vehicle (45 mph)	Gasoline	0.37	11.45	0.44	0.006	0.02	0.01
Off-road Equipment (g/hp-hr)[2]							
Rollers	Diesel	0.29	1.36	3.51	0.010	0.31	0.30
Crushing/Proc. Equipment	Diesel	0.29	0.92	3.71	0.010	0.23	0.22
Off-highway Trucks	Diesel	0.18	1.10	2.66	0.009	0.18	0.17
Crawler Tractor/Dozers (500HP)	Diesel	0.21	1.42	3.56	0.010	0.20	0.20
Crawler Tractor/Dozers (84 HP)	Diesel	0.33	3.48	3.79	0.011	0.46	0.44
Rubber Tire Loaders	Diesel	0.29	1.36	3.51	0.010	0.31	0.30
Paving Equipment (260 HP)	Diesel	0.28	1.17	3.61	0.010	0.23	0.22
Paving Equipment (130 HP)	Diesel	0.32	1.47	3.87	0.010	0.32	0.31
Excavators (168 HP)	Diesel	0.25	1.26	3.00	0.010	0.30	0.29
Excavators (286 HP)	Diesel	0.22	0.94	2.70	0.009	0.19	0.18
Tractors/Loaders/Backhoes	Diesel	1.29	7.02	5.87	0.013	1.06	1.03
Sweepers/Scrubbers	Diesel	0.30	1.67	4.76	0.011	0.28	0.27
Graders	Diesel	0.23	0.97	2.87	0.009	0.19	0.19

[1] Emissions factors for on-road vehicles are reported in grams per mile, and represent an assumed speed of between 30 and 45mph on arterial roadways.
[2] Emissions factors for off-road vehicles are reported in grams per horsepower-hour, and represent operation at full throttle conditions.
Source: EPA MOBILE6.2 ; EPA NONROAD 2008a

Emission factors for each equipment type were applied to the anticipated equipment work output (horsepower-hours of expected equipment use). Operating times for the equipment were based on a five-day workweek and an eight-hour workday during which the equipment may be operating, unless indicated otherwise in the construction schedule.

A usage factor accounting for the percentage of daily operation and a load factor accounting for the average throttle setting relative to capacity were used. That is, a usage factor of 0.75 equates to six hours of operation and a load factor of 0.62 equates to 62 percent of capacity during operation. For the off-road equipment sulfur dioxide and particulate matter emission factors, diesel sulfur content was consistent with the assumptions data used in the Connecticut SIP and other regional air quality analyses.

For on-road vehicles, the anticipated vehicle miles traveled (VMT) were estimated to determine annual emissions. The following equations were used to obtain annual emission rates for off-road equipment and on-road vehicles:

*Emission Rate (tons/year) = Emission Factor (g/hp-hr) * size (hp) * 8 hours per day * Usage Factor * days/year * Load Factor * (453.59/2000 tons/g)*

*Emission Rate (tons/year) = Emission Factor (g/mile) * speed (miles/hour) * hours per day * days/year * (453.59/2000 tons/g)*

To estimate emissions associated with on-road motor vehicles including vehicles utilized for the purposes of security, escorting and project management, and personal employee vehicles, the following assumptions were applied. Security, escorting and project management vehicles were assumed to travel a grand total of 15 miles per work day at a travelling speed of 30 mph. Employee VMT was calculated assuming 30 miles per work day (round trip) at a travelling speed of 45 mph. Where applicable, eight hours per day of work was applied to calculations (as above).

Additionally, the construction emissions inventories for fugitive dust sources were calculated using emission factors within EPA's AP-42 and other publications. Fugitive dust emissions can result from the following activities: grading, moving soil, and digging, loading/unloading of trucks, movement of trucks on unpaved surfaces, and wind erosion of stockpiles. A fugitive dust emission factor of 10 pounds per day per acre disturbed was used. $PM_{2.5}$ was assumed to be 10 percent of PM_{10} based on AP-42. Erosion control measures and water programs are typically taken to minimize these fugitive dust and particulate emissions. A dust control efficiency of 75 percent due to daily watering and other measures was estimated based on AP-42.

Evaporative VOC emissions associated with the application of hot mix asphalt on areas requiring paving were estimated using raw materials quantities listed in the projected construction schedule, as well as an emission factor of 0.053 tons of VOC per acre of asphalt material laid, following methodology outlined by the National Association of Clean Air Agencies (NACAA, formerly STAPPA-ALAPCO). A complete listing of the construction emissions associated with the proposed RSA improvements at BDR is contained in **Table 5-3.**

TABLE 5-3 2012 CONSTRUCTION EMISSIONS

	012 Construction Emissions (tons per year)					
	VOC	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Off-Road Equipment	0.43	2.49	5.89	0.02	0.42	0.41
On-Road Vehicles	0.07	0.97	0.06	<0.01	<0.01	<0.01
Asphalt Paving	0.34	--	--	--	--	--
Fugitive Dust	--	--	--	--	19.11	1.91
Total	0.84	3.46	5.95	0.02	19.53	2.32
"Moderate" O_3 De minimis	50		100			
$PM_{2.5}$ De minimis			100	100		100

Source: KB Environmental Sciences, Inc. 2010.