

**Torres Rojas, Genara**

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FOI #14722

**From:** Damian@greenvestus.com  
**Sent:** Monday, March 03, 2014 2:02 PM  
**To:** Duffy, Daniel  
**Cc:** Torres Rojas, Genara; Van Duyne, Sheree; American, Heavyn-Leigh  
**Subject:** Freedom of Information Online Request Form

Information:

First Name: Damian  
Last Name: Holynskyj  
Company: GreenVest LLC  
Mailing Address 1: 91 Fieldcrest Ave  
Mailing Address 2: Raritan Plaza II, Suite A-1  
City: Edison  
State: NJ  
Zip Code: 08837  
Email Address: [Damian@greenvestus.com](mailto:Damian@greenvestus.com)  
Phone: 732-902-6644  
Required copies of the records: Yes

List of specific record(s):

Any Environmental Reviews or Environmental Impact Statements associated with the rehabilitation of runway 4L-22R at Newark Airport

**THE PORT AUTHORITY OF NY & NJ**

*FOI Administrator*

April 8, 2014

Mr. Damian Holynskyj  
Green Vest LLC  
91 Fieldcrest Avenue, Raritan Plaza II, Suite A-1  
Edison, NJ 08837

Re: Freedom of Information Reference No. 14722

Dear Mr. Holynskyj:

This is in response to your March 3, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code") for copies of "Any Environmental Reviews or Environmental Impact Statements associated with the rehabilitation of runway 4L-22R at Newark Airport."

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/14722-O.pdf>. Paper copies of the available records are available upon request.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,



Daniel D. Duffy  
FOI Administrator

*225 Park Avenue South, 17th Floor  
New York, NY 10003  
T: 212 435 3642  
F: 212 435 7555*

Catex Notification - EWR projects.txt

From: Marie.Jenet@faa.gov  
Sent: Tuesday, February 14, 2012 7:46 AM  
Subject: Catex Notification - EWR projects

This email is to notify you that the FAA made the following determinations on 2/13/2012 :

1) The Runway 4R-22L Rehabilitation and Improvements at Newark Liberty International Airport qualifies for a Categorical Exclusion from preparation of a formal environmental assessment. This notification represents the formal Environmental Finding; additional coordination with FAA may be necessary with regard to Airport Layout Plan Approval and Airspace Review.

2) The Runway 4L-22R Rehabilitation and Improvements at Newark Liberty International Airport qualifies for a Categorical Exclusion from preparation of a formal environmental assessment. This notification represents the formal Environmental Finding; additional coordination with FAA may be necessary with regard to Airport Layout Plan Approval and Airspace Review.

3) The Taxiway 'P' Rehabilitation and Improvements at Newark Liberty International Airport qualifies for a Categorical Exclusion from preparation of a formal environmental assessment. This notification represents the formal Environmental Finding; additional coordination with FAA may be necessary with regard to Airport Layout Plan Approval and Airspace Review.

Marie C. Jenet  
Environmental Specialist  
Federal Aviation Administration  
New York Airports District Office  
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FEDERAL AVIATION ADMINISTRATION  
EASTERN REGION AIRPORTS DIVISION

CATEGORICAL EXCLUSION FORM

See Instructions Page Prior to Completing this Form

Airport Name: Newark Liberty International Airport Airport Identifier: EWR

Project Title: Runway 4L-22R Rehabilitation and Improvements Date: 01/27/2012

**APPLICABILITY:**

This Environmental Evaluation Form should be used only if the sponsor’s proposed project meets the following two (2) criteria:

1. The proposed project is a federal action subject to NEPA. List applicable paragraph number from FAA Order 5050.4B, Chapter 1 para. 9g:

**9g. (1) – Approval of Federal funding**  
**9g. (3) Approval of Airport Layout Plan**

*And*

2. The proposed project is identified as one that can be categorically excluded. List applicable category from FAA Order 1050.1E paragraphs 307 through 312. (Review Tables 6-1 and 6-2 in FAA Order 5050.4B)

**1050.1E, Chg 1 – Paragraph 310(e)**

Note:

If action is listed in Table 6-1 - Complete project description, go to page 4 and sign certification. No further review necessary  
If action is listed in Table 6-2 - Complete remainder of form

**PROJECT DESCRIPTION** - List and clearly describe **ALL** components of project proposal including all connected actions. Include summary of existing conditions at project site. (Attach site map identifying project area)

**The proposed project entails the rehabilitation of Runway 4L-22R, construction of two new high-speed exit taxiways, and one new crossing taxiway connecting to Taxiway ‘B’ on the west.**

**Runway 4L-22R is 11,000 feet long and 150 feet wide. It is a north-south runway located on the east side of the airport and handles approximately 200,000 aircraft operations annually. The last resurfacing of the runway was completed in 2002. Inspections of the runway have identified extensive pavement surface cracking and raveling due to debonding of the surface, normal pavement wear, settlement and weathering. In order to maintain a state of good repair rehabilitation of the runway is therefore required. Runway 4L-22R will be rehabilitated in asphalt. The work will involve milling the existing runway and overlaying asphalt.**

**In addition to runway rehabilitation, following improvements will also be made as part of the overall delay reduction initiatives at EWR:**

- **Two new high speed exit taxiways connecting Runway 4L-22R to Taxiway ‘B’. First high speed exit taxiway will be located between taxiways ‘V’ and ‘N’ while the second one will be located between taxiways ‘J’ and ‘K’.**

- One new crossing taxiway will be constructed between existing Taxiways ‘C’ and ‘N’. This new taxiway will connect Runway 4L-22R to Taxiway ‘B’ on the west and will also complete the connection to Taxiway ‘P’ on the east (earlier constructed partial crossing taxiway from Taxiway ‘P’ as part of the Taxiway ‘P’ Rehabilitation and Improvement project.
- Small portions of following taxiways will also be rehabilitated west of Runway 4L-22R and up to the “hold marking”: Taxiways ‘W’, ‘Y’, ‘M’, ‘K’, ‘J’, ‘H’, ‘G’, ‘F’, ‘E’, ‘C’, and ‘V’.

Together, these improvements would reduce runway occupancy times and increase the efficiency of ground operations and reduce aircraft fuel consumption and air emissions.

The project will also include electrical system rehabilitation on the runway and existing taxiways and new lighting for the two high-speed taxiways and new crossing taxiway. The proposed project would require the installation of new FAA lighting and signage and would conform to the requirements of CFR 14 Part 139 section 311 and associated Advisory Circulars for applicable design group standards.

The proposed new two high-speed exit taxiways and one new crossing taxiway would result in new impervious area of approximately 4.0 acres. This increase in impervious area will be mitigated to create the same amount of pervious area elsewhere at the airfield pursuant to NJDEP Stormwater Management Rule. The increase in impervious surface would have no negative effect on the capacity requirements of the airports’ storm drain system. The proposed project will be outside of flood hazard area and also there will be no impact to wetlands as a result of this project.

Waste material generated from asphalt milling will be recycled to the greatest extent possible. Project specifications will include reference to provisions of *Advisory Circular 150/5370-10(current edition), Standards for Specifying Construction on Airports*. No hazardous substances are expected to be encountered during the excavation and grading operations of this project. If any stained soils are observed or if soils are found to be contaminated with petroleum products, all pertinent local, State and Federal regulations regarding proper disposal would be complied with.

As required by the Essex and Union County Soil Conservation Districts a permit will be requested for soil erosion and sediment control from each agency prior to the commencement of the proposed project. A general storm water permit request, along with a Storm Water Pollution Prevention Plan (SWPPP) will be submitted to the New Jersey Department of Environmental Protection. As required by the New Jersey Department of Environmental Protection a Flood Hazard Area permit will also be requested. The proposed project will not commence until all pertinent permits have been received.

Upon consultation received from the Port Authority Wildlife Biologist and United States Department of Agriculture (USDA), the proposed action will not adversely impact any Federal-listed or state-listed endangered, threatened, or special concern species because no species, individuals, concentrations, or critical habitats occur in the area affected by the proposed action. See the “ATTACHMENT” section at the end of the document for consultation.

Work is expected to begin in April of 2014 and should be completed in May of 2015. The work on this project will be staged to minimize the impact on airport operations.

**EXTRAORDINARY CIRCUMSTANCES REVIEW:** Review the following list. **For each yes response**, provide an attachment describing the impact and documentation of consultation with resource agencies, if required (See FAA Order 5050.4B, Table 6-3 and 1050.1E para.304 for additional information). Categories with an \* signifies that there is an associated special purpose law or Executive Order outside of NEPA, and that the appropriate agency or tribal government may need to be consulted.

(See 5050.4B para 607(b)(2)) **Note:** if the proposed project impacts one of these categories, the proposed project may not be eligible for a CATEX. Contact the local Airports District Office (ADO) for guidance.

**1. AIR QUALITY\* (Contact air quality agencies as appropriate)**

- (a) Is the proposed project located in a nonattainment or maintenance area for the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act and does it result in direct emissions? Yes  No   
     If Yes go to (b), No go to (d)
- (b) Is the proposed project an "exempted action," under the General Conformity Rule? Yes  No   
     If Yes cite exemption \_\_\_\_\_ go to (d), No go to (c)  
     or presumed to conform (PTC) under FAA rules? (See FRN vol.72 no. 145 pg 41565)  
     If Yes cite PTC category Routine Maintenance & Repair Activity go to (d), No go to (c) Yes  No
- (c) Would the proposed project result in a net total of direct and indirect emissions that exceed the threshold levels of the regulated air pollutants for which the project area is in non-attainment or maintenance? (attach emissions inventory) Yes  No   
     If Yes consult ADO, No go to (d) Yes  No
- (d) Is the airport's activity levels below FAA thresholds for requiring a NAAQS analysis? Yes  No   
     If Yes go to Item 2, No go to (e)
- (e) Do pollutant concentrations exceed NAAQS thresholds? (attach emissions inventory) Yes  No
- (f) Is an air quality analysis needed with regard to state indirect source review ? Yes  No

**2. COASTAL\***

- (a) Would the proposed project occur in a coastal zone, or affect the use of a coastal resource, as defined by your state's Coastal Zone Management Plan (CZMP)? Yes  No
- (b) If "yes," is the project consistent with the State's CZMP? N/A Yes  No   
     (If applicable, attach the sponsor's consistency certification and the state's concurrence of that certification)
- (c) Is the location of the proposed project within the Coastal Barrier Resources System Yes  No   
     (If yes, and the project would receive federal funding, coordinate with the FWS and attach FWS exemption).

**3. COMMUNITY DISRUPTION (Compatible Land Use)**

- (a) Is the proposed project inconsistent with plans, goals, policies, or controls that have been adopted for the area in which the airport is located? Yes  No
- (b) Would the proposed project lead to disruption or dividing of communities? Yes  No
- (c) Would the proposed project cause relocation of any people, homes or businesses? Yes  No

**4. CUMULATIVE IMPACTS** (consider past, present and reasonably foreseeable development on and off airport)

- (a) Is the proposed project likely to cumulatively cause significant impacts? Yes  No
- (b) Is the proposed project likely to cause a significant lighting impact on residential areas or commercial use of business properties? Yes  No
- (c) Is it likely to cause a significant impact on the visual nature of surrounding land? Yes  No

**5. ENDANGERED SPECIES\* (Fish, Wildlife and Plants)**

- (a) Would the proposed project impact any federally or state-listed or proposed endangered or threatened species (ESA) of flora and fauna, or impact critical habitat? Yes  No   
     (Attach record of consultation with federal and state agencies as appropriate)
- (b) Would the proposed project affect species protected under the Migratory Bird Act Yes  No
- (c) Would the proposed project affect other biotic communities or habitat not ESA protected Yes  No

**6. FARMLANDS CONVERSION\***

- Does the project involve acquisition of farmland, or use of farmland, that would be converted to non-agricultural use and is protected by the Federal Farmland Protection Policy Act (FPPA)? Yes  No   
     (If yes, attach record of coordination with the Natural Resources Conservation Service (NRCS), including form AD-1006.)

**7. FLOODPLAINS\***

- Would the proposed project cause an encroachment or impacts to the natural, ecological or scenic resources to the 100-year base floodplain? (If yes, opportunity for public review is required) Yes  No

**8. HAZARDOUS MATERIALS\***

- Would the proposed project involve existing hazardous materials or cause potential contamination from hazardous materials? (If yes, attach record of consultation with EPA) Yes  No

**9. HIGHLY CONTROVERSIAL ACTION**

Is the proposed project likely to be highly controversial on environmental grounds? Yes  No

**10.HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL OR CULTURAL PROPERTY\***

Would the proposed project impact any historic or cultural property or resources protected by the National Historic Preservation Act? (Consult with FAA, and contact State and/or Tribal Historic Preservation Officer. Attach record of consultation) Yes  No

**11. INCONSISTENCY WITH APPLICABLE LAWS**

Is the proposed project likely to be inconsistent with any federal, state, local, or tribal law relating to the environmental aspects of project? Yes  No

**12. NOISE \***

(a) Does the proposal have the potential to increase noise (e.g., would the proposed project increase aircraft operations or surface traffic)? Yes  No

(b) If "yes," will the proposed project have an impact on noise levels over noise sensitive areas within the DNL 65 dBA noise contour (Attach explanation) Yes  No

**13. SECTION 4(F)\***

Does the proposed project have an impact on any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or an historic site of national, state, or local significance? (If yes, contact FAA, contact appropriate agency and attach record of consultation) Yes  No

**14. TRAFFIC CONGESTION**

Would the proposed project cause an alteration in surface traffic patterns, or cause a noticeable increase in surface traffic congestion or decrease Level of Service? Yes  No

**15. US WATERS/WETLANDS\***

(a) Does the proposed project involve federal or state regulated (Contact USFW or state agency if protected resources are affected) or non-jurisdictional wetlands? Yes  No

(b) If yes, does the project qualify for an Army Corps of Engineers General permit (If yes, attach record of consultation . If no, project is not eligible for CATEX) Yes  No

**16. WATER QUALITY\***

(a) Does the proposed project have the potential to impact water quality, including ground water, surface water bodies, and public water supply system or federal, state or tribal water quality standards? (If yes, contact appropriate agency) Yes  No

(b) Is the project to be located over a designated Sole Source Aquifer (If yes, attach record of consultation with EPA) Yes  No

**17. WILD AND SCENIC RIVERS\***

Would the proposed project affect a river segment that is listed in the Wild and Scenic River System or National Rivers Inventory? (If yes, coordinate with the jurisdictional agency and attach record of consultation) Yes  No

**18. ENERGY, NATURAL RESOURCES AND SOLID WASTE**

(a) Would the project have a significant impact on energy or other natural resource consumption? Yes  No

(b) Would the operation and/or construction of the project generate significant amounts of solid waste? Yes  No

**19. OTHER CATEGORIES**

(a) Would the proposed project be located near or create a wildlife hazard as defined in FAA Advisory Circular 150/5200-33, "Wildlife Hazards on and Near Airports"? Yes  No

(b) Reviewing the above categories, would the project affect:  
Environmental Justice \* Yes  No   
Children's Health and Safety \* Yes  No

**Project Title/Airport Identifier**

**Runway 4L-22R Rehabilitation and Improvements - EWR**

**PREPARER CERTIFICATION**

I certify that the information I have provided above is, to the best of my knowledge, correct.

_____	____ / ____ /2012
Signature	Date
<u>Adeel A. Yousuf</u>	<u>(212) 435-3784</u>
Print Name	Phone

<u>The Port Authority of NY &amp; NJ</u>	<u>233 Park Avenue South – 9<sup>th</sup> Floor, New York, NY 10003</u>
Company/Airport	Address

**Email address to receive notice of FAA decision:** [ayousuf@panynj.gov](mailto:ayousuf@panynj.gov)

**AIRPORT SPONSOR CERTIFICATION**

I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s), and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) has occurred.

_____	____ / ____ /2012
Signature	Date
<u>Edward C. Knoesel</u>	<u>(212) 435-3747</u>
Print Name	Phone

**Email address to receive notice of FAA decision:** [eknoesel@panynj.gov](mailto:eknoesel@panynj.gov)

**If no email available, provide mailing address:** Same as above

**For FAA Use Only**

**FAA DECISION:**

*Having reviewed the above information, certified by the responsible airport official, it is the FAA’s decision that the proposed development project has been found to qualify for a Categorical Exclusion from preparation of a formal environmental assessment.*

**Project Reviewed by:**

_____	_____
(Signature of Responsible FAA Official)	Date

## INSTRUCTIONS

**NOTE: This form was prepared by FAA Eastern Region Airports Division and is intended for use with proposed projects in this region only.**

**Introduction:** This form replaces previous versions of Environmental Forms A and B. It is intended to be used for those airport projects to evaluate the appropriateness of using a Categorical Exclusion (CATEX) to comply with the National Environmental Protection Act (NEPA). The form is based upon the guidance in Federal Aviation Administration (FAA) Orders 5050.4B, and 1050.1E, which incorporate the Council on Environmental Quality's (CEQ) regulations for implementing NEPA, as well as US Department of Transportation environmental regulations, and many other federal statutes and regulations designed to protect the Nation's natural, historic, cultural, and archeological resources, etc. The information provided by sponsors and their consultants through the use of this form enables the FAA ADO offices to evaluate compliance with NEPA and the applicable special purpose laws.

**Use:** To use this form, sponsors of airport development projects must demonstrate that the proposed project is specifically listed in FAA Order 1050.1E, Chapter 3, and that no extraordinary circumstances exist that warrant preparation of an EA or EIS. *Sufficient documentation is to be provided with this form so that the FAA can make that determination.* If you have any questions on what information is necessary, FAA recommends that you contact the environmental specialist (or other FAA staff responsible for processing CATEX submissions) in your local ADO. Those responses requiring further explanation, or any separate project plans or maps, should be attached at the end of this Form.

This Form is to be used in conjunction with applicable Orders, laws, and guidance documents, and in consultation with the appropriate resource agencies. Sponsors and their consultants should review the requirements of special purpose laws (See 5050.4B, Table 1-1 for a summary of applicable laws). Sufficient documentation is necessary to enable the FAA to assure compliance with all applicable environmental requirements. Accordingly, any required consultations, findings or determinations by federal and state agencies, or tribal governments, are to be coordinated, and completed if necessary, prior to submitting this form to FAA for review. Coordination with Tribal governments must be conducted through the FAA. We encourage sponsors to begin coordination with these entities as early as possible to provide for sufficient review time. Complete information will help FAA expedite its review. **Please note: When requesting discretionary funding for an action that is normally categorically excluded, this information should be submitted to the appropriate Airports District Office by April 30<sup>th</sup> of the year preceding the year funding is requested.**

**Availability:** *An electronic version of this Evaluation Form is available on-line at [http://www.faa.gov/airports\\_airtraffic/airports/regional\\_guidance/eastern/environmental/media/catexform.DOC](http://www.faa.gov/airports_airtraffic/airports/regional_guidance/eastern/environmental/media/catexform.DOC). Other sources of environmental information including guidance and regulatory documents are available on-line at [http://www.faa.gov/airports\\_airtraffic/airports/environmental](http://www.faa.gov/airports_airtraffic/airports/environmental). We encourage sponsors to submit all information supporting a CATEX determination electronically. A copy of the completed signature page can be scanned or sent by fax or mail.*

**Notification:** FAA'S decision will be transmitted electronically to airport sponsors and consultants. Please provide an email address for the person who will receive notification on page 4. If you do not have an email address, please notify the FAA Airports District Staff reviewing this submittal and a letter will be prepared.

**ATTACHMENT**  
**DESCRIBE IMPACT AND RESULTS OF CONSULTATION IF REQUIRED**

**(18b) ENERGY, NATURAL RESOURCES AND SOLID WASTE**

Some solid waste associated with the Runway 4R-22L rehabilitation and improvement project is expected and adequate facilities are available to handle the volumes expected to generate. The temporary increase in solid waste consists of the removal of asphalt millings & soil, and construction and demolition debris. All material slated for disposal will be done in accordance with all local, state and federal regulations. The maximum amount of material feasible will be recycled on site or off site.

**ENDANGERED SPECIES**

**Upland Sandpipers:**

In 2009-2010, the United States Department of Agriculture – Wildlife Services conducted a wildlife hazard assessment (WHA) for EWR. During the WHA, standardized surveys were conducted at routine locations around the airfield 3-4 times per month. Upland sandpipers were rarely observed during these surveys. These observations were made only during migratory periods. At this time, residential or breeding populations of upland sandpipers do not exist at EWR.

**White-checkered Butterflies:**

In the past, white-checkered butterflies have been observed at EWR and portions of the airfield have been classified as suitable habitat for the butterflies. The proposed construction projects will be conducted outside of the areas that have been designated as white-checkered butterfly habitat and should have no effect on the butterfly populations.



**THE PORT AUTHORITY** OF NY & NJ

**REHABILITATION OF RUNWAY 4L-22R AND DELAY  
REDUCTION INITIATIVES**

**NEWARK LIBERTY INTERNATIONAL AIRPORT  
NEWARK, NEW JERSEY**

**ENVIRONMENTAL REPORT**

January 2014

Prepared by:

Port Authority of New York and New Jersey  
2 Gateway Center  
Newark, New Jersey

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## **1.0 SITE DESCRIPTION**

The Port Authority of NY & NJ is proposing to rehabilitate Runway 4L-22R in accordance with its Seven-Year Pavement Management Plan and to implement delay reduction initiatives and other infrastructure upgrades.

The project site is located at Newark Liberty International Airport (EWR) in Essex and Union Counties, New Jersey; state plane coordinates N 677306, E 585547 North American Datum 1983 (NAD 83). EWR is approximately 2,200 acres in size, and is located in a heavily urbanized/industrialized area within the Cities of Newark and Elizabeth. The airport is bounded by Route 1 & 9 to the north and west, the New Jersey Turnpike to the east, and Interchange 13A of the New Jersey Turnpike to the south and southwest. The airport is surrounded by the City of Elizabeth to the southwest; Port Elizabeth, and Port Newark to the southeast and east, and the City of Newark to the north and west (see Appendix A).

## **2.0 PROJECT DESCRIPTION**

Runway 4L-22R is 11,000 feet long, 150 feet wide, and handles approximately 190,000 aircraft operations annually. Inspections of the runway have identified extensive pavement surface cracking and unraveling due to debonding of the surface, normal pavement wear, settlement, and weathering (see Appendix E). In order to maintain a state of good repair rehabilitation of the runway is required.

The proposed “Rehabilitation of Runway 4L-22R and delay reduction high speed taxiways” project includes the following:

- Milling and overlaying of Runway 4L-22R, construction of three entrance taxiways, and one cross-taxiway.
- Removing and restoring existing taxiway and runway concrete pavement.
- Upgrading the pavement markings, relocating utilities, installing electrical duct banks, replacing sign foundations, and adjusting the electrical lighting system (centerline lights, taxiway centerline lights, touch-downzone light and signage lights) to meet current FAA requirements.
- Extending the existing High Pressure Water Main north of Runway 11-29 and installing a below ground fire hydrant.

The purpose of the rehabilitation of Runway 4L-22R at Newark Airport is to maintain a state of good repair and extend the useful life of the existing runway and taxiways.

Additionally, to reduce congestion, three entrance taxiways and one cross-taxiway shall be constructed. Aircraft use the taxiways and cross-taxiways to get off the runways in a timely manner, thus reducing airport delays. The proposed construction of new entrance taxiways comprises pervious and impervious areas covered with grass or asphalt and concrete, respectively, as indicated on grading and paving plans (C102 – C126).

Runway 4L-22R and the proposed new high-speed taxiways and the cross-taxiway are located in the 100-year floodplain delineated by the Federal Emergency Management Agency (FEMA). The project area is located within a tidally influenced flood hazard area as indicated on the new FEMA maps and, therefore, is exempt from the Flood Hazard Area Control Act requirement for flood storage volume displacement as per N.J.A.C. 7:13-10.4a. Additionally, the subject project area is located outside designated riparian zone, wetlands, and wetland transition areas.

## **2.1 New Utilities Plan and Construction**

The proposed project will upgrade the drainage for the newly constructed taxiways and cross-taxiway by installation of new subdrains and storm sewers, approx 1,000 linear feet & 1,657 linear feet, respectively, of various sizes, 14 new catch basins, and 6 new manholes. A few existing catch basins will be adjusted to comply with the newly milled, paved, and graded areas. A High Pressure Water Main (approximately 1000 linear feet) will be extended north of Runway 11-29. A below ground fire hydrant for future use will be installed.

All utilities will be underground, will be integrated with the existing drainage system of Newark Airport, and will not impact the peak flow within the watershed. Utility plans (C201-C211) are included in the Engineering Report for this project. Upgrading the utilities will disturb pervious and impervious areas within the FHA. However, all the disturbed areas will be restored to existing conditions upon completion of work.

Further, construction of three new taxiways and one cross-taxiway will create 182,548 SF (4.19 acre) of impervious area and 146,075 SF (3.35 acres) pervious areas. The net result is an increase in impervious area of 36,473 SF (0.83 acres). However, Port Authority had developed a series of projects to rehabilitate runway and taxiway pavement and implement delay reduction enhancement, such that there will be an overall increase of approximately 185,516 SF (4.26 acres) of pervious areas.

Drawing (SK01) indicates the amount of impervious and pervious area impacted by each individual construction project and details the area of disturbance due to other projects is described in section 3.4 of this Report.

## **3.0 PROJECT IMPACTS**

### **3.1 Flood Hazard Area**

The proposed project requires an Individual Flood Hazard Area Permit as it involves milling and overlay (varied soil disturbance), construction of new taxiways and cross-taxiways, installation of new subdrains, catch basins, and manholes, within the 100-year floodplain. The project site is, however, located within a tidally influenced flood hazard area. Therefore, the site is exempt from meeting the Flood Hazard Area Control Act requirement for flood storage volume displacement as per N.J.A.C. 7:13-10.4.

### **3.2 Flood Hazard Area Verification:**

Flood Hazard Area (FHA) verification is required for this project area. U.S Department of Agriculture (USDA) soil survey results for the area are included in the Environmental Report (see Appendix C).

### **3.3 Channels, Riparian Zones, Wetlands, and Fishery Resources**

The site is located in an area outside of the designated riparian zone, wetlands, and wetland transition areas. Therefore, there are no potential adverse impacts to these resources.

The Peripheral Ditch, which is located approximately 1,045 feet southwest of the nearest project-related structure and does not support significant fishery resources. The Peripheral Ditch is stagnant, turbid, has high biochemical oxygen demand, and provides suboptimal fish habitat. Only Mummichogs have been noted in the ditch. No significant impacts to local fish populations are anticipated and the fish timing windows cited in the regulations are not applicable as the fish species cited are not present.

### **3.4 Water Quality**

Due to the proposed project “Rehabilitation of Runway 4L-22R and delay reduction high speed taxiways”, total soil disturbance within Flood Hazard Area (FHA) is approximately 962,668.5 (22.10 acres).

Upgrading the utilities will disturb pervious and impervious areas within the FHA. All the disturbed areas will be restored to existing conditions upon completion of the work. Further, construction of three new taxiways and one cross-taxiway will create 182,548 SF (4.19 acre) of impervious area and 146,075 SF (3.35 acres) pervious area. The net result is an increase in impervious area of 36,473 SF (0.83 acres).

However, this project, the fourth in a series of projects to rehabilitate runway and taxiway pavement, implement delay reduction enhancements and improve airport safety. These projects have been coordinated and staged to minimize impacts to airport operations and are noted below with their corresponding area of disturbance due to construction:

- a) Rehabilitation of Runway 4R-22L and Delay Reduction High Speed Taxiways (2012 to 2013)  
*244,100 SF (5.60 acres) of impervious – 9,482 SF (0.22 acres) of pervious = 234,628 SF (5.38 acres) of increased impervious.*
- b) Rehabilitation of Taxiway P and implementation of Delay reduction and other infrastructure improvements (2013)  
*173,501 SF (3.98 acres) of impervious – 524,818 SF (12.05 acres) of pervious = 351,317 SF (8.07 acres) of increased pervious.*

- c) Relocate Brewster Road - Runway 11 EMAS Site Work (2012 to present )  
*138,300 SF (3.17 acres) of pervious - 33,000 SF (0.76 acres) of impervious = 105,300 SF (2.41 acres) of increased pervious*
- d) Rehabilitation of Runway 4L-22R and Delay reduction High Speed Taxiways (current project 2014 )  
*182,548 SF (4.19 acres) of impervious – 146,075 SF (3.35 acres) of pervious = 36,473 SF (0.83 acres) of increased impervious*

The Port Authority had developed the above-mentioned project work plan such that there will be an overall increase of approximately 185,516SF (4.26 acres) of pervious area. The drawing (SK01) indicates the amount of impervious and pervious area impacted by each individual construction project.

Therefore, no potential adverse impacts to water quality due to stormwater runoff are anticipated. In addition, no acid-producing soils are found within the project area (See Appendix C).

### **3.5 Soil Erosion and Sediment Control**

Soil erosion and sediment control practices will be followed in accordance with the Bureau of Stormwater Permitting requirement and the “New Jersey Standards for Soil Erosion and Sediment Control.” The Port Authority will submit a Soil Erosion and Sediment Control Plan to the Hudson-Essex-Passaic and Somerset-Union Soil Conservation District as applicable. Soil erosion plans (N001 to N11 and N101 to N118) are also included in the Engineering report.

### **3.6 Threatened or Endangered Species**

According to the Natural Heritage Database (Appendix D), the checkered white butterfly (*Pontia protodice*), the savannah sparrow (*Passerculus sandwichensis*), the upland sandpiper (*Bartramia longicauda*), and Least Tern (*Sternula antillarum*) may be encountered at the project site. Both the checkered white butterfly and savannah sparrow are state threatened species, whereas the upland sandpiper and Least Tern are state endangered species. Nevertheless, the project area does not provide habitat for these threatened or endangered species, nor is there a potential for their presence due to the project site’s vicinity to runways (In accordance with FAA Advisory Circular 150/5200-33B *Hazardous Wildlife Attractions on or Near Airports*, birds and insects are discouraged near runways and taxiways to prevent wildlife strikes and reduce the threat to aircraft safety). Therefore, no significant impacts to threatened or endangered species are anticipated.

Several other bird species were identified by the Natural Heritage Database Search to be within one mile of the project site. However, habitats for these bird species consist of wetlands, bays, and estuaries, requiring trees or the ground for nesting. As trees are absent within a mile of the project site and work related to this project is restricted to

inland activities, away from the Peripheral Ditch and Newark Bay, there will be no adverse impacts to these bird species.

#### **4.0 AVOIDANCE AND MINIMIZATION**

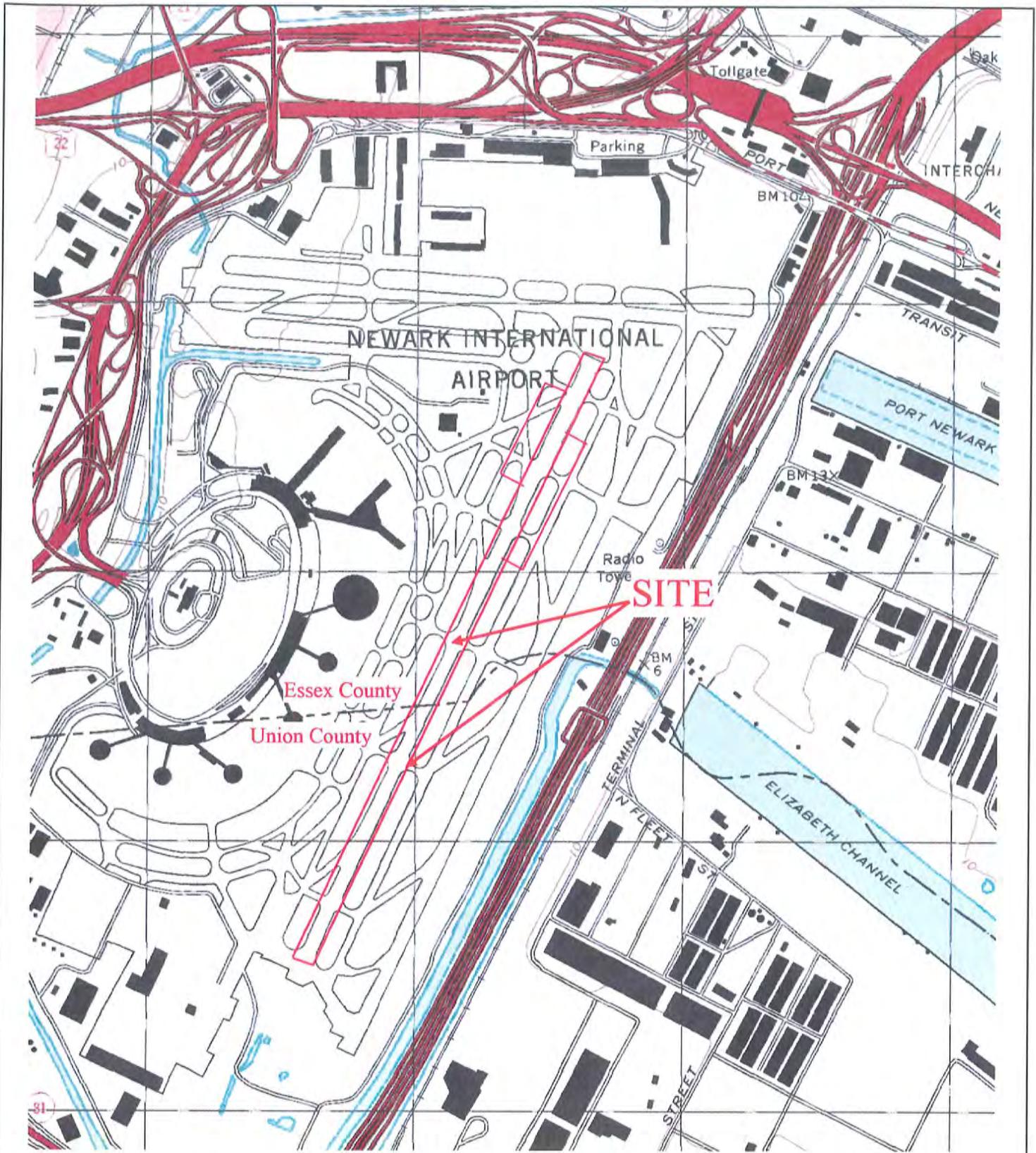
As noted in Section 3.6 above, nesting and habitat of the threatened and endangered species are discouraged near runways and taxiways to prevent wildlife strikes and reduce threats to aircraft safety. Additionally, the majority of the proposed rehabilitation work involves milling and overlay of the existing runway and taxiways, which are presently, paved areas with no habitat for any endangered or threatened species.

Additionally, project impacts will be minimized by installing the utilities underground and restoring the disturbed area by regarding and replanting to pre-existing conditions.

## **APPENDICES**

**Environmental Report  
Appendix A**

**Site Location Map**



**SITE LOCATION MAP**

MAP CENTER IS 585547E 677306N (WGS84/NAD83)  
 ELIZABETH QUADRANGLE  
 PROJECTION IS UTM ZONE 18 NAD83 DATUM

THE PORT AUTHORITY OF  
 NEW YORK & NEW JERSEY  
 2 GATEWAY CENTER, 14<sup>TH</sup> FL.  
 NEWARK, NJ 07102

**PROJECT:**

REHABILITATION OF RUNWAY 4L-22R AND DELAY  
 REDUCTION INITIATIVES  
 NEWARK LIBERTY INTERNATIONAL AIRPORT  
 NEWARK, NEW JERSEY

**Environmental Report  
Appendix B**

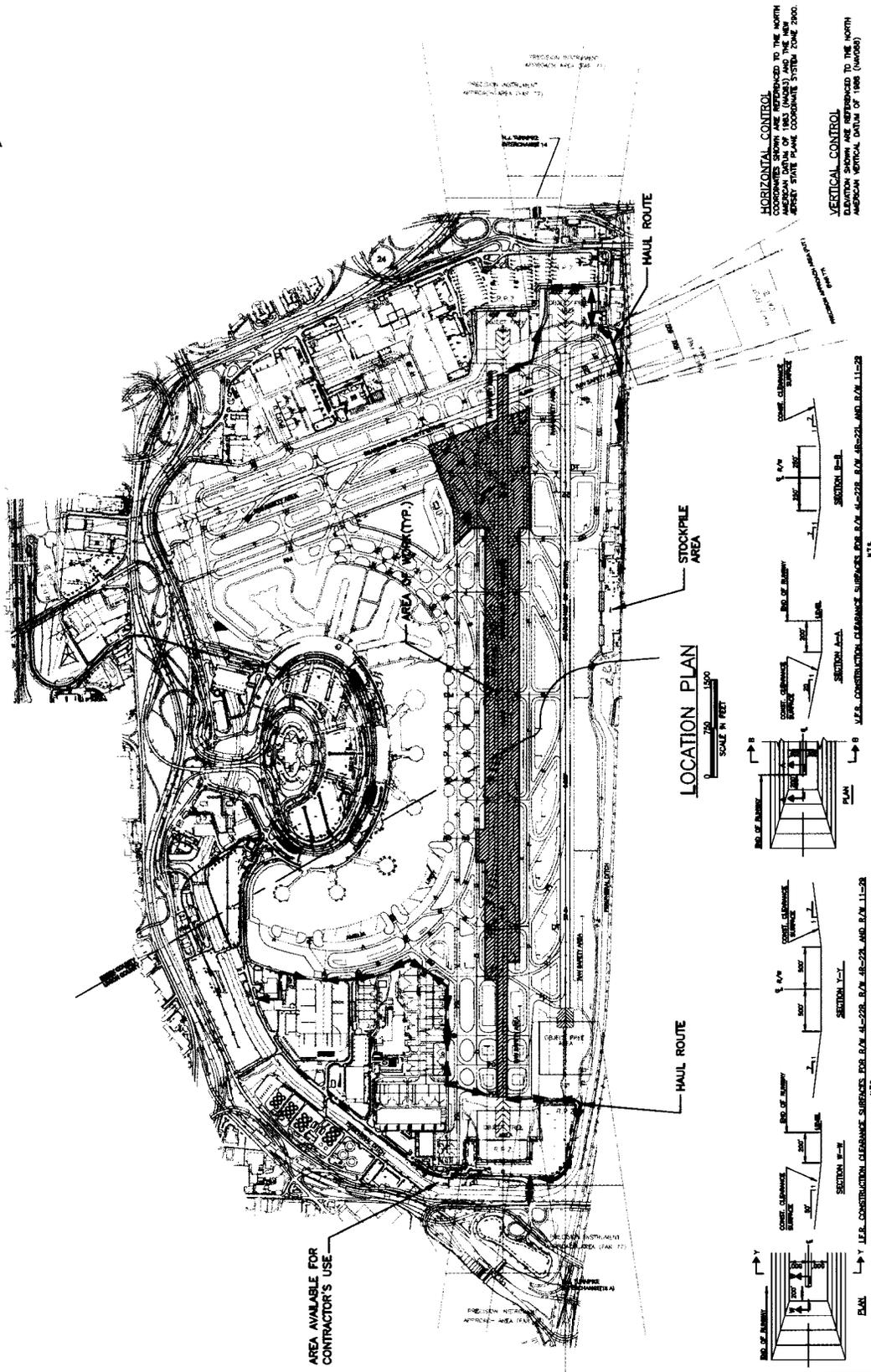
**Site Plan  
&  
FEMA Flood Hazard Resources Map (2013)**

CHIEF CIVIL ENGINEER

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
<b>NEWARK LIBERTY INTERNATIONAL AIRPORT</b>			
GENERAL			
THE RECONSTRUCTION OF RUNWAY 4-22R AND R/W 4-22R AND R/W 11-22R			

**LOCATION PLAN**

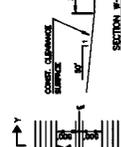
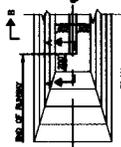
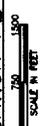
Date	11/08/2013
Contract Number	EWR-154-172
Drawings Number	G103
Revision	REV 1335000



**HORIZONTAL CONTROL**  
 ELEVATION SHOWN ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND THE NEW JERSEY STATE PLANE COORDINATE SYSTEM ZONE 2000.

**VERTICAL CONTROL**  
 ELEVATION SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).

**LOCATION PLAN**

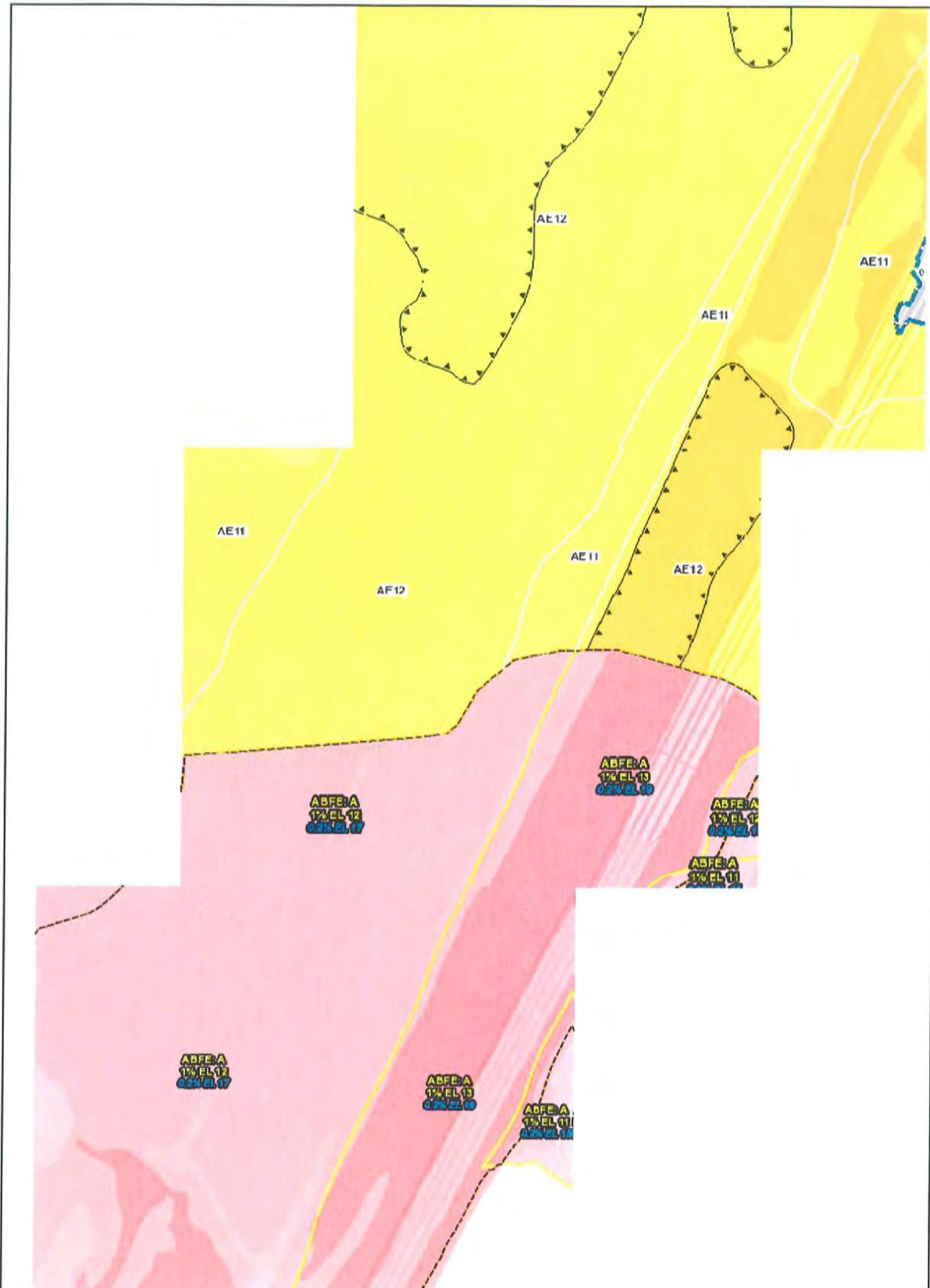


1/4" = 1'-0" CONSTRUCTION CLEARANCE SURFACES FOR R/W 4-22R, R/W 11-22R AND R/W 11-22R  
 N.T.S.

1/4" = 1'-0" CONSTRUCTION CLEARANCE SURFACES FOR R/W 4-22R, R/W 11-22R AND R/W 11-22R  
 N.T.S.

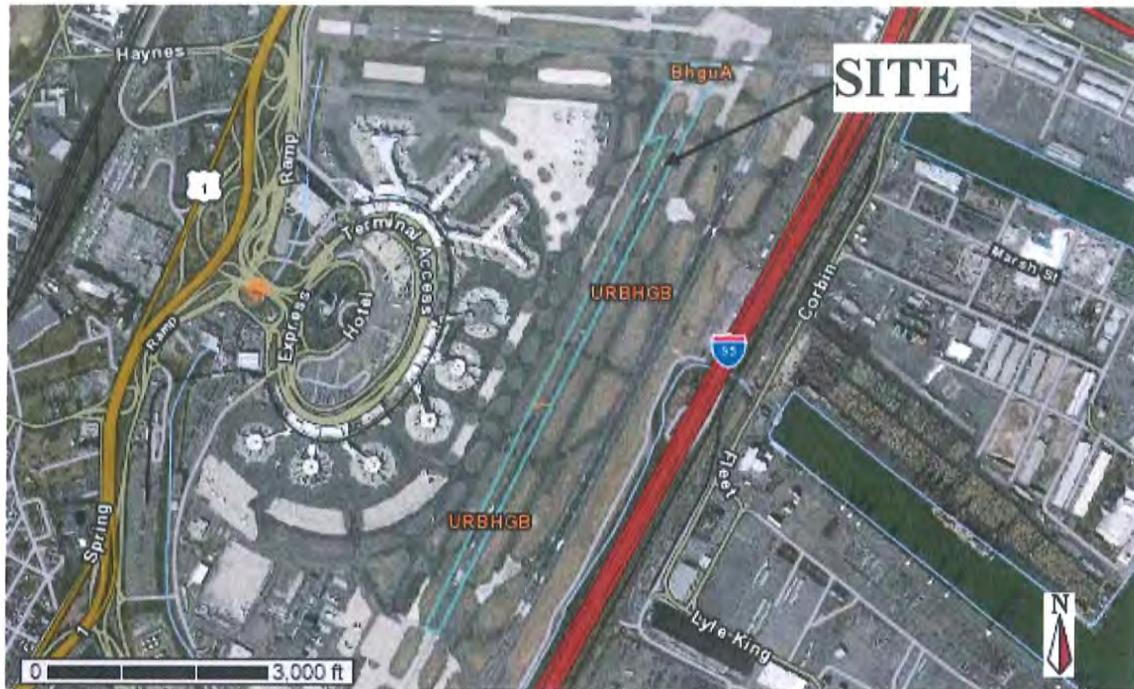
1/4" = 1'-0" CONSTRUCTION CLEARANCE SURFACES FOR R/W 4-22R, R/W 11-22R AND R/W 11-22R  
 N.T.S.

FEMA Flood Hazard Resources Map 2013 (in sections)  
Newark Liberty International Airport (EWR)  
Rehabilitation Of Runway 4L-22R and Delay Reduction Initiatives



**Environmental Report  
Appendix C**

**USDA Soil Survey**



ESSEX COUNTY, NEW JERSEY (NJ013) /&/ UNION COUNTY NEW JERSEY (NJ039)			
MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
BHGUA <i>(Essex county)</i>	BIGAPPLE - URBAN LAND BIGAPPLE SUBSTRATUM COMPLEX 0 TO 3 PERCENT SLOPES	1.7	3.4%
URBHGB <i>(Essex County)</i>	URBAN LAND BIGAPPLE SUBSTRATUM 0 TO 8 PERCENT SLOPES	33.0	64.2%
URBHGB <i>(Union county)</i>	URBAN LAND BIGAPPLE SUBSTRATUM 0 TO 8 PERCENT SLOPES	16.7	32.5
<b>TOTALS FOR AREA OF INTEREST</b>		51.4	100.00%

## USDA SOIL SURVEY MAP

THE PORT AUTHORITY OF  
NEW YORK & NEW JERSEY  
2 GATEWAY CENTER – 14<sup>TH</sup> FLOOR  
NEWARK, NJ 07102

PROJECT: EWR-REHABILITATION OF RUNWAY 4L-  
22R AND DELAY REDUCTION HIGH SPEED  
TAXIWAYS  
NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR)  
NEWARK, NJ

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## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

## Essex County, New Jersey

### BhguA—Bigapple - Urban land, Bigapple substratum complex, 0 to 3 percent slopes

#### Map Unit Setting

*Elevation:* 10 to 120 feet

*Mean annual precipitation:* 42 to 48 inches

*Mean annual air temperature:* 52 to 57 degrees F

*Frost-free period:* 190 to 210 days

#### Map Unit Composition

*Bigapple and similar soils:* 60 percent

*Urban land, bigapple substratum:* 30 percent

*Minor components:* 10 percent

## Description of Bigapple

### Setting

*Landform:* Tidal flats  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Sandy material derived from dredge

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water capacity:* Very low (about 2.8 inches)

### Interpretive groups

*Farmland classification:* Not prime farmland  
*Land capability (nonirrigated):* 7s  
*Hydrologic Soil Group:* A

### Typical profile

*0 to 3 inches:* Loamy sand  
*3 to 17 inches:* Gravelly sand  
*17 to 26 inches:* Gravelly sand  
*26 to 38 inches:* Loamy sand  
*38 to 60 inches:* Gravelly loamy sand

## Description of Urban Land, Bigapple Substratum

### Setting

*Landform position (three-dimensional):* Rise  
*Parent material:* Surface covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material

### Interpretive groups

*Farmland classification:* Not prime farmland  
*Land capability (nonirrigated):* 8s

### Typical profile

*0 to 12 inches:* Material  
*12 to 26 inches:* Gravelly sand  
*26 to 38 inches:* Loamy sand  
*38 to 60 inches:* Gravelly loamy sand

## Minor Components

### Loamy fill

*Percent of map unit:* 10 percent

*Landform:* Tidal flats

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

## Data Source Information

Soil Survey Area: Essex County, New Jersey

Survey Area Data: Version 8, Aug 18, 2008

Soil Survey Area: Union County, New Jersey

Survey Area Data: Version 6, Aug 18, 2008

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## Map Unit Description

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## Essex County, New Jersey

### URBHGB—Urban land, Bigapple substratum, 0 to 8 percent slopes

#### Map Unit Setting

*Elevation:* 10 to 120 feet

*Mean annual precipitation:* 42 to 48 inches

*Mean annual air temperature:* 52 to 57 degrees F

*Frost-free period:* 190 to 210 days

#### Map Unit Composition

*Urban land, bigapple substratum:* 90 percent

*Minor components:* 10 percent

## Description of Urban Land, Bigapple Substratum

### Setting

*Landform:* Tidal flats

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Surface covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material

### Interpretive groups

*Farmland classification:* Not prime farmland

*Land capability (nonirrigated):* 8s

### Typical profile

*0 to 12 inches:* Material

*12 to 26 inches:* Gravelly sand

*26 to 38 inches:* Loamy sand

*38 to 60 inches:* Gravelly loamy sand

## Minor Components

### Bigapple

*Percent of map unit:* 5 percent

*Landform:* Tidal flats

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

### Loamy fill

*Percent of map unit:* 5 percent

*Landform:* Outwash plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

## Data Source Information

Soil Survey Area: Essex County, New Jersey

Survey Area Data: Version 8, Aug 18, 2008

Soil Survey Area: Union County, New Jersey

Survey Area Data: Version 6, Aug 18, 2008

## Map Unit Description

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Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

## Union County, New Jersey

### URBHGB—Urban land, bigapple substratum, 0 to 8 percent slopes

#### Map Unit Setting

*Elevation:* 10 to 120 feet

*Mean annual precipitation:* 42 to 48 inches

*Mean annual air temperature:* 52 to 57 degrees F

*Frost-free period:* 190 to 210 days

#### Map Unit Composition

*Urban land, bigapple substratum:* 90 percent

*Minor components:* 10 percent

## Description of Urban Land, Bigapple Substratum

### Setting

*Landform:* Tidal flats

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Surface covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material

### Interpretive groups

*Farmland classification:* Not prime farmland

*Land capability (nonirrigated):* 8s

### Typical profile

*0 to 12 inches:* Material

*12 to 26 inches:* Gravelly sand

*26 to 38 inches:* Loamy sand

*38 to 60 inches:* Gravelly loamy sand

## Minor Components

### Loamy fill

*Percent of map unit:* 5 percent

*Landform:* Outwash plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

### Bigapple

*Percent of map unit:* 5 percent

*Landform:* Tidal flats

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

## Data Source Information

Soil Survey Area: Essex County, New Jersey

Survey Area Data: Version 8, Aug 18, 2008

Soil Survey Area: Union County, New Jersey

Survey Area Data: Version 6, Aug 18, 2008

**Environmental Report  
Appendix D**

**Natural Heritage Database Report**



## State of New Jersey

### DEPARTMENT OF ENVIRONMENTAL PROTECTION

State Forestry Services

Mail Code 501-04

ONLM - Natural Heritage Program

P.O. Box 420

Trenton, NJ 08625-0420

Tel. #609-984-1339

Fax. #609-984-1427

BOB MARTIN

Commissioner

CHRIS CHRISTIE

Governor

KIM GUADAGNO

Lt. Governor

July 23, 2013

Hema Patel

Port Authority of NY & NJ

2 Gateway Center, 14th Floor - Environmental

Newark, NJ 07102

Re: EWR - Rehabilitation of Runway 4L-22R and Delay Reduction Initiatives

Dear Hema Patel:

Thank you for your data request regarding rare species information for the above referenced project site in Newark City and Elizabeth City, Essex and Union Counties County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.1) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 2 (attached) to determine if any rare wildlife species or wildlife habitat are documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

For requests submitted as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on your project site. (In some borderline cases these records may be described as on or in the immediate vicinity of your project site.) A subset of these plant species are also covered by the FHACA rules when the records are located within one mile of the project site. One mile searches for plant species will only report occurrences for those plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 2 (attached) to determine if any rare plant species covered by the FHACA rules have been documented. Detailed reports are provided for each category coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from Essex and Union Counties County can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

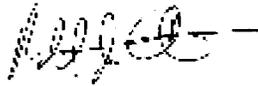
Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from [http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes\\_2010.pdf](http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf).

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive NJ-GeoWeb website at the following URL, <http://www.state.nj.us/dep/gis/geoweb splash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Cartica", with a horizontal line extending to the right.

Robert J. Cartica  
Administrator

c: NHP File No. 13-4007462-3651

Mail Code 501-04  
 Department of Environmental Protection  
 State Forestry Services  
 Office of Natural Lands Management  
 PO Box 420 Trenton, New Jersey 08625-0420  
 (609) 984-1339 FAX (609) 984-1427

# Invoice

## Invoice

DATE	INVOICE #
July 23, 2013	3651

BILL TO
Port Authority of NY & NJ 2 Gateway Center, 14th Floor - Environmental Newark, NJ 07102

Make check payable to  
**Office of Natural Lands Management**  
 and forward with a copy of this statement to  
**Mail Code 501-04**  
**Office of Natural Lands Management**  
**PO Box 420**  
**Trenton, New Jersey 08625-0420**

		P.O. NO.	TERMS	PROJECT
QUANTITY (hrs.)	DESCRIPTION	RATE (per hr.)	AMOUNT	
1	Charge for Natural Heritage Database search for rare species and ecological communities locational Information. Project 13-4007462-3651	\$70.00	\$70.00	
Hema Patel EWR - Rehabilitation of Runway 4L-22R and Delay Reduction Initiatives		<b>Total</b>	\$70.00	

***Table 1: On Site Data Request Search Results (7 Possible Reports)***

Rare Plants/Ecological Communities Possibly On Site:	No
Rare Plants/Ecological Communities On Site/Immediate Vicinity:	No
Natural Heritage Priority Sites On Site:	No
Landscape 3.1 Species Based Patches On Site:	Yes
Landscape 3.1 Vernal Pool Habitat On Site:	No
Landscape 3.1 Stream/Mussel Habitat On Site:	No
Other Animals Tracked by ENSP On Site:	No

**Rare Wildlife Species or Wildlife Habitat on the Project  
Site Based on Search of  
Landscape Project 3.1 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
<i>Aves</i>	Least Tern	<i>Sterna antillarum</i>	Nesting Colony	4	NA	State Endangered	G4	S1B,S1N
	Savannah Sparrow	<i>Passerculus sandwichensis</i>	Breeding Sighting	3	NA	State Threatened	G5	S2B,S4N
	Upland Sandpiper	<i>Bartramia longicauda</i>	Breeding Sighting	4	NA	State Endangered	G5	S1B,S1N
<i>Insecta</i>	Checkered White	<i>Pontia protodice</i>	Breeding/Courtship	3	NA	State Threatened	G4	S2

***Table 2: Within 1 Mile for FHACA Searches (6 possible reports)***

Rare Plants/Ecological Communities within 1 mile:	No
Natural Heritage Priority Sites within 1 mile:	No
Landscape 3.1 Species Based Patches within 1 mile:	Yes
Landscape 3.1 Vernal Pool Habitat within 1 mile:	No
Landscape 3.1 Stream/Mussel Habitat within 1 mile:	No
Other Animals Tracked by ENSP within 1 mile:	No

**Rare Wildlife Species or Wildlife Habitat Within One  
Mile of the Project Site Based on Search of  
Landscape Project 3.1 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Strank	
<i>Aves</i>	Black-crowned Night-heron	Nycticorax nycticorax	Foraging	3	NA	State Threatened	G5	S2B,S3N	
	Cattle Egret	Bubulcus ibis	Foraging	3	NA	State Threatened	G5	S2B,S3N	
	Glossy Ibis	Plegadis falcinellus	Foraging	2	NA	Special Concern	G5	S3B,S4N	
	Least Tern	Sternula antillarum	Foraging	4	NA	State Endangered	G4	S1B,S1N	
	Least Tern	Sternula antillarum	Nesting Colony	4	NA	State Endangered	G4	S1B,S1N	
	Little Blue Heron	Egretta caerulea	Foraging	2	NA	Special Concern	G5	S3B,S3N	
	Savannah Sparrow	Passerculus sandwichensis	Breeding Sighting	3	NA	State Threatened	G5	S2B,S4N	
	Snowy Egret	Egretta thula	Foraging	2	NA	Special Concern	G5	S3B,S4N	
	Tricolored Heron	Egretta tricolor	Foraging	2	NA	Special Concern	G5	S3B,S3N	
	Upland Sandpiper	Bartramia longicauda	Breeding Sighting	4	NA	State Endangered	G5	S1B,S1N	
	Yellow-crowned Night-heron	Nyctanassa violacea	Foraging	3	NA	State Threatened	G5	S2B,S2N	
	<i>Insecta</i>	Checkered White	Pontia protodice	Breeding/CourtsHIP	3	NA	State Threatened	G4	S2

**Environmental Report**  
**Appendix E**  
**Site Photos**

Site Photos – EWR Runway 4L-22R and Taxiways (deteriorating pavement conditions)



**Photo # 1 (Runway 4L-22R, looking North to south)**



**Photo # 2**



**Photo # 3**



**Photo # 4**



**Photo # 5 (taxiway towards west of runway 4L-22R)**